இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது
அருப்பாக்கம், சென்னை – 600 106.

நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. ஏதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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महाभारतस्य ग्रन्थविस्तारविकासः

Textual Evolution of Maha-Bharatam

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प्रस्तावना -

इदं महदितिहासंमहाकाव्यभूतं महाभारतं होमर् रामकस्य इलियाड् ग्रन्थयोः-ओडिस्सीएकीकरणादपिअष्टगुणाधिकम् अस्ति । महाकविना व्यासेन लिखितम् इति कथ्यते । परन्तु एकरूपतायाः, ऐतिहासिकक्रमबद्धतायाः, आन्तरिकबाह्यप्रमाणतायाश्च अभावः,भिन्नभिन्नशैल्याः, मुख्यकथानकेन सह प्रत्यक्षः सम्बन्धः नास्ति इति कथाः, शिक्षणस्य विभिन्नशाखानां विषये वर्णनं, दार्शनिकव्याख्यानम् इत्यादयः विविधाः हेतवः महाभारतस्य मूलभूतं इति द्रक्ष्यन्ति तथा एतद्ग्रन्थः प्रवर्धितश्च अस्ति। सम्प्रति वयं महाभारतं पश्यामः यत् पूर्णतया हरिवंशसहितं प्रायः एकलक्षश्लोकैः युक्तं चकास्ति ।महाभारतं तावत् १८पर्वेइति खण्डेषु विभक्तम् अस्ति ।तानि आदि, सभा वन विराट उद्योग भीष्म द्रोण कर्ण शल्य सौप्तिक स्त्री शान्ति अनुशासन अश्वमेध आश्रमवासिक मौसल महाप्रस्थान स्वर्गारोहण इति। तेषु 'शान्तिपर्वं दीर्घतमं पर्वं यस्य प्रायः १४७०० श्लोकाः सन्ति, अन्तिमं च २०० श्लोकयुक्तं लघुतमं चकास्ति । महाभारतं रचयित्वा व्यासः शिष्येभ्यः अपि तथैव उपादिदेश इति मन्यते । अस्य ग्रन्थस्य विषयः आसीत् यत् विशालप्रदेशस्य राजत्वविषये भ्रातृद्वयपक्षस्य युद्धम् । परन्तु महाभारतस्य वर्तमानखण्डे अस्माकं जनमेजयेन तथा अन्यैः ऋषिभिः उद्धृताः अनेकाः प्रश्नाः, वैशम्पायण उवाच इति वैशम्पायनेन तथा अन्यैः ऋषिभिःच दत्तोत्तराः च सन्ति। जनमेजय उवाच वैशम्पायन उवाच इत्यादिभिः प्रमाणैरङ्गीकृतम् अस्ति।एते प्रश्नाः तेषां उत्तराणि च व्यासविरचितस्य मूलग्रन्थस्य कथं भागं कर्तुं उपयुक्तवन्तः? अतः अस्माभिः स्वीकारणीयं यत् एतद्ग्रन्थरत्नं पश्चात् प्रवर्धितं भवितुमर्हति।

विवरणम् -

एतत् सिद्धं भवति यत् अद्यापि महाभारते एवआन्तरिकप्रमाणैः संरक्षितानि विविधानि वचनानि तेषां निष्कासनार्थं प्रेरणाभावाः अपि उपकुर्वन्ति। परम्परानुसारमपि महाभारते त्रयः आरम्भाः सन्ति। ग्रन्थस्यास्य भिन्नदीर्घतां, भिन्नविभागप्रकारं, भिन्नविभागप्रकारनामानि च बहूनि कथनानि अपि सन्ति। वदत्र पश्यामः॥

प्रथमघट्टः -

मूलमहाकाव्यं ऐतिहासिकप्रकृतिसमवमानीत् न तु उपदेशात्मकम् । विशेषतया पुरातनघटनानां विवरणमिति नाम्ना इतिहास इत्युच्यते। एतद्ग्रन्थस्यआदौ जयमिति उच्यते स्म । एतत् प्रमाणम् अधोलिखितेन श्लोकेन निर्दिश्यते –

नारायणं नमस्कृत्य नरं चैव नरोत्तमम्।
देवीं सरस्वतीं चैव ततो जयमुदीरयेत् ॥

महाकाव्यस्य च अन्तिमेषु भागेषु जयं नाम इतिहासोऽयम् इति शब्दस्य उल्लेखः कृतः अस्ति। 'जयः नाम विजय इत्यर्थः। सम्भवतः कौरवानां उपरि पाण्डवानां विजयस्य प्रतीकं भवति। पुस्तकस्य दीर्घतां निर्धारयितुं न शक्यते। तथापि प्रो. ह्योकाः अवश्यमेव आगन्। सः ८८०० मैक्डोनाल्ड् कथयति यत् अस्मिन् महाभारतस्य निम्नलिखितश्लोकस्य आधारेण स्वस्य तर्कस्य आधारं करोति॥

अष्टौ श्लोकसहस्राणि अष्टौ श्लोकशतानि च।
अहं वेद्मि शुको वेत्ति सञ्जयो वेत्ति वा न वा॥

प्रो. मूलग्रन्थस्य दीर्घतायाः सन्दर्भार्थं एतत् श्लोकं गृह्णाति। परन्तु मैक्डोनाल्ड् केचन विद्वांसः मन्यन्ते यत् एषा संख्या विनायकभगवतः निरोधाय व्यासेन रचितानाम् कूटश्लोकानाम् अथवा सूक्ष्मार्थपूर्णानां श्लोकानां संदर्भं ददाति। परन्तु केचन विद्वांसः मन्यन्ते यत् सावधानतया विश्लेषणेन वयं निष्कर्षं प्राप्तुं शक्नुमः यत् एते कूटाः श्लोकाः वर्तमानमहाभारतस्य अनुसन्धानं कृत्वैव वर्तमानमहाभारते अनुसन्धानं कृत्वा अपि मूलमहाकाव्यस्य भागं न भवितुम् अर्हन्ति स्म। आरम्भं विहाय अन्यत् आन्तरिकं प्रमाणं मूलग्रन्थस्य दीर्घतां न वदति। अतः अस्माभिः वक्तव्यं यत् व्यासः महाभारतस्य प्रथमषट्कस्य रचनां कृत्वा जयसंहिता इति नामकरणं कृतवान्॥

द्वितीयः षट्कः -

एतत् संस्करणवैशम्पायनसंस्करणमित्युच्यते। सः वैशम्पायनः व्यासस्य शिष्यः आसीत्। व्यासः पञ्चभ्यः शिष्येभ्यः जयमिति नाम्ना पाठयति स्म। तेषु प्रत्येकं

स्वस्य संस्करणं गृहीत्वा बहिः आगतः। वैशम्पायनेन निर्मितं संस्करणमेव अधुना उपलभ्यते। अन्ये सर्वे नष्टाः भवन्ति। अश्वमेधपर्व एकमेव जैमिनीनाम्ना खण्डखण्डेषु उपलभ्यते। एतेन मूलग्रन्थं पश्चात् प्रवर्धितं भवितुमर्हति इत्वपि ज्ञायते॥

परीक्षित्पुत्रः तथा अर्जुनपौत्रः जनमेजयः, स्वपितुः परीक्षितः मरणहेतुभूतान् सर्पान् नाशयितुं तथा स्वपितृशोधार्थं च सर्पयागं कृतवान्। तस्य यज्ञान्तरेषु वैशम्पायनः स्वगुरुव्यासविरचितं महाकाव्यं महाभारतं कथयितुं जनमेजयेन प्रार्थितः। सः स्वगुरुम्यः नमस्कारं कृत्वा ग्रन्थमारब्धवान्, देवानाम् आशीर्वादं च अयाचत। सः जनमेजयस्य पूर्ववर्तीनां विवरणं दत्तवान्। वैसमपायनोक्तमेतत् संस्करणं २४००० श्लोकयुक्तं भवति, तस्य नामवैशम्पायनसंस्करण-मित्युच्यतेइति। अस्य प्रमाणं निम्नलिखितेन वाक्येन अवगम्यते।

चतुर्विंशतिसहस्रीं चक्रे भारतसंहिताम्।

तृतीयः षट्कः -

महाभारतस्य तृतीयषट्कस्य विकासं क्रमिकरूपेण कर्तुं वयं स्थितिं न प्राप्नुमः यतः, तस्य संस्करणानाम्, परिवर्तनानां च संख्या अधिका अभवत्। परन्तु क्रिस्तोः जन्मनः पूर्वमेव अस्य वर्तमानरूपं प्राप्तम् अवश्यं भाति यतोहि एकः ग्रीकदेशयात्री एकलक्षश्लोकयुक्तम् इति अस्य ग्रन्थस्य उल्लेखं करोति तथा च दक्षिणभारतस्य जनाः क्रिस्तोः जन्मनः पश्चात् ५३तमे वर्षे प्रसिद्धाः सन्ति महाभारतस्य तृतीयःषट्कः केनचित् सौतिना सूतपौराणिकपुत्रेण द्वारा पाठितः

इति कथ्यते। परन्तु 'तृतीयोऽध्यायःपुराणंइति उल्लिखितः इत्यत्र कारणं सम्बन्धमाह-

अस्मिंस्तु मानुषे लोके वैशम्पायन उक्तवान्।
एकं शतसहस्रं तु मयोक्तं वै निबोधत॥

अयं ग्रन्थः एकलक्षश्लोकयुक्तः इति कथ्यते किन्तु साति इत्यनेन दत्तस्य विवरणानुसारं केवलं साकिं ९६००० श्लोकाः एव भवेयुः। परन्तु वर्तमान मुम्बई संस्करणे साकिं २५००० श्लोकाः च सन्ति। एषा कृतिः तृतीयपदे अथवा षष्ठेमहाभारतम् इति कथ्यते।

महत्वात् भारवत्वाच्च महाभारतमिष्यते।

समापनम् -

पाण्डवानां वृत्ते तेषां वनजीवने कथितानां कथानां संख्या, दार्शनिक-आध्यात्मिकविमर्शाःभीष्मेण युधिष्ठिरं प्रति शान्तिपर्व तथा अनुशासनिकपर्वयोः संस्करणं यावत् तृतीयषष्ठः इति वक्तुं शक्यते। वैष्णवजनसंबद्धेभ्यः सर्वेभ्यः विषयेभ्यः महाभारतं प्रामाणिकं पुस्तकीकरणस्य इच्छा, पुरातनावधारणानां, व्यवहारानां च व्याख्यानस्य आवश्यकता, दिव्ययुक्तानामवतारोदयमान-विचाराः, काव्यशास्त्रस्य आवश्यकताः इत्यादयः प्रेक्षकाणां साहित्यकाराणां - -पाठस्य महाकाव्य मीमांसा परम्परया चास्यग्रन्थस्य विस्तारार्थं क्रमिकसंपादकान् कृतवान् स्यात्॥

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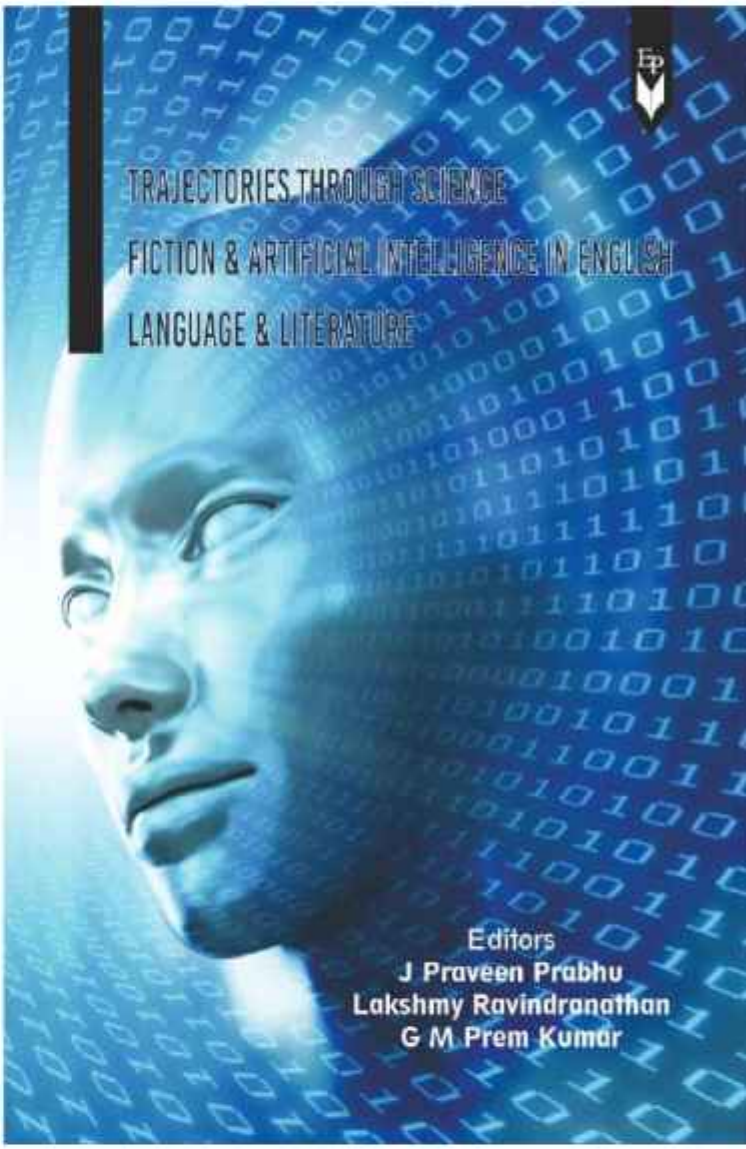

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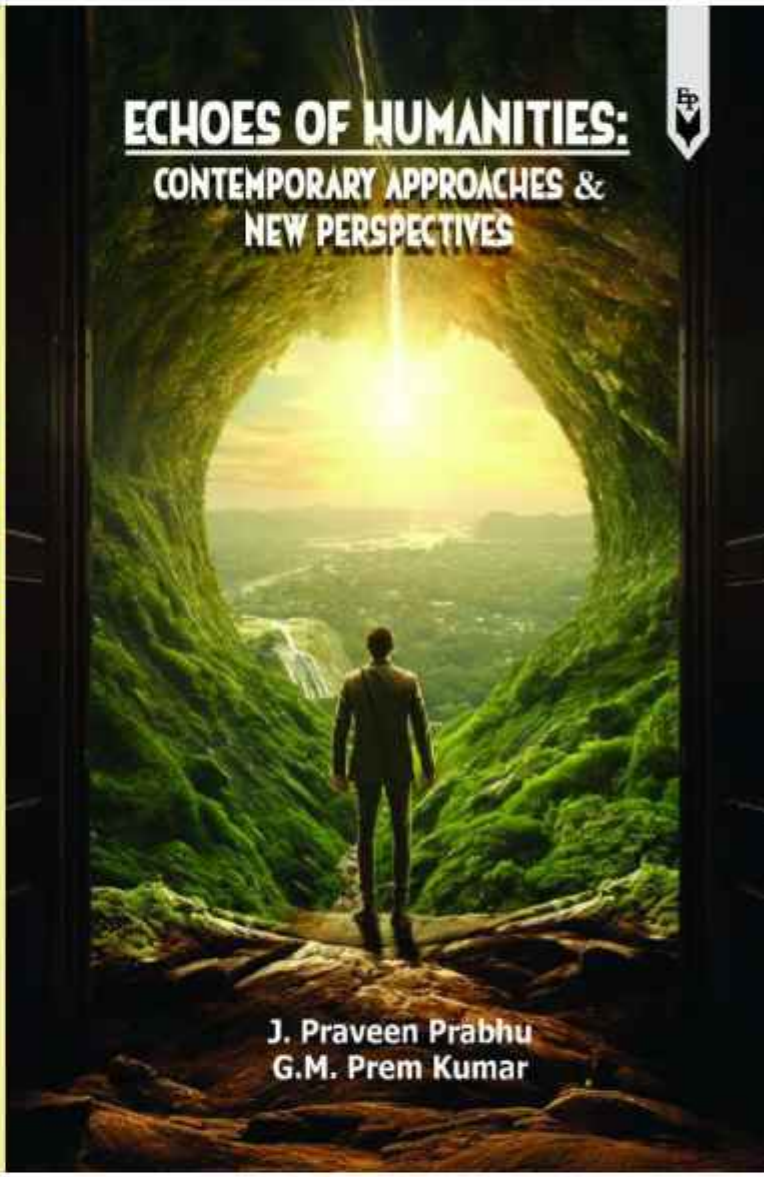

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GLOBAL TRENDS IN CONTEMPORARY ENGLISH LANGUAGE AND LITERATURE

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Editors
J. Praveen Prabhu
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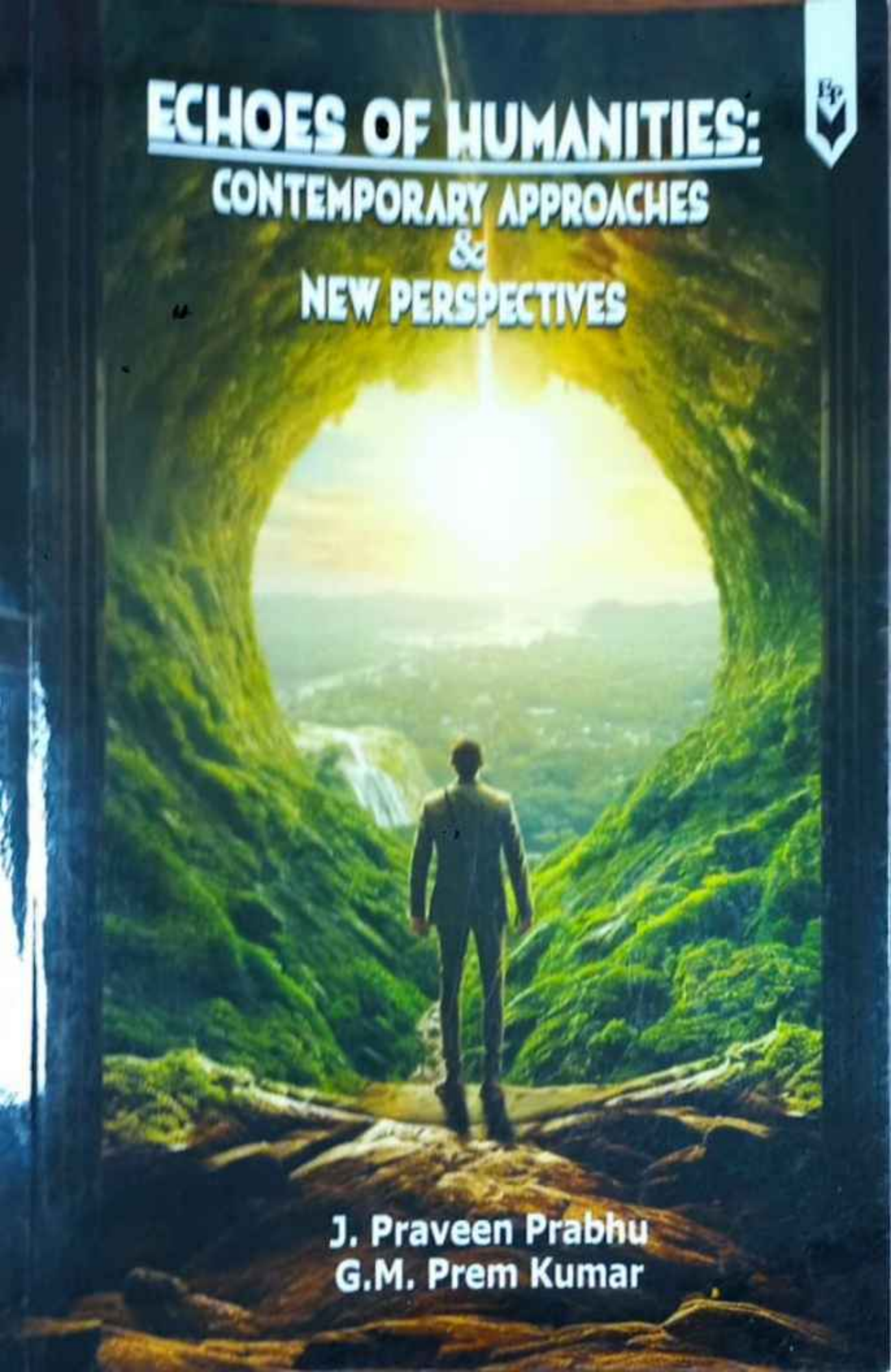

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Dr. Ashok Kumar Mundhra,
Secretary,
Dwaraka Doss Goverdhan Doss Vaishnav College
Chennai

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With great pride, I applaud the perseverance and commitment of the PG Department of English in collating the articles presented in this book, *Echoes of Humanities: Contemporary Approaches & New Perspectives*. Both staff and students have worked tirelessly since the germination of this book's idea. Knowledge should be constantly updated for it to remain relevant for forthcoming generations. The chapters collected in this book are proof of such knowledge upgrading. Presenting perspectives from multiple angles, this volume will be a reliable source of reference for teachers, scholars and students. I am confident that the department's future contributions to the world of publication will be similarly path-breaking.

Dr. S. Santhosh Baboo, M.Sc., Ph.D.
Principal
Dwaraka Doss Goverdhan Doss Vaishnav College
Chennai

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In the rich realm of global literary expression, language acts both as a tool and a canvas, capturing the intricate layers of human experience, culture, and thought. *Echoes of Humanities: Contemporary Approaches & New Perspectives* stands as a testament to the dynamic interplay between language and literature in our contemporary world.

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This volume beckons readers on a voyage of discovery, traversing continents and epochs to unveil the myriad ways in which language and literature influence our perception of the world. It is my earnest wish that this compilation sparks further exploration and discourse, encouraging readers to engage with the diverse tapestry of global literary expression that envelops us.

As we embark on this intellectual journey, let us embrace the variety of voices and perspectives that enrich our literary vista, forging connections that transcend boundaries and illuminate the timeless truths that bind us as human beings.

Regards,
Dr. M. Maniruzzaman
Professor, Department of English,
Jahangirnagar University,
Dhaka, Bangladesh.

PREFACE

With great pleasure and anticipation, I introduce *Echoes of Humanities: Contemporary Approaches & New Perspectives*. As the editor of this compilation, I am honored to present a diverse array of research articles that shed light on the ever-evolving landscape of English language and literature in our modern world.

The idea for this compilation stemmed from recognizing the dynamic interplay between language and literature in shaping our understanding of the human experience. In an era marked by rapid globalization and technological advancement, the study of contemporary English language and literature takes on renewed significance, offering insights into the cultural, social, and political forces that shape our world.

The articles included in this volume represent a wide range of perspectives and methodologies, reflecting the diverse interests and expertise of our contributors. From explorations of postcolonial narratives to analyses of digital literature and everything in between, each article offers a unique lens through which to view the complex relationship between language and literature.

As the editor, my goal was to curate a collection that not only showcases the breadth and depth of contemporary research in this field but also sparks meaningful dialogue and inspires further inquiry. It is my hope that readers will find within these pages new avenues for exploration and discovery, whether they are seasoned scholars or enthusiastic newcomers to the field.

I extend my heartfelt gratitude and special thanks to our esteemed secretary, Dr. Ashok Kumar Mundhra, whose dedicated support and organizational prowess have been invaluable in bringing this compilation to fruition. Additionally, I express deep appreciation to Principal Dr. Santhosh Baboo for his unwavering encouragement and guidance throughout this endeavor.

Furthermore, my sincere gratitude goes to Emerald Publishers for their collaboration and commitment to scholarly excellence. Without the contributions and support of these individuals and organizations, this project would not have been possible. Thank you for joining us on this journey.

Sincerely,

J. Praveen Prabhu
Head of the Department
PG Department of English
Dwaraka Doss Goverdhan Doss Vaishnav College

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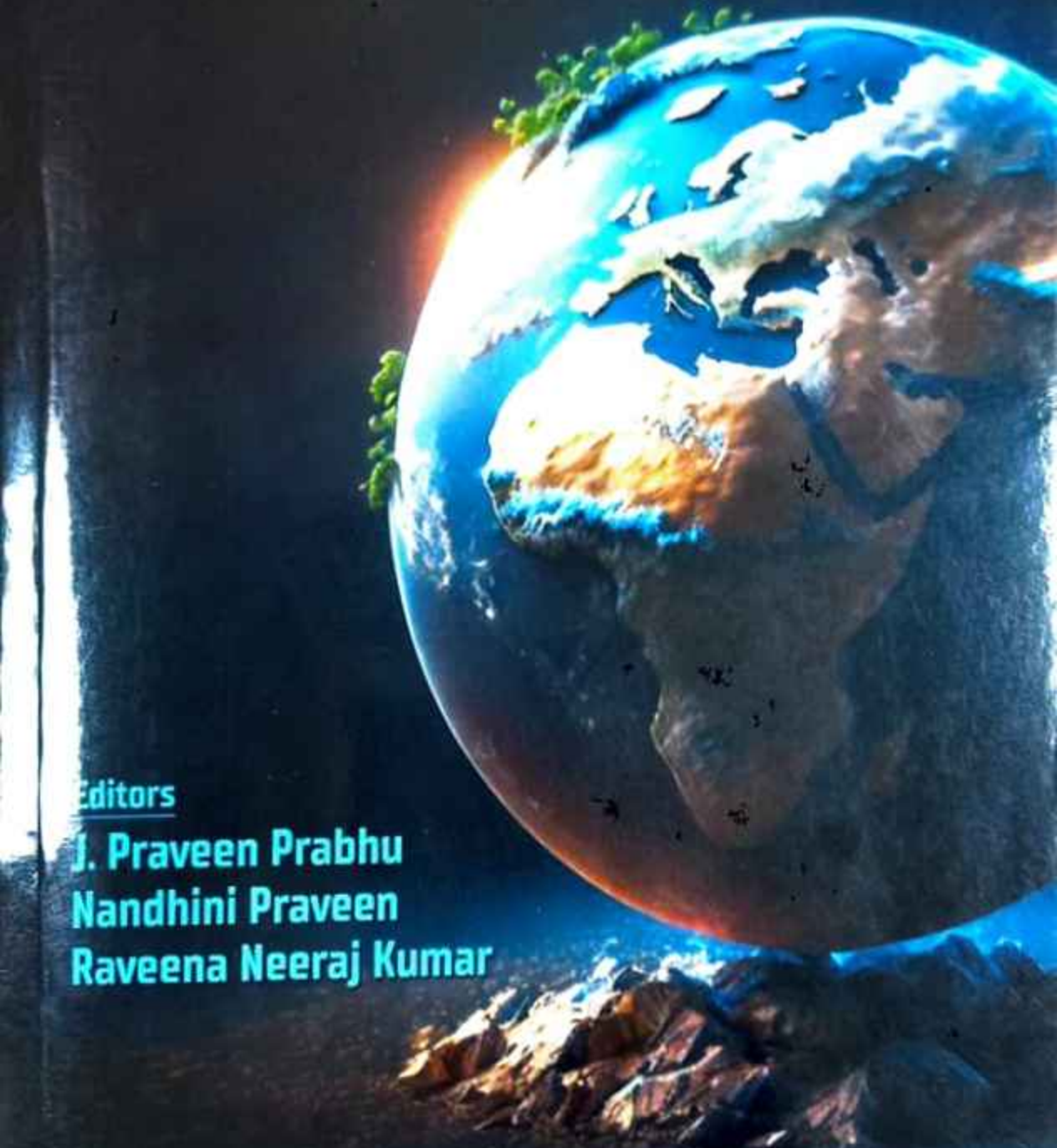

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This Book invites readers on a journey of exploration and discovery, traversing continents and centuries to uncover the myriad ways in which language and literature shape our understanding of the world. It is my sincere hope that this compilation serves as a catalyst for further exploration and dialogue, inspiring readers to engage with the rich tapestry of global literary expression that surrounds us.

As we embark on this intellectual odyssey, may we embrace the diversity of voices and perspectives that enrich our literary landscape, forging connections that transcend borders and illuminate the universal truths that unite us as human beings.

Regards,

Prof. Sumithra Kannan
Former Faculty of English
Christian Albrechts University,
Kiel, Germany

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Sincerely,

J. Praveen Prabhu
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Embark on a captivating journey through the realms of speculative fiction and cutting-edge technology with our latest research volume, *Approaches Towards Science Fiction & Artificial Intelligence in English Language & Literature*. This compilation brings together a mosaic of scholarly perspectives, exploring the intricate interplay between science fiction narratives and the burgeoning field of artificial intelligence. From linguistic analyses to ethical considerations, each carefully curated article sheds light on the evolving landscape where language, literature, and technology converge. Dive into this thought-provoking volume to discover a tapestry of insights that redefine our understanding of the dynamic relationship between science fiction and artificial intelligence within the context of English Language and Literature.

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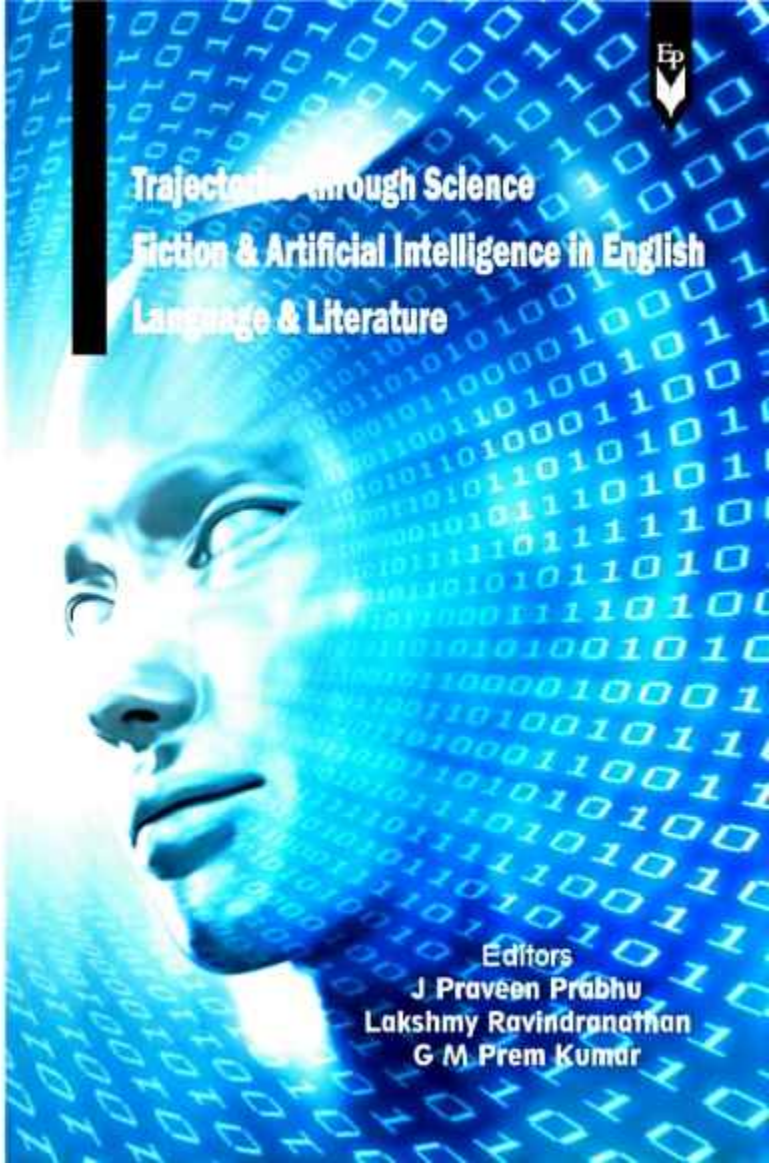
Trajectories through Science Fiction & Artificial Intelligence in English Language & Literature



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Foreword

I extend my warm wishes and hearty congratulations to the faculty and students of the P.G. Department of English for their endeavours in the field of research. The department has come a long way from its humble beginnings a decade ago. This book is a fruition of the efforts of the department to foster the research acumen among faculty, scholars, and students alike. I wish the faculty and students of the P.G. Department of English continuous success as they engage in the creation and dissemination of knowledge.

Shri Ashok Kumar Mundhra
Secretary
Dwaraka Doss Goverdhan Doss Vaishnav College
Arumbakkam, Chennai 600 106, Tamil Nadu, India

Foreword

With great pride, I applaud the perseverance and commitment of the P.G. Department of English in collating the articles presented in this book, *Trajectories through Science Fiction & Artificial Intelligence in English Language & Literature*. Both staff and students have worked tirelessly since the germination of this book's idea. Knowledge should be constantly updated for it to remain relevant for forthcoming generations. The chapters collected in this book are proof of such knowledge upgrading. Presenting perspectives from multiple angles, this volume will be a reliable source of reference for teachers, scholars, and students. I am confident that the department's future contributions to the world of publication will be similarly path-breaking.

Dr. S. Santhosh Baboo, M.Sc., Ph.D.
Principal
Dwaraka Doss Goverdhan Doss Vaishnav College
Arumbakkam, Chennai 600 106, Tamil Nadu, India

Foreword

It is with great pleasure and intellectual enthusiasm that I extend my warmest greetings to each one of you as we embark on this literary journey through the pages of the Conference Proceedings, a compilation of the insightful research articles presented at the "Approaches towards Science Fiction & Artificial Intelligence in English Language & Literature" conference. I find immense joy in witnessing the culmination of the diverse perspectives, profound analyses, and scholarly inquiries that have unfolded during our time together.

The landscape of literature and language studies is continually evolving, and our conference has served as a crucible where the dynamic interplay between science fiction and artificial intelligence has been examined and explored with rigor and passion. The intersections between the imaginative realms of science fiction and the technological advancements in artificial intelligence provide a rich tapestry upon which our scholars have woven their intellectual contributions. The sheer diversity of approaches reflected in these proceedings is a testament to the multifaceted nature of our chosen theme. From linguistic analyses of AI-generated language in science fiction narratives to the examination of ethical implications, our contributors have delved deep into the intricate relationship between language, literature, and the ever-expanding frontiers of artificial intelligence.

What emerges from the pages before you is not merely a collection of research articles; rather, it is a reflection of the collective dedication and intellectual fervor that characterize our academic community. Each article is a thread that weaves itself into the broader fabric of our understanding of the complex interplay between science fiction and artificial intelligence within the realm of English Language and Literature.

As we navigate through the contents of this compilation, let us celebrate the richness of thought, the diversity of perspectives, and the collaborative spirit that defines our scholarly community. I extend my heartfelt gratitude to each presenter, author, and participant who has contributed to the success of this conference, making it a memorable and intellectually stimulating experience.May these proceedings serve not only as a testament to the academic prowess displayed during our time together but also as a source of inspiration for future explorations in the ever-evolving field of literature and language studies.

Dr. C. Sherine Vinca Snehalatha
Principal
Meston College of Education

Preface

It is my distinct pleasure to introduce you to this compilation of research articles stemming from the vibrant and intellectually invigorating conference, "Approaches towards Science Fiction & Artificial Intelligence in English Language & Literature." As the editor of this compilation, I am honored to present the diverse and groundbreaking contributions that have emerged from the minds of our esteemed presenters. The conference provided a unique platform for scholars, researchers, and enthusiasts to converge, exchange ideas, and delve into the intriguing intersections of science fiction and artificial intelligence within the domain of English Language and Literature. The resulting compilation encapsulates the richness and depth of discussions that unfolded during this academic endeavor.

The varied approaches presented in this volume reflect the multifaceted nature of our theme. From linguistic analyses and literary interpretations to explorations of ethical dimensions, the articles within these pages navigate the complex landscape where speculative fiction and technological advancements converge. The contributors have skillfully illuminated the synergies and tensions between language, literature, and the ever-evolving world of artificial intelligence. This compilation is more than a repository of academic papers; it is a testament to the collective intellectual curiosity that has fueled our exploration of this captivating subject. Each article, carefully peer-reviewed and selected, represents a unique perspective contributing to the broader discourse on the symbiotic relationship between science fiction and artificial intelligence.

I extend my gratitude to the authors for their dedication to scholarship, the reviewers for their meticulous assessments, and the conference participants for fostering an environment of intellectual exchange. I am grateful to Emerald Publishers for their support and expertise in bringing this book. I also wish to acknowledge the support

received from my beloved Principal Dr. S. Santhosh Baboo, distinguished Secretary Dr. Ashok Kumar Mundhra, and my colleagues for bringing out the book meritoriously. Together, they have shaped this volume into a comprehensive resource that encapsulates the current state of knowledge in this field.

J. Praveen Prabhu
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Full Length Article IJCRAR/FL/71

A Review on Ferulic Acid and it's Therapeutic Applications

N. Suvetha, A. Santhosh Kumar and Shoba Gunasekaran

PG Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil nadu India

Abstract

Ferulic Acid is a phenolic compound found in various sources such as seeds, fruits, leaves, peels,beans, seeds of coffee, artichoke, peanut, and nuts. It is a compound which has high anti-oxidant activity, anti-cancer and anti-inflammatory activity. Ferulic acid's complicated antioxidant action mechanism is primarily based on preventing the synthesis of the reactive oxygen species (ROS) or the nitrogen. FA is essential for the synthesis of sinapic acid, curcumin, vanillin, coniferyl alcohol, and other significant chemical compounds as well as the rigidity of the cell wall. The resonance stabilized phenoxy radical formed by the phenolic nucleus and carboxylic side chain in ferulic acid is what has the free radical-scavenging properties. It also shows the anticarcinogenic, antimicrobial, antithrombotic, anti-allergic, anti-diabetic hepatoprotective, increase sperm viability, and anti-viral activity. Ferulic acid is also used as an active ingredients in the production of creams and serums due to it's anti-oxidant property.

Keywords: Ferulic acid, anti-oxidant, anti-inflammatory, anticarcinogenic.

Introduction

Ferulic Acid (FA) is commonly a polyphenolic compound and present in Common sources include grasses, grains, vegetables, flowers, fruits, leaves, beans, seeds of coffee, artichoke,

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A Review on therapeutic Potential of Citrus aurantifolia

N. Swathi, A. Santhosh Kumar, N. Suvetha, Shoba Gunasekaran*

PG Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil nadu India

Abstract

Citrus is a commonly consumed fruit because it contains many beneficial nutrients and belongs to Rutaceae family are.The objective of this article is focused on the review on biologically active components of *Citrus aurantifolia*, including the essential oils, flavonoids, terpenoids, phenolic, Limonoids, and alkaloids that originate from various plant parts, as well as their biological activities, including their ability to act as an antibacterial, antioxidant, anticancer, anti-diabetic, anti fungal, anti cholesterol, anti mosquito, insecticide, anthelmintic, astringent, diuretic and anti-inflammatory. Additionally, alternative methods for extracting chemicals from diverse plant matrix regions as well as for microencapsulating bioactive ingredients in food are offered. Hence *C. aurantifolia* canbe utilized for the treatment of diabetes, inflammatory disorder, viral diseases, alzeimers, cancer, obesity and cardiovascular disease.

Keywords: *Citrus aurantifolia*, Bioactive compounds, biological activities, treatment.

Introduction

The edible fruits of the Rutaceae family are called citrus, also known as lime, common lime, and lime. They are raised all over the world in tropical and subtropical regions. They typically have distinctive citrus flavours and fragrances, making them suitable as food and beverage flavouring

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A Review on Therapeutic Potentials and Molecular Docking of Plant Extracts against Environmental Isolates Causing Urinary Tract Infection

Venkat S[2], Sarath Perumal[2], Keerthana S[2], Pavithra Madhiyazhagan[1*] & Shoba G[2]

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Abstract

Plants produce a diverse range of bioactive molecules, making them a rich source of different types of medicines. A regular and widespread use of herbs throughout the world has increased serious concern over their quality, safety and efficacy. The main of the project is to study the antimicrobial activity of *Tinospora cordifolia*, *Annona squamosa* and *Punica granatum* extracts of three different solvents like Petroleum ether, Methanol and Chloroform that were used against 25 microbial samples isolated from different sources and the antimicrobial activity of plant extract were studied and the study also specializes with the anti-bacterial inhibition of Urinary Tract Infection (UTI)- *Escherichia coli* and *Klebsiellapneumonia* clinical isolates obtained from UTI infected patients. The antimicrobial activity was carried out by using agar well diffusion method and Minimum inhibitory concentration. The methanol extract of all three plants showed good antimicrobial activity against UTI causing organisms. Standard biochemical test was carried out for the characterization of gram negative bacteria. Molecular interaction analysis technique was used to predict the binding of Protein-ligand and thus plays a key role in structure based drug design. Molecular interaction analysis of 6 plant compounds against protein *Ibestrophin*(virulent protein of *Klebsiella pneumonia* causing UTI) was carried out using bioinformatics tool. The plant extract of *Annona squamosa* can be used as a natural alternative therapy to control UTI diseases and prevent health hazards and drug resistance problems of chemical antimicrobial agent applications.

Keywords:*Tinospora cordifolia*, *Punica granatum*, Urinary Tract Infection, Molecular docking.

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Environment and Climatic Changes

First Edition

Dr. S. Kala
Dr. P. Kamaladevi
Dr. M. Hemalatha

Environment and Climatic Changes

THANUJ INTERNATIONAL PUBLISHERS,
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Plastic Pollution

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1. Introduction

Pollution is an unwanted waste released to air, water and land human activity.Plastic Pollution is a worldwide problem and threat to our mother Earth. Every year 19-23 million tones of plastic waste leaks into aquatic ecosystem. Everyday the equivalent of around 2,000 garbage trucks full of plastic are dumped into the oceans, lakes and river. Plastic pollution has the capacity to alter habitats and natural processes which directly reduce the ecosystem's ability to adapt to climate change and also directly affecting millions of people's livelihood, food production capabilities and social well-being.United Nations Environment Programme (UNEP's) body of work determines that the problem of plastic pollution does not exist in a vacuum. The environmental, social, economic, and health risks of plastics environmental stressors like climate change, ecosystem degradation and resource use'. Reducing pollution from plastics will require action and international co-operation to reduce plastic production including through innovation, better product design and developing environmentally friendly alternatives, as well as efforts to improve waste management and increase recycling[1].

2. Production of plastics

Improving Production Efficiency of Plastic Products: At production level, the use of plastics can be reduced by

(a) Using alternative (e.g., glass), recycled, or biodegradable materials.

(b) Improving the design to reduce the amount of plastic used, extend product life, allow repair and reuse, and improve recyclability by limiting the number of polymers, additives, and mixtures.

(c) Banning certain types of single-use plastics.

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Chapter 11
Antioxidant and Antibacterial Effect of Medicinal Plants

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Abstract

Medicinal plants are still important resources for therapeutic agents in developed and developing countries. Plants are potential reservoirs that contain the compounds used as medicine. Biologically active compounds are routine activities in many. Looking for ingredients with antibacterial activity. Recently, people around the world are increasingly concerned about the amazing growth rate of infection by antibiotic-resistant microorganisms. Therefore, there is a constant need for new and effective therapeutic agents. The beneficial medicinal effects of plant materials are usually due to secondary products. plants are rich in various secondary metabolites, such as Phenolics and polyphenols, simple phenols and phenolic acids, tannins, terpenes, alkaloids and flavonoids have been found to have antibacterial properties. Like already mentioned that plants are recognized for their ability to produce large numbers of secondary plant metabolites and humans have been used for hundreds of years to treat many diseases. Pharmacological activity may have the potential to be used as a chemotherapeutic agent or as a starting point for new drug development.

I. INTRODUCTION

India is a rich meadow of medicinal plants and its wealth of medicinal and aromatic plants is well-known world over. The variety and the sheer number of plants with therapeutic properties are quite astonishing. India's rich heritage of plants is because of its wide diversity in soil and climatic conditions. Thus it has one of the oldest, richest, and diverse folk traditions associated with the use of medicinal plants in the healthcare system to promote, safeguard and relieve pain, heal wounds, and refresh the mind, muscles, and nerves (Rajasek-

CELL CULTURE CHRONICLES: UNLOCKING ANIMAL BIOTECHNOLOGY

EDITOR

DR. PAVITHRA MADHIYAZHAGAN

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Advance Research Trends in Biology

Advance Research Trends in Biology

First Edition

Dr. R.B. Tripathi
Dr. N. Aarthi
Dr. P. Madhiyazhagan

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Tamil Nadu, India

An introduction to Sea grass

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Introduction

Sea grasses the word itself determines that it belongs to a coastal environment where the grasses grows in the seanear the submerged photic zone. Photic zone is nothing but the sea grass grows in a region where light penetration occurs to particular level of the ocean. Sea grasses mostly found in shallow salty and brackish water zones in India and across all parts of the world from tropic to arctic regions. These sea grasses are mainly found in bays, coastal water, estuaries, and shallow inshore areas upto 60 to70 meters in length. Sea grasses grow widely from a region of few square meters to hundreds of square kilometers.The peculiarity of sea grass is that the appearance of sea grass was similar to angiospermic grasses which are green in color and bear root, leaves and produce flowers and seeds. Sea grasses can form underwater meadows which are densely submerged in oceanic region.The underwater meadows are greatly highlighted from satellite point of view is an addition viewpoint. The great benefit of the sea grass is that it improves the quality of sea water by binding the sediments for its vital growth, absorbing nutrients with the help of its anchorage system, filtering the marine water system and provides a strong protection against coastal erosion.

Sea grasses are an important organic biomass resource that exhibits wide interannual variation in tropical and temperate zones and stability is good at the equator. Other primary producers, such as macro algae and epiphytic algae, typically increase the primary productivity of these environments. Many food webs are based on the copious detritus plant debris found in sea grass

Recent and Emerging trends in Plant pathology and Plant host defense systems

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Introduction

Our ecosystem is made up of innumerable species ranging from microbes to macrobes. They are interdependent on each other in order to create a niche and function in the ecosystem. Plant species area marvelous macrobes which are quite beneficial to many ecosystems especially the soil ecosystem as well as to the animal ecosystem. The interdependence may lead to many beneficial, mutualistic or symbiotic and parasitic associations. These parasites are called plant pathogens. The study of the pathogens, mechanism of attack, effects of the attack on the plants and surrounding biota, the defense mechanisms portrayed by plants to resist the attacks is called plant pathology.

Ensuring the quality of the plant to prevent pathogen attack and disease control is an essential part of horticulture and agricultural ecosystems. This is also important in the forestry to preserve native and rare plant species which have high economic value.

Plant pathology is an emerging as well as established area of study, due to the evolving ecosystem. Apart from natural defense mechanisms, artificially mediated host defense responses are incorporated with the help of ever emerging biological, molecular and bioinformatics techniques. The omics techniques help us understand the plants and microbes more deeply and help us achieve various insights on crop quality enhancement and plant disease control.

Evolution, Classification and Applications of Algae in various industries

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Introduction

Algae are a broad class of photosynthetic organisms that are found in freshwater and marine environments. In damp terrestrial environments with lichens, cyanobacteria can also coexist in symbiotic relationships with fungi. Microorganisms such as phytoplankton and seaweeds are few examples of tiny algae.By using chlorophyll and other pigments in photosynthesis, these organisms transform sunlight into energy and are essential to ecosystem because they produce large amount of oxygen. Diverse pigments in algae allow them to adapt to all harsh environmental conditions. Algae can be green, red, brown, or blue-green in colour in accordance to the pigments present.

Various applications of algaeinclude food (many seaweeds are edible and are eaten by people from different civilizations). They are also useful in biofuel production and waste water treatment. Additionally, they are rich sources of many bioactive compounds that are useful in industries for mass production. Thus, they contribute to the overall food chain and the ecosystem balance.

Classification of Algae

Based on their properties, algae can be categorised into several types, representing a diverse group of photosynthetic organisms. Algal taxonomy continually changes as our knowledge of these species deepens. These are a few of the most common kinds of algae:

IN VITRO AND *IN SILICO* NETWORK PHARMACOLOGY ANALYSIS OF EUGENOL FROM*SYZYGIUM AROMATICUM* AGAINST *ESCHERICHIA COLI*

Santhosh Kumar A, Suvetha N, Porselvam CS, Varshini S, Shoba Gunasekaran*

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Abstract

This study provides a comprehensive analysis of the pharmacological characteristics of eugenol, a significant bioactive substance extracted from clove (*Syzygium aromaticum*). To clarify the many biological actions of eugenol, the work combines in-vitro testing and in-silico analysis in a dual methodology. Using a combination of in-vitro and in-silico methodologies facilitates a thorough comprehension of eugenol's pharmacological capabilities The eugenol present in the clove oil was determined by using Fourier-transform infrared spectroscopy. The antibacterial and antibiofilm activity of clove oil was performed against *Escherichia coli* were investigated. As an antibacterial agent, eugenol has demonstrated high promise against a variety of pathogenic and spoilage-causing microbes. This investigating highlights the wide range of uses of eugenol in the fields of health and medicine, providing insightful information on the substance's potential as a therapeutic agent. The research provided in this study lays the foundation for further investigation and utilization of eugenol's therapeutic qualities, opening the door for possible medication creation and advancements in healthcare. Antibiotic resistance is higher in biofilm-embedded cells. The development of more potent and secure antibacterial medicines has become critically necessary due to an upsurge in the strains that are resistant to antibiotic of oral infections as well as adverse effects caused by prescription antibiotics.Ultimately, the reactivity of the compounds has been demonstrated using docking studies and computational calculations.The effectiveness of the bioactive phytochemicals must be demonstrated in vitro and in vivo through clinical trials to further validate them and characterize the parameters of the medication screening actions for *Escherichia coli*.

Keywords: Anti-biofilm assay, Eugenol, *Escherichia coli,* MIC, Network pharmacology, *Syzygium aromaticum*

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CRISPR/Cas Genome Editing in Fruit Crops: Recent Advances, Challenges, and Future Prospects

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Plant Genome Editing Technologies

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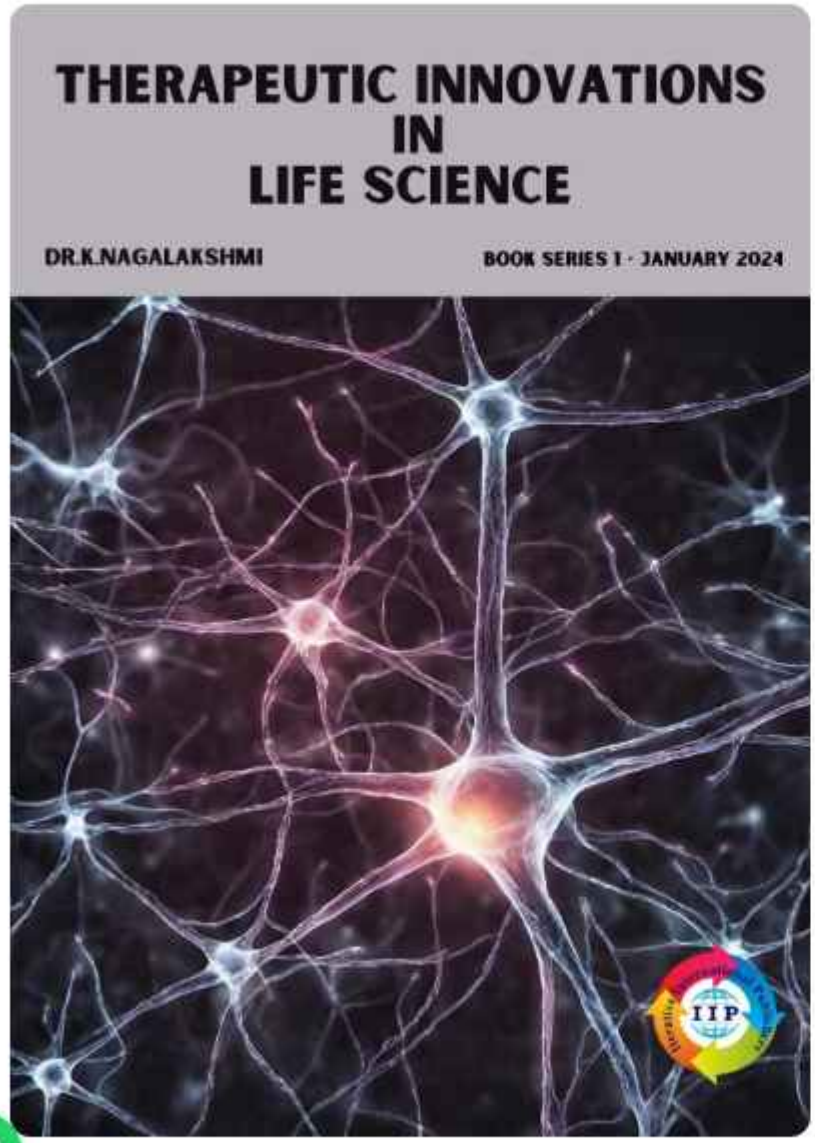
Abstract

Fruit crop offers a wide variety of beneficial metabolites and nutrients that favor human health. Increasing concerns over food and nutritional instability caused by significant climatic changes have posed challenges to crop development, quality, and yield in fruit crops. Conventional farming



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Chapter 9

Nanoformulations of Medicinal Herbs

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Abstract

Plants are protected by special defense mechanism produced by themselves, which is known as Phytochemicals. These phytonutrients not only help the plant kingdom, they are also used to treat various metabolic, immunological and neurological disorders in humans in various parts of the world as a part of ancient traditional medicine. Though they show marvelous pharmacological effect, still they are required in larger amount to full fill the complete dosage of the treatment. Inorder to overcome this difficulty nanotechnology is integrated with herbal medicine to formulate herbal nanomedicine. This review focuses on the medicinal properties of phytochemicals, methods implemented to formulate herbal nanomedicine, its characterization and applications.

Keywords: Phytonutrients, nanoparticles, encapsulation, herbal nanomedicine

I. INTRODUCTION

Medicine is the science and "art" of any substance or substances used in treating disease or illness;maintaining or preserving health or physicalcondition and well-being. Medicine is the field of health and healing. Plants are still used as traditional mode of healthcare against certain disorders [Hussein and Anssary.,2019]. Plants can protect themselves from pathogenic microorganisms, harmful insects and adverse environmental changes by producing certain chem-

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Chapter 4

Calorie Restriction for Longevity

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Abstract

Food and diet are essential to serve basic needs such as energy, growth, and vital functions. Nutritious diet should have all vital biomolecules such as carbohydrates, proteins, lipids, vitamins and minerals and water. Age-associated diseases such as cardiovascular diseases, cancer, nephropathy, diabetes, Alzheimer's disease, Parkinson disease, neurodegenerative diseases, and arthritis progress with senescence. Aging is the progressive failure of tissue and organ functions which is accompanied by a chronic inflammatory process and affects life and lifespan leading to death. Calorie Restriction (CR) is the best known non-genetic intervention that prevents age-associated diseases and increases longevity in many animal models. CR is a safe way of approaching aging research without any side effect unlike any kind of genetic or pharmacological intervention. Long term calorie restriction can lead to progressive weight loss and longevity. Calorie restriction's impact on human muscle health and gene expression has been found to prolong lifespan. In this article we have briefly discussed CR in age associated diseases and its molecular mechanisms have been mentioned briefly.

Keywords: Calorie Restriction; Senescence; Age-associated diseases; Nutrition; Lifespan.

Principles of Organic Farming

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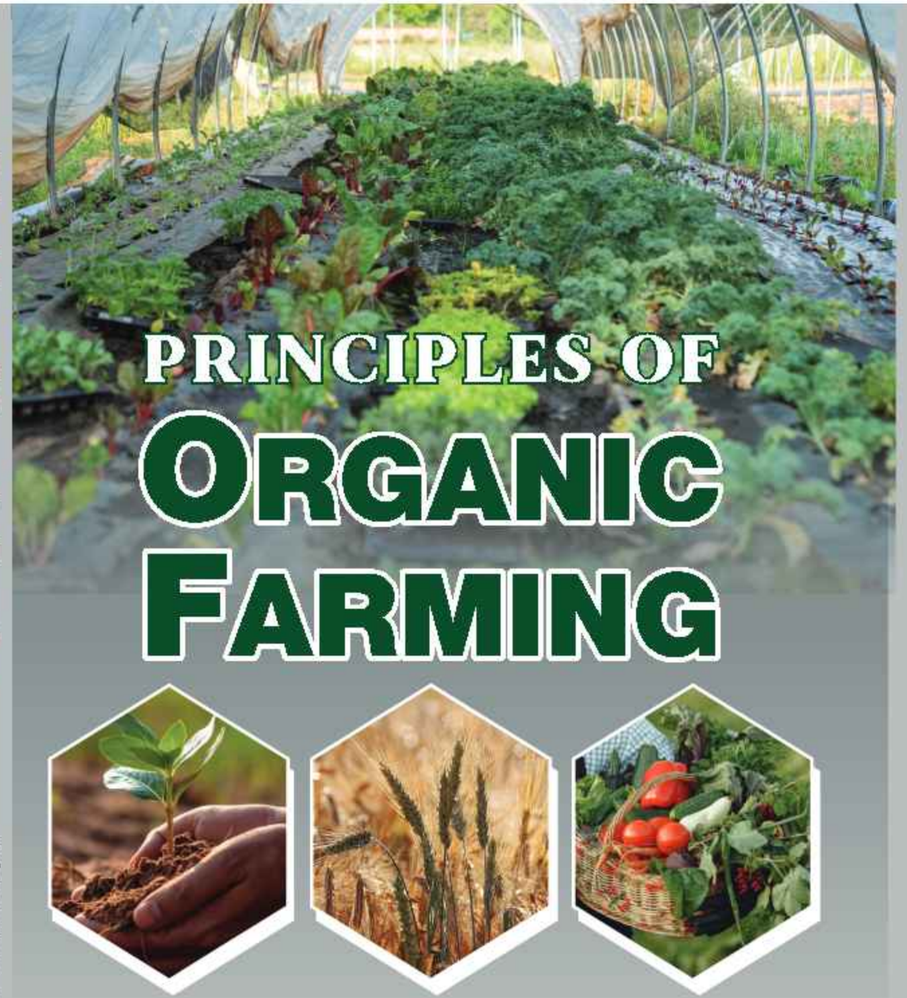

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Chapter - 8

Cellular Communication: Signalling Pathway and Molecular Interactions in Biochemistry

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Abstract

Cellular communication, a fundamental process governing the orchestration of diverse physiological responses, is a complex interplay of molecular interactions within and between cells. This chapter delves into the intricate world of signaling pathways in biochemistry, elucidating the mechanisms by which cells transmit and interpret signals to regulate various cellular functions. Beginning with an exploration of the evolutionary context and significance of cellular communication, the chapter navigates through the diverse types of signaling, encompassing autocrine, paracrine, endocrine, and direct cell-to-cell communication. A central focus of the discussion is on signaling molecules, diverse entities ranging from proteins and lipids to gases, which play pivotal roles in conveying messages between cells. The pivotal role of cell surface receptors is illuminated, detailing the functions and interactions of G-protein-

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REVIEW ON THE ESSENTIAL OILS OF *PIPER BETEL* LEAVES AND ITS THERAPEUTIC USES

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Abstract: Many standard medications are being investigated and clinical trials have been initiated to determine the efficacy and possible adverse effects of ancient Indian herbs. Essential oils are one of the potentially useful compounds for curing the ailments. There has been a sudden increase in interest in investigating the therapeutic uses of Plant essential oils (PEO) in recent years. About 3000 Plant essential oils have been identified till date. Essential oils, as well as their components and derivatives, have an extended history of use as anti-microbial agents in preservation of food and therapeutic industries. Both Gram-positive and Gram-negative organisms can be effectively suppressed by the antibacterial qualities of betel leaf, including *Pseudomonas*, *Staphylococcus*, species. Betel leaf is a superior natural source with possibly advantageous antioxidants than chemical-based compounds. It has also been claimed that the 4-allyl-catechol inhibits squamous cell carcinoma and prostatic carcinoma cells, which causes oral human epithelial carcinoma cells to undergo apoptosis and cell cycle arrest. It shows that betel leaf and their constituent parts may have anticancer properties. The primary chemical elements in betel leaves are phenol, 4-allylphenol, and other phenolic chemicals. These elements may contribute significantly to the anti-fungal and anti-bacterial effects of *Piper betel* leaves. To provide further information for upcoming *Piper betel* study, this review article intends to provide an overview of earlier studies and research projects on the therapeutic efficacy of the species.

Keywords: Essential oil, *Piper betel* leaf, therapeutic use

I.INTRODUCTION

Plant essential oils (PEO) are multiple component mixture of volatile and lipophilic bioactive compounds obtained from aromatic plant components. PEOs were traditionally utilised in aromatherapy for a variety of health problems, including pain and inflammation. PEOs were used in ancient Egypt, Arabia, Greece, and China thousands of years ago. *(*Qian Zhao et a., 2022; Long et al., 2022*)*. Essential oils are complex combinations of low molecular weight (typically less than 500 Daltons) compounds that are extracted through steam distillation, hydro distillation, or solvent extraction. Terpenes, lipids, aldehydes, alcohols, and other substances can be found in plant essential oils (PEOs). Plant stems, flowers, seeds, leaves, and roots are just a few of the elements of natural plants from which plant essential oils (PEO) can be extracted. PEOs have been used to treat a variety of health issues worldwide in national, traditional, and folk medicine (Bastos et al., 2010). Due to their antibacterial, antioxidant, anti-inflammatory, anticancer, and other health properties, PEOs are widely employed in the medical and health industries. Many analyses have concentrated on a variety of PEO-related topics, such as their usage as plant-based preservatives. *(*Prakash et al., 2015*)*.

1.1 HISTORY OF PLANT ESSENTIAL OILS

Plant essential oils have been used for thousands of years in China, ancient Greece, ancient Egypt, and Arabia *(*Long et al., 2022*)*. Five thousand years ago, ancient Egyptians developed spices from plant extracts for medicine and documented the compositions of the PEOs in pyramids. Shen Nong tested numerous plants in China about 2700 BC, recorded his findings, and penned "Shen Nong's Herbal Book," which is considered to be the world's oldest medicinal text *(*Chan, 1995*)*. When the epidemic struck ancient Athens, Hippocrates, who is regarded as the father of medicine, advised people to burn fragrant plants on street corners, which helped stop the plague's spread (Hoskins et al 2000). Due to the growth and breakthroughs in experimental chemistry by the 18th century, synthetic pharmaceuticals had taken the role of natural herbal remedies, which caused the use of aromatherapy in treatments for gradual decrease. Researchers have actively characterized the repellent, feeding deterrent, and insecticidal properties of PEOs due to their long history of use in human activities and their regulatory roles in plant-insect interactions *(*Isman,

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In vitro analysis of *Ulva intestinalis* Linn to determine the Antioxidant, Antibacterial, and Antidiabetic Activity

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Abstract:

Bioactive chemicals found in seaweeds are widely recognised to play a diverse range of physiological activities. The purpose of this study was to examine the antidiabetic, antioxidant, and antibacterial properties of an ethyl acetate extract of *Ulva intestinalis*, a green macroalgae that was obtained from Chennai's east coast. Alkaloids, amino acids, proteins, carbohydrates, fixed oils and fats, phenolic compounds, tannins, flavonoids, cardiac glycosides, terpenoids, and reducing sugars are all found in the seaweed extract, according to the preliminary phytochemical study. When tested against *E. coli*, the ethyl acetate extract showed minimal antibacterial activity. The seaweed exhibits significant free radical scavenging activity with an IC_{50} of 57.26 µg/ml. The α-amylase inhibitory activity in study was found to be IC_{50} of 16.13 µg/ml which is lower than that of acarbose. The lower in vitro α-amylase inhibitory activity of the extract implies that the degree of adverse effects will likewise be lower than that of acarbose.

Keywords: *Green seaweeds, Anto-diabetic, Anti-Bacterial, Antioxidant, Phytochemicals, Ulva intestinalis.*

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Screening of Sustainable Pigments from Marine Fungi

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Abstract:

The major raw material of textile industry is dyestuff. The business is frequently affected by the rising feedstock and energy prices for dye synthesis, and there is a growing demand to reduce environmental harm. Industries are always looking for less expensive, greener alternatives to the current dyes. Distinctive pigments are produced by a wide variety of fungi. The aim of the current study was to isolate fungi from various marine environments and screen their capability to produce pigments. Thirty strains were isolated from the marine soil by the conventional technique of serial dilution. Submerged fermentation was carried out in broth medium in order to select strains able to synthesise pigments. Three strains were able to produce pigments and were identified by sequencing. These fungi produced intensely coloured pigments and were therefore selected for chemical characterisation. In order to identify the pigment, NMR investigations were carried out. The outcomes shows that fungus bioprospecting is a practical way to look for new natural dye sources.

Keywords: *fungal pigments, dyes, colorants, microbiology, natural pigments*

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Bioprospecting Marine Organisms for Cosmeceutical Ingredients

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Abstract:

The modern lifestyle places a high value on appearance and personal grooming, drawing more and more customers to items that improve or change the visual appeal of their nails, hair, and skin. Even though many synthetic chemicals used in cosmetic goods now fall short of customer expectations, they are nonetheless widely used. Natural items typically don't pollute and are harmless. As a result, a lot of time and energy has gone into finding natural, safe, and effective cosmetic components for marine microorganisms. Additionally, makers of cosmetics are now considering the use of marine creatures in biotransformation to create more ecologically friendly and sustainable products. As the primary components that dictate the actions of cosmeceuticals with anti-tyrosinase, anti-acne, whitening agents, UV protection, antioxidants, anti-ageing, and anti-wrinkle properties, molecules derived from marine sources can also serve as active ingredients. This abstract examines the feasibility of discovering cosmeceutical ingredients from marine organisms. It explores the diverse marine ecosystems, emphasizing the distinctive bioactive compounds present in different organisms. The research underscores the ethical and sustainable practices involved in obtaining these ingredients and explores their potential applications in skincare. Furthermore, it addresses obstacles in extraction, formulation, and regulatory aspects, with the goal of advancing the creation of innovative and efficient cosmeceutical products sourced from marine life.

Keywords: *Cosmeceuticals, Anti-ageing, anti-wrinkle, UV protection.*

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Preparation of Facemask from Freshwater Microalgae and It's Study on Anti-Aging and Antioxidant Activity

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Abstract:

Microalgae are one of the main natural sources of metabolites that are potentially beneficial in human health and medicine. It has been found that some microalgae compounds and extracts can accelerate the healing and repairing process of damaged skin and also have cosmetic effects. Existing cosmetic products can be replaced by microalgae derived cosmetic products which are environment-friendly and safe which make them publicly important since people want to have products as natural as possible. Currently some microalgae derived products are commercially available and biotechnology of microalgae is getting more and more developed every day which will be resulted in more commercial products in short period of time. Therefore, these algal metabolites were recognized as promising ingredients for innovative cosmetics and cosmeceutical formulations. Ever increasing effort is being invested into the search for new natural biologically active substances from microalgae. This trend is also fueled by the growing demand for natural raw materials for food, pharmaceuticals and cosmetology associated with the global transition to a "greener" lifestyle. Here, we review the currently accumulated knowledge about the main groups of cosmeceutical compounds from microalgae.

Keywords: *Microalgae, cosmetic effects, anti-oxidant activity, pharmaceuticals*

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Microalgae's Approach to An Altering Climate and Environmental Factors

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Abstract:

One of the most important issues facing humanity in the coming years is the accumulation of greenhouse gases (GHGs) in the atmosphere as a result of industrialization and human activity. GHGs are thought to be the primary driver of climate change. Microalgae are a prospective tool in biological technology because of their significant environmental role in the carbon cycle, accounting for almost half of all atmospheric CO2 fixation. One possible method to accomplish both CO2 emission reduction and microalgal biomass energy utilisation is by microalgae-based CO2 biological fixation. Nonetheless, the microalgal culture process is crucial to this strategy since it has a direct bearing on the features of microalgal biomass production and the mechanism of microalgal CO2 fixation . A class of microorganisms that first appeared in Earth's oceans during the development of the planet's environment approximately 3 billion years ago are microalgae, also referred to as phytoplankton. Carbon dioxide is used by these unicellular phytoplankton, or microalgae, during the process of photosynthesis to create oxygen in the atmosphere. In order to maintain the equilibrium of CO2 levels in the atmosphere, photosynthetic organisms must ingest CO2 during the dark phase of photosynthesis. Phytoplankton demonstrated greater CO2 fixation efficiency and biomass productivity when compared to other photosynthetic organisms. Compared to vascular plants, microalgae are 10–50 times more efficient at assimilating CO2 and do not compete with or feed humans or animals. The carbon concentration mechanism (CCM) is a unique method by which microalgae assimilate carbon dioxide. Microalgae are also employed in the treatment of wastewater and the creation of biomass, which can be further processed into biogas, bioplastics, and fertiliser.

Keywords: *Microalgae, Greenhouse gas, CO2 fixation , Biomass energy, Bioplastics*

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Phycoremediation of Domestic Waste Water and Biodiesel Extraction from Fresh-Water Microalgae

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Abstract:

Microalgae have recently drawn attention as a potential source for sustainable production of biotechnologically valuable resources and for improving the environment in various ways. Researchers are interested in the cultivation of microalgae because of their capacity to quickly produce biomass. However, microalgae produce many nutrients, which may have an adverse impact on the environment and economy. Wastewater, which often contains high nutrient concentrations, can serve as an alternative to synthetic culture media. Because the composition of wastewater and usual culture media is relatively similar, wastewater can be utilized to clean itself and culture microalgae simultaneously. Phycoremediation is the process of converting pollutants present in water and other impurities dissolved in wastewater into biomass via photosynthesis and other metabolic processes. This is an efficient way to treat wastewater using a microalgae-based system. The aim of this project was to identify novel microalgae strains that are highly effective in treating wastewater and producing high-growth, high-value products. microalgal biomass is considered as the next generation of feedstock for biofuel production. Lipid extraction from microalgae is important for the production of biofuels with relatively low energy and cost requirements. A common method for reducing the density and viscosity of microalgae oil extracted from biomass is transesterification, which converts microalgae oils into the equivalent FAME, which is also referred to as biodiesel chemically. The dual functions of microalgae in domestic wastewater treatment and biomass growth for biodiesel production are outlined and discussed in detail in this review.

Keywords: *Microalgae, Waste water, Phycoremediation, Biodiesel, Transesterification*

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A High Value Metabolites and Bioproduct Production of Marine Algae

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Abstract:

In the today's world algae are consumed as food in various countries because of their rich fiber and vitamins content. Macro and micro algae plays a vital role in the regulations of healthy diet in the human body. Blue-green algae, red algae, green algae and brown algae are consumed as food due to their anti-oxidant, anti inflammatory, anti viral and anticancer property. Algae such as agar-agar, spirulina, wakame, chlorella can be eaten edible and remarkably the microalgae spirulina have the high powerful plant protein content which is most widely ingested by many people. Moreover the plants and algae grown in the water bodies and oceans have high nutritional values, they are commonly called as seaweeds or macroalgae. Planktonic algae are responsible for at least a half of Earth's oxygen production by absorbing the carbon from the atmosphere. Seaweed are rich in proteins, ω-3 fatty acids, essential amino acids, vitamins and minerals. One of the many remarkable qualities of microalgae is their capacity to generate bioactive compounds that may have positive effects on the overall well-being of humans. Microalgae have the potential to produce vast amounts of valuable goods in a sustainable manner because they may be produced in brackish water, saltwater, or wastewater instead of arable land. The algae can be produced by both indoor /outdoor and used by the food industries for it's nutritional and medicinal values. This research paper will be helpful in figuring out the necessity and importance of algal based food products in daily life.

Keywords: *Microalgae, Macroalgae, agar-agar, Blue-green algae, spirulina, Seaweeds, anti-oxidant, anticancer, anti-inflammatory.*

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Role of Fungal Synthesized Silver Nanoparticles in the Textile Industry

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Abstract:

In this study, an environmentally friendly method was adopted to produce silver nanoparticles (Ag-NP) using *Aspergillus niger*. The formation of Ag-NPs was analyzed by color change, UV-visible spectroscopy, FT-IR, TEM, and XRD. The data shows that crystalline spherical Ag-NPs with a size of 3-13 nm were successfully synthesized. Studies have shown that *Aspergillus niger* can reduce silver ions extracellularly and produce water-stable silver nanoparticles. These nanoparticles can be incorporated into a variety of materials, including fabric, and when combined with silver nanoparticles, fabric can be sterilized and help hospitals prevent infections from bacteria such as *Staphylococcus aureus*. The research focuses on the production of additional products of silver nanoparticles from *A. niger* and the antibacterial effect of incorporation into cotton fabric against *Staphylococcus aureus*. In summary, this study demonstrates the use of biosynthesis in the production of silver nanoparticles and their integration into fabrics, considering their sterile properties.

Keywords: *Nanoparticles, Fungi, FT-IR, TEM, XRD*

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In-Vitro Antioxidant Activity of Mycosynthesized Silver Nanoparticles

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Abstract:

Fungi are efficient engines for the synthesis of any sort of metallic nanoparticles in comparison to plants and other microorganisms due to their susceptibility to culturing conditions, extracellular enzyme secretion, fast multiplication and economic production. In the current study, silver nanoparticles synthesized from fungi were optimized and studied for their *in-vitro* antioxidant activity with the help of ABTS assay and DPPH free radical scavenging assay. In ABTS assay, the ability of the sample to scavenge ABTS was calculated while in DPPH assay the reaction of free radicals is studied. The percentage scavenging activity was found to be higher in 100µg/ml of the test sample in both the cases. This concluded the antioxidant potential of the synthesized nanoparticle. Further, focus will be on studying the related effect and applications of these nanoparticles.

Keywords: *Fungi, Silver Nanoparticles, Antioxidant, ABTS, DPPH.*

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Study of Synergistic Effect of Biofertilizers and Nanoparticles on Plants

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Abstract:

This study focuses on the synergistic effects of concurrently applying biofertilizers and nanoparticles to enhance plant growth and agricultural sustainability. Biofertilizers, containing beneficial microorganisms, and nanoparticles, distinguished by their nanoscale properties, are examined for their combined impact on plant development. The research aims to uncover how this dual approach can improve nutrient availability, soil health, and overall crop performance. Biofertilizers contribute to sustainable agriculture by fostering symbiotic relationships with plants. These microorganisms play a pivotal role in nutrient cycling, soil enrichment, and enhancing plant resilience to environmental stressors. Simultaneously, nanoparticles offer unique opportunities for targeted nutrient delivery, pest management, and soil quality improvement due to their small size and reactivity. Through comprehensive experimentation and analysis, this study aims to elucidate the synergies between biofertilizers and nanoparticles. Controlled trials involving diverse plant species and environmental conditions will provide insights into their combined influence on plant physiology and soil dynamics. The findings hold significant implications for agricultural practices, potentially revolutionizing strategies to maximize crop yields while minimizing environmental impact. The study contributes valuable knowledge to the ongoing quest for sustainable and efficient agricultural solutions, addressing the global imperative of meeting increasing food demand without compromising environmental integrity.

Keywords: *Biofertilizers, Nanoparticles, sustainable agriculture, environmental integrity*

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Utilization of *Bacillus Cereus* Isolated From Oil Contaminated Soil For Reactive Red Biodecolorization

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Abstract:

In the process of producing and using organic dyes, numerous chemical compounds that are harmful to human health are created and handled. Azo dyes (60–70%, over 10,000 dyes) are a significant category of synthetic organic components and are used extensively in textile dyeing among other applications. Several byproducts of their breakdown, including aromatic amines, have been shown to be harmful to humans and hazardous to aquatic life. Comparing microbial biodegradation to physical and chemical dye removal approaches, a viable strategy has emerged.

In this work, many bacterial isolates from oil-contaminated soil were examined for reactive red decolorization. Using 16s rRNA partial molecular sequencing, a possible isolate was discovered that demonstrated superior decolorization compared to other soil isolates. This isolate was subsequently determined to be *B. cereus*. During the dying decolorization process, several parameters were optimized, including temperature, pH, and incubation period. At a pH of 7.5 and a temperature of 35°C for 22 hours, the highest decolorization rate of 87.54% was observed, with a dye concentration of 1 mg/mL. The decolorized product's phytotoxicity and microbiological toxicity were assessed in relation to various plant seeds and microorganisms that stimulate plant development. The results suggest that Bacillus cereus could be a viable treatment option for wastewater containing dyes.

Keywords: *B. cereus, Biodecolorization, Reactive red, textile dye*

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Synthesis of Biodegradable straw using Biological Waste - *Solanum tuberosum* & *Manihot esculenta* Peel

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Abstract:

Plastics are non-biodegradable compound that occupies large space in the world since they are more comfortable and economic products. Plastic takes up hundreds of years to degrade and they are toxic to mankind. Starch, a storage a polysaccharide found in grains, tubers, roots, and unripe fruit that are widely used in food and industries due to its easily availability, biodegradable, renewable and safe. Present studies focus on extracting the starch *Solanum tuberosum* (Potato), *Manihot esculenta* (Tapioca) peel and converting the biological waste into biodegradable straw. The starch quality, quantity and its impurities were analyzed before straw preparation. The straws were analyzed for its Biodegradation using microorganism. Its packaging materials that can work for sustainable development. The purpose of this study also focus to ascertain, on a laboratory scale, the impact of various mixing methods on the hardness and expansion rate of straws made from potato, tapioca starch. The best recipes would be selected based on the highest hardness value and longest expansion time. The development of a workable manufacturing procedure for producing starch based drinking straws that are environmentally friendly has great potential.

Key words: *Solanum tuberosum, Manihot esculenta,* Polysaccharide, Biodegradable

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Isolation, Purification & Characterization of Chitinase Enzyme from Microorganism and Degradation of Chitin

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Abstract:

Chitin is a polysaccharides present in the outer surface of insects, fungi, crab and prawn shell. The chitin was extracted from shrimp and crab shells using a chemical method. The extracted chitin was used as a substrate for the production of chitinase. Soil sample collected from the local fish market were serially diluted and plated in nutrient agar. The colonies obtained were tested for its biochemical characterization and confirmed for the chitinase producing bacteria. The chitinase enzyme was partially purified by ammonium sulphate precipitation and dialyzed. The degradation of chitin using the isolated organism, partially purified enzyme was carried out and determined the optimum pH, temperature and substrate concentration. Antimicrobial activity, antioxidant activity, anticancer and wound healing properties were also performed. Yields of chitin extraction using chemical, biological and enzymatic method were analyzed. The current evaluation lists the available techniques for recovery of the marine waste product chitin and its derivatives. Sea food waste can be properly managed and it can be recycled.

Keywords: *Antimicrobial, Anticancer, Antioxidant, Anti-hypertensive, Ammonium sulphate precipitation.*

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Exploring Nonthermal and Thermoresistant Strains of c-Producing *Escherichia coli* and *Salmonella enterica* in Low-Moisture Foods

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Abstract:

In recent years, there has been a growing concern regarding the survival and persistence of foodborne pathogens, particularly Shiga-toxin-producing Escherichia coli (STEC) and Salmonella enterica, in low-moisture foods. This study investigates the presence and behavior of nonthermal and thermoresistant strains of these pathogens within low-moisture food matrices.

Our research focuses on the survival mechanisms employed by these bacteria in low-moisture environments, shedding light on their adaptability and resilience. By employing advanced molecular techniques, we identify specific genetic determinants and metabolic pathways associated with these strains' nonthermal and thermoresistant characteristics. Furthermore, we assess the potential risks posed by consuming low-moisture foods contaminated with these pathogens and explore strategies for effective mitigation.

The study's findings provide valuable insights into the survival strategies of nonthermal and thermoresistant STEC and Salmonella in low-moisture foods, contributing to the development of targeted interventions for enhanced food safety. This research is pivotal in shaping preventive measures and regulatory guidelines to minimize the risk of foodborne infections associated with these pathogens in low-moisture food products.

Keywords: *Salmonella enterica, Shiga-toxin, Escherichia coli*

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Isolation, Characterization, and Application of Bioluminescent *Vibrio harveyi* Strain from Indian Beaches for Rapid Environmental Monitoring

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Abstract:

Bioluminescent bacteria, characterized by their ability to emit blue/green light, serve as ubiquitous organisms in various ecosystems. Their luminescence, driven by the luciferase enzyme and regulated by the lux gene operon, holds immense potential for monitoring environmental changes. This study focuses on the isolation and characterization of a luminescent bacterial strain from the beaches of India, emphasizing the versatile applications of *Vibrio harveyi* in environmental testing.The bacterial isolates underwent cultivation at diverse temperatures to ascertain the optimum conditions yielding maximum growth and luminescence. The resultant strains underwent thorough biochemical and molecular identification processes. Luminescent activity was quantified using a laboratory luminometer, with the results expressed in Relative Luminescent Units (RLU). The study confirmed the isolated strain as *Vibrio harveyi*, unveiling its inherent bioluminescent properties. The versatility of the bioluminescent test was underscored, demonstrating its rapid, simple, and sensitive applicability across a wide spectrum of chemical substances and environmental samples, including water, wastewater, sludge extracts, radioactive waste, and hazardous radiations.The findings presented in this study highlight *Vibrio harveyi* as a valuable bioluminescent indicator organism and emphasize the efficacy of the modified Nutrient Agar medium for potential applications. The comprehensive exploration of these bioluminescent strains not only contributes to our understanding of microbial ecology but also lays the groundwork for their practical use in monitoring environmental health and addressing ecological concerns. This research opens avenues for future studies on the broader applications of bioluminescent bacteria in environmental sciences and biotechnology.

Keywords: *Bioluminescent bacteria, Vibrio harveyi, lux gene, indicator organism*

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Isolation of chitosan and collagen from biological wastes and preparation of Band aid, Bio-packing material and Cosmetics

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Abstract:

Bio-packaging composed of biodegradable materials is a popular trend in the field of food product preservation, it still poses a significant issue for food technicians because the materials must adhere to strict specifications to safeguard food goods. Chitosan can create edible films due to its polycationic character, which enables it to collaborate with other biopolymers and additives. Chitosan stimulates cytokine production so it can be used for wound healing. Collagen binds with dialdehyde starch and form hydrogels. Both chitosan and collagen has antibacterial, antifungal, and antioxidant properties, which are inherent in forming biodegradable films. Preparation of band aid using chitosan and collagen stimulates cytokine production that can be used in wound healing.

Keywords : *Collagen, Chitosan, Biodegradable, Biopolymers*.

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Bio-Inspired Synthesis of Silver Nanoparticles Using Mushroom Extracts and Their In Vitro Evaluation of Anti-Inflammatory and Anti-Microbial Activity

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Abstract:

Biosynthesis focuses on eco-friendly, non-toxic nanoparticle production, offering rapid growth, low energy input, and safety, making them suitable for medication delivery and environmental considerations.The current study uses medicinal mushroom extract to examine the biologically synthesised AgNps' antibacterial and anti-inflammatory properties. By using the UV-Vis spectrophotometer, XRD, EDAX, and SEM to demonstrate the synthesis of silver nanoparticles, anti-inflammatory and anti-microbial activity were evaluated in vitro. The findings demonstrate that employing mushroom extracts as a reducing and capping agent led to the successful synthesis of silver nanoparticles. As a potential source of anti-inflammatory compounds for future pharmaceuticals, it also demonstrated strong antibacterial activity against a variety of pathogenic microbes.

Key words: *AgNps, Anti-inflammatory, Antimicrobial, Mushroom*

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Biological synthesis, characterization and optimization Silver nanoparticles using plant leaf extracts and Evaluation of its antimicrobial potential

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Abstract

The main objective of the study is to evaluate the *in vitro* antimicrobial activity of synthesized silver nanoparticles using leaf extracts. Among six different plants, only two plants supported the synthesis of highly efficient and stable AgNPs, they are *Araucaria heterophylla* and *Cordia myxa*. The synthesis of AgNPs was optimized at different physio-chemical condition and highly stable AgNPs were synthesized. The synthesized AgNPs were further characterized by Transmission Electron Microscopy (TEM), Energy dispersive X- ray Analysis (EDX), X-ray Diffraction (XRD), and Fourier Transform Infrared Spectroscopy (FTIR). These results suggest that photosynthesized AgNPs could be used as effective growth inhibitors in controlling various human diseases caused by bacteria and fungi.

Keywords: *Silver nanoparticles, Plant extract, TEM, EDX, XRD and FTIR analysis*

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Biologycally Synthesized Zinc Oxide Nanoparticles Using Herbal Plant (Euphorbia Thymifolia) Leaf Extract and Microbial Activity It's Applications

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Abstract:

The synthesis of plant-based nanoparticles the use of plant-based approach has various functions in biology and medicine. Due to its use in biosensors, tablets, cosmetics and different applications, zinc oxide nanoparticles are pivotal. Different strategies have been used to analyse the ZnO-Nanoparticles, which include, ultraviolet–visible spectrophotometry (UV-Vis), X-Ray diffraction evaluation (XRD) and scanning electron microscopy (SEM). The synthesised NPs' spherical or elliptical form used to be established through way of SEM research of the crystallites, which had a suggest dimension of 41.23 nm and had been extraordinarily pure. The viable antibacterial, antioxidant outcomes of synthesised NPs have been examined. The bacterial traces used had been of the genus: Pseudomonas, Klebsiella, Escherichia and Staphylococcus and they have been validated to be inclined to the NPs when they had been covered with antibiotics.

Key words: *ZnO-NPs, Euphorbia thymifolia, FTIR, UV, SEM, antimicrobial and antioxidant, phytochemical analysis, Anticancer activity*

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Review on viable Green Algae Synthesized Nanoparticle in Water Remediation

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Abstract:

The escalating global concern over water pollution necessitates the exploration of innovative and sustainable solutions for water remediation. In recent years, green synthesis approaches have gained prominence in the fabrication of nanomaterials, offering a promising avenue for environmentally friendly water treatment technologies. This review focuses on the application of nanomaterials synthesized through eco-friendly methods in water remediation processes. Green synthesis involves the utilization of natural sources such as plant extracts, microbes,green algae and other biocompatible materials as reducing and stabilizing agents in the production of nanomaterials. This approach not only minimizes the environmental impact associated with conventional synthesis methods but also enhances the biocompatibility and bioavailability of the resulting nanomaterials. The synthesized nanomaterials exhibit unique properties such as high surface area, tunable reactivity, and efficient adsorption capabilities, making them well-suited for various water treatment applications. The review encompasses a comprehensive examination of the types of green-synthesized nanomaterials, their characterization techniques, and their applications in the removal of pollutants from water. Specific emphasis is placed on the removal of diverse contaminants, including heavy metals, organic pollutants, and microbial pathogens. Furthermore, the mechanisms underlying the interaction between green-synthesized nanomaterials and contaminants are discussed, shedding light on the efficacy and selectivity of these nanomaterials in water purification processes. The challenges and future prospects of employing green-synthesized nanomaterials in water remediation are also addressed, providing insights into potential advancements and areas for further research. As the world seeks sustainable solutions to combat water pollution, the integration of green-synthesized nanomaterials in water treatment strategies emerges as a promising and eco-conscious approach, focusig a cleaner and healthier aquatic environment.

Keywords: *Nanomaterials, Green Alage, Bioremediation*

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Biodegradation of crude oil by using cyanobacteria

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Abstract

Crude oil is a raw natural sources from the earth which is converted into gasoline, jet fuel and other petroleum product. Oil Spill is the release of a liquid petroleum hydrocarbon into a environment, due to human activities, where oil is released into the ocean or coastal water , but spills may also occurs on terrestrial environment. There are different types of spills may occurs ; natural oil spills, accidential oil spills and intentional oil spill. Marine spill is more dangerous than land because their impact is very high. Bioremediation is commonly used to remove the toxic wastes from contaminated site by microorganism. Bioremediation is a most effective way to degrade crude oil. Numerous microorganisms, including bacteria, fungi, and yeast are known for their ability to degrade hydrocarbon. In this article, bioremediation is carried out by cyanobacteria . Cyanobacteria are phylum of bacteria which obtain their energy by performing photosynthetic. Recently there has been increasing awareness about using cyanobacteria as bioremediation and pollution control agent. Cyanobacteria species such as Oscillatoria Salina, Plectonema Terebrans are used to remediate the crude oil pollutants.. In this current review article aim to collect the various researchers explained that different types of cyanobacteria and their role in degradation of crude oil will be explained. Crude oil consists of many toxic compound which can cause severe health problems and PAHs present in crude oil may cause cancer in human.Also it affect marine wildlife causing suffocate fish etc. And oil spill can affect the economy as well. So, we need to control it by using our development in biotechnology.

Keywords : *Crude oil, Cyanobacteria, biodegradation , PAHs and its impacts*

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Phycoremediation: A Novel and Synergistic Approach in Wastewater Remediation

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Abstract

An increase in population density led to an intensification of pollution, including water pollution. Dealing with different industrial and home pollutants, such as colors, heavy metals, microorganisms, and radioactive elements, became crucial. Therefore, new technological innovations are needed worldwide to clean up the water from such dangerous toxins in a world that is developing quickly. Since nanotechnology is a cutting-edge technology and has advantages over previous innovations, it is gaining more attention. Algal grass systems and nanoparticle-based adsorption are two examples of the many methods available for treating water. Although there are other techniques to synthesize nanoparticles, the synthesis using algae is highly important and environmentally benign.B Algae have amazing potential and efficiency in waste water remediation; they can detoxify, convert, and volatilize a variety of pollutants. Because algae-mediated phycoremediation has advantages over traditional heavy metal removal and remediation technologies, there are a number of possible benefits linked with it. Because they are naturally adaptable and simple to work with in the lab, algae strains are easy to cultivate. We have covered the biological synthesis of green nanoparticles utilizing algae in this review as an inexpensive, sustainable, and environmentally beneficial method.B Still in its early stages, algal-mediated waste water treatment requires a lot of creative thinking to develop adaptive remediation systems that can effectively and sustainably handle the world's waste water problems.

Keywords: *nanoparticles , phycoremediation , Microalgae*

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Molecular Markers Using *Aurelia.Spp* And Response To Multiple Disorders

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Abstract:

A recognition of a chemical, protein, or antibody in a biofluid, such as blood or urine, that is specifically linked to the illness state and can act as a diagnostic biomarker, is a highly desirable method for the rapid and simple diagnosis of a human disease. Many bioactive metabolites with a range of biological and pharmacological effects have been shown to be abundant in the marine environment. Marine-derived chemicals exhibit remarkable chemical complexity and biological variety. Using complementary DNA subtraction techniques, we were able to identify genes that were differentially altered in response to the pharmacologic stressor tributyltin, using the moon jellyfish *Aurelia spp.* as a model. These biomarkers can be categorized as follows: biomarkers related to excitotoxicity, oxidative stress, inflammation, metabolic dysfunction, neurodegeneration, and other blood biomarkers. Even at low TBT concentrations, *Aurelia* polyps exposed to TBT showed an increase of the oxidative stress gene. Fatty acid (FA) profiles and carbon and nitrogen stable isotope ratios are examples of biomarkers or biochemical tracers that have shown to be effective in identifying the target species' geographic origin and confirming its authenticity. Patients with benign pancreatic disease group, an inflammatory illness of the pancreas, or clinical entities with no potential for malignancy are considered to have benign pancreatic diseases. Using healthy controls, a number of prior investigations have shown biomarkers linked to pancreatic diseases. Nevertheless, the clinical value of current biomarkers, such as limited because they are frequently raised in the context of benign pancreatic disorders. Creating biomarkers that can distinguish from benign pancreatic disease could lead to increased specificity using this strategy.

Keywords: *Biomarkers, Aurelia.spp, Exocitotoxicity, Neurodegeneration, Pancreatic diseases, Tributyltin*

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Production of Algal Feed for Aquatic Organisms (*Penaeus vannamei*)

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Abstract:

Shrimp farming, particularly for Penaeus vannamei, has been overused due to population growth and consumer demand. To become profitable, new production methods, such as enhancing feed formulation and efficiency, are needed. Microalgae, rich in nutrients like highly digestible proteins and polyunsaturated fatty acids, can also be beneficial in aquaculture. However, excessive antibiotic usage can lead to the formation of resistant bacteria, which can be toxic to humans. To ensure long-term production, shrimp farming practices should enhance biosecurity, adopt appropriate water quality, and introduce green water techniques to reduce nitrate concentrations and contaminants in aquariums. . Single-celled algae like Spirulina, Chlorella, and Dunalliella are acceptable for organism consumption due to their nutritious protein content, minerals, vitamins, carotenoids, and sulfated polysaccharides. It is critical for shrimp cultivation to provide a diversified and supplemented plant-based diet to ensure success and development. The study focused on spirulina-enriched wheat and soy bean meal and groundnut oil cake feed for shrimp *Litopenaeus vannamei* aquaculture. Chemical evaluation was used to design and analyze the feed, and experimental bioassay analysis was conducted to measure the progress, survival, and physical health condition of young shrimp. The experimental diet produced more biomass, a higher longevity percentage, and better conditions compared to conventional feed. Algae, rich in polysaccharides, proteins, unsaturated fats, polyphenols, and carotenoids, can benefit animals due to their antimicrobial properties.

Keywords: *Microalgae, Spirulina, Litopenaeus Vannamei, Polysaccharides*

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In vitro analysis of *Ulva intestinalis* Linn to determine the Antioxidant, Antibacterial, and Antidiabetic Activity

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Abstract:

Bioactive chemicals found in seaweeds are widely recognised to play a diverse range of physiological activities. The purpose of this study was to examine the ant diabetic, antioxidant, and antibacterial properties of an ethyl acetate extract of *Ulva intestinalis*, a green macro algae that was obtained from Chennai's east coast. Alkaloids, amino acids, proteins, carbohydrates, fixed oils and fats, phenolic compounds, tannins, flavonoids, cardiac glycosides, terpenoids, and reducing sugars are all found in the seaweed extract, according to the preliminary phytochemical study. When tested against *E. coli*, the ethyl acetate extract showed minimal antibacterial activity. The seaweed exhibits significant free radical scavenging activity with an IC_{50} of 57.26 µg/ml. The α-amylase inhibitory activity in study was found to be IC_{50} of 16.13 µg/ml which is lower than that of acarbose. The lower in vitro α-amylase inhibitory activity of the extract implies that the degree of adverse effects will likewise be lower than that of acarbose.

Keywords: *Green seaweeds, Anti-diabetic, Anti-Bacterial, Antioxidant, Phytochemicals, Ulva intestinalis.*

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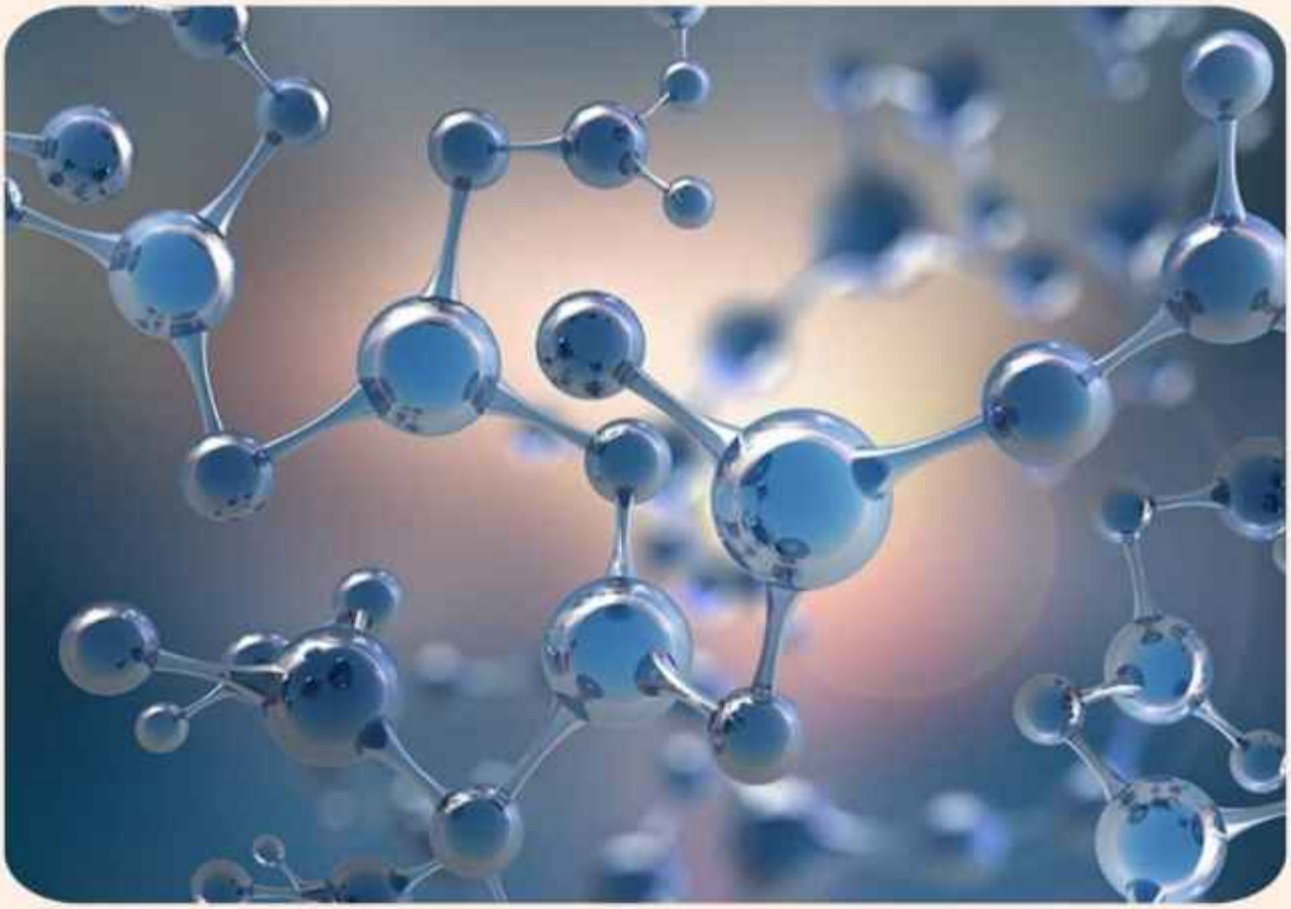
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE

ON

FUNDAMENTALS AND APPLICATIONS OF NANOTECHNOLOGY



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January 05, 2024

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Development of Nano Scale Characterisation with TEM

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Abstract

The field of Nanoscale characterisation deals with the analysis of materials at nanoscale like study the size, crystal structure and other physical properties of nanoparticles. It involves many techniques such as Transmission Electron Microscopy, X-ray diffraction, scanning probe microscopy, Fourier transform infrared spectroscopy, etc. Transmission electron microscopy (TEM) is a microscopy technique which transmits a beam of electrons through the specimen to form an image. This study aims to explore about the principle and working of TEM, its types and uses. This probe also deals with the improvement in the nanoscale characterisation field with the help of TEM.

Introduction

Ernst Abbe introduced the capability to resolve the detail in an object was approximately limited by the wavelength of the light used in imaging, which limits the resolution of the optical microscope to a few hundred nanometres. Development of the ultraviolet (UV) microscopes, led by Köhler and Rohr, allowed for an increase in resolution. However, this requires a high-priced quartz component, because of the absorption of UV rays by glass. At this point Ernst Ruska thought that obtaining an image with sub-micrometre information was simply not possible due to this wavelength limitations. It had earlier been recognized by Plücker in 1858 that the deflection of "cathode rays" was possible by magnetic fields. This effect had been used to build primitive Cathode Ray Oscilloscopes (CROs).

A Transmission Electron Microscope (TEM) uses electrons to provide linguistic and crystallographic details on samples. At a maximum potential magnification of 1 nanometre, TEMs are the most powerful microscopes. TEM produces a high-resolution, two-dimensional images, allowing for an extensive range of educational, science and industry related applications. At smaller magnifications, TEM image varies due to absorption of electrons in the material, because

SVASTIK

இந்தியப் பாரம்பரியத்தின் பொக்கிஷம்

அறிவியல் பூர்வமாக சரிபார்க்கப்பட்ட இந்திய பாரம்பரிய அறிவினூடே ஒரு பயணம்

தொகுதி I

பண்டைய காலம் தொட்டு மரபு வழிவந்த பாரம்பரிய அறிவும் பலவித வழக்கங்களும் நிரம்பப்பெற்றது இந்தியா. இவை, வாழ்க்கையின் பலதரப்பட்ட சூழல்களை குறித்தும், அறிவியல் தொழில்நுட்பத் துறைகளோடு தொடர்புடையதாகவும் அமைந்துள்ளன. மனிதனின் தேவைகளை இயற்கையோடு ஒருங்கிணைக்கும் வகையில் நம் இந்தியப் பாரம்பரிய முறைகள் இருக்கின்றன. பொதுவாக, நம்மை சூழ்ந்துள்ள வளங்களுக்கும் நமது தேவைகளுக்கும் இடையே ஒருவித சமநிலையை பேணும் ஆற்றல் கொண்டவை இவை. என்றபோதும், காலப்போக்கில் நம் பாரம்பரிய அறிவு முறைகளின் பேரில் மக்களின் நம்பிக்கை குறைந்துவிட்டதை இந்தியாவில் கண்கூடாகப் பார்க்கிறோம்.

இக்கருப்பொருளின் முக்கியத்துவத்தை உணர்ந்து, நம் மதிப்பிற்குரிய பிரதம மந்திரியும் CSIR கூட்டமைப்பின் தலைவருமான திரு. நரேந்திர மோடி அவர்கள், பொதுமக்கள் பயன்பெறும் வகையில் அறிவியல் பூர்வமாக உறுதிசெய்யப்பட்ட இந்தியப் பாரம்பரிய அறிவு / வழக்க முறைகள் சார்ந்த தகவல்கள் பகிரப்பட்ட வேண்டும் என அறிவுறுத்தியுள்ளார். இதற்குப் பங்களிக்கக் கூடியவர்கள் நாடு முழுவதிலும் உள்ளதால், அவர்களோடு இணைந்து இதற்கான முயற்சிகளை மேற்கொள்ள வேண்டும் என்றும், இதன்மூலம் "அறிவியல் பூர்வமாக சரிபார்க்கப்பட்ட, இந்தியப் பாரம்பரிய அறிவை பரப்புதல்" எனும் இந்த தேசிய முன்னெடுப்பை செயல்படுத்த வேண்டும் என்றும் அறிவியல் மற்றும் தொழில் ஆய்வு மன்றம் (CSIR) பணிக்கப்பட்டுள்ளது. இம்மன்றத்தின் கீழ் இயங்கும் தேசிய அறிவியல் தொடர்பு மற்றும் கொள்கை ஆராய்ச்சி நிறுவனத்திடம் (CSIR-NIScPR) இதனை நிறைவேற்றும் பணி ஒப்படைக்கப்பட்டுள்ளது.

பிரபலமான எல்லா சமூக ஊடகத் தளங்களிலும் ஸ்வஸ்திக் (SVASTIK) தகவல்களை நீங்கள் @NIScPR_SVASTIK வழியே தொடரலாம்.

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Euclid's game

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Exploring a dot grid through rectangles

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Bringing back shine to copper

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Shades from shapes

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The journey from milk to curd

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Twists in the fibres

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Understanding Adolescence

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CLASS 8 LOCAL CONTEXT

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MACHINE LEARNING TECHNIQUES AND ALGORITHMS

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PREFACE

This book's goal is to give students who wouldn't have been exposed to such techniques throughout their regular needed statistical training a conceptual introduction to statistical or machine learning (ML) techniques. It is possible to think of machine learning as a type of statistical analysis that, while frequently applying well-known and established techniques, has a slightly different focus than conventional analytical practise in applied sciences. The fundamental idea is that flexible and automatic methods are utilised to find patterns in the data, with a particular emphasis on forecasting future data.

Without any context, it is easy to become overwhelmed by the sheer number of techniques available in machine learning (ML), as well as the numerous modifications and variations of them. The specifics of the approaches, though significant, are not as crucial as the broader concepts that might be used in virtually every ML scenario and, in fact, many conventional procedures as well. Although there will be examples utilising the R statistical environment and discussions of a few particular methods, the emphasis here is more on concepts than application and is maintained as much as possible at the conceptual level. It should be noted that these model examples are also accessible in Python. Regarding necessary skills, we'll presume you have a basic understanding of regression analyses, which are frequently taught in practical disciplines.

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First and foremost, I thank the GOD Almighty with a grateful heart for giving us the strength to complete this book. It gives me immense pleasure to sincerely thank everyone who has helped us in various ways for completing the book successfully.

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23 CHAPTER

RETINAL IMAGE SEGMENTATION WITH REGION MERGING FOR DETECTION OF DIABETIC RETINOPATHY USING CNN

S. Santhosh Baboo [1], K. Kaushika [2]

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Abstract:
Damage to the eyes as a result of diabetes mellitus is known as diabetic retinopathy. It is a significant contributor to blindness. With good eye care, the majority of new occurrences of diabetic retinopathy can be reduced. The technique outlined in this paper aims to automatically diagnose and subsequently classify high-resolution retinal fundus images into 5 stages of the disease according to its severity. It does this by using U-Net segmentation with region merging & Convolutional Neural Network (CNN) to detect the different phases of Diabetic Retinopathy. High diversity in fundus images presents a significant challenge for classification, particularly in Proliferative diabetic retinopathy, which is characterised by retinal proliferation of new blood vessels and retinal detachment. Therefore, accurate retinal vascular analysis, which can be accomplished through retinal segmentation, is necessary to obtain a precise result. The process of automatically identifying blood vessel borders is called retinal segmentation. The region merging process keeps the segmentation-lost features and passes them on to the image classifier, which has an accuracy of up to 93.33%.

Keywords: *Diabetic Retinopathy, U-Net Segmentation, Convolutional Neural Network.*

INTRODUCTION

Diabetes, often known as diabetes mellitus, is a metabolic disorder in which the body generates insufficient amounts of insulin, resulting in elevated blood sugar levels. More than 62 million people in India by themselves have diabetes. A person with diabetes who has had it for more than 20 years has an 80% probability of developing diabetic retinopathy [1]. Damage to the eyes as a result of diabetes mellitus is known as diabetic retinopathy. It is one of the main causes of blindness. Diabetic retinopathy is a condition where there is damage to the retina's small blood vessels as a result of the elevated blood sugar brought on by diabetes [2]. With the right treatment and regular eye checks, at least 90% of new cases could be decreased [3]. If left untreated, it primarily damages the retinas of both eyes and can cause visual loss. The likelihood of developing diabetic retinopathy is increased by uncontrolled blood sugar levels, high blood pressure, and excessive cholesterol.

The prior work in the detection of different stages of DR depends on explicit feature extraction and classification utilising various image processing techniques and machine learning algorithms, respectively. The explicit extraction of characteristics to diagnose diabetic retinopathy is a laborious process even though great accuracy can be attained utilising these methods. Deep neural networks can now be used for the identification and classification of diabetic retinopathy due to recent advancements in computer vision and the availability of vast datasets. As a result, a number of techniques based on deep neural networks have been suggested for categorizing diabetic retinopathy according to severity [4][5].

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High variability, especially in the event of retinal proliferation and retinal detachment of new blood vessels, which reduces the network's accuracy, is a significant challenge for deep neural network categorization of fundus images. The approach suggested in this paper uses U-Net segmentation with region merging and Convolutional Neural Network to identify the various phases of diabetic retinopathy. The technique of automatically identifying blood vessel boundaries within the retina is known as segmentation. Important properties like retinal proliferation and retinal detachment can be learned by the classifier as a result. Through region merging, the information lost during retinal segmentation is recovered.

STAGES OF DIABETIC RETINOPATHY

Mild nonproliferative retinopathy

Microaneurysms appear in the early stages of the disease. Microaneurysms are minute regions of balloon-like enlargement in the retina's blood vessels. The fluid enters the retina as a result.

Moderate nonproliferative retinopathy

The blood vessels start to enlarge and bulge and deform as the disease progresses. This has a significant impact on their capacity to carry blood. The retina's appearance changes as a result of several disorders.

Severe nonproliferative retinopathy

Blood arteries get fully clogged under this condition. A portion of the retina's blood supply gets cut off by this. These regions mask growth factors, which alerts the retina to produce new blood vessels.

Proliferative diabetic retinopathy (PDR)

The level of severity of diabetic retinopathy is at its maximum point at this point. The growth factor at this point causes the retina to develop new blood vessels. These young blood arteries are weak and prone to bleeding and leaks. This resulted in the scar tissues contracting, which causes retinal detachment. The process of tearing the retina away from the supporting tissue is known as retinal detachment. A retinal detachment may result in irreversible eyesight loss.

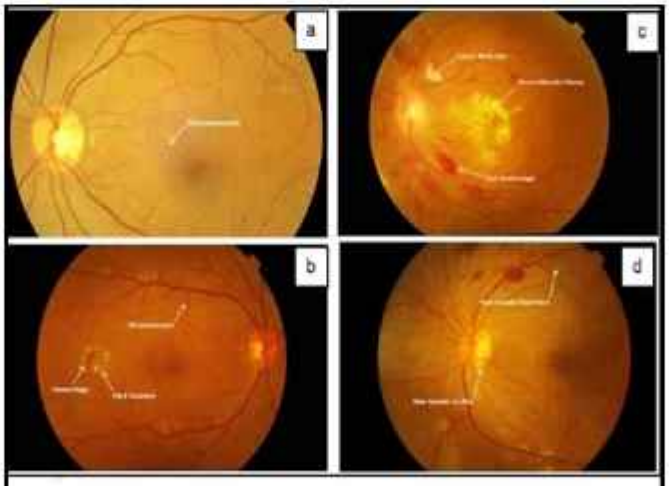

Figure 1. (a) Mild NPDR (b) Moderate NPDR (c) Severe NPDR (d) PDR

REVIEW OF LITERATURE

The creation of DR and the availability of treatment that dramatically lowers the risk of vision loss have both been made possible by the advancements of the late 20th and early 21st centuries. The preceding research used explicit feature extraction and classification utilising various image processing techniques and machine learning algorithms, respectively, to detect different phases of DR.

An image processing technique for diabetic retinopathy was introduced by Singh and Chandra in 2010. The system used to determine the severity of diabetic retinopathy is based on the different retinal lesions, such as exudates, microaneurysms, haemorrhages, etc. [6]. Agurto et al. proposed a similar model in 2010, which categorises the image according to the sorts of lesions. Up to 92% accuracy can be attained with this technique [7].

A new approach employing multiple image processing techniques and an SVM classifier with accuracy up to 89% was proposed by Li Yafen et al in 2013 [8]. A method for the automatic detection of nonproliferative diabetic retinopathy was presented by Saleh and Eswaran. This method uses MAs and HAs detection to accurately segment dark spot lesions by removing several key features such the optic disc, fovea, and blood vessels. For the identification of MAs and HAs, the system reaches values of sensitivity of 84.31% and 87.53% and specificity of 93.63% and 95.08% [9].

Although employing these techniques, excellent precision can be attained. However, employing image processing to directly determine a feature is a difficult process. The potential to employ a deep neural network for the detection and classification of DR, that needs significantly less preprocessing than earlier methods, has been made possible by recent advancements in computer vision and the availability of big datasets.

Joshi put out a technique for detecting diabetic retinopathy using deep convolutional neural networks in 2016. This model provided a convolutional accuracy of 0.386 for a single model and 0.3996 for three such models combined [4]. Another piece that Vishakha Chandore and Shivam Asati have suggested. In which they employed dropout layer approaches to increase accuracy up to 88% [5] while training a deep Convolutional Neural Network model on a sizable dataset made up of roughly 35,000 photos.

These results are marginally worse than those of earlier techniques, mainly because the neural network was unable to pick up on important characteristics like the growth of new blood vessels and retinal detachment that occur in later stages of diabetic retinopathy with high severity.

The approach suggested in this paper uses U-Net segmentation with region merging and Convolutional Neural Network to identify the various phases of diabetic retinopathy. The technique of automatically identifying blood vessel boundaries within the retina is known as segmentation. This enables the classifier to pick up crucial characteristics like retinal growth and retinal detachment. Through region merging, the information lost during retinal segmentation is recovered. With accuracy up to 93.33, the incorporation of retinal segmentation completely exceeds earlier models.

PROPOSED METHOD

The approach outlined here includes three essential phases.

- Preprocessing
- Retinal Segmentation
- Image Classifier

PREPROCESSING

A.1 *Black Box removal and Image resizing*

The collection includes retinal fundus photos with excellent quality and a noticeable black border. As seen in figure 2, we first deleted the majority of these black and black borders before resizing the photos to 480 × 480.

Figure. 2. Resized fundus image after black box removal

Figure 3. Green Channel Extraction

Figure 4. Image Enhancement

A.2 *Augmentation*

The easiest way to avoid over fitting is by data augmentation. The image alteration techniques used in data augmentation include translation, stretching, rotation, flipping, and colour enhancement. The data augmentation doubles the training set's size. Without further data, the network suffers from severe overfitting.

A.3 *Green Channel Extraction*

Red, green, and blue are the three channels that make up a fundus image. To compute retinal segmentation, we must look at where the blood vessels are located. Darker blood veins stand out more against the background's lighter hue. As can be observed in figure 3, the brighter green component enhances the contrast of the retinal image to produce the best outcome. As a result, we chose an input image's green channel and sent it for additional preprocessing [11].

A.4 *Image Enhancement*

We increased the fundus image's visibility during image enhancement. The contrast of an image is improved by employing the contrastlimited adaptive histogram equalisation (CLAHE) technique [12]. The results of retinal segmentation are greatly improved by using CLAHE method [13]. To conduct out retinal segmentation, these images obtained after image enhancement are sent through U-net. Figure 4 displays the outcome of picture enhancement.

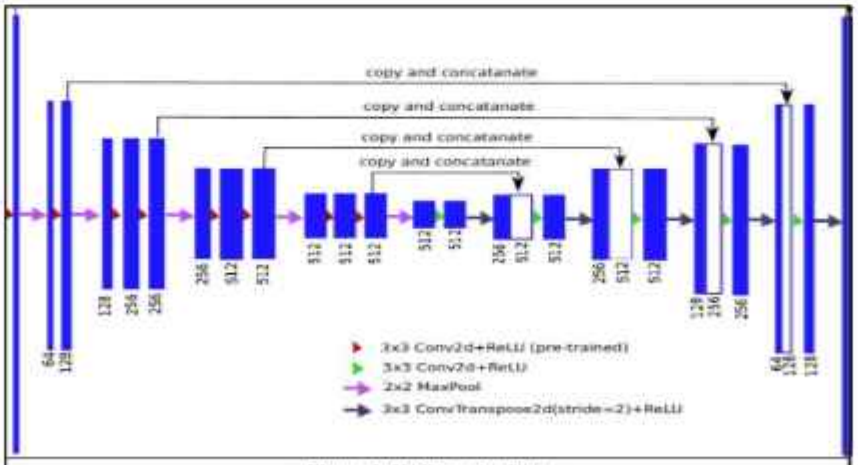

Figure 5. U-Net Architecture

A. RETINAL SEGMENTATION (U-NET)

The technique of automatically identifying blood vessel boundaries within the retina is known as segmentation. This enables the classifier to pick up crucial characteristics like retinal growth and retinal detachment. These characteristics considerably increase accuracy and are crucial in the characterization of diabetic retinopathy.

Using a neural network, we segmented the retina by predicting whether or not each pixel in the provided fundus image is a vessel by carrying out a binary classification job. Utilising the U-Net architecture, as seen in figure 3 [14], this can be accomplished.

The U-Net is a convolutional neural network with an architecture that includes both a forward-moving and backward-moving path. The advancing path allows for exact localisation, whereas the advancing path is employed to capture context and symmetry. The fastest way to segment the retina is with this technique. The DRIVE database is used to train the U-Net.

Figure 6. Retinal Segmentation

Figure 7. Region Merging

Figure 6 displays the end outcome of retinal segmentation. To recover the information lost during retinal segmentation, the output of U-Net is then subjected to region merging with its input picture, as illustrated in figure 7.

B. IMAGE CLASSIFIER (CNN)

In order to categorise images into one of five phases of diabetic retinopathy based on severity, retinal segmentation with region merging is utilised to learn features from the images. In Table 1, the Image classifier's design is described.

The input picture for the classifier was 480x480 (Green Channel), acquired after region mergining the segmented image and its matching images were transformed into a numpy array. 20% of the images are used for validation, while the remaining images are used for training the image classifier.

The net has 22 weighted layers, as shown in the table, of which 13 are convolutional, 5 are max pooling, and the final two are fully connected. A probability is provided for each label by the 5-way softmax layer, which is coupled to the output of the final fully connected layer.

We also employed three successive convolution layers, a ReLu layer, a Max pooling layer, and three successive ReLu layers to improve accuracy.

Table 1. Image Classifier Architecture

	Layer	Unite	Filter	Stride	Size
1	Input				480
2	Conv	32	5	2	240
3	Conv	32	3	2	240
4	Max Pool		3	2	120
5	Conv	64	5	2	120
6	Conv	64	3	2	120
7	Conv	64	3	2	120
8	Max Pool		3	2	60
9	Conv	128	5	2	60
10	Conv	128	3	2	60
11	Conv	128	3	2	60
12	Max Pool		5	2	30
13	Conv	256	3	2	30
14	Conv	256	3	2	30
15	Conv	256	3	2	30
16	Max Pool		5	2	15
17	Conv	512	3	2	15
18	Conv	512	3	2	15
19	Max Pool		5	2	7
20	Fully	1024			1
21	Fully	5			

I. IMPLEMENTATION AND RESULT

The open source Python library OpenCV has been used for all the preprocessing, including black box removal, channel selection, image enhancement, etc. The deep learning Python open source library TfLearn was used to create and train the multi-layer deep convolutional neural networks that were employed for retinal segmentation and classification. In figures 8 and 9, respectively, the accuracy and loss during training are depicted as graphs.

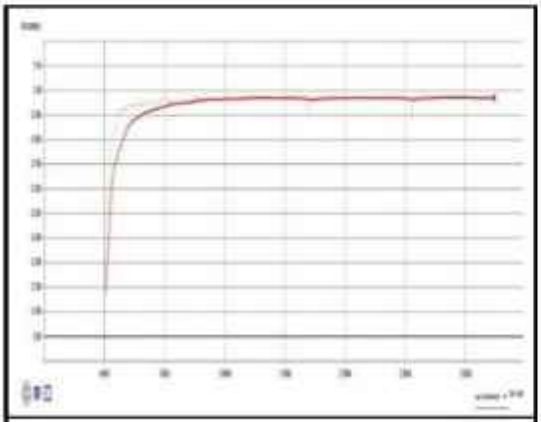

Figure 8. Accuracy of Image Classifier

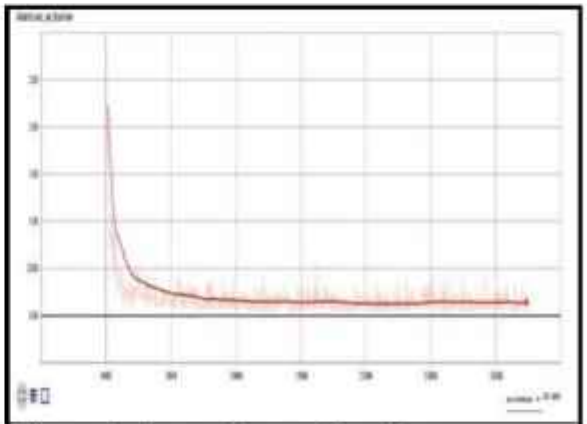

Figure 9. Loss of Image Classifier

	Stages of DR	Actual No. of Images	Result with Segmentation	Result without Segmentation
1	No DR	25112	23333	23357
2	Mild NPR	1745	1629	1470
3	Moderate NPR	4594	4288	2861
4	Severe NPR	175	163	79
5	PDR	10	8	6

Table 2. Result 1

We evaluated our network using 31,636 images from the diabetic retinopathy dataset that were removed during preprocessing, and we contrasted the results with those obtained without segmentation. The classifier's output is summarised in Table 2.

In Table 3, a comparison between the suggested method and an earlier approach using a deep convolution network with no retinal segmentation is provided.

These findings demonstrate that the classification of diabetic retinopathy is greatly improved by retinal segmentation with region merging.

Table 3. Comparison between proposed method and earlier method

	Stages of DR	Acc. of earlier methods (without segmentation)	Acc. of proposed method
1	No DR	0.9302	0.9292
2	Mild NPR	0.8429	0.9111
3	Moderate NPR	0.6229	0.9359
4	Severe NPR	0.4509	0.9365
5	PDR	0.6251	0.876

II. CONCLUSION AND FUTURE SCOPE

Worldwide, diabetes affects millions of people and is a major contributor to diabetic retinopathy. It is one of the primary causes of blindness, and with the right care, its effects can be lessened. Therefore, it is essential to develop a method that can identify diabetic retinopathy without the aid of a specialist.

Retinal segmentation combined with region merging during preprocessing offers a significant improvement over the current model. Without explicitly identifying the features needed for classification, the suggested model yields results comparable to any supervised algorithm.

We are currently developing a GUI (Graphical User Interface) using Tkinter based on the same method. This GUI can be distributed & utilised to quickly and easily identify diabetic retinopathy if specialised Fundus Cameras are made available at specific Eyeclinics.

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Mathematical Modelling in the Analysis of Viral Diseases and Communicable Diseases ⊗

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Abstract

The differential equation is the most powerful platform in mathematics and is useful in engineering and science disciplines. The use of different calculus can significantly predict the world around us. Differential equations are used in various fields, such as biology, economics, physics, chemistry, and engineering. They can describe rapid growth and decay, population growth of organisms, or changes in investment returns over time. Among these models, delay models are well known for virology analysis and predicting disease transmission, which controls infection. To define four population spatial evolution: easily unaffected, untreated infections, treated infections, recovered, and to develop a strategy of factors affecting the human body delay differential equation (DDE) is used. In this paper, we review some mathematical modeling that interprets viral discrimination with the influenza virus. Examples are used to predict some solution measures to underline and apply DDE to model infectious diseases. This study provides a wide range of factors that play a role in mathematical models of epidemiology and public health policy. This study is helpful for those who are interested and help the fieldworkers to learn about it. We discuss delay models using differential equations to measure the spread of viral diseases. The disease control predictions discussed may be helpful for more projection.

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References

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PROPERTIES OF BELL TRIANGLE AND BELL NUMBERS

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Editors: Dr. R. Sivaraman, Founder, Pie Mathematics Association, Chennai, Tamilnadu & Dr. R. Kavitha, Department of Mathematics, Chevalier T. Thomas Elizabeth College for Women, Chennai, Tamilnadu

Abstract:

It is well known that for a given finite set, an equivalence relation induces a partition of the set. This paper addresses the question of counting the number of equivalence relations that can be defined on a given finite set. Interestingly enough the answer lies in special class of numbers called "Bell Numbers". In this paper, we witness this amusing connection obtained through another special class of numbers called Stirling's numbers of second kind. Some of the basic properties of Stirling's numbers and Bell numbers were proved.

Key Words: Partitions, Equivalence Relations, Stirling's Numbers of Second Kind, Recurrence Relation, Bell Numbers, Exponential Generating Function

1. Introduction:

In the study of branch of mathematics called "Discrete Mathematics", we often consider the idea of equivalence relations defined on a given set. In this paper, we try to enumerate the number of such equivalence relations defined on a finite set. Using the interesting class of numbers like Stirling's numbers of second kind, we can obtain the famous Bell numbers. While doing this, we prove that the total number of equivalence relations that can be defined on a given finite set is precisely the Bell numbers. The Stirling numbers of both kinds are named after Scottish mathematician James Stirling and Bell numbers are named after another Scottish mathematician Eric Temple Bell, who is the author of the most celebrated book "Men of Mathematics".

2. Definitions:

We will begin our paper with the following definitions.

2.1 Partition of a Set:

A Partition of a set S is a collection of non-empty subsets of S of the form A_i, $i = 1, 2, 3, \ldots, m$ such that $\bigcup_{i=1}^{m} A_i = S$ and $A_i \cap A_j = \phi$ whenever $i \neq j$. Thus, the partition of a set splits the given set in to disjoint subsets whose union is the given set S. The sets A_i are called parts of the partition or components of the partition.

For example, $\{\{1\},\{2,3\}\}$ is a partition of the set of the set $S = \{1,2,3\}$. Similarly, the set of odd integers and even integers form a partition of set of all integers.

2.2 Equivalence Relation:

A relation defined between two sets is called as Equivalence Relation if it is Reflexive, Symmetric and Transitive. For example, the relation R defined on the set $S = \{1,2,3,4,5,6,7\}$ by xRy if and only if $x - y$ is divisible by 3, being reflexive, symmetric and transitive is an equivalence relation on S. We notice that this equivalence relation will give rise to the partition $\{\{1,4,7\},\{2,5\},\{3,6\}\}$ of the set S. In view of Definition 2.1, we see that the parts of the partition are given by the sets $A_1 = \{1,4,7\}, A_2 = \{2,5\}, A_3 = \{3,6\}$. It is clear that A_1, A_2, A_3 are disjoint subsets of S whose union is the whole set S.

2.3 Stirling's Numbers of Second Kind:

Let S be a set with n elements. We define the Stirling's numbers of second kind denoted by $S(n,k)$ or $\left\{ {n \atop k} \right\}$ as the number of partitions of S containing exactly k parts. That is the Stirling's numbers of second kind represent the number of partitions of a set with n elements using k non-empty disjoint subsets.

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TRIANGULAR, SQUARE AND OBLONG NUMBERS

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Abstract:

Among different families of numbers, Triangular numbers, Oblong numbers and Square numbers possess several interesting mathematical properties. In this paper, we will provide methods for determining numbers, which are both Triangular and Oblong. Similarly, we will try to determine numbers, which are both Square and Oblong.

Key Words: Triangular Numbers, Oblong Numbers, Square Numbers, Convergents

1. Introduction:

Several mathematicians spanning more than two millennia have studied the Triangular, Oblong and Square numbers. These numbers form special types of more general numbers called Figurate Numbers. The ancient Greek mathematician and philosopher Pythagoras was one of the first to explore the mathematical properties of such numbers. Since then, these numbers has fascinated mathematicians of all centuries to this day. In this paper, using a elegant method, we will try to determine numbers, which are both Triangular and Oblong as well as numbers, which are both Square and Oblong.

2. Definitions:

2.1 Triangular Numbers:

The sum of first n natural numbers is defined as n^{th} Triangular number denoted by T_n. Except the first triangular number, all other triangular numbers form triangular dot pattern in the plane, giving their name. According to our definition, we notice that

$$T_n = 1 + 2 + 3 + \cdots + (n-1) + n = \frac{n(n+1)}{2} \quad (1)$$

2.2 Oblong Numbers:

The product of two consecutive natural numbers is defined as Oblong number denoted by O_n. Except the first oblong number, all other oblong numbers form rectangular dot pattern such that breadth is one more than its length or vice versa. According to our definition, we notice that

$$O_n = n(n+1) \quad (2)$$

2.3 Square Numbers:

A Square number is an integer, which is the product of an integer with itself. Thus if n is a positive integer, then the n^{th} square number is given by $S_n = n \times n = n^2$ (3)

3.1 Theorem 1:

There are infinitely many Triangular - Oblong numbers

Proof:

We will first consider n^{th} Triangular number and m^{th} Oblong number. Then according to (1) and (2), we get $T_n = O_m$. That is, $\frac{n(n+1)}{2} = m(m+1)$ (4)

$$n^2 + n - 2m^2 - 2m = 0$$

$$n = \frac{-1 \pm \sqrt{1 - 4(1)\left(-2m(m+1)\right)}}{2}$$

$$(2n+1)^2 = 1 + 8m(m+1) = 1 + 2(2m+1)^2 - 2$$

$$(2n+1)^2 - 2(2m+1)^2 = -1 \quad (5)$$

If we now consider $x = 2n+1$ and $y = 2m+1$ then (5) can be written as

$$x^2 - 2y^2 = -1 \quad (6)$$

The continued fraction for $\sqrt{2}$ is given by $\sqrt{2} = [1; \dot{2}]$ (7)

The successive convergents obtained from continued fraction of $\sqrt{2}$ given by (7) are

$$\frac{1}{1}, \frac{3}{2}, \frac{7}{5}, \frac{17}{12}, \frac{41}{29}, \frac{99}{70}, \frac{239}{169}, \frac{577}{408}, \frac{1393}{985}, \frac{3363}{2378}, \frac{8119}{5741}, \frac{19601}{13860}, \frac{47321}{33461}, \frac{114243}{80782}, \cdots \quad (8)$$

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ON SUM OF TWO SQUARES IN ONE OR TWO WAYS

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Editors: Dr. R. Sivaraman, Founder, Pie Mathematics Association, Chennai, Tamilnadu & Dr. R. Kavitha, Department of Mathematics, Chevalier T. Thomas Elizabeth College for Women, Chennai, Tamilnadu

Abstract:

The question of expressing a natural number as sum of two squares in one or two different ways has been of significant importance in mathematics. This question has affirmatively been answered by several prominent mathematicians like Euler, Lagrange, Gauss, Dedekind and many more. In this paper, we will provide nice and elementary techniques by which we can determine the numbers which are expressible as sum of two squares in one or two different ways using the concept of factorization of a number.

Key Words: Sum of Two Squares, Factorization, Greatest Common Divisor, Primes

1. Introduction:

The idea of writing a given natural number as sum of two squares has been conceived for more than two millennia. During the time when Pythagoras was researching with his associates called Pythagoreans, they found few square numbers which can be written as sum of two squares. For example, $3^2 + 4^2 = 5^2$, $5^2 + 12^2 = 13^2$, $8^2 + 15^2 = 17^2$, . . . Geometrically such three numbers forms side lengths of a particular right triangle and they are called Pythagorean Triples. In general, Pythagorean Triple consists of three natural numbers a, b, c such that $a^2 + b^2 = c^2$. Considering $0^2 = 0$ as a square number, we notice that $c^2 = c^2 + 0^2$. Thus, it follows that all square numbers can be written as sum of two squares in one way, in which one of the square is 0. But there are some non - square natural numbers, which can be written as sum of two squares. For example, 10 is one of such a number, since $10 = 1^2 + 3^2$. We know that a natural number n is expressible as sum of two squares, if and only if the prime factorization of n contains even powers of primes of the form $4k + 3$. This is both necessary and sufficient condition for expressing a given natural number as sum of two squares. In view of this theorem, it follows that 0, 1, 2, 4, 5, 8, 9, 10, 13, 16, 17, 18, 20, 25, 26, 29, 32, ... are the numbers which can be expressible as sum of two squares.

During 17th Century CE, Albert Girard and Fermat mentioned that any prime of the form $4k + 1$ is expressible as sum of two squares in a unique way, which is now called as Fermat's Christmas Theorem. In this paper, we shall provide some elementary techniques, by which we can express a given natural number as sum of two squares in exactly one way or in two different ways.

2. Theorem 1:

If a, b, c, d are four numbers then

$$(ac - bd)^2 + (ad + bc)^2 = (a^2 + b^2) \times (c^2 + d^2) \quad (1)$$
$$(ad - bc)^2 + (ac + bd)^2 = (a^2 + b^2) \times (c^2 + d^2) \quad (2)$$

Proof:

$(ac - bd)^2 + (ad + bc)^2 = a^2c^2 + b^2d^2 + a^2d^2 + b^2c^2 = (a^2 + b^2) \times (c^2 + d^2)$ proving (1). (2) can be proved similarly.

These two basic identities are called Diophantus Identities or Brahmagupta - Fibonacci Identities.

3. Theorem 2:

If N is a natural number and if $N = (p^2 + q^2) \times (r^2 + s^2)$ then there exists four numbers a, b, c, d such that $N = a^2 + b^2 = c^2 + d^2$ (3)

Proof:

If $N = (p^2 + q^2) \times (r^2 + s^2)$ then we choose $a = pr - qs$, $b = ps + qr$, $c = pr + qs$, $d = ps - qr$ so that $a^2 + b^2 = (pr - qs)^2 + (ps + qr)^2 = (p^2 + q^2) \times (r^2 + s^2) = N$ and $c^2 + d^2 = (pr + qs)^2 + (ps - qr)^2 = (p^2 + q^2) \times (r^2 + s^2) = N$ proving (3). This completes the proof.

3.1 Corollary 1:

If either $p = 0$ or $q = 0$ in $N = (p^2 + q^2) \times (r^2 + s^2)$ then N can be written as sum of two squares in only one way.

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ON SOME PROPERTIES OF SUMMABILITY THEORY

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Abstract:

By considering certain special sequences, we have determined convergence or divergence in the Cesaro sense for series constructed using specific sequences. This is done for family of series which depends on a particular parameter k. Moreover, these techniques are viewed as generalized version of standard Cesaro Summability methods.

Key Words: Sequence, Series, Convergent, Cesaro - Like Summation

1. Introduction:

The concept of Cesaro summation has been prevailing several years as of now. This idea has paved way for developing new branch of mathematical analysis called "Summability Theory". Several new ideas have been developed by various great mathematicians in summability methods. In this paper, we consider general case of Cesaro summation methods and try to obtain some new results.

2. Definition:

Let $\{a_n\}$ be a sequence of real numbers. Let $S_n = a_1 + a_2 + \cdots + a_n$ (1)

We define $\alpha_{n,k} = \frac{S_1+S_2+\cdots+S_n}{n^k}$ (2) and $\beta_{m,k} = \frac{S_1^2+S_2^2+S_3^2+\cdots+S_m^2}{m^k}$ (3) where $k \geq 0$ is an integer and n, m are positive integers. Note that $\{\alpha_{n,k}\}$ is a sequence for each k. Similarly $\{\beta_{m,k}\}$ is a sequence for each k. We note that when $k = 1$, from (2), we get the conventional Cesaro Summability concept.

3. Theorem 1:

For the sequence 1,1,1,1,1, . . .

$$\text{(a) } \lim_{n\to\infty} \alpha_{n,k} = \begin{cases} \frac{1}{2} & \text{if } k = 2 \\ 0 & \text{if } k > 2 \\ \text{Does not exist} & \text{if } k < 2 \end{cases}$$

$$\text{(b) } \lim_{m\to\infty} \beta_{m,k} = \begin{cases} \frac{1}{3} & \text{if } k = 3 \\ 0 & \text{if } k > 3 \\ \text{Does not exist} & \text{if } k < 3 \end{cases}$$

Proof:

(a) From (2), $\alpha_{n,k} = \frac{S_1+S_2+\cdots+S_n}{n^k}$

From (1), $S_1 = a_1 = 1$, $S_2 = a_1 + a_2 = 1 + 1 = 2$, ...

$S_n = 1 + 1 + \cdots + 1 (n \text{ times}) = n$

Hence, $\alpha_{n,k} = \frac{1+2+3+\cdots+n}{n^k} = \frac{n(n+1)}{2n^k} = \frac{n+1}{2n^{k-1}}$

$\alpha_{n,k} = \frac{n+1}{2n^{k-1}}$ (4)

When $k = 2$,

$\alpha_{n,2} = \frac{1}{2}\frac{(n+1)}{n} = \frac{1}{2} + \frac{1}{2n}$

Thus, $\lim_{n\to\infty} \alpha_{n,2} = \lim_{n\to\infty} \left(\frac{1}{2} + \frac{1}{2n}\right) = \frac{1}{2}$

When $k < 2$, $\frac{n+1}{n^{k-1}} \geq \frac{1}{n^{k-2}} = n^{\lambda}$, where $\lambda = 2 - k > 0$ and $n^{\lambda} \to \infty$ as $n \to \infty$

Hence from (4), $\lim_{n\to\infty} \alpha_{n,k}$ does not exist for $k < 2$.

When $k > 2$, $\lim_{n\to\infty} \left(\frac{1}{n^{k-2}}\right) = \lim_{n\to\infty} \left(\frac{1}{n^{k-1}}\right) = 0$

$\lim_{n\to\infty} \alpha_{n,k} = \frac{1}{2} \lim_{n\to\infty} \frac{(n+1)}{n^{k-1}} = \frac{1}{2} \lim_{n\to\infty} \left(\frac{1}{n^{k-2}} + \frac{1}{n^{k-1}}\right) = \frac{1}{2}(0 + 0) = 0$

Therefore, for all $k > 2$, $\lim_{n\to\infty} \alpha_{n,k} = 0$.

Hence (a) is proved.

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Rat Swarm Optimizer with Graph Convolutional Neural Network based Waste Object Detector and Classification

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***Abstract*—Object Detection (OD) is a task of Computer Vision (CV) that includes locating and detecting intended object inside a video or an image. The objective of this OD is not just categorizing the objects but also to sketch bounding boxes surrounding the objects for precise identification of their location in the given visual. Deep Learning (DL) based OD is a CV model which utilizes Deep Neural Networks (DNNs) for automatically locating and detecting inside any video segment or image. It is one among the major crucial progression in the CV field that enables broad applications comprising robotics, self-driving cars, surveillance systems, etc. In this study, a novel Rat Swarm Optimizer with Graph Convolutional Neural Network based Waste Object Detector and Classification (RSOGCNN-WODC) technique is presented. The focus of the RSOGCNN-WODC technique lies in object detection and classification using optimal DL models. To obtain this, the RSOGCNN-WODC technique comprises residual network (ResNet50) model for feature extraction process. Afterward, the RSO system can be exploited for the optimum parameter chosen by the ResNet50 model. At last, the GCNN model is utilized for the recognition of the identified objects proficiently. The performance of the RSOGCNN-WODC system was simulated on the OD database. The results signify the improved results of the RSOGCNN-WODC technique compared to recent DL approaches.**

Keywords*— *Computer vision; Deep learning; Image processing; Object detector; Waste objects; Deep Neural Networks (DNNs)

I. INTRODUCTION

Object Detection (OD) is a method from Computer Vision (CV) that is utilized for detecting objects in the form of videos or images. OD is the major outcome of Machine Learning (ML) and DL techniques [1]. The aim is to teach the computer for gaining a level of understanding of what can be included in an image. The detection of these objects is a crucial part of the waste classification system created [2]. CV is a subject area that facilitates computers to analyze and derive data from visual information [3]. OD and image classifying are the two most popular applications of CV. Forecasting the class of objects refers to image classifying process [4]. Face and pedestrian recognition are typical instances of OD. ML and DL approaches are subcategories of Artificial Intelligence (AI) that learn with no direct human interference learned from any input data or automatically without being explicitly programmed [5]. ML and DL methods have been extensively employed in image classification and OD.

Waste management has become a problem that concerns all countries and there is a requirement for developing new strategies to tackle the problem [6]. The process of managing solid waste begins with the waste gathering in refuse bins or containers that have been positioned at vantage positions in the open space [7]. Occasionally, the bin is overflowed, thereby making unhygienic environments that are harmful to economic activities and human health. Waste objects are classified into

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ON SOLVING A DIOPHANTINE EQUATION

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Editors: Dr. R. Sivaraman, Founder, Pie Mathematics Association, Chennai, Tamilnadu & Dr. R. Kavitha, Department of Mathematics, Chevalier T. Thomas Elizabeth College for Women, Chennai, Tamilnadu

Abstract:

Diophantine equations are special type of equations studied for more than two thousand years by several mathematicians. Right from ancient times, Diophantine equations are used to solve many real-life applications. In this paper, we solve a particular Diophantine equation whose solution is obtained in the form of Binet - Like formula. We have proved that the general solution satisfies the given Diophantine equation.

Key Words: Diophantine Equation, Characteristic Equation, Binet - Like Formula

1. Introduction:

A Diophantine equation is a equation whose solution must be in integers. The idea of obtaining solutions in integers was introduced by ancient Greek mathematician Diophantus. Hence such equations came to known as Diophantine equations. Diophantine equations play a significant role in number theory, algebra, cryptography and many other branches of mathematics. Binet's formula is a mathematical expression that allows us to express the solution of the given recurrence relation in a compact form. In this paper, by considering a particular Diophantine equation, we would be obtaining its solution by forming recurrence relation associated with the given equation and determining the general solution in the form of Binet - Like formula.

2. Theorem 1:

The general solution of the Diophantine equation $D_n = x_n^2 - 6x_n y_n - y_n^2 = (-1)^{n-1}$ (1) is given by $x_n = \frac{m_1^n - m_2^n}{m_1 - m_2}$ (2) and $y_n = \frac{m_1^{n-1} - m_2^{n-1}}{m_1 - m_2}$ (3) where $m_1 = 3 + \sqrt{10}$, $m_2 = 3 - \sqrt{10}$

Proof:

First, we note that for $n = 0$, $x_0 = 0$, $y_0 = 1$ is a solution of $D_0 = -1$

Similarly, for $n = 1$, $x_1 = 1$, $y_1 = 0$ is a solution of $D_1 = 1$

In order to solve D_n completely, we consider $x_n = m$ and $y_n = 1$

The characteristic equation corresponding to D_n is given by $m^2 - 6m - 1 = 0$ (4)

The two real roots of above quadratic equation are $m_1 = 3 + \sqrt{10}$, $m_2 = 3 - \sqrt{10}$ (5)

The general solution (x_n, y_n) of (1) is $x_n = \alpha_1 m_1^n + \alpha_2 m_2^n$, $y_n = \beta_1 m_1^n + \beta_2 m_2^n$

For $n = 0$, $x_0 = \alpha_1 + \alpha_2$ from which we obtain $\alpha_1 + \alpha_2 = 0$

For $n = 1$, $x_1 = \alpha_1 m_1 + \alpha_2 m_2$ from which we obtain $\alpha_1 (m_1 - m_2) = 1$

By (5), $m_1 - m_2 = 2\sqrt{10}$ and $m_1 m_2 = -1$

From this, we get $\alpha_1 = \frac{1}{2\sqrt{10}}$, $\alpha_2 = -\frac{1}{2\sqrt{10}}$

Therefore $x_n = \frac{1}{2\sqrt{10}}\left[(3 + \sqrt{10})^n - (3 - \sqrt{10})^n\right] = \frac{m_1^n - m_2^n}{m_1 - m_2}$

This proves (2).

For $n = 0$, $y_0 = \beta_1 + \beta_2$ from which we obtain $\beta_1 + \beta_2 = 1$

For $n = 1$, $y_1 = \beta_1 m_1 + \beta_2 m_2$ from which we obtain $\beta_1 m_1 + \beta_2 m_2 = 0$

Solving these two equations, we obtain

$$\beta_1 = \frac{-m_2}{m_1 - m_2} \text{ and } \beta_2 = \frac{m_1}{m_1 - m_2}$$

Therefore $y_n = \frac{-m_2}{m_1 - m_2} m_1^n + \frac{m_1}{m_1 - m_2} m_2^n = \frac{-m_1 m_2}{m_1 - m_2}(m_1^{n-1} - m_2^{n-1})$

Therefore, $y_n = \frac{1}{2\sqrt{10}}\left[(3 + \sqrt{10})^{n-1} - (3 - \sqrt{10})^{n-1}\right] = \frac{m_1^{n-1} - m_2^{n-1}}{m_1 - m_2}$

This proves (3).

Therefore the solution (x_n, y_n) of (1) is given by $x_n = \frac{m_1^n - m_2^n}{m_1 - m_2}$ and $y_n = \frac{m_1^{n-1} - m_2^{n-1}}{m_1 - m_2}$

This completes the proof.

We notice that the expressions for x_n and y_n in (2) and (3) are called as Binet - Like Formulas.

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CONTINUED FRACTION AND PYTHAGOREAN TRIPLES

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Abstract:

Using the concept of Pell's equation and Continued Fraction, in this paper we have obtained all Primitive Pythagorean Triples of a right triangle whose smaller sides differ by 7.

Key Words: Continued Fraction, Convergents, Right Triangles, Primitive Pythagorean Triples

1. Introduction:

In this paper, we will generate all Primitive Pythagorean Triples (PPTs) whose smaller sides differ by 7 using the concept of Pell's equation and Continued Fraction and also, we will prove that there are no Primitive Pythagorean Triples whose smaller sides differ by 2.

2. Definitions:

2.1 A finite continued fraction is an expression of the form

$$a_0 + \cfrac{1}{a_1 + \cfrac{1}{a_2 + \cfrac{1}{\ddots + \cfrac{1}{a_{n-1} + \cfrac{1}{a_n}}}}} \qquad (1)$$

Where $a_0, a_1, \ldots a_n$ are real numbers and $a_1, a_2, \ldots a_n$ are positive. The a_i are called the partial quotients of the continued fraction. If the partial quotients are all integers, then the continued fraction is said to be simple. We use the notation $[a_0; a_1, \ldots a_n]$ to represent the continued fraction given in equation (1). When $n = 0$ we write $[a_0]$

2.2 For $1 \leq k \leq n$, the k^{th} convergent C_K of a continued fraction $[a_0; a_1, a_2, \ldots, a_n]$ is the continued fraction

$$C_k = [a_0; a_1, a_2, \ldots, a_k]$$

We extend this definition to include $k = 0$ and so we set $C_0 = a_0$.

2.3 A Pythagorean Triple consists of three positive integers a, b and c, such that $a^2 + b^2 = c^2$

Primitive Pythagorean Triple (PPT) is a Pythagorean Triple (a, b, c) such that $\text{GCD}(a, b, c) = 1$, where GCD is the greatest common divisor.

2.4 A Pell's equation is a quadratic Diophantine equation of the form $x^2 - dy^2 = 1$ where $x, y \in Z$ and d is a given natural number which is not a square.

2.5 Theorem 1:

Consider the quadratic Diophantine equation $ax^2 - by^2 = c$ (2)

Let (x_0, y_0) be a solution of equation (2). Consider $D = ab$ and $u^2 - Dv^2 = 1$ (3)

Then $x = x_0u + b\beta v$, $y = \beta u + av$ (4) and $x = |-x_0u + b\beta v|$, $y = |\beta u - av|$ (5), where (u, v) are solutions of equation (3) and $\alpha = ax_0, \beta = y_0$ (6) are the solutions of equation (2)

Proof:

From hypothesis, we have $ax_0^2 - by_0^2 = c$. Using (3), (4) and (6), we have

$$ax^2 - by^2 = a(x_0u + by_0v)^2 - b(y_0u + ax_0v)^2 = u^2(ax_0^2 - by_0^2) - abv^2(ax_0^2 - by_0^2)$$
$$= (u^2 - abv^2)(ax_0^2 - by_0^2) = 1 \times c = c$$

Hence the values of x and y from (4) forms solution to (2). Now using (5), we have

$$ax^2 - by^2 = a(-x_0u + by_0v)^2 - b(y_0u - ax_0v)^2 = u^2(ax_0^2 - by_0^2) - abv^2(ax_0^2 - by_0^2)$$
$$= (u^2 - abv^2)(ax_0^2 - by_0^2) = 1 \times c = c$$

Thus, the values of x and y from (5) forms solution to (2).

Also, we notice that if (x_0, y_0) is one of the solutions to (2), then we can generate infinitely many solutions of (2), using (4) and (5).

This completes the proof.

In the following sections we prove some interesting and important results.

BLOCK CHAIN AND CYBER SECURITY

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BLOCK CHAIN AND CYBER SECURITY

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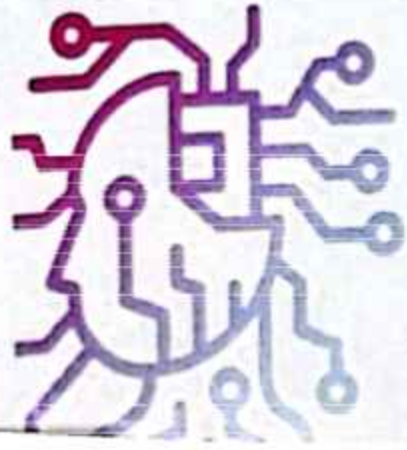
MACHINE LEARNING: TECHNIQUES AND ALGORITHMS



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MACHINE LEARNING TECHNIQUES AND ALGORITHMS

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் ♦ முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்:** 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு** தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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உதவிப் பேராசிரியர்
தமிழ்த்துறை (சுழற்சி – 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

முன்னுரை

கம்பரையும் திருவள்ளுவரையும் தமிழுக்குக் கதி என்று சொல்லுவார் திருமணம் செல்வக்கேசவராய முதலியார்.

'யாமறிந்த புலவரிலே கம்பனைப் போல்
வள்ளுவன் போல் இளங்கோவைப் போல்
பூமிதனில் யாங்கனுமே பிறந்ததில்லை
உண்மை வெறும் புகழ்ச்சியில்லை'

என்று முண்டாசுக் கவிஞரும் சத்தியம் செய்வார். இவ்வாறு தமிழ் இலக்கியங்களிலேயே தனிப்பெரும் புகழ் பெற்ற இலக்கியமாகக் கம்பராமாயணம் உள்ளது. எனவேதான் 'கம்பன் வீட்டுக் கட்டுத்தறியும் கவி பாடும்', 'கல்வியிற் பெரியர் கம்பர்' போன்ற வழக்காறுகள் பாமர மக்களிடையே கூட இயல்பாக வழங்கி வருகின்றன. இவ்வளவு சிறப்புப் பொருந்திய கம்பராமாயணத்தைச் சுவைத்துக் கொண்டிருக்கும் போதுதான் 'இலக்குவனை மிஞ்சியவனா பரதன்?' என்னும் ஐயம் என்னுள் தோன்றியது.

இலக்குவன் - பரதன்

நம் நாட்டில் இரட்டையர்களாக இரண்டு ஆண் குழந்தைகள் பிறந்தால் இராமன், இலக்குவன் என்றுதான்

ஜெய் ஸ்ரீ கிருஷ்ணா

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி)

அரும்பாக்கம், சென்னை - 600 106.

தேசியத் தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல்வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

தமிழ்த்துறை

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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பாராட்டுச் சான்றிதழ்

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை சார்பில் 11.10.2023 & 12.10.2023 ஆகிய இரண்டு நாட்கள் இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் என்னும் பொருண்மையில் நடத்தப் பெற்ற பன்னாட்டுக் கருத்தரங்கில் முனைவர் க. சிவகுமார், உதவிப்பேராசிரியர் அவர்கள் பங்கேற்று .....இலக்குவனை விஞ்சியவனா பரதன்?..... என்னும் தலைப்பில் கட்டுரை வழங்கிச் சிறப்பித்தமையைப் பாராட்டி இச்சான்றிதழ் வழங்கப்படுகிறது.

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தமிழ்நாட்டின் சமணக் கோவில்களின் தலைமைப் பீடமாக விளங்குவது மேல் சித்தாமூர் ஜினகஞ்சி சமணக்கோவிலும் மடமும் ஆகும். பழைமையான இரண்டு கோவில்கள் உள்ளன. ஒன்று மலைநாதர் கோவில், மற்றொன்று பார்சுவநாதர் கோவில். மலைநாதர் கோவில் கி.பி. 9ஆம் நூற்றாண்டுடையது என அங்குள்ள கல்வெட்டு சான்று பகர்கின்றது. சோழப்பேரரசின் ஆட்சியின் போது பார்சுவநாதர் கோவில் தோற்றுவிக்கப்பட்டும் 16ஆம் நூற்றாண்டில் பெரிய அளவில் கட்டப்பட்டது என்றும் கூறப்படுகின்றது.

சமணர்களின் சிற்பக் கலைகளின் நோக்கத்தையும் கலைநயத்தையும் அவைக் கூறும் வரலாற்றையும் ஆராய்தலை மையமாக வைக்கிறது இவ்வாய்வுக்கட்டுரை.

மேல்சித்தாமூர் பார்சுவநாதர் கோவிலின் தூண்களின் சிற்பங்கள் ஆய்வுக்கு எடுத்துக் கொள்ளப்பட்டுள்ளன.

பலநூற்றாண்டு காலத் தொன்மைக்குச் சொந்தமானது தமிழகச் சமணம். தமிழ்ச் சமணத்திற்கானத் தனித்துவமான சான்றுகளைக் குகைகளிலும் குன்றுகளிலும் கல்வெட்டிலும் மட்டுமே தேடுவது மரபாக இருந்து வருகின்றது. கால மாற்றத்திலும் வளர்ச்சியிலும் இவைகள் கற்கோயில்களாக உயர்ந்து நிற்கத் தொடங்கின. பாண்டியர்கள், அதியர்களால் சமைக்கத் தொடங்கிய இந்தக் கோவில் வடிவங்கள் பின் வந்த சோழர்களால் உச்சம் பெற்றது. விஜயநகரப் பேரரசும் நாயக்கர்களும் தமிழர்களின் பழைய மரபிற்குப் புதிய கோணத்தை வழங்கினர்.மராட்டியர்களும் அவர்களின் பங்கிற்கு அவர்கள் பாணியில் ஆக்கமும் வளர்ச்சியையும் தந்தனர்."பொதுவாகக் கி.பி. ஒன்பதாம் நூற்றாண்டு முதலாகக் கோவிற் கட்டிடங்கள் உருவாயிற்று என்று தொல்லியல் வல்லுநர்கள் கூறுவர்" (வெள்ளையாம்பட்டுச் சுந்தரம்)

கட்டிடங்களில் தூண்களுக்கும் சிற்பங்களுக்கும் முதன்மை இடம் வழங்கப்பட்டு வந்தது. அந்த வகையில் மேல்சித்தாமூர் பார்சுவ நாதர் கோயிலில் இடம்பெற்றுள்ள தூண்களும் அதில் செதுக்கப்பட்டுள்ள புடைப்புச் சிற்பங்களும் நீண்ட வரலாற்று ஆய்வுக்குரியது.

கோயிலில் தேரின் வடிவத்தினை ஒத்த கல்லாலான மண்டபம் ஒன்று உள்ளது. அடித்தளத்துடன் மாடம் போன்ற கல்லில் மீது மண்டபம் கட்டப்பட்டுள்ளது. நான்குக் கூட்டுத் தூண்களின் மீது தேர் மண்டபத்தில் கூரை அமைக்கப்பட்டுள்ளது. ஒரு தூணில் உள்ள ஒவ்வொருஇணைத் தூண்களும் உட்தூண்களைக் கொண்டன.

மண்டபத்தின் முன் பகுதியுடன் இணைந்த இரு யானைகளின் சிற்பங்கள் உள்ளன. இவை தேர் போன்ற அமைப்புடன் மண்டபத்தினை இழுத்துச் செல்வது போன்று தோன்றுகின்றது. துதிக்கைகளைத் தொங்கவிட்டபடி நிற்கும் யானைகள் அலங்கார வேலைப்பாடுகளுடன் செய்யப்பெற்றுள்ளன. ●

135. செய்யாறு வட்டார விடுகதைகளில் கிராமப்புற வாழ்வியல்

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தமிழ்நாட்டில் திருவண்ணாமலை மாவட்டத்தில் அமைந்துள்ள செய்யாறு நகராட்சியில் ஐம்பத்து மூன்று கிராமப்புற ஊராட்சிகள் அமைந்துள்ளன. பக்தி இயக்கக் காலத்தில் திருஞானசம்பந்தரின் பாடல் பெற்ற திருவோத்தூர் திருத்தலம் அமையபெற்ற பழம்பெரும் சிறப்புக்குரிய ஊராகச் செய்யாறு அமைந்துள்ளது. இத்தகைய செய்யாறு அருகேயுள்ள நாட்டுப்புறங்களில் வழக்கத்தில் இருந்து தற்போது அழிந்துவரும் விடு கதைகளைத் தொகுத்துப் பதிவு செய்தும் அவற்றின் வாயிலாக நவீன காலத்திற்கு முந்தைய கிராமப் புறங்களின் வாழ்வியலை ஆய்வு செய்து அவற்றை விளக்குவதுமாக இக்கட்டுரை அமையப்பெறும்.

செய்யாறு வட்டார விடுகதைகளின் வாயிலாக 200 ஆண்டுகளுக்கு முந்தைய கிராமப்புற வாழ்வியலை முன்வைத்து அக்காலம் இனியதான வாழ்விணைக் கொண்டதாக இருந்துள்ளமையை அறிந்துகொள்ளக்கூடும். மேலும் அன்றையகால பொழுதுபோக்குக்கும் அறிவுநுட்பத்திற்கும் விடுகதைகள் பங்காற்றியிருக்கக் கூடும்.

நாட்டுப்புற விடுகதையை உளவியல் வாயிலாகவும் விளக்கமாக எடுத்துரைக்க உளவியல் மற்றும் விளக்கமுறை வாயிலாக ஆய்வு மேற்கொள்ளப் பெறும்.

செய்யாறு வட்டாரத்தைத் சார்ந்த சில முதியவர்களின் வாய்மொழியாகச் சொல்லப் பட்ட விடுகதைகளே ஆய்விற்குரிய மூலங்களாகும்.

முன்னுரை, நிறைவுரை நீங்கலாகச் செய்யாறு வட்டாரக் கிராமப்புறங்கள், கிராமப் புற விடுகதைகள், இளைஞர் வட்டாரம், காதல் சந்திப்பு, குடும்ப வாழ்வியல், நம்பிக்கைகள், வழிபாடுகள், விடுகதை உளவியல் போன்றவற்றை உட்தலைப்புகளாக அமைக்கப் பெற்றிருக்கும்.

கிராமப்புறத்தில் 15 வயது இளைஞர்கள் கூடி மாலை நேரத்தில் பொழுது போக்கிற் காகவும் விளையாட்டிற்காகவும் விடுகதைகளை வினாவாகத் தொடுப்பர். இதற்கு விளக்கத்தினை எதிரணி விடை பகர வேண்டும். விடை பகரவில்லை எனில் விடுகதை தொடுத்தவர் வெற்றி பெற்றவராவார். எடுத்துக்காட்டாக,

கண்டதொரு காயிலாங்குட்டி
கடித்ததோ கம்மங்கட்டு
அவரைக் கொடி என் விரலைக் கடி. (விடுகதை -1)

என்ற விடுகதைக் குறிப்பிற்கு விளக்கமளிக்க வேண்டும். இதற்குப் பின்வருமாறு கதை கூறப்படுகிறது. 12 வயதுடைய சிறுமி ஒருத்தி வயலில் பசுவிற்கு புல் அறுத்துக் கொண்டு இருக்க அறுவா அவளின் விரலில் கீறல் ஏற்படுத்தி விடுகிறது. அவள் விரலில் ஏற்பட அங்கு நஞ்சற்ற பாம்பான காயிலாங்குட்டி கண்டு வைத்தியர் வீட்டுக்குச் செல்கிறாள். இதனை அறிந்த அவர், கண்டது பாம்பு, கடித்ததோ அருவா, அதற்கு வைத்தியம் அவரைக் கொடி எனச் சொல்லி என் விரலைக் கடி என நகைச்சுவையாகக் கூறுவோர்.

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல் வளத் தனித் தகுதி பெற்றது - மொழியாசிரியர் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்பு பெற்றது

அரும்பாக்கம், சென்னை - 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்:** 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு:** தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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முனைவர் து. அருண்பாண்டியன்
உதவிப்பேராசிரியர்
தமிழ்த்துறை, (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

அறிமுகம்

இந்தியாவில் தோன்றிய இதிகாசங்கள் என்றால் இராமாயணமும் மகாபாரதமும் ஆகும். இத்தகைய இதிகாசங்கள் நேரடியாக அறக்கருத்துக்களைக் கூறாமல் கதைகளின் மூலமாக எடுத்தியம்புகின்றன. இத்தகைய பழங்கதைகளை தொன்மம் என்று அடையாளப்படுத்துவர். இதிகாசத்தை அடுத்து பதினென் புராணங்களும் இந்தியாவில் காணக்கிடைக்கின்றன. இத்தகைய தொன்மத்தில் உளவியல் நுட்பங்கள் நிறைந்து கிடக்கின்றது. இத்தகைய இதிகாசங்களை வாசிப்பதின் வாயிலாக மனிதர்களிடையே இயல்பாகவே வாழ்வியல் சிக்கல்களுக்கு தீர்வுகாணும் அறிவு தூண்டப் படுகிறது என்பதே உளவியல் ஆகும். அத்தகைய உளவியல் நுட்பங்களை எடுத்தியம்புவதே இவ்வாய்வின் நோக்கமாகும்.

இராமாயணம்

பாரத திருநாட்டின் இதிகாசங்களுள் ஒன்று இராமாயணம். அத்தகைய இராமாயணம் வால்மீகியால் வடமொழியில் எழுதப்பட்டது. வால்மீகிக்கு முன்பும்

ஜெய் ஸ்ரீ கிருஷ்ணா

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி)

அரும்பாக்கம், சென்னை - 600 106.

தேசியத் தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல்வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

தமிழ்த்துறை

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

பன்னாட்டுக் கருத்தரங்கம்

பாராட்டுச் சான்றிதழ்

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை சார்பில் **11.10.2023** & **12.10.2023** ஆகிய இரண்டு நாட்கள் இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் என்னும் பொருண்மையில் நடத்தப் பெற்ற பன்னாட்டுக் கருத்தரங்கில் முனைவர் து. அருண்பாண்டியன், உதவிப்பேராசிரியர் அவர்கள் பங்கேற்று ..... இதிகாசங்கள் காட்டும் உளவியல் நுட்பங்கள் ..... என்னும் தலைப்பில் கட்டுரை வழங்கிச் சிறப்பித்தமையைப் பாராட்டி இச்சான்றிதழ் வழங்கப்படுகிறது.

முனைவர் **ப. முருகன்**
தமிழ்த்துறைத் தலைவர்

முனைவர் **சேது. சந்தோஷ் பாபு**
கல்லூரி முதல்வர்

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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24. கம்பன் காட்டும் உவமையும் வாழ்க்கையும்:
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கம்பனின் காட்சிப் படிமம் : சுக்ரீவனின் இரலை மலையிலிருந்து வாலியின் கிட்கிந்தை மலை நோக்கி

முனைவர் கு. கலைவாணன்
உதவிப் பேராசிரியர்
தமிழ்த்துறை (சுழற்சி –2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

"காப்பியத்தைக் கற்கும் நாம் அதனை எப்படிக் கற்க வேண்டும்? ஒரு சொல்லுக்கு ஒரு சொல், ஓரடிக்கு ஓரடி, ஒரு செய்யுளுக்கு ஒரு செய்யுள், ஒரு படலத்துக்கு ஒரு படலம், ஒரு காண்டத்துக்கு ஒரு காண்டம் விடாத தொடர்பு உடையது. கருத்துப் பின்னிக் கிடப்பது. புலமை பிரிக்க வராதது என்ற ஒருமைப்பார்வையோடு கற்க வேண்டும். இது காப்பியக் கல்வி முறை" (கம்பர், மூதறிஞர் வ.சுப. மா., 2001, ப. - 46)

என்ற மேற்கோளைப் பின்னணியாகக் கொண்டு, 'கம்பன் வீட்டுக் கட்டுத்தறியும் கவிபாடும்' என்ற கவித்துவ வரிகளைக் கொண்டு கம்பனின் கவித்திறத்தில் உணர்ந்த பகுதிகளைப் பற்றி எழுத வேண்டும் என்ற எண்ணத்திற்கு, இராமாயண மகாபாரத பன்னாட்டுக் கருத்தரங்கம் நல்வாய்ப்பினை ஏற்படுத்திக் கொடுத்துள்ளது. கம்பராமாயணத்தில் சமீபகாலத்தில் அதிகமான பாடல்களைப் படித்த பகுதியென்றால் வாலி வதைப் படலம் ஆகும். கிட்கிந்தைகாண்டத்தில் பதினேழு

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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கம்பராமாயணத்தில் ஊழ்வினையின் சூழ்ச்சியும் அறத்தின் மாட்சியும்

முனைவர் மு. சண்முகம்
உதவிப் பேராசிரியர், தமிழ்த்துறை (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

கவிச்சக்கரவர்த்தியின் கற்பனைத் திறத்தை வெளிப்படுத்தும் சிறந்த காவியமாக கம்பராமாயணம் விளங்குகிறது. கம்பர் தனது காவியத்தில் பல வகையான வாழ்வியல் செய்திகளை உவமைகள், இயற்கை வருணனைகள் மூலம் காட்சிப்படுத்தித் தனது கவிப் புனைதலைத் தமிழிலக்கியத்தில் வெளிப்படுத்தி யுள்ளார். மனித வாழ்விற்கான அனைத்துச் செய்திகளையும் தன்னகத்தே கொண்டுள்ள வள்ளுவனின் திருக்குறளைப் போன்றே கம்பனின் காவியமும் அறத்தின் வலிமையினை எடுத்துக் கூறுவதில் சிறந்து விளங்குவதால் தான் என்னவோ சான்றோர்கள் தமிழுக்குக் கதியாகக் கம்பராமாயணத்தையும் திருக்குறளையும் குறிப்பிடுகின்றனர்.

நாட்டின் வளர்ச்சிக்கு சமுதாயத்தின் ஒற்றுமை எவ்வளவு முக்கியமோ அந்த சமுதாயத்தின் ஒற்றுமைக்குக் குடும்பத்தின் ஒற்றுமை என்பது சிறப்பு வாய்ந்த ஒன்றாக அமைவதைப் போல் குடும்பத்தின் ஒற்றுமைக்கு மட்டுமின்றி உலகத்தின் ஒற்றுமைக்கும் மூலக்காரணமாக விளங்கும் சகோதரத்துவத்தின் சிறப்பினைக் கம்பன் தனது காவியத்தில் எடுத்துரைத்துள்ளார். நல்ல ஒற்றுமையாக இருக்கும் குடும்பத்தின் பாசத்தையும்

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

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சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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பாரதியின் பாஞ்சாலி சபதம் அமைப்பும் கருப்பொருள் சிறப்பும்

முனைவர் ஆ. இரமேஷ்
உதவிப்பேராசிரியர், தமிழ்த்துறை (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக்கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

முன்னுரை

மகாகவி சுப்பிரமணிய பாரதியார் இயற்றிய பாஞ்சாலி சபத்தை உருவகமாகக் கொண்டு பொருள் கொள்கின்றனர். பாஞ்சாலியை அடிமைப்பட்டுக் கிடக்கின்ற பாரதமாதாவாகவும் மக்களைப் பாண்டவர்களாகவும் ஆங்கிலேயர்களைக் கௌரவர்களாகவும் உருவகம் செய்து கொண்டு பாரதியார் பாஞ்சாலி சபதத்தை இயற்றியுள்ளார் என்பர். மகாபாரதப் போரில் கௌரவர்களைப் பாண்டவர்கள் வெற்றி கொள்வதைப் போலவே அடிமைப்பட்டுக் கிடக்கின்ற மக்களாகிய பாண்டவர்கள் ஆங்கிலேயர்களாகிய கௌரவர்களை வெற்றி கொள்வர் என்ற நோக்கத்தோடு படைக்கப்பட்ட ஒரு காவியமாக பாரதியின் பாஞ்சாலி சபதம் பொருள் விளக்கம் செய்கின்றது. இந்தக் கட்டுரை பாஞ்சாலி சபதத்தில் பாடுபொருள் அமைப்பையும் பாடு பொருள் சிறப்பையும் எடுத்து இயம்புகிறது.

நூல் கட்டமைப்பும் பாடுபொருள் அமைப்பும்

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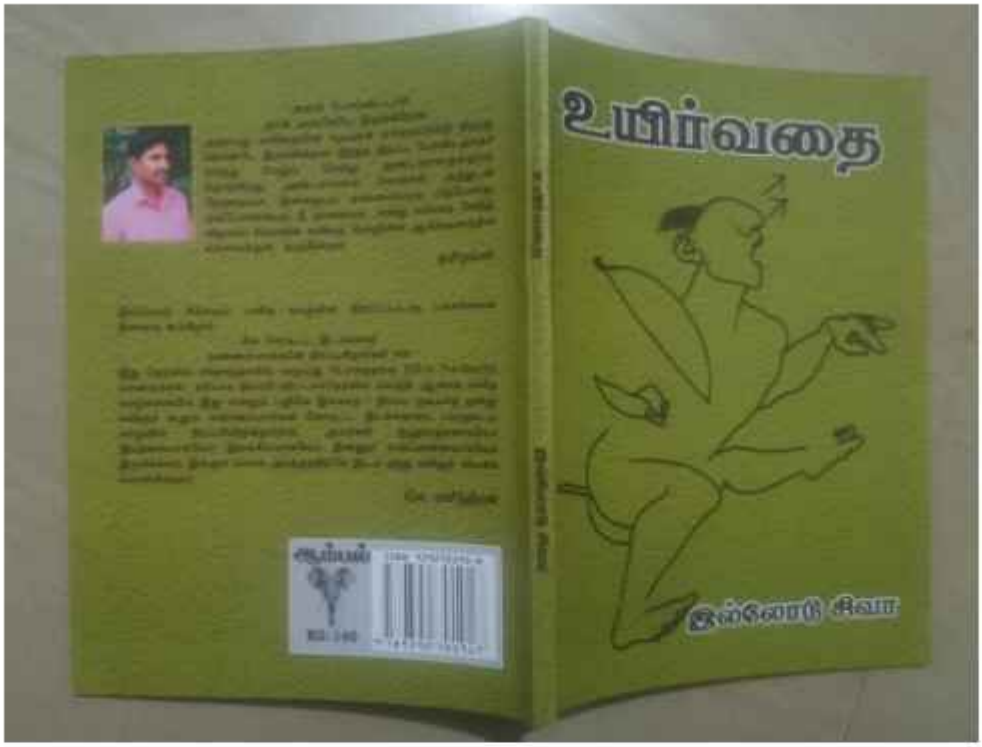

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தமிழாய்வுத்துறை

நடத்தும்

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பன்னாட்டுக் கருத்தரங்கம்

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டிரினிடி மகளிர் கல்லூரி

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முனைவர் து. அருண்பாண்டியன்
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தமிழ்த்துறை
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அறிமுகம்

ஒரு சமுதாயத்தில் வாழுகின்ற மக்களின் ஒருமித்த நடத்தையையும் எண்ணத்தையும் பண்பாடு வெளிப்படுத்துகிறது. அத்தகைய பண்பாட்டு மையமே மதமாகும். தமிழரின் இறைவழிபாட்டில் பக்தி என்பது தமிழரின் பண்பாட்டு சமய வடிவமாகும். இறைவனை வாழ்த்திப் பாடுவது மட்டுமல்ல, இறைவனை பழித்து துதிப்பதும் பக்தியாகும். இதனை ஆண்டாள் திருப்பாவையில் 'அன்பினால் உன்றன்னை சிறுபேர் அழைத்தனவும் சீரி அருளாதே' என்று தான் கண்ணனைப் பழித்திருப்பதாக குறிப்பிடுகிறார். சுந்தரர் தேவாரத்தில் "பித்தா பிறைசூடி" என்று பழித்து புகழ்பாடியிருக்கிறார். பக்தியின் ஆதாரம் அன்பு. அன்பு போற்றுவதற்கு மேலாக பழிக்கவும் செய்யும். இறைவனை எந்நிலையிலும் போற்றலாம் என்பதற்கு ஆழ்வார்களும் நாயன்மார்களும் சான்றாகக் கூறலாம். புராண இதிகாசங்களில் திருமாலின் அவதாரங்களில் எதிரிகள் யாவரும் நிந்தித்து அவராலேயே வதைக்கப்பட்டு மோட்சமடைந்ததாக கூறுவர். போற்றுவதோ தூற்றுவதோ இறை சிந்தனை மோட்சத்தைத் தரும் என்பதே பக்தி கோட்பாடு ஆகும். அவ்வகையில் இறைவனை நினைப்பதும் அவரின் புராண இதிகாச திருவிளையாடல்களை நினைப்பதும் பக்தர்களின் வழிபாடாகும். அவ்வகையில் தூற்றி துதிப்பதும் இறைவனை வழிபடும் முறைகளில் ஒன்றாகும். அத்தகைய தூற்றலுக்குக் காரணமான தொன்மத்தை வந்துரைப்பதும் இக்கட்டுரையின் நோக்கமாகும். சில நிலைகளில் காளமேகப்புலவர் வைணவத்தையோ அல்லது சைவத்தையோ சார்பாகக் கொண்டு பாடியிருக்கலாம் என்ற கருதுகோளை தெளிவு படுத்தவும். அவரது தனிப்பாடல்கள் சைவத்தையோ அல்லது வைணவத்தையோ

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

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முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

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சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

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விதைத்தவனும் விதைகளும் புதினத்தில் இதிகாசக் கருத்துக்கள்

அ. சதாசிவம்
உதவிப்பேராசிரியர், தமிழ்த்துறை (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை.

முன்னுரை

இதிகாசம் எனப்படுவது கடவுள், கடவுள் அவதாரம் அல்லது பெரும் வீரர்கள் நிகழ்த்திய அரும்பெரும் வீரச் செயல்களையும், நீதிநெறிகளையும் விவரிக்கும் புராண வரலாறாகும். இந்தியாவைப் பொருத்தளவில் இராமாயணமும், மகாபாரதமும் இதிகாசங்கள் என்றழைக்கப்படுகின்றன. அந்த வகையில் மனிதகுலச் சிந்தனைகளை உள்வாங்கி, உயர்ந்து நிற்கிற வரலாற்றுப் பெட்டகமே இதிகாசமாகும். புதினம் அல்லது நாவல் என்பது மக்களால் பரவலாக விரும்பப்படும் ஓர் இலக்கிய வடிவம் ஆகும். இதில் வாழ்க்கையும், நிகழ்வுகளும் கற்பனையாக உரைநடையில் எழுதப்படுகின்றது. நிகழ்காலப் பயன்பாட்டில் புதினம், நீளமாக இருத்தல், புனைகதையாக அமைதல், உரைநடையில் எழுதப்படல் போன்ற இயல்புகளால் ஏனைய இலக்கிய வடிவங்களிலிருந்து வேறுபடுத்தப்படுகின்றது. இவ்வாறு உள்ள புதினத்தில் இதிகாசக் கருத்துக்கள் கதைமாந்தர்களின் வாயிலாகவும் கதைகளாகவும் வெளிப்படுகின்றன. அந்த வகையில் 'விதைத்தவனும் விதைகளும்' புதினத்தில் இதிகாசக் கருத்துக்கள் கதை மாந்தர்களின் மூலமாக வெளிப்படுகின்றன.

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

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இணைப் பதிப்பாசிரியர்கள்

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முனைவர் **க. கிரிவாசன்**

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தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

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அரும்பாக்கம், சென்னை – 600 106.

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கம்பராமாயணத்தில் வாழ்க்கை

முனைவர் த. சிவலிங்கம்
உதவிப்பேராசிரியர், தமிழ்த்துறை (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை.

முன்னுரை

உயிரினம் இந்த உலகில் பிறப்பதே வாழ்வதற்குதான், இந்த வாழ்க்கையை நல்ல வண்ணம் வாழக் கற்றுக் கொடுப்பது இராமாயணம், மகாபாரதம் போன்ற இதிகாசங்கள்தான். இதில் குறிப்பாக இராமாயணத்தை மனித வாழ்க்கையின் ஒழுக்கத்திற்கு முதன்மை இடம் கொடுத்து வாழக் கற்றுக் கொடுக்கிறது. இந்த உலகில் குறிப்பாக ஆசிய கண்டத்தில் இராமாயணங்கள் பல உண்டு. இராமனைக் காப்பியத் தலைவனாகக் கொண்டு இராமாயணம் எழுதப்பட்டது என்பதைவிட அறத்தை, ஒழுக்கத்தைக் தலைமையாகக் கொண்டு காப்பியம் எழுதப்பட்டது என்பதே சிறந்த உண்மையாகும். வாழ்க்கை என்ற சொல் வாழ் +க் + கை என்று பிரிக்கப்படும். அதன் பொருள் உயிரினம் பிறப்பு முதல் இறப்பு வரை என்று அகராதிப் பொருள் தருகிறது. ஆனால் அதன் உண்மை விளக்கத்தை எவ்வாறு இராமாயணம் தருகிறது என்பதை ஆராய்வதே இக்கட்டுரை நோக்கமாகும்.

கம்பராமாயணத்தில் வாழ்க்கை

மனிதன் எப்படி வாழ வேண்டும் என்பதற்கு இராமன் உதாரணம், மனிதன் எவ்வாறு வாழக் கூடாது என்பதற்கு இராவணன் உதாரணம். ஆக உதாரண மனிதர்கள் வாழ்ந்து

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

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ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

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முனைவர் கு. வடிவேல் முருகன் 268

23. கம்பராமாயணத்தில் ஊழ்வினையின்
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தமிழ்த்திரையில் கண்ணன் இராமன்

முனைவர் செ. செல்லப்பிள்ளை
உதவிப் பேராசிரியர், தமிழ்த்துறை (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை –600106

உலக மானுட வரலாற்றில் எப்படியும் வாழலாம் என்பது வாழ்க்கை அல்ல இப்படித்தான் வாழ வேண்டும் என்பதே வாழ்க்கை. இதைத் தமிழ்க்கூறு புலவர் கூட்டம் தம் படைப்புகளில் எடுத்துக்காட்டுகளோடு பதிவு செய்திருப்பது இலக்கியங்களில் நீக்கமறக் காணக் கிடைக்கும் ஒன்று. வாள் புகழ் வள்ளுவன் கூறுவது போல "பண்புடையார் பட்டுண்டு உலகம்". அதனால்தான் அவ்வகையில் நிலைபெற்றன இராமாயணமும் மகாபாரதமும்!. பாரதம் முழுவதும் பன்னெடுங்காலமாக மக்களிடம் நிலைபெற்ற இரண்டு இலக்கியங்கள் வியாசர் இயற்றிய மகாபாரதமும் வால்மீகி இயற்றிய இராமாயணமும்தான். இவ்விரு கதைகளும் கிரேக்கக் கவிஞர் ஹோமர் எழுதிய ஆதி காவியங்களான இலியட் ஒடிசி ஆகியவற்றின் தழுவல் என்று ஆய்வாளர்கள் கூறினாலும் இவை இரண்டும் இந்திய துணைக்கண்ட பரப்பில் நடந்த உண்மைக் கதைகள் என இன்றும் நம்பப்படுகின்றன. இவை இரண்டும் வடமொழியில் இயற்றப்பட்டாலும் இந்தியாவில் பேசப்பட்ட அனைத்து மொழிகளிலும் அவரவர் வாழ்வியல் கூறுகளுக்கு ஏற்றார்போல மாற்றி எழுதப்பட்டன தமிழ்மொழியில் இயற்றப்பட்டது வில்லிபுத்தூரார் எழுதிய மகாபாரதமும் கம்பர் எழுதிய இராமாயணமுமாகும்.

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

தமிழ்த்துறை வெளியீட்டு எண் : 13

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12. பாரதியின் பாஞ்சாலி சபதம் அமைப்பும்
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வினை அறு நோன்பினாள் வாழ்வியல் கோட்பாடு

முனைவர் த. கெஜலட்சுமி
உதவிப்பேராசிரியர்
தமிழ் இலக்கியத்துறை, (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

முகவுரை

அறம் பொருள் இன்பம் வீடு என்ற உறுதிப் பொருள் நான்கையும் உணர்த்துவதாய் காவியம் அமைய வேண்டும் என்பது விதி. இதற்குத் தகவே இராமாயணத்தில் அயோத்தியா, கிஷ்கிந்தா, சுந்தர, யுத்த காண்டங்களிலும் அறம் பொருள் இன்பம் என்ற முப்பாலும் விரித்து விளக்கம் பெறுகின்றன. நான்காவதான வீடுபேறு (மோட்சம்) என்பது ஆரணிய காண்டத்தில் மட்டுமே கவிதைக்குப் பொருளாகிறது. இக்காண்டத்தின் தொடக்கத்தில் 'சரபங்கரும்' இடையில் 'சடாயுவும்' முடிவிலே 'சவரியும்' இராமருடைய திவ்விய தரிசனத்தால் வீடு பேற்றினை அடைகிறார்கள்.

அயோத்தியா காண்டத்தின் இறுதியில் குகனுடைய வரலாறு போல 'ஆரணிய காண்டத்தின் முடிவில் சவரியின் சரிதம், தனிப்பட்டதோர் பரிமளிப்பைத் தந்து, வேறு எந்த இலக்கியத்திலும் காண்பதற்கு இல்லாத உயர்வையும் தருகிறது.

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

தமிழ்த்துறை வெளியீட்டு எண் : 13

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12. பாரதியின் பாஞ்சாலி சபதம் அமைப்பும்
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எஸ்.இலட்சுமணப் பெருமாளின் ஆதிப்பழி – மகாபாரத மறுவாசிப்பு

ம. செந்தில்குமார்
உதவிப் பேராசிரியர், தமிழ்த்துறை (சுழற்சி – 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

முன்னுரை

இலக்கியங்கள் காலந்தோறும் தோன்றி அது தோன்றிய சூழலில் வாழ்ந்த மக்களின் வாழ்வியலை எடுத்துரைக்கின்றன. இதனை பிரதிபலிப்புக் கோட்பாடு என்று மார்க்சியம் கூறுகிறது. புரட்சியாளர் லெனின் இதனை காலத்தின் கண்ணாடி என்று குறிப்பிடுவார். பழம்பெரும் இலக்கியங்கள் அது தோன்றிய சூழலில் கொண்டிருந்த மதிப்பினை அதற்கு பிந்தைய காலத்திலும் பெறும் வாய்ப்பினை உடையதாக இருக்கிறது. புராண, இதிகாச நூல்கள் மக்களிடம் வாழ்வியல் அறங்களையும் நன்னடத்தையையும் எடுத்துரைக்கின்றன. வேதங்களை விளங்கச் செய்வதற்காகவே இதிகாசங்களும் புராணங்களும் தோன்றினவெனக் கூறப்படுகிறது. மகாபாரதமும் இராமாயணமும் இந்தியாவில் வாழும் அனைத்து மக்களின் வாழ்வியல் அறங்களை வெளிப்படுத்தும் நூல்கள் எனப் போற்றப்படுகின்றன. இவ்விரு நூல்களும் இந்தியாவில் உள்ள அனைத்து மொழிகளிலும் மொழி பெயர்க்கப்பட்டுள்ளன. அதைத் தவிர மக்களிடம் வெவ்வேறு வகையிலான கதைகள் இவ்விரண்டு கதைகளை மையமாக வைத்துக் காணப்படுகின்றன. நாட்டார் தொல்கதைகளில்

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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கம்பராமாயண முதற்செய்யுட் சங்கோத்தர விருத்தி

முனைவர் கு. வடிவேல் முருகன்
உதவிப்பேராசிரியர், தமிழ்த்துறை – கழற்சி -2
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

அறிமுகம்

தமிழகத்தின் வைதிக சமயங்களின் ஆட்சிக்காலமாக கருதப்படுவது பக்தி இலக்கிய காலமாகும். இது சமண, பௌத்த வீழ்ச்சிக்கு மூலகாரணமாக இருந்தது. வைதிக சமயங்களில் சைவ, வைணவப் பிரிவுகள் நாயன்மார்களைக் கொண்டும் ஆழ்வார்களைக் கொண்டும் பல சமய இலக்கிய நூல்களைத் தமிழுக்குத் தந்தன. பிற்காலத்தில் இரண்டும் தனித்தனியே பிரிந்து ஆதீனங்களும் மடங்களும் உருவாகி அதன்வழி சமய இலக்கியப் பணிகளைச் செய்யத் தொடங்கின. அந்த வகையில் திருவாவடுதுறை ஆதீன முனிவர்களுள் சிவஞான முனிவர் குறிப்பிடத்தக்கவர் ஆவார். சிவஞான முனிவர் சிறந்த உரையாசிரியராக மட்டுமல்லாமல், சிறந்த சிந்தனையாளராகவும் இருக்கிறார். இவர் சிவஞான போதத்திற்கு மட்டுமல்லாமல் நன்னூலுக்கும் விருத்தியுரை ஒன்று எழுதியுள்ளார். சிவஞான போதத்திற்கும் சிவஞான சித்தியாருக்கும் எழுதிய உரைகள் சைவ சித்தாந்த விளக்கத்திற்கு அணிகலன்களாய் விளங்குகின்றன. சிவஞான முனிவரின் உரை சிறப்பு சித்தாந்த விளக்கத்தில் முக்கிய இடத்தைப் பெறுகின்றது. இந்த உரை முனிவருடைய

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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இராமனின் அன்பு உள்ளம்

பா. சசிகலா
உதவிப்பேராசிரியர்
தமிழ்த்துறை, (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106

மெய்யான அன்பு, மனத்தின் ஒரு நிலையான நடுநிலைமைத் தன்மையாகும். எல்லோரையும் இணைத்து எல்லோரிடமும் ஊடுருவி பார்க்கின்ற உள்ளத்திலிருந்து எழும் உந்துவிசைதான் அன்பாகும். அஃது ஓர் இயற்கையான நல்லுணர்வு. அனைத்து மாந்தர்களுடனும் ஒருவன் இணைந்து ஒன்றாகி, வாழ்வதற்குரிய ஆற்றலைத் தருகிற மனத்திறனே அன்பாகும்.

உண்மை அன்பு, நமது தனி நலனுக்கும் இன்பத்திற்கும் ஏற்றவாறு அமைகின்ற தன்னலத் தொடர்புடையது அன்று. பொதுநலத்தோடு தொடர்பு கொண்டது. அன்பு என்பது ஒரு வெறும் மன உணர்ச்சி அன்று. பரிமேலழகர் கூறுவதைப் போல அன்பு என்பது "தொடர்புடையார்கண் காதல் உடைமை" அன்று. தன்னைச் சார்ந்தோர் மாட்டும் மற்றும் தொடர்பற்றவர்கள் இடத்தும் ஊடுருவிப் பாய்கின்ற நமது மனத்தின் அகத்திறனே அன்பு .

அன்பு என்பது மனத்தின் நுட்பத்திறன். பொதுநலப் பாங்கிற்கு வழிவகுக்கும் வலிவு மிகுந்த மனத்தின் ஆற்றல்தான் அன்பு.

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

(பன்னாட்டுக் கருத்தரங்க ஆய்வுக் கட்டுரைகள்)

முதன்மைப் பதிப்பாசிரியர்

முனைவர் **ப. முருகன்**

இணைப் பதிப்பாசிரியர்கள்

முனைவர் **சி. சதானந்தன்**

முனைவர் **க. கிரிவாசன்**

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

(தன்னாட்சி)

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது

ஆற்றல் வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்

சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

அரும்பாக்கம், சென்னை – 600 106.

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்**: 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு**: தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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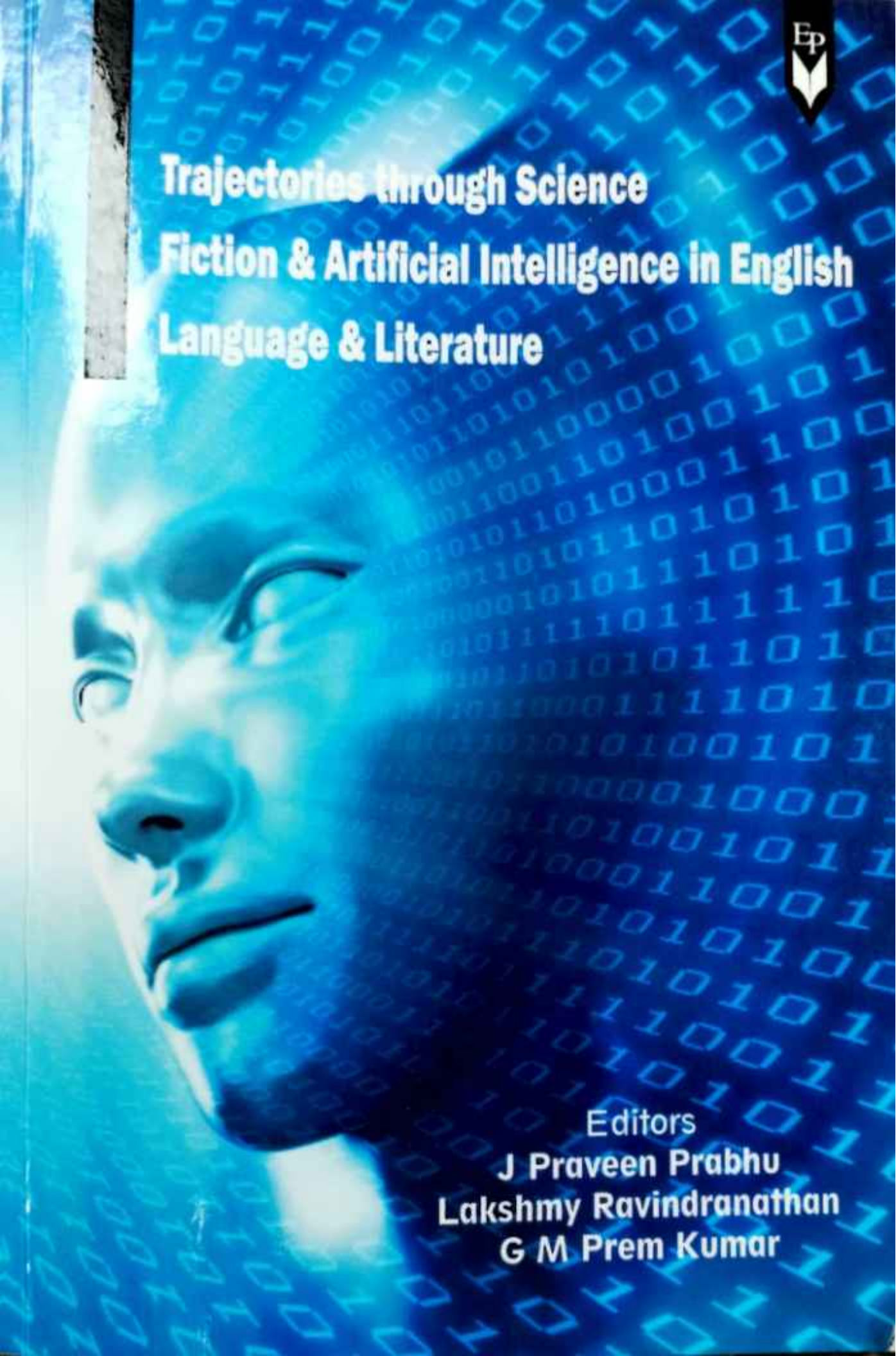
கம்பன் காட்டும் உவமையும் வாழ்க்கையும் : குகப்படலத்தை முன்வைத்து . . .

முனைவர் க. மாரிமுத்து
உதவிப்பேராசிரியர், தமிழ்த்துறை (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

முன்னுரை

தமிழ் மக்களின் வாழ்க்கையை, அவர்களின் வாழ்முறையை அல்லது வாழ்வியலை அறியத் துணைநிற்கும் சொல்லோவியங்களாக இலக்கியங்கள் திகழ்கின்றன. ஏறத்தாழ மூவாயிரம் ஆண்டுக்காலப் பாரம்பரியமுடைய தமிழ் இலக்கியப் பரப்பில் சங்க இலக்கியங்கள் தொடங்கி, தற்கால இலக்கியங்கள் வரையிலான இலக்கியங்கள் யாவும் வாழ்க்கையைப் புனைவுடன் சேர்த்தும் கற்பனைகள் கலந்தும் கவியழகு மிக்க கலைப்படைப்புகளாகவும் இலக்கியப் படைப்புகளாகவும் விளங்குகின்றன எனலாம். அந்த வகையில் தமிழின் தலைசிறந்த இதிகாசங்களாக இராமாயணமும் மகாபாரதமும் திகழ்கின்றன. இவை காப்பிய இலக்கியங்களாகவும் திகழ்கின்றன என்பதும் ஈண்டுக் குறிப்பிடத்தக்கதாகிறது. இவற்றுள் முதலாவதாக வைத்து எண்ணப்படும் இராமாயணம் மக்களின் மனத்தைக் கவர்ந்த மக்களின் வாழ்க்கையோடு இணைத்து எண்ணிப் பார்க்கும் பெற்றியுடைய இலக்கியமாகவும் விளங்குகின்றது. காரணம், அதில் உள்ள இலக்கிய இன்பம், உவமை நயம், பா நலம் முதலான

Trajectories through Science Fiction & Artificial Intelligence in English Language & Literature



Editors
J Praveen Prabhu
Lakshmy Ravindranathan
G M Prem Kumar

TRAJECTORIES THROUGH SCIENCE FICTION & ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE & LITERATURE

Editors

J. Praveen Prabhu

Lakshmy Ravindranathan

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Digitalized Disinformation – The Use of Digital Tools as the Modern Machines of Propaganda by Mass Media

V. Harshith Subramaniam[1] and Dr. C. Chidambaranathan[2]

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Introduction

Media is often heralded as the fourth pillar of democracy, playing a pivotal role in upholding democratic principles and serving as the dominant source of information for the majority of people in India. This concept emphasizes the media's essential role in fostering transparency, accountability, and informed citizenry within a democratic society.

In the context of democracy, the media acts as a watchdog, ensuring that those in power are held accountable for their actions. It serves as a check and balance on the government and other powerful entities, making it crucial for maintaining the integrity of democratic processes. This watchdog role, often referred to as the "fourth estate," underscores the media's responsibility in providing unbiased, factual, and critical information to the public, enabling citizens to make informed decisions and participate actively in the democratic process.

In India, media encompasses a diverse range of communication channels, including television, radio, cinema, newspapers, magazines, and internet-based websites. These mediums collectively serve as the primary source of information for the nation's populace. According to a study, newspapers and

magazines are highly trusted sources, with 82% of respondents considering them the best means of obtaining relevant news and information. Moreover, India's media landscape extends to digital platforms, reflecting the evolving nature of information dissemination in the digital age.

From a social perspective, it is worth noting the complex relationship between increased access to media and the spread of misleading information. In today's world, the media plays a significant role as the primary channel for disseminating information. Traditional face-to-face interaction is gradually being replaced by interaction through media channels, and media representations have become substitutes for objective reality. Misleading information, due to its rapid dissemination and widespread control within the media, provides a platform for targeted disinformation campaigns that aim to create a collective social psychology capable of achieving desired results for specific interest groups.

Media bias is a pressing concern in today's world, impacting the objectivity and balance of news reporting. It occurs when media outlets, intentionally or unintentionally, favour particular ideologies, parties, or interest groups over others. This bias can manifest in various forms, influencing the way news is presented and perceived by the public.

The study delves into how media uses political bias to determine whether certain social groups they good or acceptable, but also stereotypes in terms of behaviour and expectations from them. To this end, research was conducted aimed at exploring the deeper meanings of media coverages, beyond appearances to gain an understanding of the nature of media.

Methodology

Content analysis is a widely utilized qualitative research method that offers valuable insights into the presence and nature of media bias. This approach involves systematically examining and interpreting the content of media sources to uncover hidden patterns, biases, and underlying messages. When applied to the context of media bias, content analysis becomes a powerful tool for uncovering the ways in which media outlets shape public perception.

In the study of media bias, content analysis helps researchers identify various forms of bias, such as political bias, ideological bias, and structural bias, by examining the content of news articles, broadcasts, or social media posts. This method can be particularly informative when applied to comparative studies, enabling researchers to assess how different media outlets or platforms exhibit bias.

Review of Literature

1. **Media Bias by Tim Groseclose and Jeffrey Milyo** demonstrates that many mainstream U.S. media outlets exhibit a right-leaning bias. The paper introduces the concept of the "Slant Quotient" (SQ) to quantitatively measure the political bias of media outlets, helping to assess whether they lean toward conservative or liberal viewpoints. The authors use content analysis and data on the political orientations of think tanks and politicians to determine media bias. The paper has been influential in discussions about media bias and its impact on public opinion but remains subject to debate and scrutiny.
2. **Media Bias and Reputation (Matthew Gentzkow, Jesse M. Shapiro)** suggests that media outlets make editorial decisions,

including bias, based on economic considerations and the desire to cater to their target audience while also maintaining their reputation for accuracy. The paper uses economic and statistical analysis to investigate this relationship and offers insights into the interplay between media bias, readership preferences, and reputation in the media industry.

3. **Bias in Cable News (Gregory J. Martin, Ali Yurukoglu)** examines the impact of partisan media on political polarization in the United States. The authors argue that the proliferation of media outlets catering to specific political ideologies contributes to increased polarization by amplifying and reinforcing people's existing political beliefs. They use empirical data and quantitative analysis to support their claims, shedding light on the role of media consumption in shaping political attitudes and behaviour. This paper has been influential in discussions about the relationship between media and political polarization in the United States.
4. **The Hostile Media Effect: A Meta-Analysis (Lee A. Becker, Jon L. Peppin)** describes the tendency of individuals with strong partisan views to perceive neutral news coverage as biased against their own viewpoint. The paper conducts a meta-analysis of existing research to assess the consistency and extent of this phenomenon. It concludes that the hostile media effect is a well-documented and robust phenomenon, shedding light on how people tend to interpret news in a way that confirms their preexisting beliefs, which has implications for discussions on media bias and public perception of news coverage.
5. **Media Bias in the Marketplace: Theory (Russell Sobel, Peter T. Leeson)** explores the economic theory behind media bias, suggesting that media outlets may exhibit bias to cater to

their target audience and boost profitability. It sheds light on the economic incentives driving media bias.

Analysis

The analysis of 80 episodes of Indian Media content reveals the following dominant features of Indian Media Bias:

1. **Political Bias**: Media outlets in India often exhibit political bias, leaning towards right-wing or left-wing ideologies. This bias is reflected in the tone, emphasis, and framing of news stories. For example, right-leaning media outlets tend to favour government policies and present them in a positive light. They may downplay criticisms and provide extensive coverage of government initiatives. Conversely, left-leaning media may adopt a more critical stance, offering in-depth analysis of government policies and highlighting their potential drawbacks.
2. **Corporate Influence**: Corporate ownership of media organizations is widespread in India. Many of these media houses are linked to business conglomerates with vested interests in various sectors, such as real estate, energy, or telecommunications. These corporations may seek to influence media content to align with their business interests.
3. **Sensationalism**: Sensationalism is a prevalent bias in Indian media. Stories with dramatic or sensational elements are often prioritized over those with more substantial but less sensational content. Sensationalism tends to dominate headlines, resulting in a disproportionate focus on topics like celebrity scandals, crime, and entertainment news. Critical but less sensational news, such as political or social developments, may receive less coverage.

4. **Regional and Language Biases**: India is a diverse country with multiple languages, cultures, and regions. Some media outlets may exhibit biases in favour of specific states, languages, or regions, leading to unequal representation in national news.
5. **Social and Cultural Bias**: Indian media can inadvertently perpetuate social and cultural biases through its reporting. For example, the portrayal of gender, caste, or religion in news stories can reinforce stereotypes and discrimination. Women and marginalized communities are often subject to biased coverage.
6. **Influence of Advertisers**: Advertisers are a significant source of revenue for media organizations. In India, advertisers may exert influence by threatening to withdraw advertisements from media outlets that do not align with their interests. This economic pressure can lead to self-censorship and biased reporting.
7. **Religious Bias**: Religious bias can manifest in the way media covers religious issues in India. Some media outlets may favour one religious group over another, or frame stories in ways that stoke religious tensions. This can lead to communal conflict and harm social cohesion.
8. **Selective Reporting**: Selective reporting is the practice of covering certain events while ignoring others, often based on ideological alignment. This can lead to a skewed understanding of events and issues, as audiences are exposed only to a particular viewpoint.
9. **Influence of Political Advertising**: Political advertising, particularly during elections, can exert a substantial influence on media bias. Political parties and candidates purchase advertising space in media outlets to promote their messages.

These political advertisements can be a significant source of revenue for media companies.

10. **Influence of Social Media**: Social media platforms have become significant sources of news and information in India. While this can broaden access to diverse viewpoints, it also allows for the rapid spread of misinformation, propaganda, and biased content. Some social media platforms may favour specific political ideologies or allow the proliferation of unverified or biased information.

Misinformation in the Media

Misinformation refers to the dissemination of false or inaccurate information through various media channels, including television, radio, print, and, more significantly in recent times, digital platforms and social media. One prominent example of media misinformation is the spread of unfounded conspiracy theories. These theories often prey on people's fears and anxieties, presenting distorted narratives that feed into existing prejudices. With the rise of WhatsApp's popularity, a unique phenomenon emerged. Users began to share a wide range of content, including news articles, videos, memes, and personal opinions, with their contacts and within groups. These messages often contained information on diverse topics, from health tips to political news to conspiracy theories. The informal, peer-to-peer nature of these exchanges led to the coining of the term "WhatsApp University."

The Role of Cognitive Biases

The vulnerability to media misinformation is closely tied to cognitive biases, which are inherent to human thinking. Confirmation bias, for instance, makes individuals more receptive

to information that aligns with their pre-existing beliefs and prejudices.

Fake news in India has had significant socio-political and institutional impacts. It's often used to target minorities, leading to localized violence and large-scale riots. For instance, during the 2013 Muzaffarnagar riots, disinformation propagated the love jihad conspiracy theory, sparking engineered mass violence. The government responds by using internet shutdowns to control the spread of social media rumours. Suggestions like linking Aadhaar to social media accounts have been made. To counter fake news, a FACT checking module was proposed by the Ministry of Information and Broadcasting. However, this has raised concerns about freedom of expression and media control. The Jammu and Kashmir administration introduced a Media Policy in 2020, which some view as an attempt to control the narrative in the region, impacting freedom of the press.

During the 2019 Indian general election, fake news and misinformation had a pervasive presence at all levels of society. This election was often referred to as "India's first WhatsApp elections" because WhatsApp became a tool for propaganda, where political parties weaponized the platform to spread misinformation.

Conclusion and Recommendations

Media bias in India is a complex issue influenced by various factors, including political affiliations, corporate interests, sensationalism, regional and cultural biases, economic pressures, and more. The consequences of this bias are far-reaching, affecting public perception, political discourse, and democratic processes. One of the ways, and perhaps the most effective way to combat

the inherent structural bias in Indian Media is the creation of a truly free, publicly funded media which serves no interest, but only the public. Since their economic independence is secured, their political and cultural bias can also be combatted. Moreover, the introduction of a course on multi-cultural, multi-dimensional perspective analysis (what C. Wright Mills describes as the Sociological Imagination) of reality will also help journalists to fight against their own biases.

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Social Effects of Population Explosion

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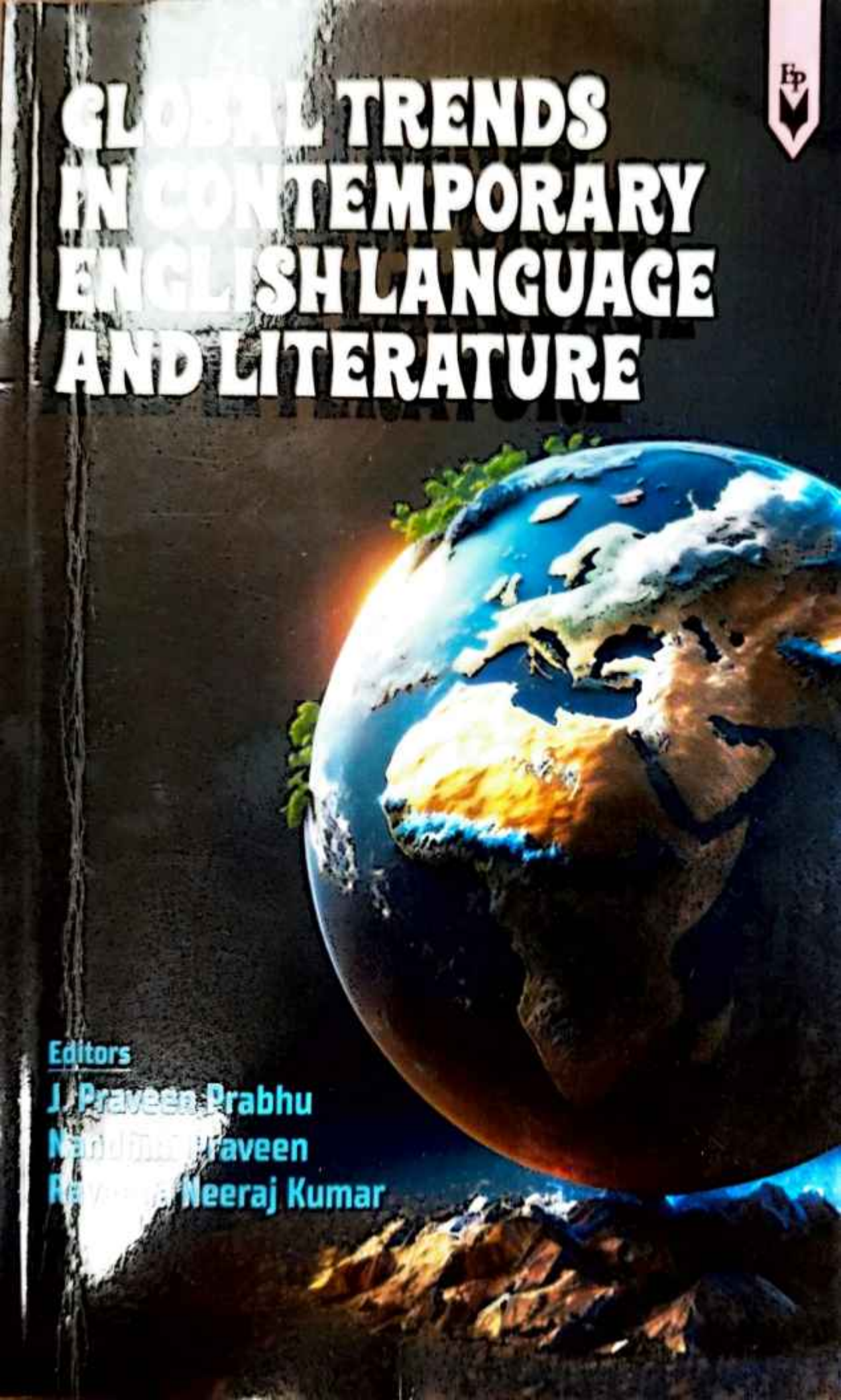

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Visual Pollution Effects on Adolescent Mental Health

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Introduction

In our ever-evolving digital and urbanized milieu, the adolescent demographic finds itself engulfed in a visual panorama of unprecedented dynamism and intensity. The concept of visual pollution, encapsulating the prevalence of excessive, intrusive, and frequently disruptive visual elements in the urban environment, has become an integral facet of daily life for adolescents. This phenomenon stems from diverse sources, including billboards, digital displays, advertising, the pervasive visual congestion of urban landscapes, and the ubiquity of screens within handheld devices.

The examination of visual pollution within the adolescent context assumes paramount significance as it interlaces with multiple dimensions of their existence, encompassing cognitive development, mental well-being, safety, and overall quality of life. By scrutinizing this issue, we endeavor to glean invaluable insights into the challenges and opportunities posed by the visual terrain that adolescents traverse in this digital age.

Visual pollution manifests as a quandary when the aesthetic appeal of an environment is compromised by the encroachment of man-made elements or activities that

are visually unattractive or obtrusive. This encompasses manifestations such as billboards, superfluous signage, graffiti, litter, and the neglect of buildings and infrastructure. The predicament with visual pollution resides in its potential to elicit stress, anxiety, and a diminishment of well-being, particularly in those within the adolescent demographic who encounter it persistently. Furthermore, it exerts a detrimental influence on property values, tourism prospects, and the overall economic vigor of a region.

It has also been shown to increase biological stress responses and impair balance as Yılmaz and Sagsöz (2011) affirmed. Based on Yılmaz and Sagsöz's (2011) studies; it is more serious in historic cities as silhouettes, the faces of the physical structure, and historical accumulation of cities, add to the visual pollution negative impact.

Review of Literature

Abdallah Aowais and Mohammed Anwer (2019) analyses the impact of visual pollution on the town of Al-Eizariya, using an analytical descriptive method and photos to document the issue. The study finds a correlation between the low cultural awareness of the population and the spread of visual pollution, as well as the role of the municipality in the phenomenon. The location of the town and political factors also contribute to the issue. The study recommends increasing cultural awareness, setting technical and aesthetic standards, and activating public involvement to combat visual pollution. Overall, the study provides solutions for reducing the negative impact of visual pollution in the area.

Milan Kumar Jana and Tanaya De (2015) focuses on the negative impact of visual pollution on the well-being

and quality of life of communities in Kolkata, West-Bengal, India. The study examines the prevalence of unorganised billboards, which appear everywhere in cities and townships, as a significant source of visual pollution. The research suggests that visual pollution can reduce an area's aesthetic attractiveness, economic viability, and civic sense, leading to psychological aversion and physical discomfort among residents. The study emphasises that the visual environment is as crucial as clean water or air and animal habitat, and policymakers, urban planners, and communities must address visual pollution as a critical issue affecting the quality of life and well-being of residents. The researchers underscore the need to take measures to reduce visual pollution and enhance the visual environment's quality to mitigate the harmful effects on communities. In conclusion, the study highlights the importance of recognizing and addressing visual pollution's hazardous and pervasive impact on residents' well-being and quality of life.

Mrs. Sudeepta Banerjee(2015) This study aimed to explore the impact of visual pollution on mental health. Visual pollution alters the environment in an unnatural or harmful way, damaging the human visual system and causing mental health issues such as stress, anxiety, and depression. Visual pollution sources include billboards, open garbage bins, and electric cables. It can also lead to an increase in traffic accidents, especially in India. The study highlights the need for measures to prevent visual pollution, such as proper waste management, use of underground cables, and development of green spaces. These measures will promote better mental health and overall well-being. In conclusion, visual pollution is a serious issue that needs to be addressed to ensure better mental health outcomes.

Azadeh Sharifi Nowghabi and Adeleh Talebzadeh (2019) investigates how metropolitan cities contribute to visual pollution. The researchers highlighted that among the most significant contributions of metropolitan cities to modernity is the disturbance caused by noise pollution and visual and structural disruptions in urban life. The use of colour in the city landscape can evoke certain emotional responses while suppressing others. Billboards, which are commonly found in cities, are used to promote goods or services, but their appearance and function may have different meanings in different contexts. As a result, the colour blue can be used to create a sense of calmness and serenity in the human mind. The city of Mashhad, with a population of around 3 million people, is ranked second in the urban hierarchy of Iran.

Szymon Chmielewski and et.al explores the negative impact of outdoor advertising on the quality of life and enjoyment of public spaces, often referred to as visual pollution. The lack of a standardised way to measure and regulate it is a major challenge for cities. The study uses a 2.5D outdoor advertisement dataset of a busy urban street in Lublin, Poland, and relates the number of visible advertisements to public opinion to measure visual pollution. The study finds that streetscape views with more than seven visible advertisements create visual pollution. The proposed GIS-based methodology could help Lublin officials to assess and manage visual pollution by informing permitting decisions on outdoor advertising.

Methodology

Visual pollution, is something that not only pollute the vision of the individual but also pollute a mental wellbeing of the individual. Its affects a culture, personality, thought process, ideology, and preferences to every part of an individual's

life. With this background the present study focused on t analyse the extent of this problem and to identify the cause & consequences of mental issues due to visual pollution The study undertakes descriptive research design which wil help the researcher to analyse the causes and effects of visua pollution on mental wellbeing. Chennai was chosen as the study area because of the possibility of affectedness due t visual pollution among the young adolescent in recent time For this present study the researchers selected 100 adolescents from the study area by using simple random sampling method The necessary primary data was collected from respondents by using and direct interview method with structured interview schedule.

Findings

In our study the researchers found that the half of the respondents, precisely about fifty percent 5(0%), fall within the age bracket of 17-18 years, while the other half belong to the age group of 20-22 years. This information is crucial in understanding the demographics of the survey of the participants. It provides an insight into the age distribution of the sample population and it can also help in drawing meaningful conclusions from the data collected. Herewe found that Less than two-thirds of the respondents of sixty-six percent (66%) are male, while the remaining thirty-four percent 34% are female. It is noteworthy that the majority of the respondents are male, with only a minority being female According to the study results, a majority of respondents of fifty-four percent (54%) had completed their education up to the Higher Secondary level, while a significant proportion of forty-six percent (46%) had obtained a Degree.

The study findings reveal that a vast majority of respondents i.e. seventy-two percent (72%) are identified with the Hindu faith, while a notable twenty percent 20% are identified as Muslim. The remaining 8% of respondents identified as Christian. These results provide valuable insight into the religious demographics of the surveyed population, highlighting the prevalence of Hinduism and the diversity of religious beliefs within the community.

According to the study results, a majority of the respondents (54%) belong to the BC group, while more than one third (36%) belong to the SC group. A small percentage of respondents (8%) belong to the MBC group, and only one respondent belongs to the OC group. The data suggests that the BC and SC groups are the most represented in the survey, while the MBC and OC groups are less represented, it is important to note that the sample size may not be representative of the entire population. We found that the study results, a whopping 84% of the respondents' hail from Chennai. The remaining participants are from various other regions, with Madurai, Dindigul, Kanyakumari, Kerala, and Tirunelveli accounting for 6%, 2%, 2%, 4%, and 2% of the respondents, respectively. It was found that 90% of the respondents belong to a nuclear family, while the remaining 10% come from a joint family. This indicates a majority of respondents from nuclear family structure among the surveyed population.

According to the study, almost half of the participants (48%) reported encountering visual pollution occasionally. Meanwhile, more than a quarter of the respondents (26%) stated that they frequently come across visual pollution. A smaller percentage, less than a quarter (14%), claimed to always encounter visual pollution. The remaining 12% of respondents reported rarely encountering visual pollution.

Visual pollution, which refers to the presence of unsightly or distracting elements in the environment, can have a negative impact on individuals' well-being and the overall aesthetic appeal of a community. Therefore, it is important to address this issue and work towards creating visually pleasing surroundings for everyone to enjoy. The study results indicate that 40% of the respondents reported high levels of visual pollution in their community, while 28% reported moderate levels. Only 18% reported a very high level of visual pollution, and the remaining 14% reported a low level. It is clear that a significant portion of the population is affected by visual pollution in their community. This issue can have negative impacts on the environment, public health, and overall quality of life. It is important for policymakers and community leaders to address this problem and work towards creating cleaner and more visually appealing environments for all residents.

According to the research, 34% of the respondents reported encountering illegal signs as a form of visual pollution. Additionally, 30% of the respondents reported encountering billboards as a form of visual pollution. Graffiti was reported as a form of visual pollution by less than one fourth of the respondents, at 20%. A small percentage of respondents, only 8%, reported encountering litter as a form of visual pollution. Similarly, 8% of respondents reported encountering path holes as a form of visual pollution. The findings of this survey highlight the prevalence of visual pollution in our communities. It is important for individuals and businesses to take responsibility for maintaining the cleanliness and aesthetic appeal of our public spaces. By reducing the amount of visual pollution, we can create a more pleasant and welcoming environment for everyone.

It has been found that almost 40% of the respondents believe that their quality of life is slightly impacted by visual pollution. The study revealed a staggering 62% of respondents refrained from filing a complaint with their local authorities regarding the visual pollution. According to the study results, a significant portion of the respondents (38%) acknowledged the importance of visual pollution. However, an equal number of participants (38%) expressed uncertainty regarding its significance. The study results, a significant portion of respondents (40%) identified commercial areas as the primary victims of visual pollution. More than three-fifths of the respondents (70%) reported visual pollution as a negative impact to the aesthetic and attractiveness. The study results indicate that 60% of the respondents believe that there are no laws and regulations in their community. More than half of the respondents (52%) indicated that they are aware of the negative impact of visual pollution.

The data reveals that over a quarter of the participants (32%) attributed illegal advertising as the root cause of the issue in their community. More than half of the respondents, specifically 58%, answered affirmatively when asked if they believed that tourism and advertising were responsible for visual pollution. The data reveals that a significant majority of respondents, specifically 76%, believe that industries and businesses bear responsibility for visual pollution. The study reveals that approximately 38% of the respondents attribute visual pollution to overconsumption. This suggests that excessive consumption habits are a significant contributor to the problem. It was found that over one-third of the respondents (36%) reported experiencing increased depression as a negative effect on their mental health.

According to the study results, over one-third of the respondents (34%) reported a reduction in biodiversity due to the issue at hand. Additionally, nearly one-third of the participants (32%) stated that it has caused damage to the natural ecosystem. The data reveals that 40% of the respondents, or two-fifths, attributed the rise in building numbers, billboard proliferation, and light pollution to urbanization. It was found that a significant portion of the respondents, specifically over two-fifths or 48%, acknowledged that light pollution has detrimental effects on wildlife. According to the study results, a significant proportion of individuals (36%) expressed their concern about the impact of overpopulation on road congestion. From the study results, 42% of respondents reported experiencing insomnia, while an equal percentage reported not experiencing this sleep disorder. According to the research results, over half of the respondents (52%) indicated that they were not aware of the Indian Road Congress. A smaller percentage, less than two-fifths (36%), were unsure of their awareness, while the remaining 10% confirmed that they were indeed aware of the organization.

According to the study results, a staggering 48% of respondents reported being unaware of the National Green Tribunal. Only 36% responded affirmatively, indicating that they were aware of the organization. The remaining 16% were unsure of their knowledge regarding the National Green Tribunal. The data reveals that over two-fifths (48%) of the respondents are aware of the Municipal Solid Waste, 2000. Less than two-fifths (36%) reported being unaware of it, while the remaining 16% were unsure. The study results indicate that a majority of the respondents, specifically 52%, are aware of The Water Act of 1974. However, a significant portion of the participants, approximately one fifth or 24%, reported being

unaware of the act. Another 24% of the respondents were uncertain about their knowledge of the act. According to the study results, it was found that over one fifth of the respondents (28%) suggested implementing regulations in adult sites as a way to control visual pollution. Similarly, another 28% of the respondents suggested regulating unnecessary graffiti and signboards. One fifth of the respondents (22%) suggested regulating light pollution and the emission of unnecessary lights. A small percentage of the respondents (10%) suggested implementing control in garbage and littering regulations. Very few respondents (6%) suggested guidelines for the use of technology, awareness about visual pollution (4%), and the emission of smoke in factories and vehicles (2%).

Conclusion

The study emphasizes the crucial need to address visual pollution to ensure a sustainable and healthy environment for future generations. It is high time for individuals, communities, and policymakers to take collective action to control visual pollution and promote a cleaner and healthier environment. Visual pollution can have detrimental effects on the mental and physical well-being of adolescents. It can lead to increased levels of stress, anxiety, and depression, which can negatively impact academic performance, creativity, and social interaction. The constant exposure to unsightly and overwhelming visual stimuli can be overwhelming and distracting, leading to a decrease in focus and productivity.

Therefore, it is crucial to address this issue and promote a visually appealing and healthy environment for our youth. One of the most effective ways to reduce visual pollution is by enforcing laws and regulations that prohibit littering, graffiti, and other forms of visual pollution. This can be done through

fines, community service, and other penalties that discourage people from engaging in these activities. Finally, community involvement is essential in maintaining the cleanliness of the environment. Reducing visual pollution is a critical task that requires the cooperation of everyone in the community. By implementing effective strategies such as enforcing laws and regulations, promoting public education and awareness, and encouraging community involvement, we can create a cleaner and more visually appealing environment for everyone to enjoy.

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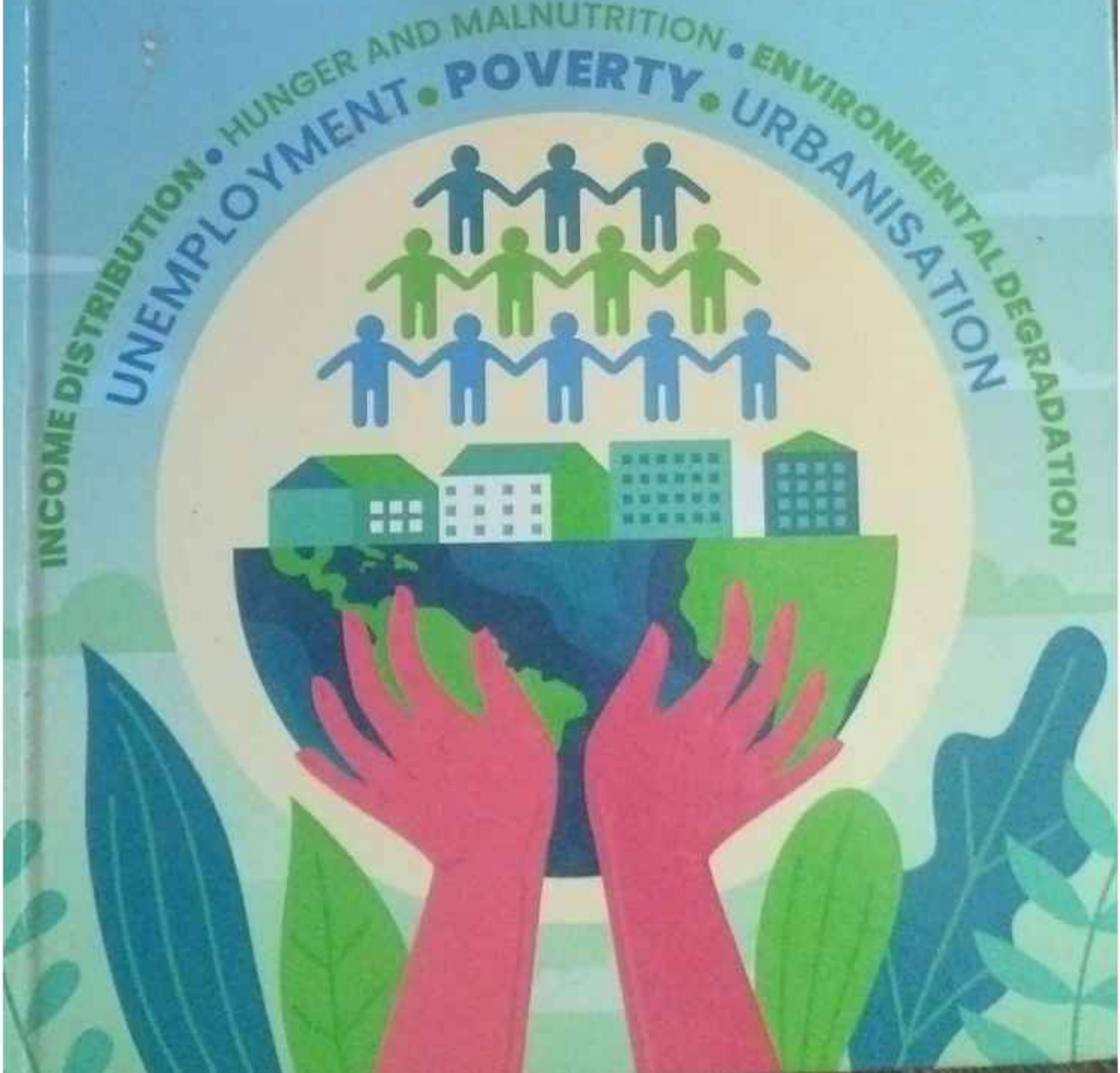
SOCIAL EFFECTS OF POPULATION EXPLOSION

DR. C. CHIDAMBARANATHAN
DR. I. JENITTA MARY



India's population, a colossal force exceeding 1.4 billion, shapes every facet of the nation's discourse. "Social Effects of Population Explosion", curated by Dwaraka Doss Goverdhan Doss Vaishnav College's Department of Sociology, delves into this intricate landscape.

Beyond mere data, this book dissects the multifaceted impact of this burgeoning population on resource constraints, urban sprawl, social inequities, and environmental anxieties. Contributors, a blend of scholars and practitioners, offer nuanced perspectives, revealing both the challenges and the boundless potential embedded within this demographic surge.

The book pulsates with hope, highlighting the indomitable spirit of India's youth and their unwavering commitment to progress. Yet, it realistically acknowledges the formidable challenges ahead. It serves as a call to action, emphasizing the crucial roles of policymakers and social scientists in navigating this complex terrain.

By unpacking the interwoven threads of population and society, "Social Effects of Population Explosion" offers a comprehensive toolkit for understanding India's present and shaping a future where its demographic surge translates into a vibrant tapestry of human well-being, economic prosperity, and sustainable development. This book is not just an analysis; it's an invitation to ignite critical conversations and inspire collective action in the face of India's thrilling demographic crossroads.

Dr. C. Chidambaranathan is working as an Assistant Professor and the Head of the Department of Sociology in DDGD Vaishnav College, Chennai. He has more than a decade of teaching experience. He had worked as Temporary faculty for a half decade in the Department of Sociology in Manonmaniam Sundaranar University. He got a doctorate in Sociology in the year 2011. He was a UGC JRF Research Fellow in the Department of Sociology Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu. He was a gold medalist at both the UG and PG levels. He was awarded the "Teaching Excellence Award" in 2023. He has several presentations and publications to his credit. He has also published & edited books and organized several seminars, workshops and conferences at national as well as state level. His areas of specializations are epidemiological studies and Sociology of Health.

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Noveena Chakravorty
Sharmila Kayal
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Subjects: Contemporary Films | New Age Films | Gender representation | Society | Art and Industry | Indian Cinema | Casteism | Indian Film | OTT | Hindi Films | Relationship | Comparative Study | Women in Movies | Social Media Influences | Animation Movies | Societal Reflection.

This book is essential for students and faculty of Media and Communication, social sciences, Film studies, and Entertainment genre to understand the New Media Landscape and Dimensions from the theoretical and practical perspective in the Indian context. The chapters in this book will surely provide valuable understanding to both social scientists and policymakers interested in the subject provided by the publisher.

Price: ₹ 750

Foreword

Ashwini Chaudhary

Film Director and Producer
Indian Film Industry
Director of the films - Jodi Breakers, Good Boy Bad Boy, Siskiyaan, Setters, Dhoop etc.
Feature film 'Laado' for which he was awarded the Golden Lotus for Best Debut Director in 2001.
India President for Golden Ratio Films Pvt. Ltd (GRF)
Producer of award winning films like Bhonsle, Paithani, Writer, Ghamaasan , The Feather Weight

Cinema is considered as the mirror of the society. The technique of mirroring the society is actual astounding and it amuses the audience in many ways! The construction of the language in the medium of cinema is such a way that hardly any semantic dependency is necessary to comprehend it. The societal reflection of cinema is a complex phenomenon and it reflects how a society is, how it has its forefiow core values, beliefs, dogmas, hegemony and many intrinsic attributes with extrinsic characteristics.

Over the years, cinema has proved its impacts and an integral part of carrying several messages which a society or its people need to be pondered upon. Now the question is it all for development and progress? Well, one can argue that it delves into the misogyny, regressive and stereotypical perspective of the percepts of its society! Yes, it varies with the lens of what actual message is and what it intends; but the larger aspect is that how well the ethos and pathos of the societal values been reflected, disseminated vehemently.

Many cinemas were made which is based on the contemporary societal issues, problems such as class and caste struggle, atrocities, bandits and

dacoits, taboos (films like 'Achhut Kanya', 'Sholay', 'Do Beegha Zameen', 'Mother India' etc). Basically, all those films' theme were in a larger domain; aiming towards the heterogenous society. On the contrary, recent themes of films have a paradigm shift (more individualistic approach and talks about the free will, deletion of archaic mindset of own choice and selection of one's life (freedom to live and expressions on truer sense). Films like 'Lipstick under Burkha', 'Dil Se', 'Gangubai', 'Oh My God2', 'Oh My God 2', 'Taare Zameen Par' etc are the movies which enables audiences to think and to be pondered upon.

This book aims to discover many perspectives of films which has societal reflection in many ways (cognitive, affirmative and social). The main objective of the book is to find the coherence of the societal milieu which is paramount to make a society beautiful place to live. Cinema which is the most entertaining tool through its niche but powerful dissemination of messages which help them in making it possible in real manner. Many scholars and learners of Film Studies have been contributed here for this book so diligently which will definitely shape up the readers cognitive aspect and yes, they shall be benefitted out from reading this book.

My heartiest congratulation to the editors Ms. Noveena Chakravorty, Dr. Sharmila Kayal, and Mr. Sayal Pal for the editing of such a book which is rich in content and provides deep insights into the contemporary Indian Films. I also extend my best wishes to Prof. (Dr.) Samit Ray, Chancellor, Adamas University and Prof. (Dr.) Suranjan Das, Vice Chancellor, Adamas University for encouraging their faculty members to undertake such an initiative of significant academic value and to move forward in media academics.

Best Wishes.

Editors

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3D animation special effects as indicators of cinematic creativity: Effectiveness of use of animation in 'Adipurush' (2023) movie

Dr. C. Sriram, *Assistant Professor, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil Nadu, India*

Dr. V. Mohanasundaram, *Associate Professor (Retired), Department of Economics, PSG College of Arts & Science, Coimbatore, Tamil Nadu, India*

Abstract

3D animation special effects are frequently used in film works and many major motion pictures are taking advantage of the rapid advancements of computer-generated imagery (CGI) and visual effects (VFX) to incorporate digitally rendered creations. Animated characters are replacing human celebrities in the film world; though people are attracted to animated manifestations, they don't know what animation is and what are its kinds and advantages in the film production process. Although film awards are often taken as indicators for the creative achievements that underlie outstanding motion pictures, critics have often questioned whether such honours truly represent an authenticity regarding cinematic contributions. Taking the film 'Adipurush' (2023) as an example, this study is committed to providing a reference for the research of three-dimensional animation works through the analysis of the practical applications of three-dimensional animation effects. The findings in this study are discussed in terms of whether the visual effects can be considered to be indicative of cinematic creativity. The qualitative analytic method adopted for the analysis of the 3D animation special effects was based primarily on Foucault's discursive approach and the qualitative analysis results showed that the average perception with regard to CGI-rendered effects across all viewing ages among Indian audience for this movie is negative, with a few positive talking points.

Keywords: *computer-generated imagery, visual effects, three-dimensional animation effects, cinematic creativity.*

Introduction

VFX technology has revolutionized the filmmaking process and led to

SYSTEMATIC LITERATURE REVIEW ON VARIOUS THEORIES, MODEL, FINDINGS, UTILISED IN AI, ML, DS - POWERED WORKFORCE ANALYTICS FOR ORGANISATIONAL EFFECTIVENESS

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Abstract

Workforce analytics has grown dramatically as an integral practice among organisations to improve their effectiveness and secure the necessary competitive advantage. It has the potential to transform the business practices and provide insights that can lead to making effective decisions. Workforce analytics involves the use of appropriate technologies like AI, ML and DS for the analysis of work-related data in order to optimise the human resource practices. Hence, this particular field has become of great interest to scholars and researchers considering the growing importance of effective HRM and advancement being made in the field of technology. A large amount of research has been done on the subject to provide the required insights into relationships between AI, ML and DS powered HR analytics and organisational effectiveness. The purpose of this article is to review the theories, models and findings associated with the AI, ML and DS powered workforce analytics in relation to organisational effectiveness. A systematic review of peer-reviewed articles from 2018-2023 has been done to address the purpose.

Keywords: *AI, ML, DS, workforce analytics, organisation*

1. Introduction

Data is increasingly being used in every field to gather appropriate insights and take relevant decisions for better sustainability. Human resources practices is no exception where data is being used for talent analysis, recruitment, learning and development, performance, employee well-being and retention (Margherita, 2022). This use of data for managing the workforce in an effective manner is termed as "Workforce Analytics" or "HR analytics". Workforce analytics engages in the collection, processing and management of data related to the workforce which is then analysed using appropriate tools and models (Zeidan and Itani, 2020). Workforce analytics, HR analytics, talent analytics and human capital analytics are the same term with the same meaning which helps organisations build the most effective workforce. Workforce analytics is having a strategic role in the growth and development of the workforce which is further contributing to organisational effectiveness. It is providing organisations with evidence based insights into their human resources practices to help them achieve the set goals and outcomes at the strategic level (Durai *et al.* 2019). Organisations are able to make better decisions regarding the needs and requirements of the employees which

would provide the business with an edge in the market. Hence, workforce analytics can be said to be an important tool for competitive advantage in the market. "Artificial intelligence (AI)", "machine learning (MI)" and "data science (DS)" are the technological developments that are engaged in workforce analytics to aid the decision making process. With the development of time, numerous research have been conducted on the theories and models involving AI, ML and DS powered workforce analytics for organisational effectiveness to gain a better understanding of the subject matter. Hence, the purpose of this research is to explore and investigate the various theories, models and findings associated with AI, ML and DS powered workforce analytics for better organisational effectiveness.

2. Methodology

In this research, secondary data and "systematic literature review" has been used to address the above mentioned purpose of the work. Secondary data collection involved gathering data from existing sources about the research on the topic and reviewing them in a systematic manner to gain the necessary insights. The entire methodological approach involves reviewing and analysing previously done academic research using three distinct steps- (1) collecting previous studies (2) filtering through previous studies and (3) selecting articles for the review. The first steps of collecting previous studies involved gathering all the scholarly articles that were about HR analytics or workforce analytics from the online database Google Scholar. Hence, articles about 'HR analytics' and 'workforce analytics' were searched and collected from Google scholar. The second step was filtering through the search and looking for articles that were published from 2018 to 2023 with the key terms like 'AI', 'ML' and 'DS'. The last step in the process was selecting the articles that were able to provide key insights and were peer-reviewed in the process to meet the quality standards. Hence, these three steps helped with gathering all the necessary information for the successful completion of the work.

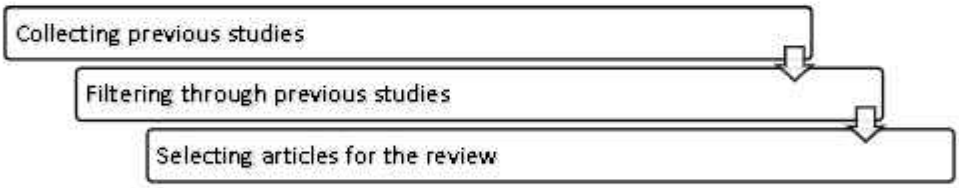

Figure 1: Methodology used in the research
(Source: Self-developed)

3. Findings And Results

Author (s) and publication year	Aim of the article	Methodology	Findings

Gurusinghe *et al* (2021)	The article aims at developing a conceptual model answering questions like the factors impacting the use of HR analytics and the effect/impact of HR analytics on talent management outcomes	A literature review based approach has been used in the study to develop the required conceptual model	A conceptual model with the use of resource based theory and Technological-Organisational-Environmental (TOE) Framework has been developed for the examination of the relationship between predictive HR and talent management outcomes. The model developed in the study can successfully be used to assess the impact/role that predictive HR has on the key HR practice or talent management.
Faqihi and Miah (2023)	It involves designing new AI-based solutions/frameworks and investigating its suitability for talent management.	Design science methodology has been used in the work for developing the framework in support of relevant literature from SCOPUS database	AI based talent management system has been developed in the study with the moderation of diffusion of innovation theory (DOI) and Technological-Organisational-Environmental (TOE) Theory. The framework developed in the study can further help in solving AI-based problems related to talent growth.
Murugesan *et al* (2023)	The correlation between digital HR and AI has been examined in the research along with the impact of Hr digitisation on organisational design.	The descriptive design using a cross-sectional approach has been used in study to support the primary data collected from 271 participants working in HR professionals in Chennai and Bengaluru. The IBM SPSS software was used to analyse the data while AMOS was used to test the proposed model	AI can be of great help to HR professionals in all industries since it can help them understand the various patterns and behaviours of employees. AI can help HR professionals to provide the required work-life balance to the employees by analysing all the data in the process. It can further help HR managers in better understanding of the employees feelings in the most appropriate manner and take actions accordingly. Hence, all the insights gained about employees using AI can be used improve the organisational design
Sakka *et al.* (2022)	The article has aimed at providing a proper idea	Secondary sources of information	AI can help in improving the abilities of HR managers to

	into the impact that can be gained with introducing AI on various HR functions.	have been used in the proposed and the data has been analysed in multiple themes	process all the information that they have about the employees. This can further streamline the talent acquisition process, employee performance assessment and professional development to meet the unique needs of all employees.
Pradhan and Saxena (2023)	The study strives to highlight the importance of re-skilling the workforce which is necessary to advance the careers of employees with the introduction of AI in organisation	A deductive approach has been used in the study which is supported by the collection of secondary data. Research papers, websites, HR blogs, surveys, reports and publications have been used in the study.	The findings show that the applications and capabilities of AI has significantly increased over the years and in turn has become quite important in a number of fields. However, the most important hurdle in the process is upskilling the workforce to make them ready for the future of AI. Hence, it is very important to reskill and upskill the workforce for creating talents for meeting the changing employee demand.
Pessach *et al.* (2020)	A analytics framework has been proposed in the research to help HR recruiters with hiring and placement decisions	A large dataset consisting of recruitment records of thousands of employees over the decades has been used to develop the framework	Variable-order Bayesian Network (VOBN) model is the proposed machine learning model that can help recruiters make appropriate decisions reading the hiring of employees. The proposed model is something that can be of significant help to the HR professionals in hiring the right candidate at the right position while creating a balanced recruitment plan that can help in improving diversity and recruitment success rate.
Zhao *et al.* (2019)	The study aims to provide a reliable machine learning approach to predict employee turnover in an organisation.	Real along with simulated HR datasets from all types (small, medium and large) of organisations were used to perform numerical experiments involving various	"Random forest, decision tree, logistic regression, support vector machine, gradient boosting trees, extreme gradient boosting, K-nearest neighbour method, Naive Bayes method, random forest method and linear discriminant analysis" are the various machine learning methods that were applied to the datasets to identify

		methods.	the reliable approach. The ten mentioned machine learning approaches have been discussed in detail in the research along with the way they need to be applied to the datasets. On the other hand, the extreme gradient boosting method has been found as the most appropriate one for large datasets.
Falletta and Combs (2021)	The meaning of HR analytics has been explored in the study while introducing the HR analytics cycle as the right framework to gather appropriate insights into HR that can further help with the achievement of the strategic objectives.	HR analytics cycle is the framework that has been used in the study to review gain a complete overview of HR analytics	HR analytics framework is a seven-step process that improves the HR capabilities with evidence based and ethical HR practices. These seven steps can provide HR leaders with the most valuable insights to make smarter workforce decisions and create effective HR strategy. It is also something that can help with ethical decision making and help the leaders avoid any missteps or make questionable decisions in the process
Peeters *et al.* (2020)	The purpose is to examine the key ingredients required by HR analytics team to improve organisational performance	A narrative literature review was done in the study to gather the required insights. The 'People Analytics Effectiveness Wheel' is the model that was used to introduce the findings of the study.	"Products, stakeholder management, enabling resources and governance structure" are the four categories of ingredients that are required by the HR analytics team for organisational effectiveness. Machine learning and AI become quite important to identify patterns and improve accuracy of HR analytics teams. The data set is one of the critical factors in each of the ingredients of the wheel and AI & machine learning both can help in identifying the complex relationships within the datasets.
Tursunbayeva *et al.* (2018)	The goal was to gain an understanding of the nature, application and capability of HR analytics along with the	A quasi-systematic scoping review was done in the study with the analysis of	The rapid pace at which technology is changing and developing in the modern world, it is only important for HRM to be ready for PA in order to address

	issues arising in the field	secondary sources to gain the required insights about people analytics	new innovation and market demands. The analysis done in the study found a significant change in PA in the last 15 years. The commercial PA market is quite diverse with tools that offer numerous strategic and functional benefits.
Chalutz Ben-Gal (2019)	A review based on return on investment (ROI) in relation to HR analytics is the goal of the study	This is a review paper making use of 4-step review and analysis methodology	In this analytics driven world which makes use of data to support and make decisions in various business functions, the ROI model is one of the most effective frameworks for HR managers. The ROI model can significantly contribute to HR analytics and improve the entire process. The ROI model has been able to identify the HR functions that provides the most ROI and they are- workforce planning and recruitment & selection.
Zhang *et al.* (2021)	The research is focused on mapping the evolution of literature on big data related to HRM	A bibliometric review has been done using clustering algorithm which is based upon big data paradigm for the quantitative assessment of the entire research on the topic	Bid data is somewhat of an emerging field in context to HRM and significant research is still required in the future to get a proper idea of the subject matter. However, there are rapid development being made in the field of big data which provides opportunities along with challenges to HRM. Big data can help organisations at multiple levels and aid all the HRM functions from recruitment, selection and turnover. However, gathering of large amount of data to aid the entire process is one of the biggest challenges with big data
McIver *et al.* (2018)	The article aims to improve people's understanding of data analytics for workforce management to achieve	Secondary method of data collection has been used in the study to develop the right	The agile development process has been proposed in the study for the better integration of workforce analytics into the decision making process. Data analytics provides

	organisational success	approach of integrating data analytics into the HRM practices	HR with various opportunities that can help them drive the business towards success. However, to make the most out these, it is important for HR professionals to ask the right questions and use the right metrics
Garcia-Arroyo and Osca (2021)	The novelty, implications and challenges of Big Data has been review in the study	41 articles about big data in HRM has been analysed to complete the work	Big data has been highlighted as an new approach/methodology that can manage employee data in an effective manner but still they present numerous challenges various level like technology, ethics and methodology
El-Kassar and Singh (2019)	To explore the level to which the HR practices in a business have an influence on corporate ethics, big data innovation and competitive advantage	A survey of 215 participants from the MENA region and GCC was done to test the relationship	Big data and predictive analytics are two important technologies that aid innovation with HR practices in the way of providing the required/necessary advantage. The acceptance of big data from the top management becomes integral to gain the required benefits.
Nasar *et al.* (2021)	The data analytics for the various e-HRM activities has been proposed in the study	Four Datasets downloaded from Kaggle website have been manipulated and handled for the purpose. The use of various data analytics techniques has been used for the various e-HRM activities	An e-HRM model working on the principles of HRIS has been outlined with the necessary support of IoT based applications to make the large size of data available manageable. All the various functions of e-HRM have effectively been analysed in the work with certain scope for further work.
Singh and El-Kassar (2019)	To examine the extent to which the integration of big data technologies and green HRM can enhance the performance of the firm among other things	A survey of 522 participants working in companies in the MENA region and GCC were used to collected the data with the application of the	The sustainability of the firm can be enhanced in a significant manner with the integration of big data technologies and green HRM along with green SCM. The decision making process can significantly improve with big data and a talented and motivated workforce will be developed in

		dynamic capabilities theory	the process.
Huselid (2018)	The study aims to provide recent insights in the field of workforce analytics	Eight diverse papers have been used in the study to present new theories, methods and tools	It can be found that the use of workforce analytics can help in effective management of the workforce by enhancing the ability of leaders and managers to take right decisions to achieve the strategic objectives. Hence, a comprehensive understanding of the same needs to be developed by HR managers to make the most out of HR analytics
Nocker and Sena (2019)	The opportunities associated with talent analytics for an organisation has been explored in this paper	A number of case studies have been used in the study to provide the required insights and this further indicates the use of secondary data and multiple themes to complete the work	Machine learning has been identified as the key tool and important skill in talent analytics for organisations to understand employee behaviour. Machine learning can be used for the analysis of social media posts of the applicants and to understand the characteristics that they have not declared on the CV. Unsupervised machine learning can significantly be used by organisations to support recruitment while supervised ML can help in predicting outcome when it comes to talent analytics
Jain *et al.* (2023)	A broad view on the effective integration of AI in HRM functions	Case studies and secondary data has been used in the study to address the mentioned aim of the work	The application of AI is very important for HRM and it is something that can supplement the human resources of the business. Speed and accuracy with talent acquisition can increase while enabling customised professional development. The productivity and performance of the organisation will significantly improve with the use of AI in human resource management.
França *et al.* 2023	To provide appropriate and valuable insights into the relationships between HR practices	A bibliometric analysis of journals, citations, articles, indexes	AI can help in identifying the right skills that are required for competitive advantage in the market and thus is quite important

	and AI.	and keywords has been done to produce the required results	for talent management. HR managers need to be proactive with the use of AI to completely revolutionise their management practices. AI and machine learning can help organisations uncover new insights while evaluating the potential of employees in a significant manner.

4. DISCUSSION

The use of analytics in the field of HRM is something that has been an interesting subject of discussion at various levels. A large amount of research has been done on the subject to provide the required insights on the subject and present appropriate theories, models and findings for better understanding of the topic. The systematic review that has been done in the above section of the study has reviewed the contribution of certain researchers in the field of workforce analytics to highlight their theories, model and findings. All of the studies have highlighted the potential of AI, ML and DS powered workforce for improving the effectiveness of the organisation. On the other hand, some of the researchers have also talked about the challenges that are faced in the application of the same in an organisation. There are certain ethical issues that need to be kept in mind with the use of workforce analytics along with the development of appropriate skills to gain the most out of these technologies. When it comes to AI powered workforce analytics, Gurusinghe *et al.* (2021) has proposed a model developed using the TOE framework and resources based theory which can improve organisational effectiveness. VOBN has been proposed by Pessach et al. (2020) for using ML-powered analytics to gain the same outcome. Chalutz Ben-Gal (2019) further proposed the ROI model for the use of DS-powered models to improve organisational effectiveness. On the other hand, the theories and findings of all the research that have been reviewed above have provided the same insights regarding the use of AI, ML or DS powered workforce analytics. It has been made quite clear by other researchers that the use of workforce analytics in any form can help with increasing the organisational effectiveness.

5. CONCLUSION

Workforce analytics is a growing field of interest for all the stakeholders involved in the process and there still remains a lot to explore about the concept to gain the most out of these technologies. The systematic review has been able to highlight the positive aspects associated with the use of AI, ML and DS powered workforce analytics for organisational effectiveness with the help of the theories, models and findings. However, very few studies have been conducted on the subject that highlights the challenges or negative side of using the same for improving organisational effectiveness. The systematic review was unable to incorporate these aspects in the research due to lack of relevant literature. Hence, there remains a scope to

conduct a research on the challenges or shortcoming involved with the use of these workforce analytics for improving organisational effectiveness.

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Comprehensive Framework Integration of AI, MI, DS into Functional Areas of Human Resource in an Organisation

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Abstract

Artificial Intelligence has revolutionized the ways in which organizations performed and operated, the HRM sector has also been affected by this increased change. Artificial intelligence combined with machine learning has allowed better mobility within the organisation. Within the study, a literature review has been conducted in which several different articles have been observed which have all critically assessed the different aspects of these technologies and how they can be utilized to benefit the organization. AI and ML together can not only predict employee engagement levels but scan through several data sets to identify the candidates that are the most fit for the job. The information that these frameworks provide to organizations, upholds a unique perspective and valuable insight for the HR teams of the organizations. These findings are used to detect signs of burnouts among employees and ways through which their motivation levels can be increased.

Keywords: Human Resource Management, Artificial Intelligence, Machine Learning, Data Science, Recruitment, Employee Engagement and Performance.

1. Introduction

The rise of the digital age has completely transformed how Human Resource Management (HRM) is traditionally performed. The increase in technological advances has been observed in all sectors within the global sphere and has significantly raised the competition level. Due to these factors hiring skilful employees and retaining them has been a significant struggle for many companies. While talent and skill management still are viable necessities for the HRM departments, improving the employee experience through better engagement methods has also been a priority. However, in order to increase job satisfaction levels among employees workplace relationships needs to be improved which is made possible through different frameworks such as Artificial Intelligence (AI), Machine Learning (ML) and Data Science (DS). Votto et al. (2021) have carefully pointed out that integrating technology with HRM practices has improved managerial work within organizations and has effectively reduced the time which was previously taken in handling issues related to employees and their needs.

It has become necessary for the human resource section of the organisation on focusing on the humane aspect within the organisation as these can help with the development of interpersonal relationships among the employees. There are many different applications of

technology within this sector, the rise of Big Data has resulted in organizations having to process and deal with large quantities of results, applicants, and resumes, AI can help in shortlisting the candidates and picking candidates that are the most suitable for the job based on their qualifications. The purpose of the present research is therefore to understand all of the different ways through which HRM practices can be improved. The study has carried out a systematic review of all of the different phenomena to enhance the understanding of the use of artificial intelligence and machine learning in improving both the technical and managerial functions of the organisation.

2. Methodology

The present study essentially deals with understanding how AI and other forms of advanced technologies can be used to improve HRM practices, because of this reason a literature review approach has been utilised which can provide a better insight into these different variables. A literature review allows the researcher to observe and gain inspiration from past research works which has been carried out on the subject. Many researchers have also credited systematic literature review to enhance the quality of the research as it helps in upholding the integrity and transparency of the research (Vrontis et al. 2022). The findings of the past research work and the methods that they have adopted to gain their findings have been analysed successfully by gaining an acute understanding of the themes which the studies have dealt with. The articles used for the present study have carefully been chosen to ensure they meet the standards and focus on the positive attributes that adopting these technological systems can bring to an organisation. It has been identified that AI, machine learning and other forms of advanced technologies are relatively new concepts and often involve complex adoption processes, therefore by researching the importance of them in the field of HRM, confidence level among organizations can be raised to adopt these technologies.

3. Literature Review

According to Budhwar et al. (2022), artificial intelligence and all of the other advanced technologies that are powered through AI-based applications have immense abilities in improving the methods that HRM uses to manage employees within organisations. The different opportunities that organizations gain by adopting AI in their business have been elaborated within the study. The researchers have argued using this technology has improved decision-making practices and used organizational resources more efficiently. AI can human resources with talent acquisition, and the development of employees' skills to retain them. Recruiting employees that fit the business standards and assessing their potential is often a hard procedure, AI can help pick the candidates that are the most suitable for the position. The research has also made use of a systematic literature review for the purpose of the study, the findings of the study show the use of AI for the recruitment process has brought positive moderation effects. The study has also stressed the need of carrying out more research on this topic as it is an emerging concept and not all organizations are ready to accept AI within their organisations yet.

Malik, Thevisuthan & De Sliva (2022) have also carried out research on the use of AI in influencing employee engagement rates and carrying out effective performance reviews. One of the top priorities of the HRM is to raise engagement levels among the employees to increase the profitability aspect of an organisation. The performance of the employees can be

better tracked with the use of AI, their potential and areas which they are lacking can be identified through the use of technology. Demographic differences in the present workforce are also an important factor that organizations need to consider, therefore AI provides different engagement tools to HRM that can be used to manage employees. Employees that feel engaged with the workplace tend to perform better than others, AI can raise their self-esteem, and resilience attempts while simultaneously boosting their optimism levels. Performance management in this regard is significant as it identifies the key performance indicators of the employees and uses them to develop strategies that can help in improving their performance.

Hossin, Ulfy & Karim (2021) have elaborated on the significance of adopting AI and the ways through which it can be utilized to develop the skills of employees and reduce the employee turnover rates within the organisation. In the modern era, most employees seeking better jobs often use different social media platforms such as LinkedIn to seek better employment opportunities, therefore AI can help in recognizing the talent that is fit for the organizations. AI can increase the productivity of the organisation by saving time, money and effort which is used to develop talent. Challenges have been identified in convincing people of the benefits of adopting AI because the fear of job loss and being replaced makes people afraid of changes. AI can however provide training to the individuals on a continuous basis and help them with the adoption of technology.

Berhil, Benlahmar & Labani (2020) have argued that the human capital of an organisation is the most important asset as they help influence the organizational decision-making process to increase the profitability aspect. A survey has been carried out within the study to address the various risks that are associated with human resources. It is part of the HRM's responsibility to help the employees manage their careers and highlight the potential that it creates for the organisation. In order to effectively plan the organizational functions, understanding the skillsets of the employees is important. Increasing motivational levels among the staff and providing adequate training is important to guarantee success. The organizational goals can be set through AI, but the goals need to be attainable to provide employees incentives in reaching them. Artificial intelligence is linked to machine learning as both are based on technology that can attract talent while retaining the existing ones. Performance indicators have been developed to help human resources gain a better perspective on their human capital. The results from this research reveal the employee profiles and their productivity levels.

Gupta (2021) has researched the possibilities of AI and how it can help HRM with virtual assistance. The rise of technology has resulted in the development of tools that can identify the faces of individuals and collect personal information for the development of tools that can help with the manufacturing of the service industries. Similar to call centre agents, virtual assistants can help with the different processes and services that are involved with human resources. HRM members can directly speak to the machines and collect information on the employees within the organisation and use the information to further develop their existing practices. The survey that was carried out within the study has pointed out that 54% of the global companies have incorporated green management practices powered by AI within their organizations, this has dramatically reduced the level of paperwork that was previously

carried out by the organisation. The study is consistent with the other literature observed in this section, as it suggests the use of AI can motivate employees while also creating new environment-friendly opportunities that can greatly impact the organisation.

Rąb-Kettler & Lehnervp (2019) have defined machine learning as a tool that can perform by itself without any form of intervention. Machine learning is empowered through the powers of artificial technology and therefore it can learn from its own mistakes to better perform in the future. Every organisation as pointed out within the thesis uses a certain level of machine learning within their organisation and automation is currently one of the biggest influencers in the field of recruitment. There are several ways machine learning can help with recruitment, job descriptions can be handled through this method, and the CVs of interested candidates can be identified and screened efficiently through this method while also setting up interviews for people. All the recruitment administrative tasks can be efficiently handled with this method, relieving the organisation from the perils and burdens. Recruitment has been described as an industry that experiences high turnover rates and because of this hiring the right candidates is highly important.

In the context of machine learning, Fallucchi et al. (2020) have suggested that machine learning can be utilized to increase engagement levels among employees and also positively impact their performance. The world has become incredibly competitive and therefore to sustain businesses, organizations need to boost the entire firm performance, which can only be conducted by increasing engagement levels and motivating the employees to be more creative. The viability of machine learning in influencing the decision-making procedure of individuals has been the subject of study within the present research. The study has adopted the TDSP framework to observe employee performance levels, the dataset for the study has included 1500 observations, and the findings further confirm the fact that the use of algorithms has shown higher engagement levels among the participants. The importance of incentives in influencing employees cannot be over-emphasized, organisations can increase salary based on their performance and experience as they can significantly outweigh negative emotions and lead them to perform better.

According to Zhang & Qi (2022), employees within an organization are often under a lot of stress which can hamper their performance, due to these reasons better management practices need to be implemented that can help these employees. Deep learning has emerged as an approach that can be used to predict the stress levels of individuals and take necessary actions to improve their job satisfaction rates. Machine learning has various applications, this method has the potential to accurately predict the stress levels of the employees and improve the HRM practices of the organisation in the process. The findings of the study show the capabilities of deep learning and how it is able to predict and assist the performance of employees in real-world scenarios. Within the experiment initially, 500 workers with 14 different attributes were chosen, and the second HAJP dataset which was collected increased the number of participants to 14999. The findings show how this sub-division of machine learning can be used to predict worker behaviours and satisfaction levels within the organisation.

Finally, the research carried out by Tambe, Cappelli & Yakubovich (2019) has shed light on how machine learning can help with workforce optimization. The use of AI in HRM has

become incredibly common over the years, machines can be taught to mimic certain behaviours that they are taught and can even adapt themselves to human behaviour. Because of these reasons, machine learning is now getting used by management to keep better track of employees and their needs. The findings of the study have shown how 22% of the firms have started incorporating machine learning and artificial intelligence within their business procedure. Organizations are able to implement measures that help in determining the organizational goals of the employees and measure the outcomes of their performance. This helps in improving the organizational culture and optimise the employees. Integrating machine learning also has the potential in improving the financial outcomes of the company. The ultimate goal as stated by the researchers is to optimize the business procedure while ensuring the employees are judged based on their performance, machine learning helps in making sure all of the employees are treated fairly within the organization.

As per the study carried out by Dutta (2018), data science can be considered an umbrella term that involves different statistical and mathematical analysis which helps business improves their performances. The HR sector in the modern era is completely data-driven and as a result, data science therefore provides valuable insight into learning and training acquisition. Data science helps in equipping human resources to deal with the recruitment process of the organisation more adequately. Similar to the other studies, the researcher has pointed out the increase in e-recruitment processes that have been going on within the business world and the use of artificial intelligence and machine learning to increase the agility of the recruitment procedure. Using these technologies to streamline the hiring process can have a significant impact on the organisation and reduce costs. Social networking has also increased over the years, and using it to attract new employees has also increased, data science allows organizations to use digital media as their own advantage for recruiting people.

Kimura (2023) has expanded on the idea of using data science in the field of HRM to increase engagement levels among employees. The study suggests that the concept of using data science to predict employee behaviour has been in practice for many years, however, the rise of digitalization has no doubt improved these methods. Research has highlighted that the personal values the employees possess about themselves play a crucial role in dictating their level of satisfaction with the job role. These personal values of the employees have been studied within this section to understand the purpose that they serve in increasing engagement levels. The findings of the study are illuminating as it states that the personal beliefs which are possessed by employees cannot be changed, therefore, organizations needs to assess these personal bias and find ways through which these biases can be turned into strength.

According to Singh & El-Kassar (2019), the use of big data in different industries has continued to transform businesses, however, in order to function effectively it relies on data science and its ability to predict the different supply chain factors. Organizations in recent years have become more environment concerned which has led to the focus on sustainability. In this regard, the researchers have stated that the resources of the firm can be utilized to raise the commitment levels of the employees. The operational strategies of the firm can be improvised to incorporate ways that can increase investment levels and influence decision-making. Data shows that firms often exploit big data for their own personal needs, using it to develop sustainable practices can be beneficial for the organisation in the long run. The

environment-friendly approaches allow organizations to engage with their environment in a better manner and help in creating sustainable values within the organisation.

The final study observed in this study is carried out by Lehrer et al. (2018) and has shed light on how the different analytical tools are being used for analysing the different kinds of data and providing upgraded experience to all of the individuals that are involved with the process. Machine learning and data science can be adopted within organizations to predict employee turnover rates that are to be expected from the business. The different machine-learning processes have been analysed to find ways that can reduce turnover rates and retain employees. The study carried out by Börner et al. (2018) further sheds light on this phenomenon as they have pointed out that in order to increase employee retention, their skills of them need to be sharpened. The workforce needs and educational offerings made by the organisation need to be carefully studied to train them adequately and provide their needs in order to make them stay.

4. Conceptual Framework

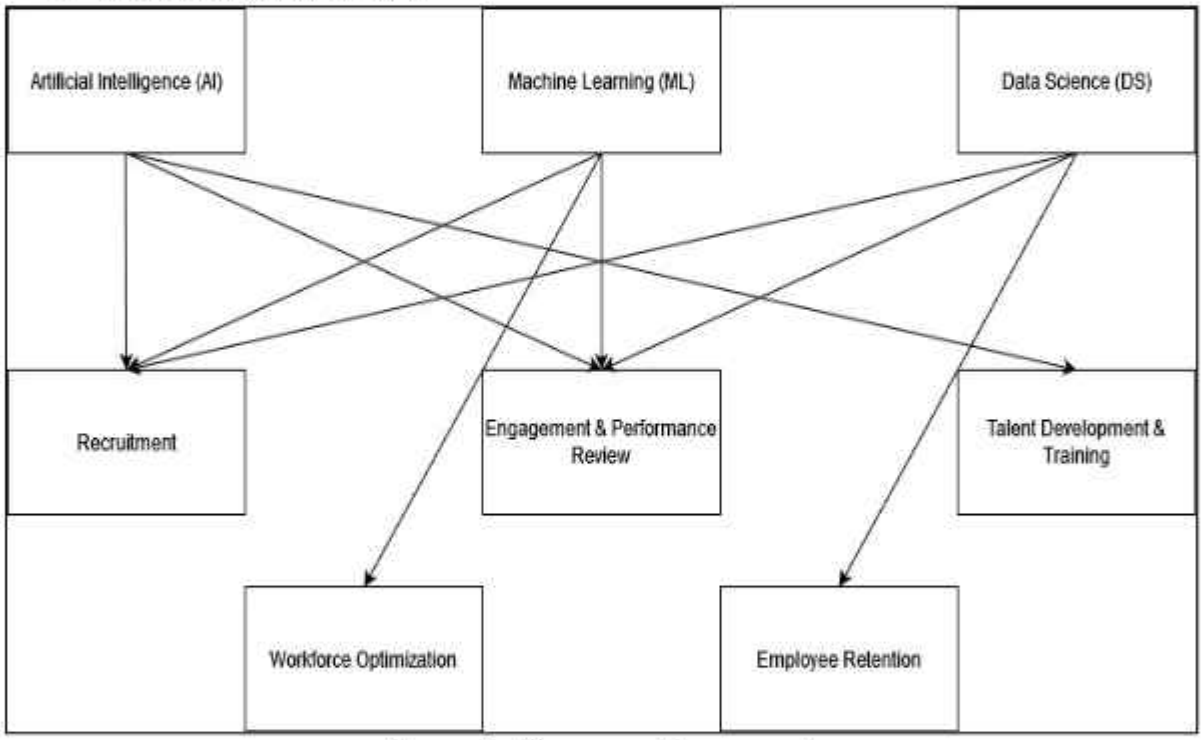

Figure 1: Conceptual Framework
(Source: Self-Developed)

5. Conclusion

As concluding remarks for the present study, it can be seen that the systematic literature review approach which was adopted for the study has successfully shed light on all of the positive impacts artificial intelligence, machine learning and data science have on the HRM and their organizational practices. The study has shown how all of these different frameworks are used collectively to find trends and similarities among the employees and develop engagement, performance and retention protocols that influence the employees and reduces the turnover rates for the organisation. Each of these components has its contributions to increasing the engagement levels of the employees. On the other hand, AI and machine

learning have their significance as they can navigate through different resumes and job applications while picking the ones that are the most suitable for the job position. The study has presented a comprehensive guide on all of the capabilities of these advanced technologies and ways through which they can improve the business procedure.

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Impact Of AI Based Learning And Development In Corporate And Other Industrial Sectors -SLR

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Abstract

Aim/Purpose: The article is aimed at exploring the various impact that AI-based L&D can have on the corporate sector and certain industries

Background: AI-based learning and development (L&D) has become quite important for all industries irrespective of their size and sector in order to survive in the long run. It is something that has the potential to improve and optimise all business functions in a particular industry.

Methodology: A "systematic literature review (SLR)" has been conducted in the study to explore the mentioned prospects and gather the required insights.

Contribution: The paper helps in understanding the importance of AI for L&D in an organization for better competitive advantage

Findings: It has been found that AI has the potential to impact every aspect of business operations and improve them in a significant manner. From pharmaceutical to food, every industry can significantly benefit from the implementation of AI-based approaches in their business functions.

Recommendations for Practitioners: Investments in the corporate sector and other industries related to AI need to be increased to gain a competitive advantage in the market. This generally needs to be done because of the numerous possibilities that AI can create for the growth and development of the business in the market.

Recommendations for Researchers: Researchers can further explore the topic by conducting primary study involving methods surveys and interviews

Impact on Society: N/A

Future Research: The impact of AI on other business functions like recruitment & selection along with employee retention can be explored

Keywords: AI, learning & development, industry, operations, efficiency

Introduction

The learning and development (L&D) environment is undergoing a massive transformation because of AI and companies need to stay on top of these transformations for better results. L&D is something that is considered to be quite valuable for all successful organisations since it helps in developing, engaging and retaining their most talented employees. The opportunities to learn and grow in an organisation play a significant role in the workplace culture. AI has a lot to offer to the L&D practitioners in an organisation and this is one of the primary reasons behind the growing popularity of the tool in the corporate world (Leung, Braun & Cuzzocrea, 2019). The total corporate investment in AI has witnessed significant growth in the past few years reaching 94 billion in 2021 from 12.75 billion in 2015 (Thormundsson, 2023). This number is further expected to rise in the future with the rising interest and market size of AI due to its immense possibilities in the business environment. The AI market was valued at 100 billion in 2021 and is expected to grow twentyfold and reach 2 trillion by 2030 (Thormundsson, 2023).

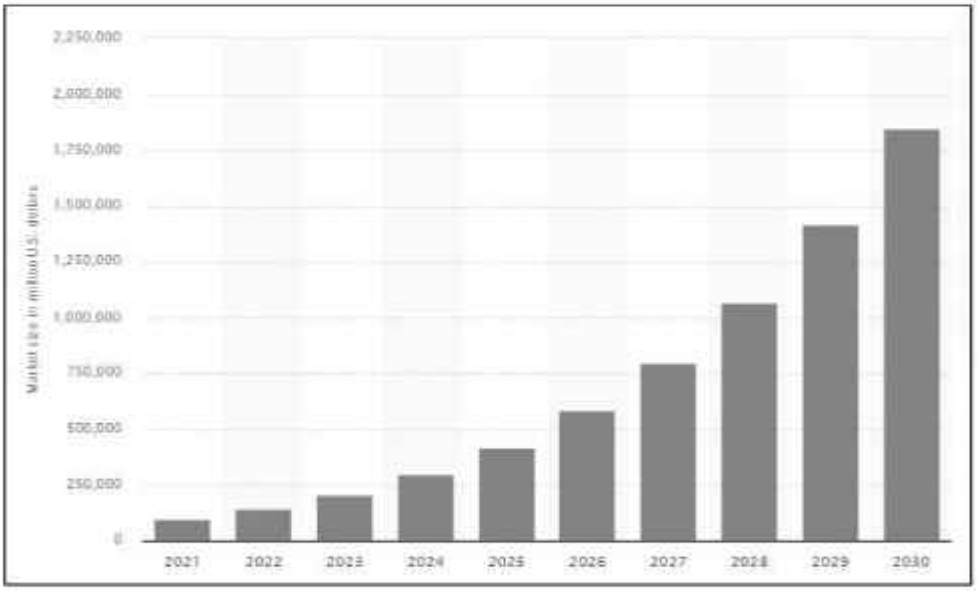

Figure 1: Market size of AI (2021-2030)

(Source: Thormundsson, 2023)

The launch of ChatGPT 3.0 in 2022 create a whole new space in the field and gave rise to various possibilities (Thormundsson, 2023). The AI market is something that covers vast industries and can be applied in almost every business function in order to perform tasks in an effective manner. L&D professionals have to act according to

these advancements for making expected improvements in the productivity and performance of their businesses. L&D is an important business function which helps the organisation stay ahead of the trends and address the challenges in an effective manner (Odor, 2018). With the amount of data that is available to an organisation, AI can be used for a more personalised experience to meet the learning and development needs of the business. Hence, the purpose of this article is to explore the impact that AI-based learning and development can have on the corporate and industrial sectors.

Methodology

A systematic literature review (SLR) has been done in this article which is a replicable, transparent and scientific process. There are various advantages associated with the adoption of SLR compared to traditional reviews processes. SLR facilitates a higher-quality review process while minimising the errors and bias involved with the work (Xiao & Watson, 2019). The validity of the entire process is also increased due to the possibility to replicate the entire process. The SLR in this article has been divided into two distinct steps where the first step involves identification, reading and presentation the findings of various research and the second step is providing a concise discussion of the insights gained from the first step. The first step further has various sub-steps that are focused on gathering the necessary information on the topic and they are- (1) identification (2) selection (3) eligibility and (4) inclusion. The identification of the article was done with a manual search on Google Scholar to identify the relevant articles from high-quality journals. The selection was done based on the time of their publication and the availability of full-text pdfs for the review. The eligibility was measured on the presence of keywords like AI, business performance, impact and development. Finally, the inclusion of the article was done based on their ability to address the purpose and highlight the impact of AI-based L&D on corporate and industrial sectors. After this, a brief discussion of the findings of all the articles to address the purpose of the research was provided. The discussion helped in identifying the various impacts that AI-based L&D has had on organisations in the market from the findings of various researchers. However, there were certain assumptions made in the selection of the 8 articles for the review. Since there were articles that explored the impact of AI-based L&D on businesses, it has been assumed that the impact of AI and AI-based L&D would be the same on the industry. Hence, recent articles related to the impact of AI on various sectors have been selected for completing the review in an effective manner.

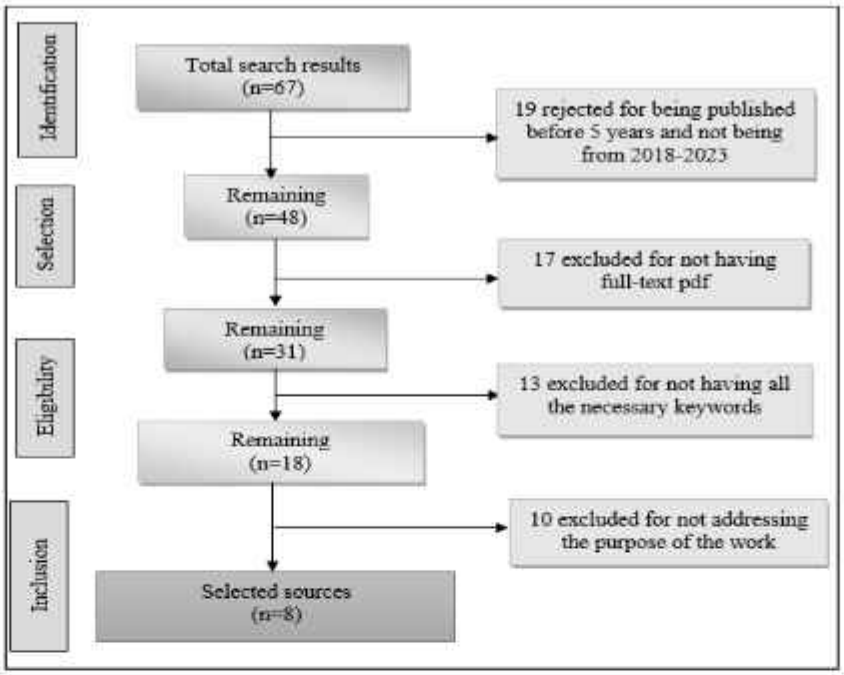

Figure 2: Summary of the research process

(Source: Self-developed)

3. Findings and Results

Table 1: Systematic review

Author (s) and publication year	Aim of the article	Methodology	Findings
"Lee, D., & Yoon, S. N. (2021)"	The article has conducted a thorough review of the impact that AI-based technologies can have on the healthcare sector with the help of real-world examples.	Qualitative- A thorough literature review has been adopted in the study to complete the work and provide the required insights.	AI-based technologies have improved disease treatment while reducing errors within the industry. Patient engagement and participation have improved due to the technology along with a reduction in medical costs. Overall, the service quality has significantly improved with the help of AI-based technologies. There were also various challenges identified in the process like the accountability and cyber-attacks involved with the application of this technology.

"Kakani, V., Nguyen, V. H., Kumar, B. P., Kim, H., & Pasupuleti, V. R. (2020)"	The article aims at reviewing the impact of AI-based learning methods for assisting farmers in food processing and the agriculture industry for the overall improvement of the food industry.	The secondary sources of information have been used in the study where the researchers have referred to a wide range of articles to present their discussion on the entire topic.	The article has highlighted various examples of which AI can be used to improve agriculture and food processing within the industry. From finding pests to crop yielding and portfolio diversification, AI can be used to improve production and quality in the industry. Further, the various aspects of food processing can further be improved with the help of these technologies like harvesting, picking and quality control. There are various case examples that have been used in the article to support the entire discussion of the impact that AI-based learning can have on the food industry.
"Di Vaio, A., Palladino, R., Hassan, R., & Escobar, O. (2020)"	The article has reviewed the application of AI in the creation of sustainable business models for all businesses in today's market. The study has focused on understanding whether AI can influence consumption and production patterns for aching the SDGs outlined by the United Nations	A quantitative overview has been provided in the study pertaining to the literature available regarding the field	It has been found that AI has the answers to most of the presenting challenges that are being faced by humanity in the present world. Apart from that, the article has also highlighted the role of AI in helping workers to engage in high-profile tasks with exploring the full potential of AI-based technologies. However, the significant contribution of AI in achieving the SDGs has been clearly highlighted with the key focus on SDG #12 while helping in the creation of "sustainable business models" in the process. The growing focus on sustainability is something that makes the entire results and findings of the study important for all sectors
"Wamba-Taguimdje, S. L., Fosso Wamba, S., Kala Kamdjoug, J. R., & Tchatchouang Wanko, C. E. (2020)"	The influence that transformation of projects due to AI have on the performance of an organisation has been analysed in	A case study design has been implemented in the study which involved conducting reviews of 500	AI is being increasingly adopted by organisations for a wide range of functions but most prominently it allows individuals to have a proper knowledge and idea of the ecosystem and take actions accordingly. The adoption of AI

	this article while building on the business value of such projects.	case studies from AWS, IBM, Cloudera, Nvidia, Conversica and others.	technologies is generally done by organisations to disrupt their ecosystem by the development and optimisation of their strategic and competitive advantages. All of the existing processes within the organisation are optimised with the help of AI while improving the automation prospects of the business. Hence, building on AI can help the organisation improve their business value
"Paul, D., Sanap, G., Shenoy, S., Kalyane, D., Kalia, K. & Tekade, R.K., (2021)"	The use of AI in various sectors of pharma industry has been highlighted in the study	The secondary sources of information in line with the qualitative design has been used in the article to address the mentioned aim	The AI-tools and advancements can be used for various purposes within the industry but in all it can help in reducing all the challenges that is being faced by the industry. The biggest challenge is the rising costs of drugs and therapies which require significant attention from all the stakeholders. With the use of AI, precision medicines can be used according to the patient's needs while speeding up the time needed for products to come to the market. AI-based approaches can make valuable contributions to the future growth and development of the industry.
"Burström, T., Parida, V., Lahti, T., & Wincent, J. (2021)"	The article focused on understanding the way in which market leaders have become successful in facilitating business model innovations with the help of AI in their industrial ecosystems	A qualitative study involving 30 semi-structured in-depths interviews with strategic key personnel has been done in the study to understand the way in which they were able to become successful with the implementation	Market leaders have tried to balance the exploration and exploitation of AI in various business areas. Forecasting and controlling are aspects that are being exploited while optimization and automation are being explored by industry leaders. The full potential of AI has yet to be explored and it is important for the leaders to gain a proper idea of the complexity involved with the process. Incumbent players are using AI for small-scale innovation or using it as improving or enabling technology. AI is still unable to provide the incumbent with the required edge in the

		of AI-based innovation.	market and is now just a competitive requirement for the incumbents in the market
"Pallathadka, H., Ramirez-Asis, E. H., Loli-Poma, T. P., Kaliyaperumal, K., Ventayen, R. J. M., & Naved, M. (2023)"	The impact and influence of AI in e-commerce and finance industry has been explored in the paper	Secondary information published in peer-reviewed journals and articles have been used in the study to gain the required insights.	It has been found that both the industries have used AI for improving the customer experience and development of an efficient supply chain. A standard and reliable product quality control measure has also been developed in the industries with the help of AI while improving the operational efficiency of the business. AI has also provided new ways of reaching or serving customers in a cost-effective manner to the businesses.
"Grover, P., Kar, A. K., & Dwivedi, Y. K. (2022)"	The feasibility of AI utilisation within an industry based on various elements of operations management has been explored in the study	Two methods have been followed in the study. The first method is the systematic review of analyses of the academic literature on the topic. The second is the use of social media analytics to extract and analyse data from Twitter to evaluate the opinions of experts on the subject matter.	It has been found that the use of AI in OM can help in enhancing product quality while helping with large-scale production for the business. AI can further be used for inspection in the bid to reduce cost and time for the industry. Experts involved in social media discussions have suggested the use of AI-powered drones for the inspection of steel structures and wind turbines. AI can further be implemented with ERP by MNCs to minimise resources and improve productivity. AI can further improve the entire prospect of customer relationship management while reducing procurement costs within the supply chain.

Discussion

The above review has been able to highlight the various impact that AI-based L&D can have on various industries and sectors in the market. Although the articles in the review have not directly explored the impacts of AI-based L&D on

the various industries, all the articles have highlighted the impact that AI can have on business. The overall impact of AI or AI-based learning and development can be assumed as the same things since the application of both these aspects would be the same on the business. The systematic review was able to identify 8 prominent articles that have explored the impact of AI on various sectors from pharmaceutical to food and manufacturing. It has been found that AI can have a positive impact on all the elements of the business operations like supply chain management, customer experience and quality controls. The pharmaceutical can significantly improve the production and identification of drugs and therapies using AI while reducing the costs of treatment in the process. The service delivery process within the industry can significantly improve with the help of AI and better patient outcomes can be achieved with the implementation the various AI-based approach.

AI also has the potential to completely disrupt the industry with the development of tools and processes that can solve a problem or create a new market (Howard, 2019). AI can help businesses understand the market in a more appropriate manner and provide them with ways to function effectively in various market conditions. The food industry is something that can effectively use AI-based tools for better products and processes. AI-based learning can help farmers with pest control and crop yield while improving the quality of the final product. AI also has an important role to play in the achievement of sustainable development goals that have been developed by the United Nations for 2030. In regards to the SDGs, AI can help all the stakeholders to engage with high-profile tasks that are needed to meet the goals set by the UN for the development of a sustainable society. On the other hand, corporate businesses and other industries are looking to adopt AI for securing a competitive advantage in the market. Organisations are yet to understand and implement the full potential of AI but are working tirelessly in the process to emerge at the top of the industry (Cockburn, Henderson & Stern, 2018).

AI-based applications can be used by organisations to reduce all the challenges being faced by them in the market especially the ones that are being faced by the pharmaceutical sector in the market. Operational efficiency and productivity are enhanced with the use of AI in the market while providing the business with an edge over the competitors. AI can further help in reducing the errors being made by businesses and helping them understand the needs of the customers in a more appropriate manner. Market

leaders are all looking to either explore or exploit the potential of AI for the betterment of their business in the market. AI can help in improving the quality of products by facilitating better quality control measures and inspections. Major manufacturing industries can effectively use AI-based drones for the inspection of various structures like steel structures and wind turbines. On the other hand, the biggest impact that AI can have on the operation of a business is the development of its supply chain. The supply chain is one of the biggest challenges for any industry in the present scenario due to various factors. AI is something that can help address this particular challenge by helping in the development of a resilient supply chain that is able to meet the needs of the market in an appropriate manner.

Conclusion

A systematic review of the impact that AI-based learning can have on the corporate and industrial sector have been explored in the study. A clear idea of the way in which AI can impact the industry has been gained with the help of SLR in the process. It can evidently be concluded that AI is something that can help in securing the required advantage in the market and the full potential of AI has yet to be explored by these sectors in the market. This research has focused on conducting a systematic review to gather insights and thus there still remains a scope to conduct further research on the topic. Interviews with industry leaders and top executives can help in understanding the impact that AI can have on business while also exploring the future that AI holds for various sectors. The opinions and views of people who are actively involved in the market can significantly add to the existing knowledge that is present in the market regarding the topic.

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CONCLUSION

The majority of Indians state of karnataka have a direct or indirect focus on agriculture. Some are involved in the farming industry directly, while others are involved in the business of selling these goods. The ability of an Asian country to supply food grains could significantly impact the Indian and also karnataka economy. karnataka 's gross domestic output is most greatly impacted by agriculture. Although the agriculture industry has been observed to contribute less over the past few years, it is still the biggest contributor. Because of its significant contribution to the country's GDP as well as the fact that a sizable section of the population is dependent on foreign trade for their daily sustenance, agriculture holds a prominent place in karnataka governance. But it's evident that karnataka 's agriculture industry has made great advances in realizing its potential. As well as introducing technological advancements throughout agriculture, the revolution greatly increased the assembly of essential food grains. As well as introducing technological advancements throughout agriculture, the revolution greatly increased the assembly of essential food grains. Karnataka web trade position reflects this development. Whereas before an Asian country had to reply on imports to feed its people, after 1990 it has become a major bourgeois of agrifood products. Due to its extensive and diverse agricultural sector, even minor changes in its trade have a significant impact on the global agricultural markets. Last but not least, they need long-term governance and stability in the political and economic environment when putting reforms for roaring globalization into action. This is an important factor that is not totally inside management.

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INTEGRATING AI-ENHANCED HR PRACTICES: UPSKILLING THE DIGITALISED WORKFORCE IN EMERGING TECHNOLOGIES

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Abstract

The advent of Artificial Intelligence (AI) in Human Resource Management (HRM) heralds a transformative era for workforce development in various ways, particularly in the realm of emerging technologies along with AR, VR, Data science. This research delves into the integration of AI-enhanced HR practices upskilling the digitalized multi-generational workforce ensuring inclusive of fairness and transparency. It explores the paradigm shift from traditional HRM to AI-driven methodologies, emphasizing the need for continuous learning and adaptation in the face of rapidly evolving technological landscapes elevating performance. The study employs a mixed-methods approach, combining qualitative insights from HR professionals and quantitative data from organizations that have pioneered AI integration in HRM. Significant impact identifies key areas where AI workforce upskilling with implementation, such as personalized learning paths, predictive analytics for talent management, and automated skill-gap analysis. The research highlights the role of AI in facilitating a more dynamic, responsive, and efficient approach to employee development and training through HR Practices. Furthermore, the proposed paper examines the challenges and ethical considerations of implementing AI in HRM, including data privacy, algorithmic bias, and the potential impact on current and future employment. The findings suggest that AI-enhanced HR practices not only streamline the upskilling process but also foster a culture of continuous learning and innovation. The study concludes with strategic recommendations for organizations looking to integrate AI into their HRM practices, emphasizing the importance of aligning AI initiatives with overall business strategy and employee well-being.

Keywords: AI in HRM, Workforce-Upskilling, Digital-Transformation, Emerging Technologies, Ethical AI Practices.

INTRODUCTION

The convergence of our actual world into a virtual Intelligence have been in process and progressing with innovative technologies like Blockchain, Big data, Data Science, Augmented reality, we simply can call the post-reality Digital space as Artificial Intelligence (AI) . In other words, earlier the user programing the requirements with coding sources and tools, Later Artificial Intelligence (AI) through Machine Learning (ML) using Data science in Augmented Reality and the receiver in the form of Virtual Reality been separate entities. This AI Technologies integrates with generic algorithm along with varieties of other supportive tools and technologies like ChatGPT, OpenAI, Generative AI, Robotics, Gamification makes the work easier. Experiencing the immersive nature of AI in Human Resource Management, to elevate the traditional HR Practices to a more comfortable and classier digitalized environment through Chatbots, over the digital world in virtual ecosystem. The ideology behind is to analyze the employee interest adaptability, and awareness working in AI and ML were recruitment, meetings, training and development, attendance maintenance, performance grading would be taken up in AR-VR mode. This builds an economic system based on blockchain technology, Big Data Strategy, Gamification, that closely integrates with virtual world and the real world within the organization.

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Inclination towards Digital social media system, and the network identity system, allowing each user to create, produce content and edit their own Meta Data available in Data Science through Deep learning (DL) collaboration avoiding duplicity. The way of virtual communication between various humans have elevated drastically. This helps in the innovation of various AI based internet applications, supporting tools and technologies eventually and commercially. This paper summarizes the Effects and impact of Integrating AI- enhanced HRM practices thereby Upskilling the Digitalized Workforce in Emerging Technologies followed within the organization through Human Resources process. The way employee shares their interests and willing to experience this novel technology in their daily life, improvising their performance and growth individually, developing the overall performance of the organization as well. It is understood very true that Human Resource Management plays the key department in the organization in any industrial sector, there by laying the pipeline in developing the employee interest, adaptability, and involving their skills in learning AI, ML, DL, VR, AR creating a virtual Metaverse. This in turn develops the entire building blocks of the organization in fetching a conglomerative projects, clients, and People across boundaries.

OBJECTIVE

This study is based on analysis over the Effects and impact of Integrating AI- enhanced HRM practices thereby Upskilling the Digitalized Workforce in Emerging Technologies towards overall development of enterprise growth including trending technologies like AI, ML, DL,DS,VR, AR, XR.

HYPOTHESIS

Null Hypothesis (H_0) – There is no Significant correlation between the Dependent and Independent variables considered.

Alternate Hypothesis (H_1) – There is a correlation between the Dependent and Independent variables considered.

VARIOUS EXPRESSIONS ON AI

Artificial Intelligence (AI) is a revolutionary branch of Digital Network Space dedicated in creating, developing, executing systems capable of performing tasks that typically require human intelligence. These tasks include learning, problem-solving, pattern recognition, and decision-making, a few to say. AI operates through generative algorithms and data-driven models, enabling machines to gather Meta-Data from various resource, interprets, predicts, and responds to complex scenarios with a degree of autonomy avoiding repeatability and human error. In the realm of Human Resource Management (HRM), AI integration marks a significant evolution with excellent Integrity, accountability, and credibility. AI in HRM practice encompasses the use of intelligent systems for streamlining recruitment processes, virtual meetings, training, performance grading, gamifying activities, enhancing employee engagement, optimizing talent management, providing overall development. By analysing vast amounts of raw data, AI can identify patterns and insights that assist in making informed decisions about personal data handling, talent acquisition, training needs, attendance, appraisal, rewarding activities, and performance evaluations. This digital integration not only improves traditional and virtual operational efficiency but also contributes to a reliable, more strategic, data-driven approach in managing overall human capital of an organization, paving the way for a more dynamic, inclusive, and productive workplace with a commanding strong workforce.

RESEARCH METHODOLOGY

Period of Study: The Study is developed based on Human Resource sectors involvement, Understanding the Employee interest in adapting AI within the organization cited in Chennai for the period from 2 months.

Data Collection: Effectual study-based survey analysis is being done through various check list questionnaire, circulated among copious experienced level of employees through HR team with in the conglomerate AI workforce. Discussion in person, google forms, Previous cited information from reliable and prominent webpages were considered, referred, respected considerably helping to investigate and integrate AI in HR.

...Design Patterns: The data samples were observed from various IT and non-IT based employees through ...finance sectors from various possible industries, interested in stepping ahead with the new technologies. (IBM, ...EXTRAW,CROSSOVER, BLUESKY, Accenture, Infosys, TCS to name a few were the major stakeholders from ...ai Chennai invested in AI -as per available secondary journal sources)

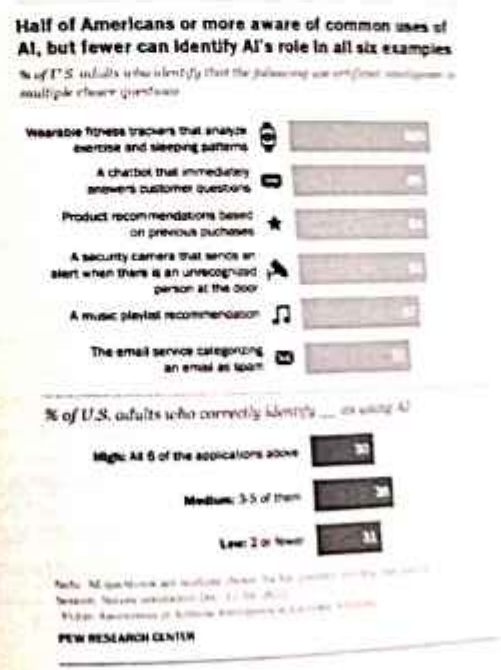
...Analysis: Proceeding on employee interest, awareness, and HR involvement in obtaining the analysis from selected ...non-IT firms from the secondary resources are surveyed with various level of measured interrogation. A vivid range ...data through several queries based on the Employee's available essential details. Awareness of AI, ML, DS, VR & ...wide opportunities for its application, executing Interest by the employees and challenging threats are to be reviewed ...accomplishment eventually and effectively.

...TORS INFLUENCING ARTIFICIAL INTELLIGENCE IN AN ORGANIZATION

...research analysis SOAR of AI in Human Resource Management in an organization were being studied through ...workforce and employee awareness. Sample data analysis was considered through table1 and table2 constructively and ...cingly after meticulous examinations.

...ARENESS AND APPLICATION OF AI

...for the data available in Pew Research Center survey during the year 2022 at USA, finds, about 27% of 1100 citizens ...interact with AI frequently in a day. Around 28% use at least once in a day, few times in a week or even occasionally. Whereas ...self-reported data says, 44% were not a regular user of AI at all. In the digital platform of AI, VR and AR along with Block ...Net and Big Data becomes very futuristic applications. The ventures will be growing both traditional and digital way ...accelerates with AI and ML along with its supporting tools encapsuling easier adaptation. Every measurable activity ...growing in and around organization can be quantifiable and computable possibly by adopting Artificial Intelligence AI) ...Algorithmic Machine Language (ML).



...Pic: PEW RESEARCH CENTER – Based on Artificial Intelligence

Considerably out of 100% of the sample rate, around 25% to 30% samples were moderately aware about the AI and interested in utilizing it. Approximately 15% to 20% of the samples shares their very high rate of interest in handling AI, ML, AR, VR, meticulously, as per the sample data in table1: awareness and usage of AI, ML, VR, AR, in overall organizational development.

Out of 100 Samples approximately Yes		Saves Time, if Part of the organisational activities like, Recruitment, meetings, training, performance activities is done in advance AI, ML, VR and AR?		Total
		No		
Usage of Artificial Intelligence for overall Organizational development	Very Low	2	2	4
	Low	4	3	7
	Moderate	28	2	30
	High	18	2	20
	Very High	18	10	28
Total		70	19	89

Table1 : Sample says Adoption awareness of AI,ML, VR, AR with Organisation

There are certain factors that shall be incorporated when AI application plays the major role in organisation. They are: Data Quality and Availability, Technological Infrastructure, Organizational Culture, Employee Skills and Training, Leadership and Management Support, Regulatory Compliance, Financial Resources, Market Dynamics, Strategic Alignment, Ethical Considerations and Public Perception.

Why not HR Practice AI enhanced workspace and workforce

Workplace of-late have started adapting both hybrid and traditional after post Covid, conference, meetings, essential monitoring activities as stated in the article - Immersive Teleconferencing System Based on Video-Avatar for Distance Learning, by Cléber G. Corrêa[2] , (2011). According to the authors, remote meetings are possibly accountable and connected with the cluster of meeting panel and Training and development through HR. Social-media, digital networking, Data mining, information pooling helps to incorporate potential candidates, employees for the respective job roles, training, performance monitoring can happen through AI-VR-AR mode.

EMPLOYEE INTEREST IN AI, ML, VR & AR

As per the available sample dataset, novel AI based technologies with respect to Augmented workforce environment revolution. Orthodox and authentic training based on AI and ML will fetch employee interest and willingness to improvise overall equipping oneself in extending their career opportunities based on the usage of AI. Gamification is in the pool of virtual world making it reality. Significant coefficient and standardized coefficient were considerably low as per available samples in table2, the independent and dependent variables modestly corelated with the value 2.67 as per available secondary data.

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	1.344	0.268		5.008	0
g. Saving Time if Part of Meetings, Recruitment, is done in AI (VR and AR mode)		0.499	0.124	0.428	4.035	0

i AI Training provided by HR in an Organization	0.175	0.066	0.496	2.672	0.01

Table 2 : Sample coefficients - Dependent Variables : Is metaverse reliable for future survival

...VIEW OF LITERATURE

...ficial Intelligence (AI) become the heart of the town and pillar of the virtual arena. Integrating AI enhanced HR ...ctices helps in upskilling the career experience, extending pathway in digitized workplace. Dr. Franco Gandolfi , et al, ...(2023), says that AI tools and technologies have enabled new functionalities in HRM practices, such as, data mining, cloud ...mputing, application of HRM for mobile technologies, Social Media, Analytics, Clouds (SMAC), and big data tagged by ...Kaduruk, 2014). Whereas, Apurva Shaurya[2],et al,(2022), conveys the importance of essential training and developmental ...mplementation based on AI role in shifting the HR practices and functionalities to enter this digitization era. J C. Infante-...Morod, et al, (2022) explains well regarding the results obtained on AI application to HRM a developing field of study ...with constant growth and a positive future vision, most of their research is focused on application of AI in recruitment and ...selection process, leaving aside other sub-areas with a great potential for application futuristically. Similarly, Anna Bastone[1], ...et al, (2023), their study provides various theoretical, managerial, and policy implications providing concrete insights on ...employee wellbeing in implementing AI, HRM processes and overall company performance. On the other hand, Akanksha ...Jaiswal[3], et al, (2021), explains about deploying Gioia's methodology for qualitative analysis, their investigation revealed ...the critical skills for employee upskilling: data analysis, digital, complex cognitive, decision making and continuous ...learning skills in their article. These are few analyses supporting AI integrating with HR and employee engagement and ...achievement references that are respected.

...NCLUSION AND SUGGESTIONS

...Conscientious analysis and assessing various elements, it is understandably recognized that many IT and non-IT enterprise ...are interested in accessing AI VR, AR, through Human Resource management in their organization. As a challenging ...consequence, within the organization outsourcing of AI supportive tools that are adaptable inside the scope of human ...resource, along with orthodox training for elevating productivity is recommended. Effective capital investment, is considered ...necessary. With available insights, the present-day study towards AI considered to be inevitable. Constructively adaptable ...and progressive suggestions have been proposed to the organizations whose employees are interested in taking up AI ...opportunities, there by Reskilling, upskilling their career experience, knowledge in moving integrating Augmented and ...Immersive AI-HR through channelized diplomatic environment.

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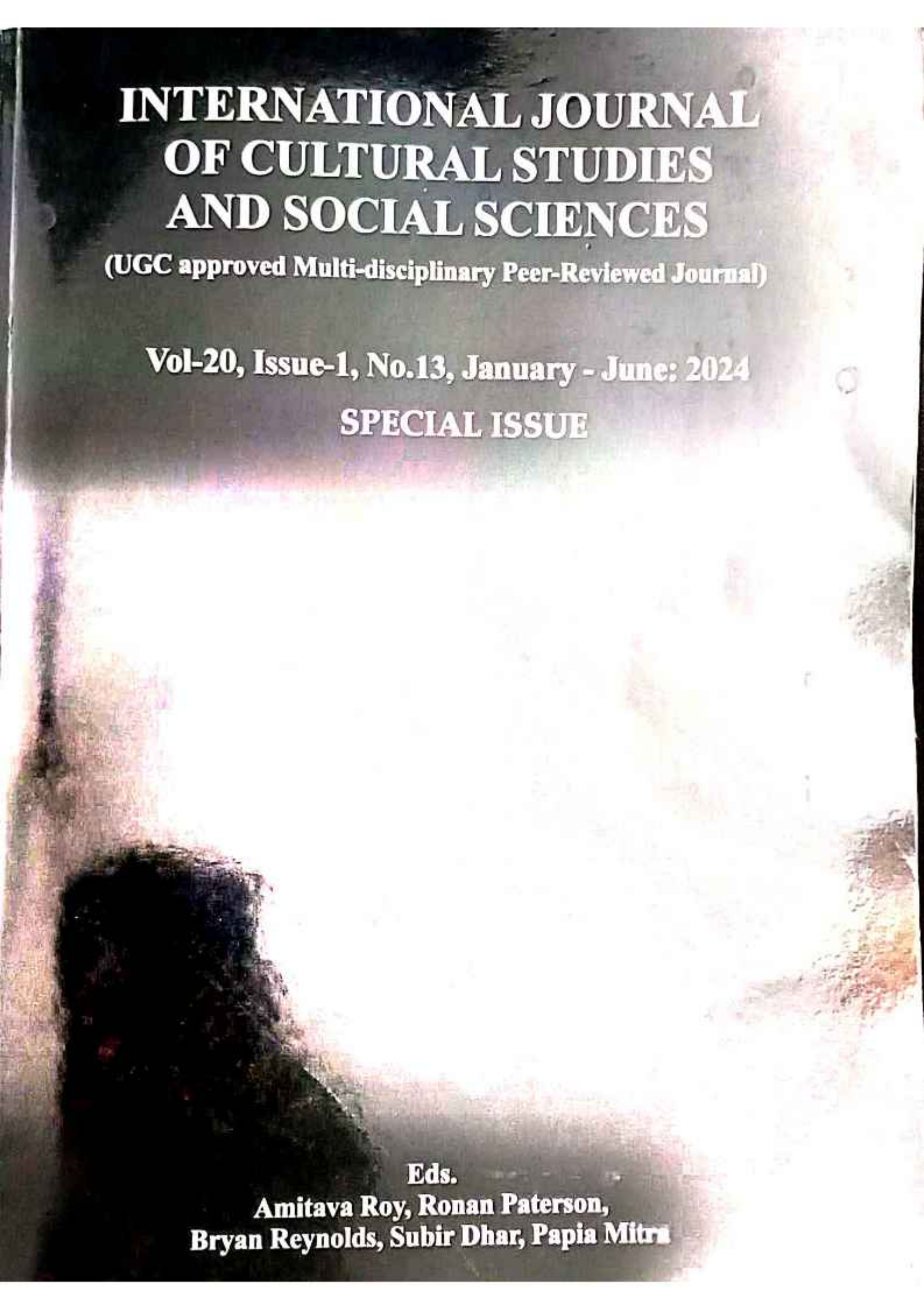
SPECIAL ISSUE



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Chit funds	6.73	8
Mutual funds	5.75	7
PPF	5.47	6

According to Friedman ranking test, Rank I showed that respondents preferred **Bank Deposit** type of investment, depicts that **Insurance** was preferred by respondents, and Rank III shows that **Postal Saving** was more preferred investment, followed by Gold, Real estate, PPF, Mutual Funds, Chit funds and Share market.

FINDINGS

- The findings revealed that people preferred investment for various reasons like good returns, tax purpose, contingencies and social status.
- Bank Deposit was ranked first among the various investment avenues followed by Insurance and Postal saving.

SUGGESTIONS:

Investment avenues with safety and good returns attract many investors.

Providing sufficient knowledge about various venues also attracts many investors.

CONCLUSION:

Safety and good returns are two major factors that influence the investment pattern of the individuals. Bank deposit ranked first among the various preferred investment. Investment platform companies or agents should have to create safer platform with minimum risk for investment to attract investors.

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AMALGAMATION OF AI AND HRM: IN THE PROCESS OF RECRUITMENT

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Abstract

This article aims to review the applications of artificial intelligence (AI) in the hiring process and its practical implications within the industry. This article also illuminates the profound transformation within the recruitment sector spurred by the integration of AI into the recruitment workflow. Approach Methodology Design This manuscript is authored by administrative scholars who have amalgamated their perspectives through an exhaustive analysis of cutting-edge reports, articles, research works, and pertinent scholarly literature. Findings This article outlines the profound effects of advancements in the realm of artificial intelligence on both the employment selection procedure and the recruiting sector. The utilization of AI in overseeing the hiring procedure is driving unparalleled efficiency and substantial enhancements in quality for both clientele and candidates alike. Real-world Consequences This article provides strategic perspectives on the implementation of the hiring process and presents tangible concepts for executing AI in the realm of recruitment. Furthermore, it delves into the strategic ramifications of employing AI within the recruitment sector. Innovation and Significance This paper elucidates the impact of technological progress in AI and its role in generating substantial value for both the recruitment sector and its clients. It efficiently preserves the precious time of practitioners and scholars by succinctly and straightforwardly showcasing AI's applications in recruitment. Summarizing this, the article also gives the insights on Recruitment process along with their interest in incorporating novel technologies within an organization.

Keywords:Artificial Intelligence (AI), Recruitment, Recruitment Sector, Tangible, Technology, Hiring process, Development, Organization

INTRODUCTION

The convergence of our real universe into novel Technologies have been progressing ahead with the Digital world, we simply can call the future of time as Artificial Intelligence (AI). This Technologies integrates with Virtual Reality (VR) along with diverse technologies. Experiencing the Human Intelligence turning into artificially functioning and deciding brain interfaces and machine level intranets with digitally age , immersive nature of the technologies based on Machine language (ML), Deep learning (DL), Data science (DS) is like experiencing the real world in virtual platform. The ideology behind builds an economic system based on Big Data, Blockchain technology, points, and closely integrates the virtual world and the real world into the conglomerative economic system, the social system, and the identity system, allowing each user to create, produce content and edit their own chatbots for their conversations as virtual assistants. The way of communication between various humans have elevated drastically. This helps in the innovation of various internet applications and technologies eventually and commercially.

This paper summarizes the Augmented technology that has been followed within the organization, how the employee shares their interests and willing to experience this new technology in their day-to-day life. Human Resource Management plays the key department in the organization, there by laying the pipeline in developing the employee interest and involving their skills in learning VR, AR. This in turn develops the entire building blocks of the organization in fetching new projects and People.

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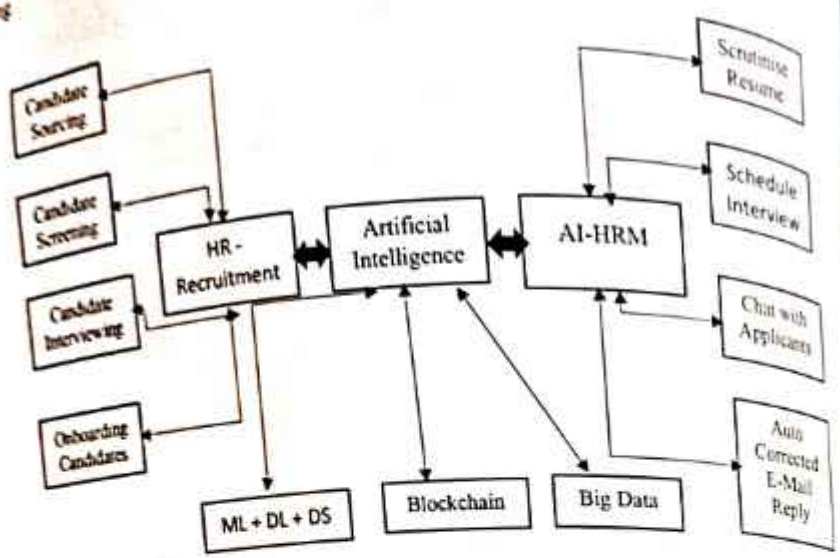
This paper summarizes the Augmented technology that has been followed within the organization. how the employee shares their interests and willing to experience this new technology in their day-to-day life. Human Resource Management plays the key department in the organization, there by laying the pipeline in developing the employee interest and involving their skills in learning VR, AR. This in turn develops the entire building blocks of the organization in fetching new projects and People.

there by energizing performance, data retrieving frequency, storage and many more to say. Picture3 is d... understanding



EMPLOYEE INTEREST IN AI

Alteration of innovative Technologies with respect to AI, ML, Augmented workforce shall be a revolution. Certain ... are willing to learn and improvise themselves with new technological factors and work with mitigating factors. Th... broadening their job opportunities with an orthodox external trustworthy third-party training and in-house impro... research and development of an organization can be made. Between the age group of 30 – 50 years, Employe... much keen to adapt a part of AI & ML. Younger generation ready to play with novel technologies like AI and ML ... of virtual world.

THREAT TOWARDS AI

Any innovation will need to cross the cutting-edge challenges and threats to understand and analyse the strateg... success. Complete awareness about the security in the internet and cyber world is challenging yet diplomat... and penalties need to be effectively applied in order to protect the data of the AI users. Employees are the pil... organization, carrying every single Raw data and the data available through AI based on the business and ma... effectively is part of Human Resource process.

LITERATURE REVIEW

Although AI is being identified from 1950's and 1960's by Alan Turing proposal, it has been strongly adopted ... Generally, insights of AI is being shared by various researches, Philosophers, Utility based users, IT Researchas/Ex... sectors from reputed sources, and genuine testers who give perfect analysis reviews based on AI and ML. Recen...

shared their view points in various aspects towards AI based recruitment. Researchers like A. Hemalathaa et al, 2021, says "Their study shares the findings that AI technology-based capabilities namely Automation, NLP, Machine, Vision, and Virtual Augmentation have a significant impact on the Recruitment and Selection Process added with potential positive outcomes such as time & cost-effectiveness, accuracy, removing bias, reducing workload, increased efficacy, and candidate Skill and experience." ISBN: 978-1-7281-9537-7, DOI: 10.1109/IC3IS50949.2021.9396036. Similarly, Wael Abdulrahman Albassam9, 2023, explains in his article " Their results indicate that AI-based recruitment strategies such as resume screening, candidate matching, video interviewing, chatbots, predictive analytics, gamification, virtual reality assessments, and social media screening offer significant potential benefits for organizations for their better hires." DOI: 10.2478/bjreplan-2023-x816-2089, ISSN: 2525 3654. László Várallyai10, 2021, "Acquired automative and cognitive based insights as well as cognitive involvement and engagement in the recruitment process would make it possible for systems to work in a similar way to the human brain interms of data analysis their ability to build an effective systematic interactive communication to process the data in an authentic methodical and unbiased fast way". DOI: 10.21791/IJEMS.2021.1.10. Likewise, Nashad Nawaz11 in his article shares the results of the study mentioning "both qualitative and quantitative insights of the artificial intelligence recruitment process, were discussed.", ISSN 2277-8616. Meanwhile, Ugur Kucukoglu12, et al, 2021, in their article have special mentions on the recruitment process base on AI as " understanding, AI benefits only as an auxiliary element in recruitment processes. It has been found that ventures do not rely much on AI in their recruitment processes, there by utilization is either complete or partially when required" DOI: 10.16926/tpts.v24.224, IRSS VOL 2 NO 4 ISSN: 2687- 2285. on summarizing the insightful reviews of such research article from various researchers , we can gather that AI can be adopted in the process of Recruitment by the human resource management team in an organization which helps value added efficiency and performance avoiding human err...

CONCLUSION AND SUGGESTIONS

After making rigours analysis and assessing various elements and interest, it is understandably recognized that many Business corporates and IT Ventures were interested in taking AI, ML, VR, AR, involving Human Resource management in organization. Under conventional guidelines with proper awareness and appropriate methodical instructions up to a reach level. Consequently, within the organization outsourcing of AI , ML, VR, AR, DL, DS tools that are adaptative inside the scope of human resource, along with orthodox accountable training is being recommended. Effective Cost Cutting is considered as one-time primary investment and necessary. As per the available insights on AI, the present-day study is inevitable. Constructive and progressive suggestions have been proposed to the organizations whose employees are interested in taking up the opportunities, there by upskilling their knowledge in moving towards AI-HR through channelized Process.

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Barriers and Enablers in Integrating AI into Human Resource Management Strategies: Maximizing Human Capital

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Abstract

Artificial intelligence (AI) has shaken the foundation of modern workplaces like never before and has induced digitized workstyles within the organisation. These furtherance in technology are generating significant interest among stakeholders to embrace AI in human resource management (HRM). Research and Development teams, analysts and practitioners are keen to investigate the sequel of AI in HR and their collaboration with gadget applications involving machine language, Data-science, Blockchain and Big Data. This study investigates HRM specific factors that are imbibed towards adoption of AI in extended HR based digital platform adopting a qualitative research design with an abductive approach. This research also investigates key enablers like optimistic, enthusiastic, and collaborative employees, strong digital enabled leadership, reliable HR meta-data, specialized HR partners, and well-rounded accountable AI ethics. The study also examines barriers towards awareness in AI adoption: the inability to have a timely internal audit pulse check of employees, their ability of emotional decision making, ineffective agile digital experts as well as external HR partners. On summarising, this study also contributes theory by providing a model that influences AI adoption and proposes ascending in welcoming unified theory of acceptance and use of innovative technology in the context of AI adoption in HR upskilling and reskilling ecosystems eventually. The study also contributes the anecdotes of best-in-class industrial HR practices with secured digital policy formulation to reimagine cybermated workplaces cubical. Maximising the human capital in the digital era be obliged in harmonious conglomerative human–AI enterprise making workplaces an eminent future-ready in the wake of productive and massive successful digital disruptions with efficacy.

Keywords: Artificial Intelligence (AI), AI Adoption, Human Capital, Enablers, Barriers, Industrial HR Practices, Digitised workplace, Cybermated cubical.

Introduction

AI is the acknowledging future, when wielded by HR leaders from the corporates, AI-powered tools can streamline HR processes, enhance employee engagement, and assist in key business decision making. Most of the industrial sectors are being ascending towards AI, and ML based innovative technologies along with the supportive tools. Conversation like us will be unavoidable and can be incorporated in the collaborative technology involved enterprise. As we are being informed, upcoming digital innovation keep ascending to fuel business transformation and integration at various level. Various organisation has realigned their strategic direction on enhanced adoption of digital technologies collaborating with the new age technologies, especially Artificial Intelligence (AI) and (ML). Enterprise can prefer strategic adaptive measures in Talent-key differentiator-by adopting Artificial Intelligence in Human Resource Management. More than ever now regarded as a trusted advisor, the research provides insights on how Human Resource function has evolved as a strategic partner by deployment of AI related technological advancements as it contributes to building organizational capabilities and making organization competitive. Thus, creating organizations that win in the market. The human resource trying to deploy AI at various level of task involved in the work force- work place strategies. Artificial Intelligence have been raised to various sectors and services. Ranging from Virtual Reality (VR), Augmented Reality (AR), algorithmic coding at Machine Language (ML), Block Chain, Meta- analysis through Big Data Process, Gamification and robotics were part of Artificial Intelligence (AI). This can be handled through implementing the data analysis and their functionality through AI and its supporting systems. Ashutosh Samadhiya, et al (2023) have shared their views that" post pandemic involvements

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and the challenges faced in implementing AI in the organisation. Summarising the research study, Utilizing the AI technology in the corporate world will make the employee grow their career path in every aspect of the developing

Objectives

This study helps us in understanding

- The barriers and enablers in Integrating AI into Human Resource Management Strategies.
- Maximizing Human Capital within the organisation for overall development.
- Suggestions are made to enhance integration of AI.

Research Methodology

A quantitative and qualitative approach with a mixed methodology was incorporated to answer the research questions, specifically a qualitative content analysis. Firstly, literature on the topic of implementation barriers to artificial intelligence was researched on the basis of a literature search respective available data. The search for papers was carried out in the scientific database Scopus, Research gate, semantic scholar and other open source. The search was conducted at the beginning of March 2023.

Significance of AI in HRM

Fundamentally, the essence of Artificial Intelligence (AI), necessitate larger data sets were combined with various other sectors and relative services to resolve issues involved through the assistance in routine business-related tasks regimes. Precisely, AI presume developing machines through organised algorithmic coding (machines, devices, interpretation, applications) on the foundations of the that have the capability to react like humans and learn in the same way as humans do. Consequently, predictive analysis and data mining are possible with AI and ML that are incorporated with the Organisational system, which analyses past trends and enables businesses for better and more informed decision-making balancing the emotional intelligence and workspace demanding concerns. AI can be defined as a form of technology that can perform human-like tasks in cognitive capabilities by replicating a certain degree of human intelligence, through understanding, learning from and implementing inputs to realize the specified outcomes. It requires cognitive capabilities of human along with a decision-making process that is adaptive (Tambe et al., 2018). AI machine can emulate human intelligence when fed with tons of data and trained by machine learning models to act intelligently as humans in the role of "intelligent agent" (Russel and Norvig, 2010).

Future, predicts that AI will support HR in a variety of strategies, includes employee tracking engagement, assists professional growth, matching with their skills, policies, conducting background checks, regulating job fit and many more to say. Vast Data interprets that discovering relevant talent is literally like finding a needle in a pile of haystack; there are over 1 million sample profiles, 9000 skill-based libraries, out of 200,000 job descriptions approximately 14,000 are genuine positions, and there are acknowledgeable 2000 Job Clusters. The workforce within the upcoming digital work place of the future will be relatively low. Major percentile of workforce will be preferring majority of them will prefer either work from home or as virtual workers (working on a project basis or contracts). Among this, an US based statistic shows, 77% of the sample population utilises internet effectively, and that 62% of internet users have Instagram, Facebook or LinkedIn and other social platform profiles, which enable individuals to contact with employers directly or indirectly and facilitate the acquisition of on or offline jobs. Right from hiring and onboarding through HR services that includes career graph though out the whole employee life cycle customizing accountable employee experience.

The AI in current industrial sectors can be valuated by this innovative technology.

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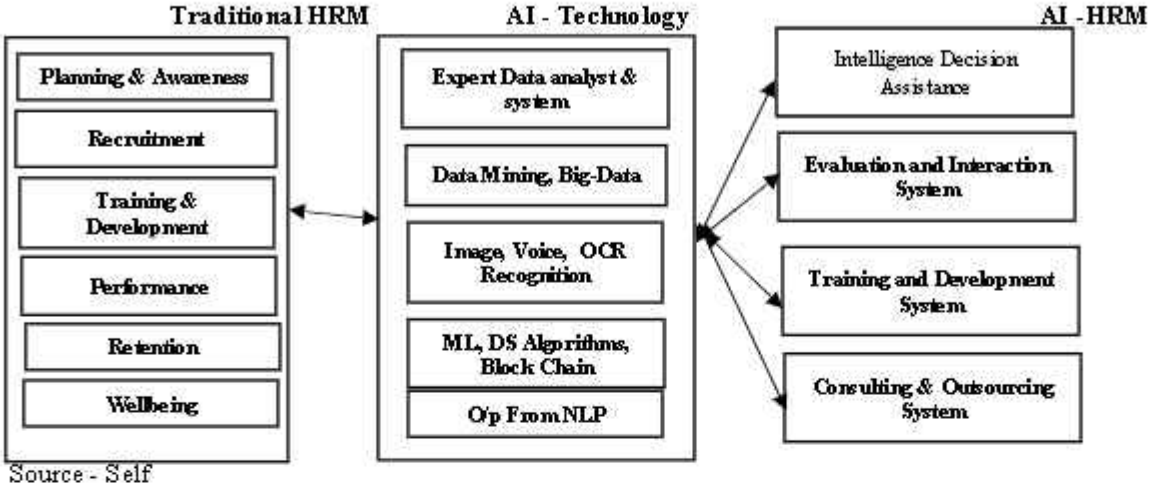
Practices and opportunities in AI in HRM



Source - Self

Artificial Intelligence in HRM sector in and organization

This research provides insights on how Human Resources function has evolved as a strategic partner by deployment of AI related technological advancements related, as it contributes to building organizational capabilities and making organization competitive, thus creating organizations that win in the market. There are considerable challenges faced in Human Resource Management by deployment of Artificial Intelligence (AI). Further Insights are shared on future directions of potential research that can be conducted in this field. The present research has certain implications, such as increasing the HR team's proficiency, addressing the problem of job loss and how to fix it, improving working conditions and improving decision-making in HR.

Reference Source Picture1 : AI in HR – Traditional HR and AI

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The Reference Taken in source picture1 is from the Article Digital Information World - working with AI- by Regus - A survey has been done by them among 2200 people approximately and described that many of the industrial sectors across variety of firms consider Automated Resume Screening at initial stage if recruitment process if HR, Predictive analytics, Chatbot for recruitment, Robotic Process Automation (RPA) and AI- Based Employee Surveys at regular intervals without any bias. Even Employee Health and Wellness, customized Training and Development Program, Performance assessment based on overall career growth, advisable wellness program required at right time including healthcare advices and suggestions, Fitness advisors, Emotional Intelligence and balance are possibly considered with authenticity and implemented at various level of conglomerate environment. Reference Source Picture2 gives a detail analysis of Gartner's research view from his original space of discussion.

Reference Source2: Taken from Gartner – Generative AI and HRM

Why AI and Why Not AI

Artificial intelligence (AI) makes every seems possible for machines and algorithmic code functioning applications to learn from skill, experience, adjusting with new inputs and perform human-like tasks. Most AI examples and applications that have been presently taken in consideration from on line gamification, robotics, to monitoring and assisting self-driving cars, The Tesla – rely heavily on Data science (DS), Deep learning (DL) and natural language processing (NLP). All this corelates with the Machine Language algorithms (ML) sequentially.

While AI can perform every allotted specific task with remarkable precision, it cannot fully replicate human intelligence, IQ, and creativity. Every AL and ML based algorithm needs human assistance to evaluate, organise and perform. We are aware that AI lacks consciousness and emotions, limiting its ability to understand complex human experiences and produce truly creative works, can handle it if has been programmed accordingly.

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Reference Source Picture3: Reaesrch Assests from CBinsights.com

This reference source picture3, is being taken from CBinsights, where EAAS software that uses machine intelligence with human assistance to replicate and augment human cognition in this Virtual entity. The EAAS supportive tool in the present market mentioned and mapped above highlights some of the 40+ insurgent startup technology leaders and stakeholders building expert automation & augmentation software across any number of industrial sectors and domains they are considering. Ranging from lawyers stream to journalists to wealth managers to traders to consulting, to healthcare to IT and ITES for their recruitment, screening, HR process, Investment advisors, Teaching professionals, traders and outsourcing agencies across the enterprises and more to say where AI is being proactively implemented and their protocols are being analysed..

Barries in AI Implication

Although there are wide spread of data and knowledge sharing taking place across the globe regarding the opportunities for AI in industry in this digital era, there are significant challenges to be considered. Any new technology must be handled diplomatically to overcome any threat as a primary function in every sector. To name a few,

- Lack of Trust in using AI based technology and adaptive tools compatibility
- Data privacy and Security
- Expectation of Strong Firewall and Cyber security at the foundation level itself
- Capital investing Stakeholder and ROI
- Using right expertise at right algorithmic level

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- Lack of Ability and agility in adapting technology

These are few of Barries pipelined, which are definitely acceptable features to be meticulously considered and acknowledged. This can be overcome through proper awareness, training, diplomatic handling of information sharing and performance of the application ascending eventually in this digitized workforce environment.

Literature Review

Most of the organisation were taken the aid of AI and generative AI in their corporative digital workspace. Various sectors involving AI in their digital enterprise have started training and adopting the AI. Leveraging the strategy **Franco Gandolfi[1], et al, (2023)** in his research article have clearly stated that. "This research provides insights on Human Resources function and how it has evolved as a strategic partner by deployment of AI related technological advancements related, as it contributes to building organizational capabilities and making organization competitive, thus creating organizations that win in the market." Similarly, **Gayatri Panda[2], et al, (2023)** in his article shares the views that "The authors found that AI or AI-associated techniques help deliver various HRR-oriented outcomes, such as enhancing employee competency, performance management and risk management; enhancing leadership competencies and employee well-being measures; and developing effective compensation and reward management". Likewise, **Azra Ahmić[3], et al, (2023),** "Their findings convey a nuanced perspective among HR professionals in an organisation, with a spectrum of attitudes ranging from enthusiasm for AI's potential to concerns about its impact on traditional HR functions". Meanwhile, **Sarah Bankins[4], et al, (2023),** "outlining the meaningful work on philosophical and accountable business ethics its ethical importance in exploring the impacts of three paths of AI deployment helping in replacement of task there by amplifying human skills in implementing the ethical implications. On the other hand, **Sylvain Sénécal[5], et al, Jul 2023**, "they had found that, more of an umbrella term that covers three of our identified principles, namely bias, discrimination in HR-focused AI, and trust of decisions and outcomes, and privacy concerns related to AI use". **Kelechi Ekuma[6], et al, Dec (2023)** "Their study explores how AI automation affects HRD strategies, highlighting how specific HRD processes affected and their influence over the outcomes. A wide lateral comprehensive search was conducted across available academic secondary databases, HRD journals and its information, and conference proceedings, and published data resulting in a selection of relevant resource filled research studies".

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DOES ENTREPRENEURIAL ORIENTATION REALLY CONTRIBUTE TO BUSINESS SUCCESS?

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ABSTRACT
This paper explores the concept of Entrepreneurial Orientation (EO) within both traditional entrepreneurship and larger organizational contexts. While conventional notions of entrepreneurship often highlight individuals starting ventures from humble beginnings, this study extends the discussion to include entrepreneurial behaviors within established organizations. Utilizing a multidimensional framework, the paper examines EO's five key dimensions: autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking, and their impact on organizational performance. Drawing from an extensive review of literature, the study emphasizes the significance of EO in adapting to rapid global changes and maintaining competitiveness. It underscores the importance of fostering innovation, proactivity, risk-taking, and autonomy within organizations to navigate dynamic market environments successfully. Moreover, the paper discusses the interplay between EO dimensions and competitive advantage, highlighting the potential for EO to drive sustained organizational performance. Future research directions are proposed to empirically assess the hypothesized framework's implications for organizational success.

Keyword:Entrepreneurial Orientation, Innovation, Business performance, Entrepreneurial Behaviour, Organization performance

INTRODUCTION
When individuals are prompted to contemplate the concept of an entrepreneur, they often provide instances such as John Molson, siblings Harrison and Wallace McCain, and J. A. Bombardier. These individuals have established their own prosperous enterprises from humble beginnings, resulting in enduring societal influence. However, the scope of entrepreneurial thought and action extends beyond those who begin their ventures in a garage, supported by familial resources or personal savings. Certain individuals inside large organizations possess a profound enthusiasm for a novel concept, dedicating their time to advocating for a fresh product or service. They collaborate with influential individuals within the organization to establish a support base, and then devise strategies to get the necessary resources for the realization of the idea. Adopting an entrepreneurial mindset and behavior may also benefit an individual's professional trajectory. According to Doetsch and Lindberg (2013), some people who possess entrepreneurial qualities are able to effectively traverse the many contexts inside their organizations and optimize their career prospects by recognizing and capitalizing on emerging possibilities. It is essential for CEOs to develop organizational processes and policies that align with

the five elements of entrepreneurial orientation (EO). For instance, it is important to analyze how an

organization's remuneration schemes either promote or hinder certain aspects. Does the compensation system incentivize the undertaking of prudent risks by providing increases and bonuses, irrespective of the outcome of these risks, or does it impose penalties for engaging in risk-taking behaviour? Given the quick pace of global change, non-entrepreneurial organizations face a substantial danger of falling behind. Companies that are left behind often cease to exist within a very little period. A superficial self-assessment of the goods and services we use on a daily basis reveals that a significant number of them were not even created during the last five to ten years. Smart phones serve as a singular illustration.

REVIEW OF LITERATURE

Entrepreneurial orientation (EO) is a fundamental notion that executives use when formulating plans with the aim of generating novel ideas and capitalizing on possibilities that are not readily available to other organizations. EO, or entrepreneurial orientation, encompasses the methodologies, procedures, and approaches used by organizations to engage in entrepreneurial activities. An organization's degree of entrepreneurial orientation (EO) may be assessed by evaluating its performance across five dimensions: autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk taking. EO includes the "behaviours, habits, ways of making decisions, and methods managers use to act entrepreneurially" (Lumpkin & Dess, 1996, p. 136). Since Miller's (1983) groundbreaking work, EO has become one of the most studied and used events at the company level in the literature on entrepreneurship (Anderson et al., 2015), making it an important strategic direction 5 for the growth and survival of businesses. EO has been the major topic of study, with a focus on how it is thought of and what effects it has. In the literature on entrepreneurship and strategy, two main ideas about EO have come up. Each makes important theoretical and empirical contributions to study in its own way (Covin & Lumpkin, 2011).

Innovation is seen as a key part of business companies that want to grow, come up with new goods that can make a lot of money, and raise the value of the market as a whole (Cho and Pucik 2005; Kuratko 2009; Wiklund et al. 2009). For instance, a smaller company that puts a lot of emphasis on research and development (R&D) and technological leadership creates an environment where people are willing to try new things and use new strategic approaches. Also, firms get a lot of "inventive" ideas from the number and quality of ideas they spend on R&D (Pakes 1985). Not only that, but being innovative also helps organisations create new habits and find new ways to use tools, goods, or processes. This, in turn, builds the unique skills of these organisations (McGrath 2001).

Firms that are proactive try to set themselves up so that they can adapt to changes in the market and help shape the future of their external surroundings (Lumpkin and Dess 2001). In order to do this, these companies tend to be the first ones to come up with and use strategic plans in existing markets or to enter and grow new ones (Venkatraman 1989). Businesses take the initiative to get ahead in their industry by spotting changes in the market that their rivals haven't seen or taken advantage of yet (Lieberman and Montgomery 1988; Covin et al. 2000; Dess et al. 2003). Companies that are proactive are better able to set the "rules of the game" in their industry, giving them an edge over competitors who only react to changes in the environment and their rivals' strategic moves (Lumpkin and Dess 2001). This means that the benefits might be greatest when people are more proactive. This is because small and medium-sized businesses fall behind their competitors when they don't plan ahead for

changes in the market and have a hard time keeping up strategically (McMillan 1983).

People have long thought that taking risks is an important part of EO (e.g., Covin and Slevin 1989; Miller 1983). However, the costs and benefits of taking risks are likely to show different patterns than the U-shaped relationships between innovativeness and performance and between proactiveness and performance that we already talked about. Societies that take chances tend to be more confident and able to make quick strategic choices, which makes them better at what they do overall (Covin and Slevin 1989).

Competitive edge happens when a company uses a plan that creates value that its competitors aren't using at the same time (Barney, 1991). Even though the resource-based view says that competitive advantage is important, not much research has been done on how competitive advantage affects the link between a creative mindset and how well a business does (Mahmood & Hanafi, 2013). Differentiated goods, market sense, working with partners, focusing on high-value customers, market responsiveness, customers as assets, information openness, and supply chain leadership are some of the ways that a company can gain a competitive edge (Ramaswami et al., 2006). There are different ways to measure competitive advantage. For example, Mahmood and Hanafi (2013) used unique products, market sense, and market response as aspects of competitive advantage.

Autonomy is the independent action of a person or a group in bringing a vision or idea into view and seeing it through to completion. This concept is one of the most important parts of an entrepreneurial mindset because it allows a person or a group to use their creativity and good ideas that are needed to be a good entrepreneur (Lumpkin & Dess, 1996). According to research, a company's autonomy may be different depending on its ownership, management style, or working size. This means that in a business where the owner or manager makes most of the decisions, autonomy is set by ownership rights and may vary depending on the level of centralization or delegation, which could be linked to the company's size (Lumpkin & Dess, 1996). While this was going on, in other organisations, experienced organisational leaders could support efforts to create liberty by doing things like going around budgets and procedures or breaking the rules (Shane, 1994).

CONCLUSION

In conclusion, this paper has delved into the intricate dynamics of Entrepreneurial Orientation (EO) and its pivotal role in shaping organizational performance. Through a comprehensive examination of EO's dimensions—autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking—the study underscores the significance of cultivating an entrepreneurial mindset within organizations. By embracing innovation, proactivity, and risk-taking, organizations can effectively adapt to dynamic market conditions and maintain a competitive edge in an ever-evolving landscape.Furthermore, the discussion has highlighted the critical link between EO and competitive advantage, emphasizing the importance of leveraging entrepreneurial behaviors to create unique value propositions and differentiate oneself in the market. By fostering autonomy and empowering individuals to pursue novel ideas, organizations can unlock untapped potential and drive sustainable growth.Looking ahead, future research endeavors should focus on empirically validating the hypothesized framework proposed in this study. By conducting empirical analyses, scholars can gain deeper insights into the nuanced relationships between EO dimensions and firm performance, thereby offering practical implications for organizational leaders and policymakers.

In essence, this paper contributes to the growing body of literature on entrepreneurship and strategy by shedding light on the transformative potential of Entrepreneurial Orientation. By embracing an entrepreneurial mindset and fostering a culture of innovation and agility, organizations can not only survive but thrive in today's rapidly changing business environment.

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A Roadmap to India's Green Transition for Economic Growth: An Overview

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Abstract
Growing Green Practices with Sustainable actions toward green economy has recently emerged as a key concept in the Indian sustainable development goals. Over the last decade, India's rapid growth has created job opportunities and helped improve the standard of living. Sustainability will lead to Economic growth. Green Transition has become a catalyst for growth across all sectors of the economy. However, its remarkable growth record is restricted by a degrading environment and depleting natural resources, which has necessitated taking major steps to achieve a green and decarbonized economy. The pandemic Situation has turned consumers' attention to a greener economy, prompting brands to resort to sustainability by default. This research study helps to assess the present status of Green Initiatives in India and to analyse the impact for Sustainable Economic Growth. Green Innovations in all over the field. A green start-up's success probability and importance are explained in this Study. Analysing the data from various published records, Reports, Statistical reports, and Websites found that government initiatives are turning green by providing Green Sustainable Innovative changes, Indian start-ups are exploiting this opportunity by implementing sustainable entrepreneurship.

Keywords: Green Economy, Green Initiatives, Sustainability, Green Transitions, Roadmap.

Introduction

Green Economy: Initiatives

India is primarily a domestic demand-driven economy, with consumption and investments contributing 70% to the country's economic activity. India's transition to a green economy could contribute more than $1 trillion in economic impact by 2030, as well as create over 50 million jobs, stated a report by the World Economic Forum. By 2070, the economic impact could increase to $15 trillion, the report further added. The WEF's 'Mission 2070: A Green New Deal for a Net-Zero India' report provides a roadmap for India's transition. Resource Efficiency refers to how resources are used to deliver value to society and aims to reduce the number of resources needed, and emissions and waste generated, per unit of product or service. The Green Economy provides a macroeconomic approach to sustainable economic growth with a central focus on investments, employment, and skills.

Green Economic Growth in the Indian Context

The concept of Green Growth spans much beyond climate mitigation and adaptation and aims at achieving economic growth that is socially inclusive and environmentally sustainable. Green growth involves rethinking growth strategies about their impact(s) on environmental sustainability and the environmental resources available to poor and vulnerable groups.

Raising Awareness for Sustainable Development

New-age start-up companies have increased their focus on environmental awareness and are going beyond advocacy for plastic-free or paper-free workplaces with this raised significance for Economic Growth. Nearly various sectoral companies have begun adopting greener practices to reduce their carbon footprint- it refers to the number of greenhouse gases produced by a single entity and is measured as tonnes of CO_2 emitted per year. Our country has recently shown

significant growth in the number of unicorns, a jump in export value, and other economic aspects related to business growth. Moreover, it endeavours to assess and compare our Country's performance in sustainable business activities.

Challenges of Implementing Green Transition

Currently, there is a need for a Green New Deal transition with sustainable actions in India. The government, the private sector, investors, civil society organizations, and individual citizens need to step forward and accelerate the Next Green Revolution. India has two significant transformations. The first is its economic transformation. India is home to one of the youngest populations in the world. Rapid and equitable economic growth will be critical to meeting the growth and lifestyle aspirations of 1.4 billion people.

Social and Economic Co-Benefits in India

Approximately 4.7 million tons of plastic bypass the public waste collection system every year and are sorted, cut, cleaned, pelletized, and recycled by the informal sector to be returned to the economy (WBCSD 2016). Prospects for the circular economy in India are promising: efforts for a circular economy in construction, food, and agriculture, as well as transport remanufacturing, could contribute US$ 624 billion by 2050, equivalent to 30 percent of India's current GDP (Ellen MacArthur Foundation 2016.

Sustainable Business Growth

The movement is thus from mere economic growth to achieving a triple-win development that includes social integration, economic viability, and environmental sustainability. Redefining the way progress is looked at, with the needs of our society and our natural infrastructure, the concept of the green economy is to create long-term priorities for investment that will form the basic fabric of improving levels of human well-being and natural capital systems.

Objectives of the Study

1. To Study the Concept of Green Economy Initiatives in India
2. Learn the Significance behind the Current Economy needs Shifting to Green Transitions Movements
3. To Know about the Challenges and Barriers to Implementing Green Economical Transitions Developments
4. To Study the Benefits of Social and Economic Benefits of Green Economical Developments
5. To Learn About the Factors to Improve the Economic Growth Through Sustainable business needs

Literature Review

Barman, B. C. (2017) [3] "Role of Green Economy in the Context of Indian Economy" suggested with his study that for sustainable development through green economy it is needed active civil society participation. Through the paper he concludes the current need towards a green economy there are many areas that present themselves for consideration: agriculture, buildings, energy, fisheries, forests, industry, tourism, transport, waste and water and this list is not exhaustive. Dr Vandana Tyagi N. (2017) [1] "Green Economy in India: Possibilities and Challenges" concluded that given the majority share of unsustainable production and associated technological characteristics, there is urgent need for a policy shift for green reforms to enable India to achieve sustainable development. Thus, efforts in both the national and international fronts are needed in true spirit. Pratiksinh S. Vaghela, Surat Harsheshkumar (2018) explained "Green Economy: An Indian Perspective" their idea understand position of India with respect to green economy. The perception score of India as green economy has been increased during 2014 to 2016 but in case of performance score, which is more important of India has been reduced. Dr. Mukesh Agarwal. (2020) [6] analyse" Green Economy" clearly evident that countries and their governments cannot afford to ignore the benefits that switching to a Green Economy will bring. A Green Economy attempts alleviate a wide range of problems through a variety of institutional reforms and regulatory, tax, and expenditure-based economic policies and tools. Dr. Kishore P. Bholane (2020) [7] "Green Economy in The Context of India" The transition to green and inclusive economies has been long deliberated both at national and global level. India has recently made two major global commitments: the 2030 Global Development Agenda (popularly known as the Sustainable Development Goals) and the ratification of the Paris Agreement, which aims for holistic wellbeing of all, today and in the future, without surpassing the natural boundary limits of the environment. Shreyans jain (2020) [2] "Financing India's Green Transition" explained that Climate change has emerged amongst India's most formidable challenges to sustained GDP growth. To accelerate the implementation of the country's commitments under the Paris Agreement and advance its progress towards the Sustainable Development Goals finance is key. The researcher explained his idea that risk premium on every polluting asset in India because they will go bankrupt in the coming decade. Söderholm, P. (2020) [8] "The green economy transition: the challenges of technological change for sustainability". Study concludes, the green economy transition should also benefit from research that involves various impact evaluations, including methodological innovation in evaluation studies. Impacts of important baseline trends, digitalization and automation, globalization, environmental and distributional outcomes but also on the prospects for green innovation collaborations and various circular economy-inspired business models. Mukul Bhatnagar, Sanjay Taneja and Ercan Özen (2022) [14] explained through "A wave of green start-ups in India-The study of green finance as a support system for sustainable entrepreneurship "to assess the present status of green finance in India and see its impact on start-up's. This paper explained and analyse the reports and statistical report, World Transition Development reports, Current trends 2022 and refer the future needs.

Green Transition Interventions and their Impact

In this current situation, Green Economy has integrated techno-economic analysis to understand the impact of energy-related green growth interventions on the future. Energy demand, emissions, energy access, energy security, and development indicators. To understand the interlinkages modal of Green Transition Movements, an integrated modeling framework will be suggested to design this model. Combining a bottom-up energy systems model (Teri-Markal) along with a top-down simulation-based dynamic, recursive computable general equilibrium model.

This Integrated Modelling Framework Used to Conduct Scenario Analysis around the Following Green Growth Interventions

1. Energy efficiency and conservation measures in energy demand sectors (agriculture, transport, industry sector, commercial building, and residential sector)

2. Enhancement of modern energy access
3. Promotion of clean energy supply through renewables and cleaner fossil-fuel–based energy generation technology, and
4. Resource (soil and water) conservation in the agriculture sector. Green Growth Interventions are surpassing all over the sectors and help the future requirements for sustainable economic growth. There have a lot of interventions have been implemented through the Green Industrial revolution, Green Transition Movements, Green Industrial Policy, UNEP Development Programs, and World economic forum. The following Table 1.1 helps to understand the Key Development Indicators for India and Select Countries of the year 2022.

Table 1.1: Key Development Indicators for India and select Countries

	GDP in billion (constant 2005 US$)*	GDP per capita (constant 2005 US$)*	CO_2 emissions (MT)[a]	CO2 emissions (metric tons per capita)[a]	Energy use (Kilograms of oil equivalent per capita)[c]	International Trade Balance in Goods	Cash surplus/deficit (% of GDP)[c]
Brazil	1206	5853	439.41	2.19	1391.90	-4.13	-1.84
China	5274	3866	9019.52	6.71	2142.81	370.02	-
European Union	15372	30241	3574.10	7.07	3253.82	134.78	-3.63
India	1600	1235	2074.34	1.66	623.72	-139.88	-3.81
Japan	4780	37595	1187.66	9.29	3545.60	-120.64	-7.97
Russian Federation	1000	6844	1808.07	12.65	5283.41	188.04	2.67
United States	14797	46405	5305.57	17.02	6814.82	-727.15	-7.56
South Africa	329	6086	477.24	9.26	2674.82	-18.1	-4.47
World	58055	7996	34649.483	4.94	1897.95	-	-4.94

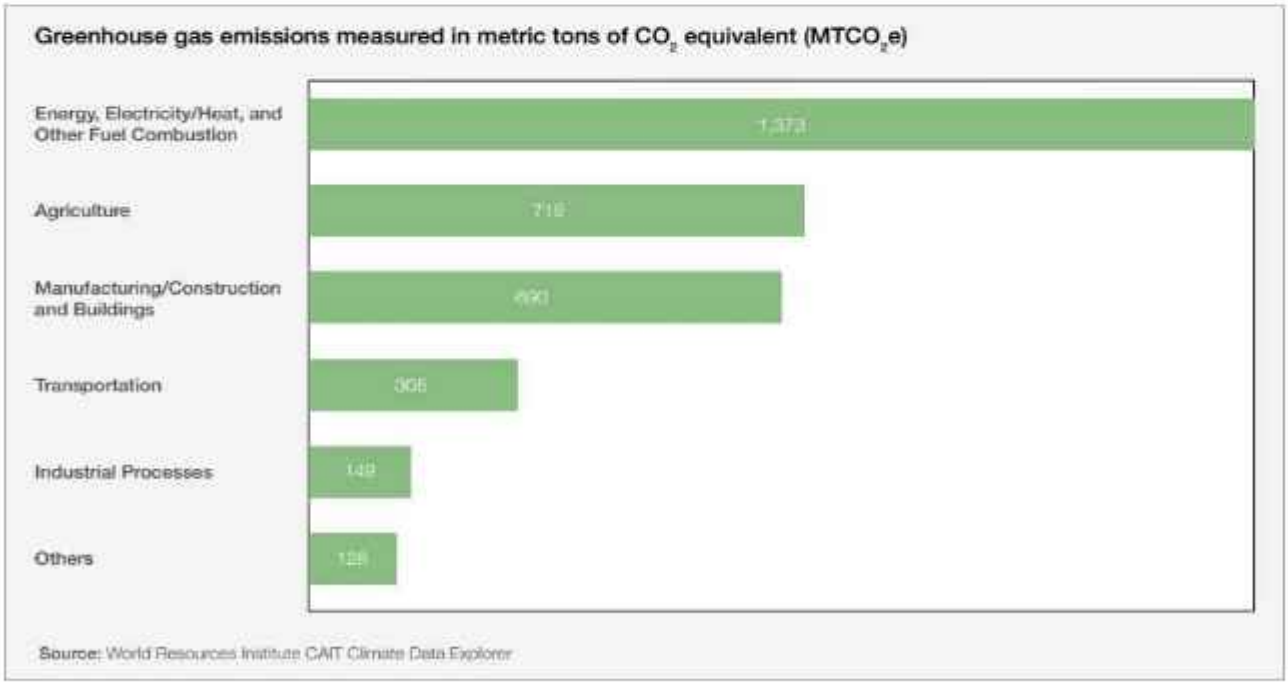
Environmental Policy Triggers to Initiate Green Technologies

Environmental regulations boost economic growth and sustainable business activities for various sectors by spurring demand. The technologies fostered innovation in scrubber and coal combustion. Government intervention for environmental protection can therefore boost the growth of eco-friendly industries, supplying technologies that mitigate or clean up pollution.

India's GHG Footprint Today

India is the third largest GHG emitter in the world, behind the United States and China. Five sectors of Indian sectors energy, agriculture, industry, transportation, and infrastructure/buildings help to contribute more than 96% of India's GHG emissions today. India's net zero transition will need an ambitious multi-decade effort to transform each of these sectors. The following Table 1.2 explained Carbon-Di-Oxide emission in the different sectors in India and energy consumption from various industry sectors. This will help to analyze the current situation and future action.

Table 1.2: Greenhouse Gas emissions measured in Metric tons of Co_2 equivalent



A Green New Deal for India will Necessarily Implicate the Five Sectors that Contribute to Almost all its GHG Emissions

1. **Energy Sector:** Accounts for ~40% of India's GHG emissions, with coal being the dominant source of total fossil CO_2 emissions. Decarbonizing the energy sector is a required priority for three-important approaches: replace fossil fuels with renewables; reduce fossil CO_2 emissions from legacy infrastructure through enhanced efficiencies; to remove unavoidable carbon emissions through carbon emissions.
2. **Transport/Mobility Sector:** Is heavily reliant on oil and contributes to almost oil demand. A green transformation in Transport Sector needs a shift in modal mix from road to rail, as well as a broad-based fuel diversification approach to encourage sustainable fuels (biofuels, CNG, LNG) in the immediate term, electrification in the medium term, and hydrogen based heavy mobility in the long term.
3. **Industry Sector:** Manufacturing is a key contributor to India's GHG emissions, with the iron and steel, cement, and chemicals and fertilizers sectors having the highest CO_2 footprint. Radical decarbonization of these sectors will need demand-management measures such as circular economy acceleration. It will continue energy efficiency improvements, electrification of heat, carbon capture, utilization and storage, low carbon fuels such as biomass and hydrogen, and innovative technologies with non-fossil feedstock.
4. **Infrastructure Sector:** India's top 25 cities contribute more than 15% of its estimated GHG emissions. India's transition to greener cities, buildings, and infrastructure will need a rethink of its approach to urban planning with a focus on transit-oriented urban development and an emphasis on low-carbon buildings and infrastructure construction.
5. **Agriculture Sector:** Is the largest contributor to nitrous oxide (N2O) and methane emissions. To reduce agriculture emissions, India will need a national campaign to empower, educate and enable more than 100 million farmers in adopting precision agriculture, sustainable animal husbandry, and green energy.

Findings and Suggestions

1. **Low-Carbon Energy:** In the Energy sector decarbonization will need holistic interventions across all its fossil-fuel sources (coal, gas, oil). In addition, innovative ways need to be identified to reduce emissions in energy transfer to consumers via transmission and distribution networks.

Conceptual Model Framework for Green Transition

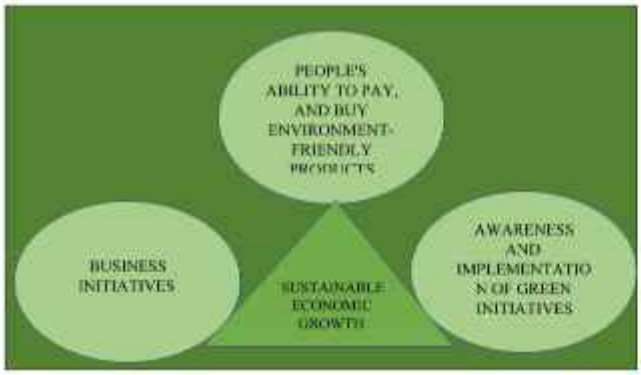


Fig 1: Sustainable Growth Framework

Adopted Modal for Green Transition to Achieve Economic Growth

2. **Green Mobility:** Contributes to ~10% of its GHG emissions. In 2020, an estimated 60% of India's final energy use in transport arose from passenger transport and 40% from freight transport. Suggestions are mentioned as follows:
   - Green Fuels and Green Vehicles
   - Fuel Efficiency
   - Sustainable Fuels
   - Electric vehicles
   - Hydrogen Mobility
3. **Decarbonisation of Energy Intensive Industries:** Here can include the relative decline in cost of decarbonized versus conventional commodities, availability of resources (such as biomass or geological storage space for captured CO2), and the feasibility of adapting old as well as new facilities. Enabling the transition will require investment in R&D to make emerging new technologies such as hydrogen affordable, policy support, and incentives from the government to steer the industry towards sustainable technologies and increased global collaboration.
4. **Green Buildings, Infrastructure, and Cities:** Urban development in India are currently fragmented in national and local policies, regulations, and stakeholders. A nationally coordinated approach will be critical to ensuring carbon-efficient execution of urban development interventions.
5. **Sustainable Agriculture:** Around 80% of agricultural methane is emissions from livestock production, including enteric fermentation and manure management. The second largest contributor of agricultural methane emissions is rice production, with the remaining emissions from the burning of savanna and the use of crop residues for agricultural purposes.

Cross-Sectional Green Technology Enablers

1. Green Technology Innovation-R&D and investments in technologies that can accelerate the carbon transition
2. Green Finance-Financing the green revolution
3. Carbon Sequestration-CCUS and Carbon Sinks Catalysing carbon capture as well as carbon offsets (natural sinks and DACCS)
4. Climate Adaptation-India cooling plan, knowledge and capability building, indoor work transitions

Conclusion

India's Green transformation needs technology, finance, and leadership that is successfully happening and blazing a trail for the emerging world economic growth. India's green growth is not for itself alone: it will have a multiplier effect, blazing a trail that combines inclusive prosperity with decarbonization. Through this achievement and awareness among the people, the green transition can able to achieve economic growth.

Future Research and Limitations

This study is focused on how green economical transitions are promoted and the growth of green start-ups in India. Still, businesspeople and policymakers promote and elevate sustainable development. This research is specific to exhibit the Green Innovations and Implications of the Indian economic system. Hence there is a need for future awareness, highlighting needs for the future needs and supporting system.

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DOES ENTREPRENEURIAL ORIENTATION REALLY CONTRIBUTE TO BUSINESS SUCCESS?

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ABSTRACT
This paper explores the concept of Entrepreneurial Orientation (EO) within both traditional entrepreneurship and larger organizational contexts. While conventional notions of entrepreneurship often highlight individuals starting ventures from humble beginnings, this study extends the discussion to include entrepreneurial behaviors within established organizations. Utilizing a multidimensional framework, the paper examines EO's five key dimensions: autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking, and their impact on organizational performance. Drawing from an extensive review of literature, the study emphasizes the significance of EO in adapting to rapid global changes and maintaining competitiveness. It underscores the importance of fostering innovation, proactivity, risk-taking, and autonomy within organizations to navigate dynamic market environments successfully. Moreover, the paper discusses the interplay between EO dimensions and competitive advantage, highlighting the potential for EO to drive sustained organizational performance. Future research directions are proposed to empirically assess the hypothesized framework's implications for organizational success.

Keyword:Entrepreneurial Orientation, Innovation, Business performance, Entrepreneurial Behaviour, Organization performance

INTRODUCTION
When individuals are prompted to contemplate the concept of an entrepreneur, they often provide instances such as John Molson, siblings Harrison and Wallace McCain, and J. A. Bombardier. These individuals have established their own prosperous enterprises from humble beginnings, resulting in enduring societal influence. However, the scope of entrepreneurial thought and action extends beyond those who begin their ventures in a garage, supported by familial resources or personal savings. Certain individuals inside large organizations possess a profound enthusiasm for a novel concept, dedicating their time to advocating for a fresh product or service. They collaborate with influential individuals within the organization to establish a support base, and then devise strategies to get the necessary resources for the realization of the idea. Adopting an entrepreneurial mindset and behavior may also benefit an individual's professional trajectory. According to Doetsch and Lindberg (2013), some people who possess entrepreneurial qualities are able to effectively traverse the many contexts inside their organizations and optimize their career prospects by recognizing and capitalizing on emerging possibilities. It is essential for CEOs to develop organizational processes and policies that align with

the five elements of entrepreneurial orientation (EO). For instance, it is important to analyze how an

organization's remuneration schemes either promote or hinder certain aspects. Does the compensation system incentivize the undertaking of prudent risks by providing increases and bonuses, irrespective of the outcome of these risks, or does it impose penalties for engaging in risk-taking behaviour? Given the quick pace of global change, non-entrepreneurial organizations face a substantial danger of falling behind. Companies that are left behind often cease to exist within a very little period. A superficial self-assessment of the goods and services we use on a daily basis reveals that a significant number of them were not even created during the last five to ten years. Smart phones serve as a singular illustration.

REVIEW OF LITERATURE

Entrepreneurial orientation (EO) is a fundamental notion that executives use when formulating plans with the aim of generating novel ideas and capitalizing on possibilities that are not readily available to other organizations. EO, or entrepreneurial orientation, encompasses the methodologies, procedures, and approaches used by organizations to engage in entrepreneurial activities. An organization's degree of entrepreneurial orientation (EO) may be assessed by evaluating its performance across five dimensions: autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk taking. EO includes the "behaviours, habits, ways of making decisions, and methods managers use to act entrepreneurially" (Lumpkin & Dess, 1996, p. 136). Since Miller's (1983) groundbreaking work, EO has become one of the most studied and used events at the company level in the literature on entrepreneurship (Anderson et al., 2015), making it an important strategic direction 5 for the growth and survival of businesses. EO has been the major topic of study, with a focus on how it is thought of and what effects it has. In the literature on entrepreneurship and strategy, two main ideas about EO have come up. Each makes important theoretical and empirical contributions to study in its own way (Covin & Lumpkin, 2011).

Innovation is seen as a key part of business companies that want to grow, come up with new goods that can make a lot of money, and raise the value of the market as a whole (Cho and Pucik 2005; Kuratko 2009; Wiklund et al. 2009). For instance, a smaller company that puts a lot of emphasis on research and development (R&D) and technological leadership creates an environment where people are willing to try new things and use new strategic approaches. Also, firms get a lot of "inventive" ideas from the number and quality of ideas they spend on R&D (Pakes 1985). Not only that, but being innovative also helps organisations create new habits and find new ways to use tools, goods, or processes. This, in turn, builds the unique skills of these organisations (McGrath 2001).

Firms that are proactive try to set themselves up so that they can adapt to changes in the market and help shape the future of their external surroundings (Lumpkin and Dess 2001). In order to do this, these companies tend to be the first ones to come up with and use strategic plans in existing markets or to enter and grow new ones (Venkatraman 1989). Businesses take the initiative to get ahead in their industry by spotting changes in the market that their rivals haven't seen or taken advantage of yet (Lieberman and Montgomery 1988; Covin et al. 2000; Dess et al. 2003). Companies that are proactive are better able to set the "rules of the game" in their industry, giving them an edge over competitors who only react to changes in the environment and their rivals' strategic moves (Lumpkin and Dess 2001). This means that the benefits might be greatest when people are more proactive. This is because small and medium-sized businesses fall behind their competitors when they don't plan ahead for

changes in the market and have a hard time keeping up strategically (McMillan 1983).

People have long thought that taking risks is an important part of EO (e.g., Covin and Slevin 1989; Miller 1983). However, the costs and benefits of taking risks are likely to show different patterns than the U-shaped relationships between innovativeness and performance and between proactiveness and performance that we already talked about. Societies that take chances tend to be more confident and able to make quick strategic choices, which makes them better at what they do overall (Covin and Slevin 1989).

Competitive edge happens when a company uses a plan that creates value that its competitors aren't using at the same time (Barney, 1991). Even though the resource-based view says that competitive advantage is important, not much research has been done on how competitive advantage affects the link between a creative mindset and how well a business does (Mahmood & Hanafi, 2013). Differentiated goods, market sense, working with partners, focusing on high-value customers, market responsiveness, customers as assets, information openness, and supply chain leadership are some of the ways that a company can gain a competitive edge (Ramaswami et al., 2006). There are different ways to measure competitive advantage. For example, Mahmood and Hanafi (2013) used unique products, market sense, and market response as aspects of competitive advantage.

Autonomy is the independent action of a person or a group in bringing a vision or idea into view and seeing it through to completion. This concept is one of the most important parts of an entrepreneurial mindset because it allows a person or a group to use their creativity and good ideas that are needed to be a good entrepreneur (Lumpkin & Dess, 1996). According to research, a company's autonomy may be different depending on its ownership, management style, or working size. This means that in a business where the owner or manager makes most of the decisions, autonomy is set by ownership rights and may vary depending on the level of centralization or delegation, which could be linked to the company's size (Lumpkin & Dess, 1996). While this was going on, in other organisations, experienced organisational leaders could support efforts to create liberty by doing things like going around budgets and procedures or breaking the rules (Shane, 1994).

CONCLUSION

In conclusion, this paper has delved into the intricate dynamics of Entrepreneurial Orientation (EO) and its pivotal role in shaping organizational performance. Through a comprehensive examination of EO's dimensions—autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking—the study underscores the significance of cultivating an entrepreneurial mindset within organizations. By embracing innovation, proactivity, and risk-taking, organizations can effectively adapt to dynamic market conditions and maintain a competitive edge in an ever-evolving landscape.Furthermore, the discussion has highlighted the critical link between EO and competitive advantage, emphasizing the importance of leveraging entrepreneurial behaviors to create unique value propositions and differentiate oneself in the market. By fostering autonomy and empowering individuals to pursue novel ideas, organizations can unlock untapped potential and drive sustainable growth.Looking ahead, future research endeavors should focus on empirically validating the hypothesized framework proposed in this study. By conducting empirical analyses, scholars can gain deeper insights into the nuanced relationships between EO dimensions and firm performance, thereby offering practical implications for organizational leaders and policymakers.

In essence, this paper contributes to the growing body of literature on entrepreneurship and strategy by shedding light on the transformative potential of Entrepreneurial Orientation. By embracing an entrepreneurial mindset and fostering a culture of innovation and agility, organizations can not only survive but thrive in today's rapidly changing business environment.

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ENTREPRENEURIAL ORIENTATION AND INDIVIDUALS' INCLINATION TO PURSUE ENTREPRENEURSHIP - A CONCEPTUAL FRAMEWORK.

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Absract

Entrepreneurship is often regarded as the single most essential component of a modern economy, and as a result, this concept has piqued the interest of academics and policymakers alike. These groups' separate goals are to get a better understanding of the incentives that drive individuals to engage in entrepreneurial activity and to promote entrepreneurial endeavours. The objective of this study is to create a conceptual framework for an individual entrepreneurial orientation among Gen Z, as well as their inclination or desire to follow entrepreneurship as a career path. The paper also explores the relationship between Entrepreneurial Orientation (EO) determinants as Proactiveness, Risktaking and Innovativeness and its impact in Entrepreneurial Intention (EI) among the students. The methodology used in this study is quantitative that contains a random sample of Gen Z students in Tamil Nadu, India. The questionnaire is suggested for collecting and analysing data with SPSS version 18.0 orPartial Least Squares Structural Equation Modelling (PLS-SEM) 3.0.

Keywords: *Entrepreneurial Orientation, Entrepreneurial Intention, Gen Z, Entrepreneurship,*

INTRODUCTION

As entrepreneurial activities continue to expand, so do the research-based training and educational programs geared toward this expansion. Universities play a significant role in developing individual entrepreneurial orientation and boosting students' intentions toward entrepreneurship in order to contribute to the economic growth of a country (Leon, 2017). In this endeavour, educational institutions and colleges must accommodate generation Z students who were born between 1995 and 2000 (Kubátová, 2016; Ghur, 2017). Entrepreneurship between Gen Z has emerged as a significant and potentially rewarding aspect of employment, breakthroughs innovation, opportunities (KritiKoS, 2014), and social transformation (Peris-Ortiz et al., 2018). In recent years, there has been a rise in the amount of research conducted on entrepreneurial orientation (EO) all around the world (Covin and Miller, 2014). This has allowed for academic discussions to take place. It has been shown beyond a reasonable doubt by academics that an entrepreneurial orientation influences the profitability, performance, and development of a company (Bolton and Lane, 2012). It has been discovered via a thorough review of the existing publications that concentrate on entrepreneurial orientation on a broader scale, but not on the level of the individual. An individual's orientation towards conscientiousness, openness to experience, and willingness to take risk are all characteristics that would benefit a firm or guide someone toward opening their own business. Measuring an individual's entrepreneurial orientation (IEO) can help individuals, teachers, investors, and businesses understand a student's or employee's personal orientation towards these traits. In addition, an increased awareness of individual and student EO may be used to build education programmes that are more relevant to the needs of students and are more helpful to educators (Harris and Gibson, 2008).

The purpose of this study is to investigate the relationship that exists between IEO and EI and to develop a model that takes into account how the link between the construct affects the EI. This investigation will attempt to provide an answer to the following research question: 1) Which elements of the EO framework have an impact on the entrepreneurial intentions of Gen Z; 2) Examine the influence that one's family has on a person's attitude towards starting their own business among members of Generation Z; 3) Does factors such as age, gender, educational background, and area have a role in the development of entrepreneurial inclinations among students?

LITERATURE REVIEW

Entrepreneurial Intension

According to Ajzen (1991) and Krueger and Carsrud (1993), one of the most important aspects of understanding the entrepre process is the behavioural linking of entrepreneurial goals, ideas, and actions. According to Ajzen's (1991) theory of p behaviour, a person's purpose towards an activity in which they feel they have some degree of control over how they behav reliably predict that person's behaviour in relation to that activity. It has been proven by Krueger (2000) that intention is the most significant predictor of planned behaviour. According to Hisritch et al. (2013), the establishment of entrepreneurial int an essential step in the evolution of entrepreneurship, which is a complicated phenomena that develops across a number of p According to Krueger et al. (2000), the theory of planned behaviour is the most accurate predictor of an individual's inten engage in entrepreneurial activity since it takes into account both the individual's personality and their social environment attempting to comprehend their goals. This research focuses on the entrepreneurial intentions of students, however. Mello (2009) suggest that having entrepreneurial intents is vital for generating exceptional entrepreneurs since entrepreneurs are n not born. Entrepreneurs are made not born. According to the findings studied in China by Chen (2022), the variety of educa experiences that students had helped the researchers better comprehend the variations in EI among students.

2.2 Individual Entrepreneurial Orientation

Lumpkin and Dess (1996) define EO to be a cognitive construct that primarily focuses on the act of fresh re-entr act may originate from a person, a small business, or a more big organisation. The individual entrepreneurial orie construct has been tested by a large number of researchers for reliability and validity, and those researchers have, for th part, produced desirable findings (Bolton, 2012; DeGennaro et al., 2016). Intentions to engage in entrepreneurial a may come from a variety of places, one of which is an individual's entrepreneurial orientation. In the EO scale develo research that Bolton (2012) conducted, they came to the conclusion that there are three characteristics associated individual's entrepreneurial orientation. These determinants include proactiveness, innovation, and risk-taking.

When evaluating the EO of individuals, the issue that has to be addressed is "What are the personal characteristics o tudes a person possesses that might increase propensity to engage in and be successful at entrepreneurial activities?" (Wh the personal characteristics or attitudes that a person possesses that might improve the propensity to engage in and be succe at entrepreneurial activities?). The answer to this question is influenced by three different lines of research: first, an individ environment; second, personality characteristics; and third, attitudes towards being entrepreneurial that are driven by s pressures (Levenburg and Schwarz, 2008). The first category is environmental influences, which may be broken down into categories such as economic possibilities, tax benefits, readily accessible money, and other types of stimulus from the out world. Despite the fact that this has received a significant amount of analysis at the company level, it will not be the focus o investigation. The individual is the focus of the second and third streams, which are characterised by personality characteris and attitudes respectively. The chance of someone getting involved in a company is increased by attitudes and characteris that are conducive to entrepreneurship(Domke-Damonte et al., 2008; Raposo et al., 2008; Harris and Gibson, 2008).

We are confident that a person's own abilities are positively related with his or her innovation processes, and that ex confidence is particularly and directly associated with said component through the introduction of pioneer products (Sc and Houghton, 2003). We arrived at this conclusion after taking into consideration the dimensions of EO. According Bryde and Volm (2009) and Fabricius and Buttgen (2015), project managers who have a high degree of confidence to have a low level of risk awareness. As a result, they tend to have an optimistic view of the hazards to consider. As a result, they are more prepared to take greater levels of risk. Alam et al. (2015) found that there is a positive associ between proactiveness and components of an individual's personality, such as extroversion, conscience, a desire for ac plishment, and self-confidence. Specifically, this study found that there is a positive relationship between proactiveness extroversion. Moreover, individuals who demonstrate a propensity for innovation are more likely to possess an enhan ability to identify a wide range of financial resources compared to those who display a lower inclination towards innovati

This includes accessing avenues beyond the traditional means of obtaining funds such as loans and shares (Stone, 2016).

Taking into consideration the above literatures the following hypotheses are proposed:

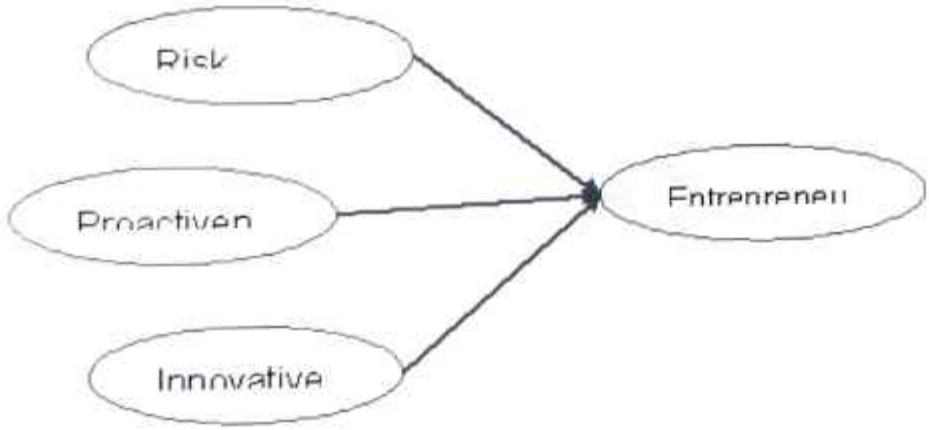
H1: Proactive behaviour shown by an Gen Z individual has a favourable impact on their entrepreneurial intention.

H2: Risk taking behaviour shown by an Gen Z individual has a favourable impact on their entrepreneurial intention.

H3: Innovativeness shown by an Gen Z individual has a favourable impact on their entrepreneurial intention.

CONCEPTUAL DEVELOPMENT TO THE HYPOTHETICAL MODEL

A theoretical framework was developed to analyse the model for the study goals after a comprehensive review of the pertinent literature, considering the research challenge, and conducting a thorough analysis of the relevant theories and models. The framework was used to build hypotheses using the following constructs. The exogenous variable in this study included the entrepreneurial orientation (EO) characteristics of risk-taking, proactiveness, and innovativeness. The endogenous variable is the Entrepreneurial Intention, and the mediating variable is the Social and demographic variable.



Author's Preparation: Model Figure 1

METHODOLOGY

The focus of this study is on the examination of theoretical constructs or latent variables that are not readily observable, sometimes referred to as latent variables. The primary objective of this research is to examine the latent construct of Entrepreneurial Orientation and its impact on the Entrepreneur's Intention among Generation Z individuals pursuing postgraduate studies in Tamil Nadu, India.

Due to their unobservable nature, latent variables cannot be directly measured. This research examines risk-taking as an exogenous variable. On the other hand, the factors that have been noticed include Proactiveness and Innovativeness. These particular components serve as markers of the underlying structures that they represent. The supplementary mediating variables include indicators of social and demographic factors. After the deployment of Partial Least Squares Structural Equation Modelling (PLS-SEM), an assessment is carried out to ascertain the extent to which each indicator variable contributes to the representation of its associated construct. Furthermore, an evaluation is conducted to ascertain the efficacy of the comprehensive array of indicator variables in accurately expressing the underlying concept, with specific emphasis on the aspects of reliability and validity. The current assessment focuses on the evaluation of the measurement model using the partial least squares-structural equation modelling (PLS-SEM) technique. The use of Partial Least Squares Structural Equation Modelling (PLS-SEM) enables the assessment of theoretical constructs and their interconnections with observed variables and latent constructs. The PLS-SEM approach further allows for the evaluation of the level of congruence between the theoretical model and the empirical data. According to the study conducted by Hair et al. (2021).

PRELIMINARY CONCLUSION AND FINDINGS

The present study has analyzed the impact of Entrepreneurial Orientation on Entrepreneurial Intentions. with Entrepre Orientation considered the exogenous variable and EI as the endogenous variable. The mediating factors are directed towar social demographic factors. Numerous studies on entrepreneurship provide evidence of the significance of skills, sustainab and Orientation towards taking up entrepreneurship as a career path. Subsequent research endeavours may empirically exa the hypothetical framework designed to evaluate Entrepreneurial Orientation and Entrepreneurial Intentions.

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Antecedents of Loyalty and Satisfaction of Supermarkets Consumers in the Organized Retail Sector

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Abstract

The retail industry in India has seen phenomenal advancements. Retailing and various brands of retailers have come a long way out of Pandemic situations which lasted for three years all over the world. The organized retail industry saw challenges logistics and supply chain of products and services, pricing inflation, uncertain economic conditions and geo political factors which created a great impact on retailers and their financial settings. In the year 2023, various studies show that there is positive comeback and focus on the consumer buying pattern and shopping journey. The future of retailing is expected to give seamless shopping experience to consumers across our country. According to Boston Consulting Group (BCG), it is predicted that Indian retail would reach a whopping $2 trillion value by 2032. This means 2023 is expected to have great business value prepositions in the retail sector. Consumer satisfaction and loyalty has a radical impact on the organized retail sector, where brining back consumers is a huge challenge amidst massive competition among retailers. This study focuses on Supermarket section which is one growing segments of organized retailing. Consumer requirements are highly categorized by Supermarkets in order to meet their daily and monthly needs. This study emphasized to encounter the factors leading to consumer satisfaction and their loyalty towards supermarkets of Tamil Nadu with specific reference of Chennai city sampling around 126 consumers under non- probability judgement sampling. Based on statistical analysis using SPSS for the data collected it was found that there is great connect between consumer satisfaction and loyalty towards services rendered by Supermarkets.

Keywords: *Organized Retailing, Supermarkets, Consumer Loyalty and Satisfaction.*

INTRODUCTION

Supermarket segment plays a predominant role in daily life of general consumers as their regular needs are purchased from various supermarket outlets. Shoppers want convenient, values, selection options and more such wants will go high in the near future. The challenges faced by physical stores over online buying behaviour are witnessed by almost all leading Supermarkets in our Country. Nevertheless, these challenges are taking the business to next level as the consumer needs are updated by the supermarkets by ways of offering them the best grocery shopping experiences. The services provided by the supermarkets benefits the consumers in large scale. Reasonable price range, faster checkouts, updated payment options, fresh products, door delivery, convenient timing and locations make beneficial supermarket shoppers. The trends in consumer needs always go on ride due to change in income levels and consumer expectations. As the demand for

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groceries grow, consumers are always seeking best quality, value and convenience. Despite the shift in consumer buying behaviour due pandemic, retailers are able to satisfy their consumers by offering the best in all ways their customers need satisfied shopping experience. One such need of consumer is their willingness to spend on high quality products to enable better service experience of grocery purchasing. The supermarkets are thus concentrating to offer the right combination of product and shopping experience to consumers to end up with consumer loyalty. This is where the competition factor becomes vital among the supermarkets. The supermarkets are currently ready to meet customer expectations by investing more in people, inventory and technology to enhance best shopping services to consumers. Thus the scale of changes in operations of supermarkets is huge leading to more innovation in the stores to boost consumer loyalty and improve overall shopping experience.

THEORETICAL FRAMEWORK

The prime objective of the research is to identify about the antecedents of consumer satisfaction towards supermarkets. The consumers in today's retail field have diverse expectations and it is always a challenge for stores to satisfy their needs. The convenience of store hours, store location, layout and cleanliness of the stores, availability of brands, quality and freshness of meat, fruits and vegetables, variety of merchandise, promotional policies, quality of app or door delivery services are few concepts which are given high priority by consumers to choose and repurchase at Supermarkets. The study was thus proceeded in form of survey in Chennai, being a major metropolitan and capital city. The grocery retail market in India is expected to have huge market by 2030 according to various studies. The strategic importance of retail segment is sensed through presence and expansion of various supermarkets, which is the result of shift in consumer preferences from unorganized to organized retailing. The growth of digital economy, effect of pandemic, role of Indian ethos and values in buying patterns of consumers have given scope to proceed various research and studies on learning consumer preferences and expectations on supermarkets.

REVIEW OF LITERATURE

(Velummailum Gobiraj, Balasundaram Nimalathasan, & Kumar Gandhi, 2010) Brand value of products, Sales promotion, Innovation, Recommendation of new products constitute as key factors of customer loyalty in supermarkets. (Arthur W. Allaway, Patricia Huddleston and Judith Whipple, & Alexander E. Ellinger, 2011) Brand equity of products and Consumer loyalty are clearly based on service and product quality offered by the Supermarkets. The formal loyalty programs have significant impact on shopping behaviour of consumers. (Kitapci, Ibrahim Taylan Dortyol, Zu¨hrem Yaman, & Mustafa Gulmez, 2013) Satisfied consumers end up on showcasing encouraging feedback on supermarket services in between groups such as friends, family or future potential consumers about the services offered by the supermarket and also tend to repurchase from the same store. (Fatma Noyan & Gülhayat Gölbaşı Şimşek, 2014) The existing consumers are more valuable than potential consumers as truth and loyalty models have great impact in retailing. Supermarkets consider both product and service quality as most influential base of consumer satisfaction and loyalty. (Kumar, 2016) The Quality of products offered at retail stores is the key to consumer retention. The intentions of consumer loyalty can be identified through strong quality base of products, product ranges and word of mouth communication. (Dr. Ogutu Robert Peter & Dr. Busolo Hillary Oundo, 2017) The Supermarkets must show special attention to store layout, store exclusivity, stock value and store awareness. These factors could end up with store effect and store loyalty among consumers. (Rasoly, 2018) Supermarkets must be expanded in rural areas in order to reach consumers in a wide proportion. (Anil Saxena, 2018) Supermarkets which offer a

huge array of loyalty programs always end up with loyal consumers leading to ultimate consumer satisfaction. (Sukanya, 2019) Consumers of Supermarkets can always be attracted by offering wide range of products. The basic provisions of services can make the consumers feel good and loyal to particular store. (Abdul Rashid, 2019) Understanding consumer perceptions of service quality dimensions is always a benchmark for supermarkets to ensure consumer loyalty. The needs of consumers must be satisfied to survive in the competitive retailing industry. (Slack, Gurmeet Singh, & Shavneet Sharma, 2020) Service quality dimensions always create direct influence towards consumer satisfaction of a particular store. And satisfaction has significant and positive effect on repurchase intentions towards particular supermarket. Positive word of mouth reviews are also factors of consumer loyalty. (Prasad, 2020). (Lamaan Sami & Pushpender Kumar, 2021) Customer perceptions on supermarkets is always a psychological aspect which will vary from person to person based on the services they receive from the supermarkets. The demographic profile of consumers has a great impact on supermarkets and the services offered by them. This study was undertaken to identify the consumer perceptions towards supermarket services in goa. It was identified that the people of that geographic region had more preferences on supermarkets rather than local retail stores. The factors that lead to prefer supermarkets included payment options, quality of products, availability of brands and discounts. (Celil Cakici & Sena Tekeli, 2022) The consumer purchasing intentions have positive emotions towards supermarkets. The study shows a positive perception between the pricing and purchase decisions. The buying behaviour of consumers was explained in a theoretical context using the stimuli-organism-response model. It was identified that the retailers should focus more on consumer perceptions and emotions. The desire, needs and wants of the consumers must be prime focus on building marketing strategy. The competitive advantage over other retailers have great impact on consumer purchasing decisions.

RESEARCH APPROACH AND FRAMEWORK

The major goal of the study is to evaluate the factors which lead to consumer satisfaction towards supermarkets and also to understand the consumer loyalty antecedents on supermarkets with reference to Chennai city. The research was carried on in selected areas of among consumers of retail supermarkets. The sample respondents were from various age categories with a sample size of 126. The major section of respondent have covered prime stores like Nilgiri's, Reliance Fresh and Smart, Grace supermarkets, Spencer's Daily, More and other prominent supermarkets. Supermarkets always play a vital role in the daily life of consumers irrespective to availability of traditional store formats and online retail platforms. Supermarkets prove their presence and availability of groceries with good quality and variety even in tough times like Covis-19 pandemic.

The consumer loyalty and satisfaction towards services offered Supermarkets in organized retailing in Chennai city was identified in the study. The study was carried under Non- Probability Judgment Sampling method. Pre testing of survey Questionnaire was carried with 18 respondents. The Cronbach's alpha reliability test was applied to determine the reliability of the scales in the questionnaire. The value was indicated as 0.826 which proved acceptable consistency of the scales of the questionnaire. A thirteen-question questionnaire was devised to measure the consumer loyalty and satisfaction on services rendered by supermarkets in organized retailing.

RESEARCH OBJECTIVES AND HYPOTHESIS

The aim of this study is to determine the consumer satisfaction and loyalty antecedents' consumer towards Supermarkets and to examine the factors that initiate the customers to select particular Supermarket. The study aimed to identify the significance of consumer

satisfaction and loyalty on supermarkets services and customer preferences of supermarkets. Hypotheses were framed on the basis of the objective to showcase the significance of the variables, which are:

Hypothesis1: There is significance in consumer satisfaction on supermarkets and the services offered by supermarkets.

Hypothesis2 : There is significance on Consumer loyalty and satisfaction on supermarkets and the attributes of Supermarkets.

DATA ANALYSIS AND DISCUSSION

The Survey was conducted through online and physical distribution of questionnaires. Google forms were circulated for the purpose of data collection. A structured questionnaire covering questions with Likert's scale were implemented for the purpose of the study. The collected data were coded in an IBM SPSS Statistics 25.0 version spreadsheet to perform simple statistical analysis such as chi-square test, Analysis of Variance, factor analysis and descriptive statistics.

BASIC PROFILE OF RESPONDENTS Source: Primary Data

The basic profile of the respondents included the gender, age category, monthly income ranges, marital status and frequency of shopping in supermarkets. Nominal scale options were used for the data collection and analysis was done based on the same. We can infer that 25% of respondents were male and 75% were female. 25% of responses were from people at the age of 21 to 30, 43% were from age group of 31 to 40, and 19 % were greater than 40. The marital status of respondents can be classified as 55% were unmarried and 45% were married. The frequency of shopping can be categorized as 4% of respondents shopping once in a week, 48% of respondents shopping once in two weeks and 58% of respondents shopping once in a month on various supermarkets.

Table 1: Consumer parameters to choose shopping at supermarkets

PARAMETERS TO CHOOSE SUPERMARKETS	N	Mean Values
CONVENIENT STORE LOCATION	126	3.56
AVAILABILITY OF PRODUCTS	126	1.63
REASONABLE PRICES	126	1.90
DISPLAY OF PRODUCTS	126	2.64
EMPLOYEE BEHAVIOUR	126	1.96
PROMPT RESPONSE	126	2.48
TIMELY DELIVERY OF PRODUCTS	126	2.07
BILLING SERVICES	126	2.33
PAYMENT OPTIONS	126	2.07
STORE LOYALTY PROGRAM	126	1.94
OFFERS AND DISCOUNTS	126	1.90
PARKING FACILITIES	126	1.77
BRAND AVAILABILITY	126	1.97

Source: Primary Data

INTERPRETATION: According to mean analysis, factors such as location of supermarkets, product availability at supermarkets, updated billing options, Physical arrangements and layout of goods, delivery options, reasonable price ranges, the quality and variety of products and availability of brands at supermarkets were considered to

recognize the factors which influence consumers to prefer for supermarkets purchasing. Significantly the factors were averaged to find out it's impact on grocery purchases. To conclude from this analysis, Convenient locations of supermarkets had the highest impact on 3.56 value of Mean indicating that consumers are satisfied with store locations of supermarkets, followed by display of products with 2.64 mean showcasing that consumers are attracted towards shopping in supermarkets with easy identification of products.

Table 2: relationship between consumers satisfaction and services offered by supermarkets

CONSUMERS SATISFACTION ON SUPERMARKETS AND SERVICES OFFERED BY SUPERMARKETS						
	SUPERMARKETS					
SERVICE EXPECTATIONS	Nilgiri's	Grace Super Market	Reliance Fresh	Spencer's Daily	Others	Total
Convenience	2	18	0	4	5	29
Cheap Price	0	0	3	5	5	13
Good Loyalty Programs	0	9	0	0	0	9
Better Quality Groceries	2	15	3	4	16	40
Better Range Of Grocery Items	5	1	0	1	2	9
Easy Payment Options	0	3	5	10	10	28
Easy Delivery Options	3	0	0	0	0	3
Look & Feel Of Products	0	0	3	2	0	5
Total	12	36	14	26	38	126

Source: Primary Data

CHI-SQUARE TEST:

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	116.818[a]	28	.000
Likelihood Ratio	98.931	28	.000
Linear-by-Linear Association	2.534	1	.111
N of Valid Cases	126		

HYPOTHESIS 1: There is significance in consumer satisfaction on supermarkets and the services offered by supermarkets.

INTERPRETATION: The Chi-square Tests is conducted to test the relationship between consumer satisfaction on supermarkets and the services offered by supermarkets. The Pearson's Chi-square value is 116.81 and significant value stands at 0.000 which is less than 0.05. Thus we can infer that there is significant relationship between consumer satisfaction on supermarkets and the services offered by supermarkets.

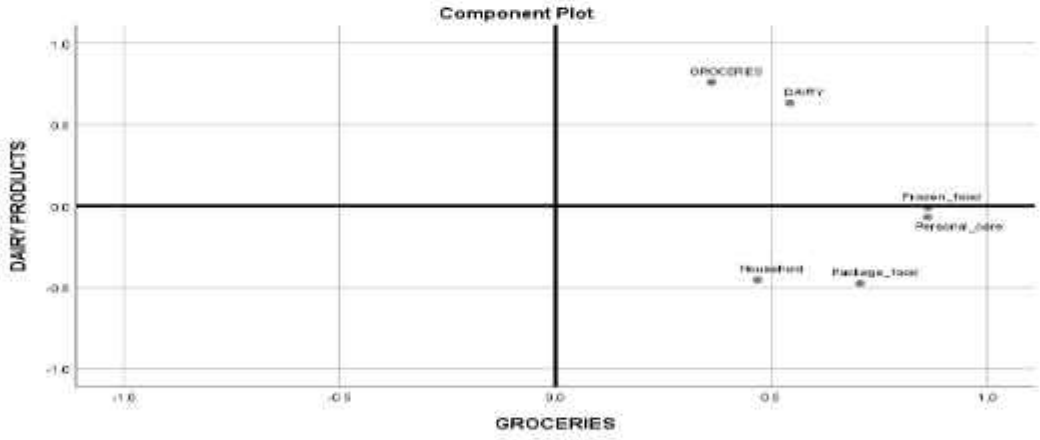
Table 3: factor analysis on conumser loyalty and satisfaction on supermarkets attributes

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.645
Bartlett's Test of Sphericity	Approx. Chi-Square	253.434
	Df	15
	Sig.	.000

Source: Primary Data

Factor Loading, Eigenvalue and percentage of extraction using Principal component method for consumer attributes towards Supermarket shopping						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Components	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Groceries	2.627	43.788	43.788	2.627	43.788	43.788
Dairy Products	1.413	23.550	67.339	1.413	23.550	67.339
Household	.857	14.287	81.625	-	-	-
Packaged food	.523	8.723	90.348	-	-	-
Frozen food	.381	6.355	96.703	-	-	-
PersonalCare Products	.198	3.297	100.000	-	-	-
Extraction Method: Principal Component Analysis.						

Screen plot showing the two factors : Groceries and Dairy products.



HYPOTHESIS 2 : There is significance on Consumer loyalty and satisfaction on supermarkets and the attributes of Supermarkets.

INTERPRETATION: The KMO measures the sampling adequacy (which determines if the responses given with the sample are adequate or not) which should be close to 0.5 for satisfactory factor analysis to proceed. Since the Bartlett's test of Sphericity value of significance is .000 which is less than .005, the exploratory factor analysis is preceded and null hypothesis is rejected, indicating that attributes to choose supermarkets is having great impact on loyal and satisfied consumers. The Exploratory factor analysis identified the two major components with had total initial Eigen values with more than 1, which were Groceries as first component with the value of 2.627 and followed by Dairy products with the value of 1.413. According to factor analysis, these two components explain 67.339% of the variance.

FINDINGS AND FUTURE SCOPE OF RESEARCH

The study intended to evaluate the role of supermarkets in daily life of consumers, the expectations and preferences, satisfaction on grocery shopping along with few major aspects which includes the services offered by Supermarkets. The consumer satisfaction always has a great impact on consumer loyalty towards shopping. In spite of the transformations in consumer buying behaviour in past few years, the needs of consumers towards supermarkets are never weakened. The study found that there is evidential relation between consumer satisfaction on supermarkets and the services offered by supermarkets. The study also proved that convenient location of Supermarkets and Display of products in supermarkets had the greater impact in the minds of consumers to prefer supermarkets, indicating the consumer's choices and preferences towards Grocery purchasing. Thus we can understand that Supermarkets are also constantly working towards needs of consumers ultimately to make them satisfied and become more loyal. This study also found that the attributes to choose supermarkets is having great impact on loyal and satisfied consumers. Thus more and more options offered by supermarkets to ease the shopping experience of consumers would result in more business opportunities and increase in the number of outlets of the Supermarkets.

LIMITATIONS

The data collection was restricted to a particular geographical segment in Chennai. Data collected among different zones will end up with different consumer preferences. The responsed received from the consumers showcased their experiences from few supermarkets thus restricting the research understanding only to few outlets. The qualitative research methods can give contrasting results as the needs and buying behaviour of consumers are always dynamic in nature.

CONCLUSION

Supermarkets play an important role in understanding and implementing shopping factors which influences consumer buying behaviours. The change in buying behaviour from traditional format to supermarket shopping has seen great transformation phases of consumer grocery purchasing. Bringing back and retaining the consumers is always a challenge for organized retail sector due to heavy competition and huge consumer base. Various surveys proves that the Indian Grocery Market accounts to major contribution in the Indian Retail Market, which illustrates the availability of plenty opportunities to substantial retailers. In spite of the change in consumer buying patterns led by the pandemic, Supermarkets shows its presence through implementation of systems and regulations which make the consumer feel safe and secure in their transactions of grocery purchase. The shopping preferences of consumers are rapidly changing as shoppers have returned to physical shopping, which have resulted in updating and satisfying the consumers by offering best services by supermarkets.

DECLARATIONS

Ethics approval: Ethical standards were followed in the conduct of the study. Author Contribution - Both the authors contributed to the research. The study was planned and the design was conceptualized as per the research model. Data collection and analysis was done based on sample design. The authors read and approved the final manuscript.

Consent of Participation: Informed consent was obtained from all individual participants included in the study.

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EMERGING ROLE OF BLOCKCHAIN TECHNOLOGY IN HUMAN RESOURCE MANAGEMENT

Dr. Chikati Srinu
Dr. U. Amaleshwari
R. Shanmugapriya

ABOUT BOOK

The first Edition of the extremely popular text book "Emerging Role of Blockchain Technology in Human Resource Management", comes at a time when the technology and industry is looking for the Engineers to use their mind in the revolution of Engineering and technology in Management, Who are able to design the learning outcomes with full efficiency of knowledge and resources. The book is designed based on internationally accepted learning outcomes required from the course, designed for both students and professionals by taking references from many standard national, international text books and web resources. This book is student handy to develop skills for exam Preparation and knowledge enhancement at the undergraduate and postgraduates in the field of MBA/BBA/Engineering.

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PREFACE

This book is designed for use in courses on Emerging role of Block chain technology in human resources management at the undergraduate/postgraduate level, particularly designed for the structured curriculum of Bachelor of arts and science and Management.

Although the contents of the book follow the essential content of complete concepts of Emerging role of Block chain technology in human resources management is sufficiently broad in scope and rigorous in coverage to satisfy any undergraduate and postgraduate requirements in the field of BBA/MBA.

The book is organized into different sections:

Chapter 1, describes about the Impact of Blockchain Technology In Business etc.,

Chapter 2, delivers the Disruptive Technology, Importance of Enhancing Disruptive Technology, Explanation of Disruptive Technology and Its Impact on Industries, Need for Enhancing Disruptive Technology, Benefits and Potential Outcomes of Enhancing Disruptive Technology etc.,

Chapter 3, describes the Function of Human Resource Management, Recent Innovations in HRM, HR Technology, Benefits of Technology in Streamlining HR Tasks and Improving Efficiency etc.,

Chapter 4, covers the Recruitment and Selection Process, Increased Transparency and Trust in Candidate Information, Enhanced Security and Privacy of Candidate Data etc.,

Chapter 5, delivers the Importance of Social Media Recruitment In The Modern Job Market, Opportunities in Social Media Recruitment, Challenges in Social Media Recruitment Through Blockchain Technology, Strategies to Maximize Opportunities In Social Media Recruitment etc.,

AUTHOR'S DISCLAIMER

The contents or information presented here is merely a collection for our teaching assignments and student focus. Various sources as mentioned at the end of the document as well as freely available material across internet were referred for preparing this book. The originality and ownership of the information lies with the prescribed authors.

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CHAPTER 1

BLOCKCHAIN TECHNOLOGY IN BUSINESS

1.1 INTRODUCTION

The phrase "blockchain" is widely used in modern technology, which is widely regarded as the most innovative advance in the technology industry during the last 10 years. Because of this, blockchain may be used to transfer assets such as money, contracts, property rights, stocks, and even networks in a safe manner. This is possible because blockchain eliminates the need for third-party intermediaries such as governments or banks. Once information has been kept on the Blockchain, it is very impossible to make any changes to it. Blockchain technology is a kind of network protocol, much as SMTP. But the Blockchain won't work until it's connected to the internet. The internet serves as the foundation for the functioning of blockchain technology, enabling the seamless transfer and verification of data across multiple nodes. Additionally, the decentralized nature of blockchain ensures that no single entity has control over the entire network, enhancing security and trust among participants.

Blockchain is useful in a multitude of areas, including banking, finance, healthcare, and insurance, among others. In banking, blockchain technology can revolutionize the traditional payment systems by enabling faster and more secure transactions, reducing costs, and eliminating intermediaries. In healthcare, it can improve the sharing and privacy of patient data, streamline medical record management, and enhance drug supply chain integrity. Similarly, in insurance, blockchain can automate claims processing, detect fraud more efficiently, and provide transparent and immutable records for policyholders. A blockchain is a decentralised, open, and public ledger that may record transactions between two parties efficiently and in a way that is unchangeable. This is accomplished without the need for a central authority. A blockchain is a distributed ledger that is made up of a chain of blocks, each of which stores its own individual piece of information. The information stored in each block is encrypted and linked to the previous block, creating a secure and tamper-proof system. This decentralized nature of blockchain ensures that no single entity has control over the entire network, making it resistant to hacking or manipulation. Additionally, the transparency provided by blockchain allows for greater trust and accountability among policyholders and insurance companies.

As a result, a blockchain may be thought of as a ledger or file that grows in size on an ongoing basis and keeps an immutable record of all transactions. This ledger is distributed across a network of computers, known as nodes, which work together to validate and verify each transaction. Each transaction is encrypted and linked to the previous one, forming a chain of blocks that cannot be altered or deleted. Moreover, the use of smart contracts in blockchain technology enables automated and self-executing agreements, eliminating the need for intermediaries and reducing costs for insurance companies and policyholders. This technique works in a secure, unchangeable, and chronological way, which means that chronological transactions take place one after the other. Whenever the process of storing an existing informative block is completed, a new block is generated. This ensures that the information stored in each block is linked to the previous one, creating a chain of blocks. Additionally, the decentralized nature of blockchain technology enhances transparency and trust as all participants have access to the same information, reducing the risk of fraud or manipulation.

1.2 DISBURSED SYSTEMS

Because a distributed system served as the basis for the creation of blockchain, familiarity with distributed systems is necessary for gaining a knowledge of blockchain. Distributed systems refer to a network of interconnected computers that work together to achieve a common goal. Understanding how these systems function is crucial in comprehending the underlying principles of blockchain technology, as it relies on the collaboration and consensus of multiple nodes within the network. Moreover, knowledge of distributed systems can aid in identifying potential vulnerabilities or scalability issues that may arise when implementing blockchain solutions. It is a distributed ledger that may either be decentralised or centralised according to user preference. Decentralized blockchain networks, such as Bitcoin and Ethereum, rely on a vast network of nodes spread across the globe to validate and record transactions. This decentralization ensures transparency, security, and resilience against single points of failure. On the other hand, centralized blockchain networks may be preferred in certain scenarios where a trusted authority is needed to oversee and regulate transactions, such as in private enterprise solutions or government applications. A blockchain, which was originally conceived of as a decentralised platform, is often put to use in this capacity today. It is possible to see it as a system that incorporates aspects of both distributed and decentralised systems into a single whole.

To create new mar... businesses to explore. For example, e-commerce has created a new mark... businesses to sell their products and services online.

To reduce costs. Disruptive technologies can help businesses to reduce the... costs in a number of ways. For example, 3D printing can help businesses t... reduce the cost of manufacturing products.

In addition to these specific benefits, enhancing disruptive technology ca... also help businesses to:

Improve their customer experience. Disruptive technologies can help... businesses to provide their customers with a better experience in a number o... ways. For example, AI can be used to personalize customer interactions an... provide customers with more relevant information.

Increase their innovation capacity. Disruptive technologies can help... businesses to be more innovative by providing them with new tools and... resources to develop new products and services.

Become more agile and responsive to change. Disruptive technologies can... help businesses to become more agile and responsive to change by giving... them the ability to adapt their business models quickly.

Overall, enhancing disruptive technology is essential for businesses that want... to stay ahead of the competition, improve their efficiency and productivity,... develop new products and services, create new markets, reduce costs, improve... the customer experience, increase their innovation capacity, and become more... agile and responsive to change.

Here are some specific examples of how businesses are enhancing... disruptive technology to achieve these benefits:

- Amazon is using AI to personalize the shopping experience for its... customers and to recommend products that they are likely to be... interested in.
- Netflix is using AI to recommend movies and TV shows to its... customers based on their viewing history.
- Tesla is using AI to develop self-driving cars.
- Siemens is using AI to improve the efficiency of its manufacturing... processes.

- Walmart is using AI to reduce its inventory costs and improve its... supply chain management.

These are just a few examples of how businesses are using disruptive technology to their advantage. As disruptive technologies continue to emerge, it is important for businesses to be aware of them and to be prepared to adopt them.

2.3 EXPLANATION OF DISRUPTIVE TECHNOLOGY AND ITS IMPACT ON INDUSTRIES

Enhancing disruptive technology in business is crucial for several reasons, as it can bring about numerous benefits and opportunities:

Competitive Advantage: Embracing and improving disruptive technologies can give a company a significant competitive edge. By staying ahead of or even leading in technological innovation, a business can position itself as an industry leader and attract customers who value cutting-edge solutions.

Market Growth: Disruptive technologies often open up new markets and customer segments. Enhancing these technologies can help businesses tap into these untapped markets, leading to increased sales and revenue growth.

Cost Efficiency: Continuous improvement of disruptive technologies can lead to cost efficiencies in operations, production, and service delivery. This can result in lower costs, higher profit margins, and a more sustainable business **model.**

Customer Satisfaction: Many disruptive technologies are designed to offer superior performance, convenience, or other advantages compared to existing solutions. Enhancing these technologies can lead to higher customer satisfaction and loyalty.

Innovation Ecosystem: Businesses that actively invest in disruptive technologies often become hubs of innovation. This can attract top talent and foster a culture of creativity and problem-solving, which can lead to further technological advancements and business growth.

Adaptation to Change: In today's rapidly evolving business landscape, technological change is constant. Enhancing disruptive technologies allows a business to adapt more readily to these changes and stay relevant in the face of shifting market dynamics.

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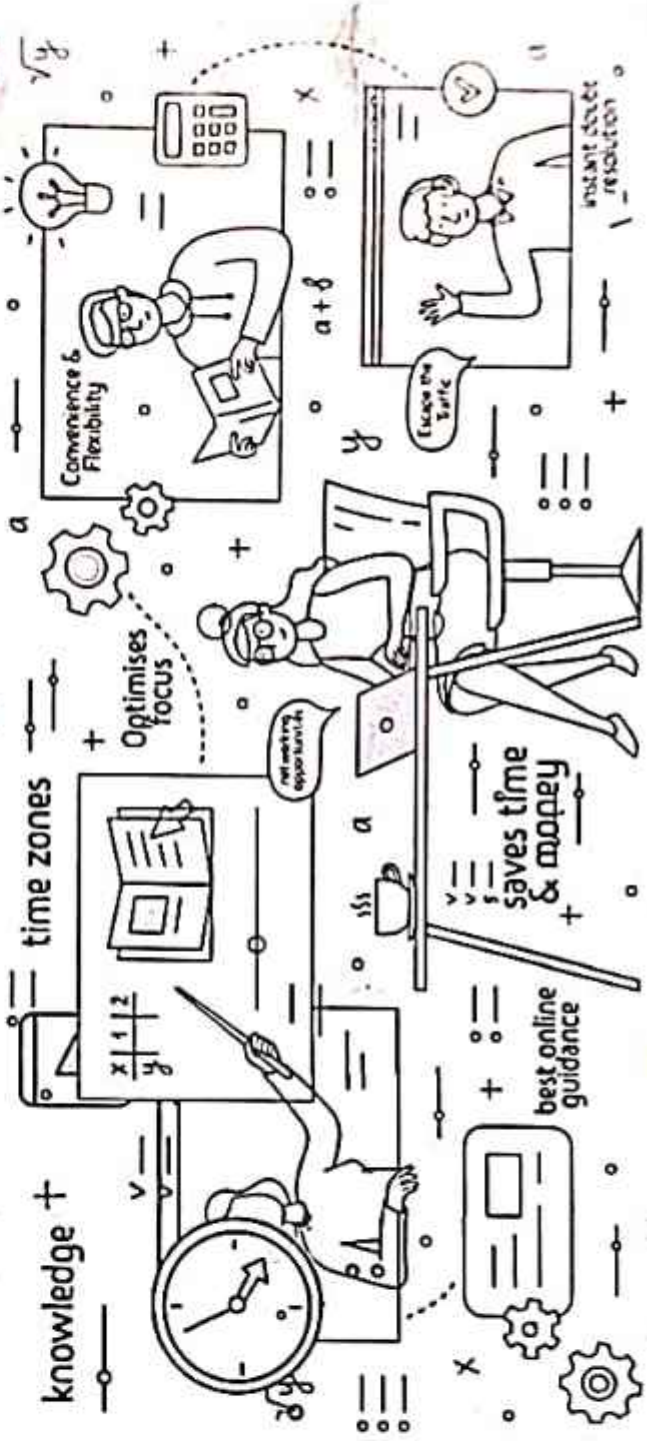

e TOTAL

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General Perception on Virtual Learning – A Key to Futuristic and VR-AR based Education

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Abstract

The Audience with meticulous inclination towards online education through virtual environment, every resource available is scaling up significantly and drastically. There are various strategical methods, techniques, VR-AR practices establish education both qualitatively and quantitatively in accordance with prioritized time-lines. Teaching- Assessing- Learning ephemerates and compliments one another. Especially covid and post pandemic increased the level of personnel interested in Technology-Enabled learning (TEL)MOOC was purposefully intended to keep qualified teachers and learners around the world, educational instructors, mentors, learners at any distinct level, collaborate together with TEL and open educational resources in privileging the society and for the self. This made online learning methodology increasing trending culture eventually. As said righteously "Education is for everyone, a key for the development and success". Schooling, learning, teaching and parenting along generations have played a key role in molding learner at right age consistently with eminent perceptions. TEL is designed specifically for teachers in diversified contexts say, primary, secondary, and post-secondary and vocational education. This paper investigates and summarize after various responses from the post-secondary educational institutions based on online education benefits, methodologies, resources, one of the frameworks (COI) community of inquiry model in particular. There are considerable benefits and challenges in online learning, inespective of

INTERNATIONAL CONFERENCE ON

EMERGING TRENDS IN ONLINE TEACHING ASSESSMENT AND LEARNING (eTOTAL)

The International Conference on "Emerging Trends in Online Teaching, Assessment and Learning" (eTOTAL '23) was conducted on the 24th and 25th of February, 2023. Organised by State Project Directorate RUSA Tamil Nadu (SPD RUSA TN), the conference aimed at discussing the state-of-the-art methodologies that have evolved for online teaching, assessment and learning.

Due to the advancements in technology and the COVID-19 pandemic, the online mode of education has gained prominence and has increasingly gained acceptance. Also, due to the flexibility and reach provided by the online mode of education, it has also become a preferred mode for providing education to remote locations.

In line with the objective of SPD RUSA TN to improve quality, equity and access to Higher Education, the conference brings together all the advancements made in the online mode of education i.e., Online Teaching, Assessment, and Learning, thereby contributing to improving the delivery of quality education to the remotest learners.

The Conference had a total of 109 papers submitted by national and international authors, among which 103 papers were shortlisted for publication and the top papers were recognised with the 'Best Paper' award for Oral Presentation & Poster Presentation during the Conference. The top five papers under each theme (Teaching, Assessment & Learning) were presented by the author(s) during the technical sessions of the Conference and 40 papers were presented online apart from poster presentations.

The Conference was graced by both national and international experts as panel members, who discussed the latest and greatest advancements in each of the three themes (Teaching, Assessment & Learning).

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Abstract

The Audience with meticulous inclination towards online education through virtual environment, every resource available is scaling up significantly and drastically. There are various strategical methods, techniques, VR-AR purveys establish education both qualitatively and quantitatively in accordance with prioritized time-lines. Teaching- Assessing- Learning reciprocates and compliments one another. Especially covid and post pandemic increased the level of personnel interested in Technology-Enabled learning (TEL.)MOOC was purposefully intended to keep qualified teachers from around the world, educational instructors, mentors, learners at any distinct level, collaborate together with TEL and open educational resources in developing the society and for the self. This made online learning methodology interesting trending culture eventually. As said righteously "Education is for everyone, a key for the development and success". Schooling, learning, teaching and parenting along generations have played a key role in molding learner at right age consistently with eminent perceptions. TEL is designed specifically for teachers in diversified contexts say, primary, secondary, and post-secondary and vocational education. This paper investigates and summarize after various responses from the post-secondary educational institutions based on online education benefits, methodologies, resources, one of the frameworks (COI) community of inquiry model in particular. There are considerable benefits and challenges in online learning, irrespective of

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INTERNATIONAL CONFERENCE ON

EMERGING TRENDS IN ONLINE TEACHING, ASSESSMENT AND LEARNING (eTOTAL)

The International Conference on "Emerging Trends in Online Teaching, Assessment and Learning" (eTOTAL '23) was conducted on the 24th and 25th of February, 2023. Organised by State Project Directorate RUSA Tamil Nadu (SPD RUSA TN), the conference aimed at discussing the state-of-the-art methodologies that have evolved for online teaching, assessment and learning.

Due to the advancements in technology and the COVID-19 pandemic, the online mode of education has gained prominence and has increasingly gained acceptance. Also, due to the flexibility and reach provided by the online mode of education, it has also become a preferred mode for providing education to remote locations.

In line with the objective of SPD RUSA TN to improve quality, equity and access to Higher Education, the conference brings together all the advancements made in the online mode of education i.e., Online Teaching, Assessment, and Learning, thereby contributing to improving the delivery of quality education to the remotest learners.

The Conference had a total of 109 papers submitted by national and international authors, among which 103 papers were shortlisted for publication and the top papers were recognised with the 'Best Paper' award for Oral Presentation & Poster Presentation during the Conference. The top five papers under each theme (Teaching, Assessment & Learning) were presented by the author(s) during the technical sessions of the Conference and 40 papers were presented online apart from poster presentations.

The Conference was graced by both national and international experts as panel members, who discussed the latest and greatest advancements in each of the three themes (Teaching, Assessment & Learning).

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Exploring Frontiers in Bioscience Research

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Chapter 1

Nutrigenomics – A Biochemists Perspective

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Abstract

Human development is shaped by a combination of genetic factors and environmental influences. Environmental factors encompass elements such as diet, smoking, education, and physical activity, all of which play crucial roles in maintaining human health. However, previous research has primarily concentrated on either genetic influences (genes) or environmental factors, rather than examining both concurrently. Recent technological advancements have paved the way for exploring both genetic and environmental factors simultaneously. This has led to the realization that specific nutrients are not only necessary but also require specific quantities for promoting good health. This realization has given rise to concepts like nutritional epidemiology, dietary guidelines, and the understanding that food can directly impact the onset of diseases, leading to the emergence of a new scientific field known as Nutrigenomics.

Keywords: Nutrigenomics, Metabolomics, Transcriptomics, Physiology, Pathology, Nutrition.

1. INTRODUCTION

Nutrigenomics is a multidisciplinary field that integrates genetics, molecular biology, proteomics, genomics, metabolomics, transcriptomics, physiology,

Chapter 2

A Study on Nutritive Role of Azadirachta Indica Leaves Extract (Neem)-Invitro Approach and Antioxidant, Antibacterial and Antifungal Activity

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Abstract

Neem tree (Azadirachta indica A. Juss) is a large evergreen tree with edible fruits and aromatic leaves. A mature tree can produce 350 kg of leaves a year. Neem has been used worldwide in traditional medicine for various therapeutic purposes, anti-bacterial, anti-fungal, anti-viral and anti-fertility properties (Jegede and Fagbenro, 2007) and phytochemical analyses showed that the neem tree has more than 100 unique bio- active compounds, among which is sodium nimbinate which has potential applications as spermicide in animal care and for even regulating human fertility. The result of the study showed that Azadirachta indica leaves extract contains biologically active ingredients such as alkaloids, flavonoids, saponins, triterpenoids and phenol which possess a wide array of pharmacological properties. Azadirachta indica extract was found to contain appreciable amounts of vitamins and minerals. The leaves extract was found to be antioxidant in nature which is evident from DPPH, ABTS assays. Also the results of antibacterial and antifungal potentials of the neem extract is well established.

Keywords: Neem, Azadirachta indica, anti-bacterial, anti-fungal, antioxidant.

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Chapter 3

Preliminary Phytochemical Screening, Quantitation of Antioxidant Components of Differently Brewed Green Tea (Camellia Sinensis) Extracts

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Abstract

A drink or beverage is a liquid intended for human consumption. In addition to its basic function of satisfying thirst, beverages are a part and parcel of human culture. Common types of drinks include plain drinking water, milk, coffee, tea, hot chocolate, juice, soft drinks. Tea, the second most consumed drink in the world, is produced from infusing dried leaves of the Camellia sinensis shrub in boiling water. There are many ways in which tea is prepared. In addition, Tea is also consumed to boost energy and focus. Some of the best tea are green tea, black tea, peppermint tea, ginger tea and so on. However, the best way to prepare tea and best time to have it will largely contribute to its goodness. This study has shown that green tea is a rich source of antioxidants such as phenol, flavonoids, alkaloids, saponins, tannins.Green tea is very beneficial as the tea extract is a rich source of antioxidant enzymes like peroxidase, catalase, polyphenol oxidase, superoxide dismutase. Further, tea brewed at 60°C temperature is best for antioxidant surplus. However the addition of milk lowers its benefits. Care should be taken that the tea should not be consumed on an empty stomach as the rich source of tannins can cause damage.

Keywords: Camellia sinensis, antioxidants, anti-inflammatory.

Chapter 4

Fruit Ripening Agents and Biochemical Changes in Fruits

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Abstract

Fruits are highly valued for their nutritional content, offering a wide array of essential vitamins, minerals, dietary fiber, antioxidants, and natural sugars, polyphenols (Wegmans 2009). These nutrients effectively counteract the effects of oxidative processes that contribute to severe diseases in the human body, such as cancer, autoimmune disorders, and multiple sclerosis.The nutritional value of fruits can vary based on the type of fruit, its ripeness, and growing conditions.

Keywords: Fruits, peach, pear, plum, and tomato.

1. INTRODUCTION

Fruits can be categorized into two groups as climacteric and non climacteric based on the regulatory mechanisms governing the ripening process (Pech, 2018). Climacteric fruits encompass varieties such as avocado, banana, cherimoya, mango, kiwifruit, apple, apricot, cucurbit, jackfruit, papaya, peach, pear, plum, and tomato. Climacteric fruits exhibit a temporary surge in both ethylene synthesis and respiration during the early stages of ripening. The peak in ethylene production corresponds to the peak in respiration rate.

Chapter 5

Diabetes and Cardiovascular Disease Induced By Oxidative Stress in Cellular Signalling

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Abstract

Oxidative stress reflects an imbalance between the systemic manifestation of reactive oxygen species and a biological system's ability to readily detoxify the reactive intermediates or to repair the resulting damage. Disturbances in the normal redox state of cells can cause toxic effects through the production of peroxides and free radicals that damage all components of the cell, including proteins, lipids, and DNA. Oxidative stress from oxidative metabolism causes base damage, as well as strand breaks in DNA. Base damage is mostly indirect and caused by reactive oxygen species (ROS) generated, e.g. O2−, OH and H2O2. Further, some reactive oxidative species act as cellular messengers in redox signaling. Thus, oxidative stress can cause disruptions in normal mechanisms of cellular signalling that manifests into conditions like Diabetes mellitus and Cardiovascular diseases.

Keywords: DNA, O2−, OH, H2O2, ROS, Diabetes mellitus and CVD

1. INTRODUCTION

Oxidative stress with disrupted mitochondrial respiration and mitochondrial damage are related with Alzheimer's disease, Parkinson's disease, and other neurodegenerative diseases (Ram lingam M, Kim SJ., August 2012). Oxidative

Chapter 6

Glucose Transporters – A Review

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Abstract

Glucose is thought to be the main source of energy for cells and it is the most significant substrate for many metabolic events. A hypoglycemic hormone, insulin lowers the level of plasma glucose. Normoglycemia is attained through controlling insulin secretion. When extracellular glucose levels are detected, pancreatic cells produce insulin as needed. When the level of plasma glucose rises, the glucose transporter GLUT-2 on the plasma membrane allows glucose to enter the pancreatic cells. The enzyme Glucokinase phosphorylates glucose as it enters glycolysis, where it is ultimately transformed to pyruvate in the cytoplasm. The increase in the ATP: ADP ratio makes it easier for calcium channels to open and potassium channels to close. The entry of calcium into the cell serves as a stimulus for insulin release. Once the insulin is secreted from pancreas, it binds to its receptors on the muscle cells resulting in the translocation of glucose transport proteins (GLUT 4) from the cytoplasm to cell membrane for allowing the glucose in to the cell. The entered glucose is utilized by the cell to produce energy. The glucose transport proteins are expressed on the cell surfaces of every cell. The two main categories of glucose transporters i.e. sodium-glucose linked transporters (SGLTs) which serves as a transporter for the entry of glucose along with sodium in the intestine and facilitated diffusion glucose transporters (GLUT) which have isoforms expressed in

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Chapter 7

Curative Potential of *Brassica Juncea* Seeds

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Abstract

Brassica juncea, also known as Brown mustard, Chinese mustard, Oriental mustard, and Indian mustard belongs to the family Brassicaceae. *Brassica juncea* is a cruciferous vegetable used as a food spice and traditional medicine worldwide. It originates in southern and eastern Asia and has been familiarized to the whole of North America from Eurasia. *Brassica juncea* is a well-known and economical plant and has and has always been studied for its medicinal and nutritive value. *Brassica juncea* is rich in phytochemicals like phenol and flavonoids which apparently, validate the medicinal use of this seed *viz.*, antioxidant, free radical scavenging, and antiarthritic activity. Diverse medicinal uses of different types of products obtained from *B. juncea* have been known for centuries. But little effort has been made to obtain a defined phytopharmaceutical from this plant which is easily cultivable and of great commercial value in developing and under developed countries. Hence, an effort to identify the pharmacological potential and health benefits of *B. juncea* has been made in the present study.

Keywords: Brassica juncea, phytochemicals, antioxidants, anti-arthritic potential.

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Chapter 8

Bioavailability of Iron and Calcium after the Addition of Moringa Leaf Extract and Lemon Juice Extract on Black Strap Molasses

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Abstract

Anemia is due to deficiency of iron and lack of healthy red blood cells. If left untreated, anemia can lead to extreme fatigue, weakness, or shortness of breath. Iron is an important trace element for the production of hemoglobin and helps to maintain healthy RBC which is vital for oxygen transport. Black strap molasses contain high amounts of sucrose and minerals making them suitable substrates of nutritive value. Blackstrap molasses contains calcium, manganese, potassium, copper, and magnesium. These are vital minerals responsible for healthy bones. Black strap molasses helps in healing a broken bone, reduces the risk of brittle and weak bones, and improves overall bone health. The aim of the study was to determine the bioavailability of iron and calcium on black strap molasses after the addition of Moringa leaf powder and lemon juice extract. The results of the study showed that an increase in iron content was found after the addition of Lemon extract and Moringa leaf extract on black strap molasses. This may be due to the fact that lemon is rich in vitamin C, and enhanced the bioavailability of iron in black strap molasses. But when the lemon extract and moringa leaves are mixed with black strap molasses, the calcium content was found to be decreased but the levels of

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DR.K.NAGALAKSHMI

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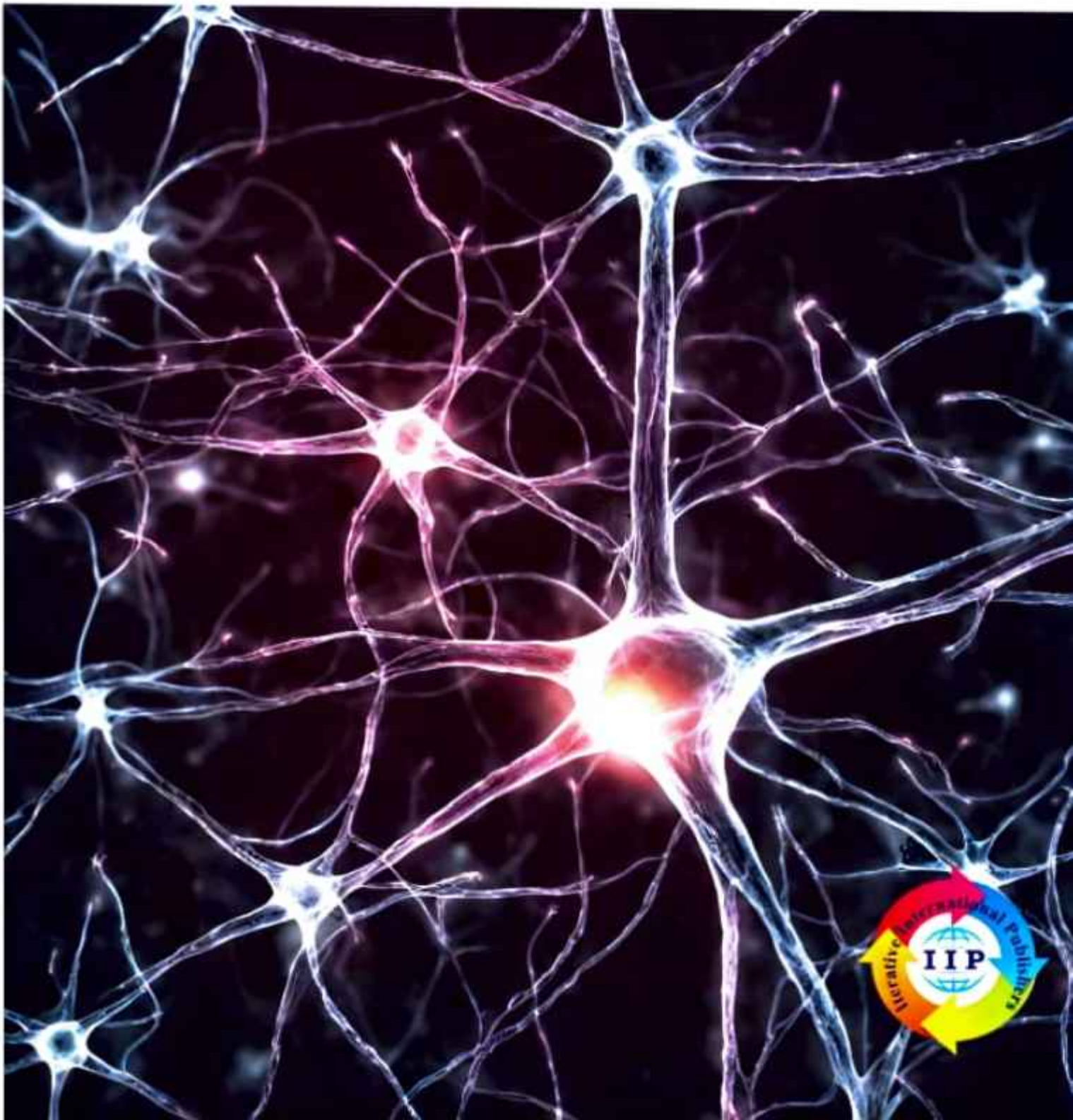

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Chapter 6

Pharmacological Properties of Carvacrol: Focus on its Antioxidant Potential

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Abstract

Free radicals are the chief causative factor in the progression of various diseases such as diabetes and cancer. In order to quench superfluous free radicals and maintain the balance in human body as well as achieve the prevention and treatment of diseases, the consumption of antioxidants of natural origin is essential. The usage of synthetic antioxidants has been less preferential due to their side effects. Hence, the consumption of natural antioxidants from plants is more required due to the fact that they play a pivotal role in the prevention and treatment of various free radical mediated diseases. In the present study, an attempt has been made to evaluate the antioxidant properties of carvacrol. Carvacrol at a concentations of 20 40, 60 80 and 100µM scavenged 17.5, 30.4, 47.5, 63.2 and 80.5 % of DPPH radicals In ABTS assay, the compound Carvacrol at a concentations of 20 40, 60 80 and 100µM scavenged 19.5, 30.1, 48, 63 and 81.5% of ABTS.Carvacrol at a concentations of 20 40, 60 80 and 100µM scavenged 14, 32.6, 45, 61.3 and 79.1% Superoxide anion. Carvacrol at a concentations of 20 40, 60 80 and 100µM scavenged 18, 26, 40, 64 and 77% of

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Chapter 1

Phytochemical Characterization and Therapeutic Benefits of *Andrographis Paniculata*

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Abstract

The pharmacological benefits of medicinally important plants are primarily due to bioactive phytochemicals produced in the plant tissues as primary and secondary metabolites. In the current study the focus is on *Andrographis paniculata* a potential medicinal herb which is an ingredient of 26 ayurvedic formulations and one of the important ingredient in siddha formulations of kabasura kudineer which was distributed in south India during covid -19 pandemic.Phytochemical characterization and GC MS Characterization have revealed presence of important phytochemicals in the methanolic extract of the whole plant. MIC and MBC have revealed that the herb has significant anti oxidant and anti bacterial effect on food poisoning microbes.

Keywords: *Andrographis paniculata*, phytochemicals, APPP, Andrographolide, phytochemical chracterisation, GC MS, antioxidant, antibacterial effect

I. INTRODUCTION

The Indian pharmacopoeia narrates that *Andrographis paniculata* is a predominant constituent more than 26 ayurvedic formulation (Zhang, 2004) and an is official plant in Indian pharmacopoeia as a predominant constituent of Ayurvedic formulations used to treat liver disorders. It is one of the herbs, which can be used to treat neoplasm as mentioned in ancient Ayurvedic literature. It is reported as a cold property herb in Traditional Chinese medicine

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Chapter 3

Evaluation of Phytochemical, Antioxidant and Anti-haemolytic Activity of Sequential Extracts of Aquatic Fern *Azolla Pinnata*

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Abstract

The objective of the study was to evaluate the phytochemicals, antioxidant and anti haemolytic activities of the sequential extracts of *Azolla pinnata*. Azolla pinnata belongs to the family Azollaceae, is a floating fern distributed throughout India .The leaf extract of *A .pinnata* were prepared using different solvents which includes ethyl acetate, ethanol and water. Qualitative phytochemicals were determined in all the extracts and confirmed by thin layer chromatography. Antioxidants and radical scavenging activity was determined. Membrane stabilizing activity was assessed by using erythrocyte in hypotonic solution induced haemolysis method. Total phenol, flavonoid, tannins and ascorbic acid were found to be maximum in ethanol and ethyl acetate extracts of *Azolla pinnata*. The total flavonoid and tannin content in ethyl acetate extract was found to be 45.0mg/g and 54.1mg/g respectively. The total phenolic (82.0 mg/g) and ascorbic acid (5.6mg/g) content was found to be higher in ethanol and aqueous extracts of *Azolla pinnata* respectively. Ethyl acetate and ethanol extracts of *A.pinnata* possess 68 % and 64 % hydroxyl radical scavenging activity (HRSA) than the aqueous extract (60%) at 1mg/ml. The IC_{50} value of ethyl acetate and ethanolic extract of *Azolla pinnata* was found to be 250µg/ml and 500µg/ml respectively. Ethanol extract of *Azolla pinnata* possess increased metal scavenging activity at 1mg/ml and the IC_{50} value was found to be

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BIOLOGICAL ACTIVITIES AND MEDICINAL PROPERTIES OF *Andrographis echoidies*

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Abstract

Andrographis echioides of the Acanthaceae family has been used for various medicinal purposes in South Asia, particularly India and China. Literature shows that this plant possesses pharmacological properties that include antimicrobial activity, anti-inflammatory, diuretic, anti-helmintic, analgesic, antipyretic, hepato-protective activities, and antioxidant effect. It contains plenty of phytochemical constituents such as flavonoids, flavones, steroids, tannins, carbohydrate, glycosides and alkaloids. Diabetes is a clinical syndrome characterized by hyperglycemia due to relative deficiency of insulin. About 422 million people worldwide have diabetes. India is the Diabetic capital of the world. It is primarily a life style condition that has increased alarmingly across all age groups in India. Prevalence among younger population is also above ten percent. This the reason for the enormous interest in the development of alternative medicine for diabetes, specifically in the screening for phytochemicals with ability to delay or prevent glucose absorption. Traditionally, many medicinal plants are currently used in India for the treatment of diabetes and its efficacy has been proved scientifically. Due to uniqueness of curing different ailments, the whole plant of *Andrographis echioides* was selected for this review.

Keywords: *Andrographis echioides*, Diabetes, Alternative medicine and Medicinal properties.

1. Introduction

Medicinal plants are regarded as rich resources of traditional medicines. For thousands of years medicinal plants have been used to treat health disorders, to add flavor and conserve food and to prevent epidemics. The secondary metabolites produced by the plants are usually responsible for the biological characteristics of plant species used throughout the world (Refaz Ahmad Dar *et al.*, 2017). India has a

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PHARMACOLOGICAL PROPERTIES OF FISETIN

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Abstract

Flavonoids are considered as the most diverse group of phytochemicals which are synthesized from phenylalanine. It displays the marvelous colors known from flower petals, mostly flavonoids emit brilliant fluorescence when they are excited by UV light, and are ubiquitous to green plant cells. Most of the phytochemicals possess antioxidants properties which are beneficial in the perspective of health in our life. Consuming natural antioxidants exerts health-promoting effects, especially for the treatment of free radical mediated disease such as diabetes and cancer. Due to their abundance, flavonoids are widely dispersed plant pigments which are frequently ingested in the human diet. In the series of flavonoids, Fisetin (3, 3', 4', 7-tetrahydroxy flavone) is one of the flavonoids which is found abundantly in strawberries, apples, persimmons, grapes, onions, and cucumbers. It is shown to exert several pharmacological properties such as anti-diabetic, anti-carcinogenic, neurotrophic, and anti-inflammatory. Having known the pharmacological significance of fisetin, it may be developed as a chemopreventive/chemotherapeutic agent against various disorders. However to develop fisetin as a drug or to introduce it in clinical use, well-designed clinical trials along with the development of reliable analytical biomarkers are required. Evidences are required clinically, through in-depth research studies involving suitable animal models, feasibility of use by humans, and standardization of the desired physiological responses in targeted patients or healthy populations are required. This review focusses on various beneficial properties of fisetin and its mechanism of action.

Keywords: Phytochemicals, Flavonoids, Fisetin and Biological properties.

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BIOMEDICAL IMPORTANCE OF MORIN –A REVIEW

Abstract

Morin is a phytochemical compound, polyphenol in nature isolated from the members of Moraceae family and found to be in appreciable amounts in various parts of these plants. Morin exerts beneficial as pharmacological effects against various ailments in humans. It exhibits antidiabetic, antitumoral, antihypertensive, antioxidant, antibacterial and neuroprotective property. It is widely distributed in *Morus alba* (white mulberry) and fig (*Ficus carica*), in almond (*Prunus dulcis*) and other herbs and fruits. This study emphasizes on the importance of morin and its prospects in applications of medical field.

Keywords: Morin, antidiabetic, antihypertensive, antioxidant, antibacterial, neuroprotective

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ARE LEADERS MADEOR BORN- AN OVERVIEW

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INTRODUCTION

It is known to us that leadership skill gets exhibited out of practice and it includes an individual's, group or organization's abilityas a whole to influence, guideas well as to lead other individuals, teams, or entire organization. When we read or spell the leader, variety of images comes to our mind like, a) A political leader, a prominent one who has a passionate as well as personal cause for taking up the role b) An explorer, the person who creates a path in a jungle and paves wayfor others to follow & prosper and c) An executive who helps in creating the strategies for competing with others in the industry. With the above examples it is clear that a leader is one who helps themselves as well as others to do the right things.

ELEMENTS OF LEADERSHIP:

A person is said to be a leader when he/she influences and guides others to do the right thing. A leader can be said to be effective when they possess the following characteristics features,

- **Should Create aVision that Serves as a Tool for an Inspiring Future:**

  From the business scenario, vision is the onewhich focuses on the set priorities directs, shows the path and sets the yardstick as well which will help the employees to know their focus of work. Therefore, vision has to be realistic, should sound convincing and should have attractive depiction of where the business firm wants to be in the future. The vision should be created by the leaders of the organization. In order to create the vision, the leaders need to think how the industry will evolve in the future and how the competitors will behave in the future.

- **To Inspire and Manage People:**

  With an inspiring vision, proper foundation for the leadership will be laid down.

  But the real ability of the leadership is to inspire people so that they feel motivated to deliver the vision for which the business firm is instituted. This can be achieved with the help of expert power of the leaders, which means that people are always attracted towards, admire and believe those people who are expert in what they do.This expert power acts as a motivating and inspiring factor.

- **To Manage the delivery of the Vision:**

  It is necessary on the part of the leader to serve as a tool to initiate and directsuch works which is necessary to deliver the vision and see to it that every individual & his respective manager have a positive role to play along.This can be done by setting performance goals which is directly linked to the overall vision. In addition to setting goals the leaders are required to make sure that change needed for delivering the vision is brought into the concern properly.

- **To Achieve the vision through Coaching and Team-Building:**

  Developing an individual and as a team is the main role performed by the transformation leaders. A leader should have a well understanding on team dynamics which is the main

ingredient for team building. For better team building the leader should make sure that team members have such abilities and skills which paves way for achieving the vision. In addition to team-building an effective leader should have the capacity to identify individuals with leadership potential and coach them with requisite skills.

LEADERS ARE BORN:

Is a leader born or made? Let'sbring this age-oldquestion to a conclusion through the following discussion.

Two main theories namely, "Great Man theory and Trait theory"depicts that people inherit certain qualities and traits which provides the foundation for leadership skills to an individual. Evidently there are certain by-gene characteristics which predispose an individual to be and to become a leader. We have seen many people in our day-to-daylife with amazing skills like singing or athletic talents. These are said to be inborn characteristics of an individual as they excel in that skill naturally without much training which normal people may struggle to get.

Born leaders are the natural leaders and they are different from artificial leaders. Great man theory is of the view that there are people who are seen as heroic and mystical figures are the one who are naturally ready to assume the leadership role due to their inborn traits and are called as "Great Man". According to this theory great men are those who inculcate certain inborn skills and those who paves way for changing the world positively.

A very good example of a born leader is "E V Ramasamy Periyar" born in 1879 began his political career as a congress worker and quarreled with Gandhi by questioning the separate dinning that is provided by discriminating non-brahmin students from brahmin students at a school sponsored by congress. In Tamilnadu he is always seen as a reformer of the society who concentrated on removing the major inequalities that is prevalent in the society with regard to gender and socio-culturalaspects. As suggested by "Great Man Theory" and "Trait Theory" leaders like EVR Periyar possessed the inborn leadership skills naturally who was born as a leader and died as leader.

LEADERS ARE MADE:

If leaders were only born and not made, what is use of studying about leadership skills in management and having a separate chapter, theories for leadership. There are certain theories which argues that leadership skills can be instilled into person through proper training and practice. Many psychologists see leadership as a skill that can be inculcated into an individual by constant training, through practicing a particular perception and from the experience gainedovertime. It is seen as a lifelong learning and activity that can where an effective good leader can be created with continuous development of all the necessary skills.

In contrast with the "Great Man theory and Trait theory", behavioural theory the view that people can become leaders through observation, learning and proper teaching. This theory suggests that people who have higher level of ability on self-awareness, social awareness, self-management, social skillsare the one who have higher emotional intelligence. Emotional intelligence is the one which plays prime role in instilling and enhancing the leadership skills of a person.

The doctrine provided by behavioural theory is embraced by military through the extensive leadership training programme provided to the military people. Leadership skills can be learned by anyone. When we think about Martin Luther King, Nelson Mandela and Abraham Lincoln we can find there is a situation that catapulted them to that leadership situation. Martin Luther King was heavily attracted by Gandhian principle of non-violence. When martin luther king was 19 years old

Mahatma was shot dead. Although Martin Luther King never met Mahatma in person, he got attracted to his ideology through his writing and after visitingIndia in the year 1959. This can be understood from his writing that **"while the Montgomery boycott was going on, India's Gandhi was the guiding light of our technique of nonviolent social change."**

With regard to thediscussion depictedit is evident that as per the facts supported by behavioural theory through observation and learning a person can intake the leadership traits and skills.

CONCLUSION:

We can say that leadership is an art rather than a science which means that it is not an easy task to inculcate certain leadership skills into an individual.We can say that leadership becomes an art when certain traits of an individual is polished and enhanced by providing required education, training them with requisite skills and by gaining experience in the long runbut one has to look into an important criterion that is being in the right place at the proper and required time which means a person a can be a leader but the position should give much scope to the individual to shine as a leader. If the position forbids an individual to showcase his skills, then it will be difficult to shine as a leader.

Keep in view the above discussion leadership just like other talents can be learned but if the fear of leading overrides the willingness to take responsibilities then that person is said to be a follower and not leader even if he has learned leadership skills. All the education, books and training cannot make a follower into a leader. Leadership is a choice. Both EVR and Martin Luther has the similar ideology and they rise up from the multitude to take up the challenge. Both of them possess all the requisite elements of leadership. In this authors contention leadership is a deep-rooted spark and leaders are both born and made. I strongly believe that we cannot push an unwilling person by giving all education and training to become a leader and at the same time we cannot stop a person with intense fire to take up the leadership role. Based on Pareto principle many research works suggested that leaders are 80% made and 20% born. To conclude I strongly believe that leaders are both born and made but the percentage of division differs according to the individual and are subject to circumstances.

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Preface

The 3rd edition of International Conference on Reinventing Business Practices, Start-ups, and Sustainability-Responsible Consumption and Production-ICRBSS 2023 aimed to bring together scholars, researchers, educators, and professionals from around the world to discuss the latest trends, challenges, and opportunities in the spheres of businesses, regulatory environment, consumer groups, advocacy agencies and the environment at large. The sub-theme of the conference this year—Responsible Consumption and Production—is the 12th goal of the UN Sustainable Development Goals. The present volume "Reinventing Business Practices, Start-ups, and Sustainability" brings out the selected papers from seven conference tracks presented by the delegates from national and international institutions during the conference. The conference tracks included:

- Sustainability in Entrepreneurship and Innovation.
- Sustainable Marketing Practices.
- Sustainable Practices in Finance and Economics.
- Sustainable Practices in OB and HR.
- Sustainable Practices in Manufacturing and Operations.
- Sustainable Practices in IT and Analytics.
- Sustainable Development Goals in Business.

While the seasoned authors had demonstrated their prowess in their chosen area of the study and provided valuable insights in the respective research papers, the budding authors including some research scholars had showcased their enthusiasm for research and brought out interesting perspectives for various stakeholders from the domains of business, government, and the society at large. The conference provided a platform for industry experts, policymakers, and the academic fraternity to share their experiences and insights. A total of 304 abstracts were received, and 247 full papers were submitted, from which, 84 papers have been selected to be included in the proceedings. Over 150 authors from all over India, and from our International Collaborating Universities—Lincoln University College, Malaysia and University of Technology and Applied Sciences, Sultanate of Oman, worked diligently to produce 84 papers across the domains-sustainability being the linking thread. The talks delivered in physical and virtual modes by eminent industry experts and academic leaders added great value to the participants. Nevertheless, this volume would not have taken the right shape as it is seen without the dedicated efforts from the team of Atlantis Press Conference Proceedings, Part of Springer Nature. We thank the management of SRM Institute of Science and Technology, Vadapalani, for the opportunity, Dr Sudarsan Jaisingh for his valuable

guidance throughout and our sponsors for their generous support, and everyone who contributed directly and indirectly for bringing out the present title. We commit ourselves to contribute more such meaningful and scholarly work in the future.

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A Study to Analyze the Influence of Performance Management through Career Resilience – with special reference to IT Professionals in Chennai

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Abstract. Human being is considered to be the supreme power in the world but the creation of the God is in such a way that no one can guarantee human life span. The great stalwarts compared human being with products and drafted a life cycle for the products as introduction , growth, maturity and decline and the learned theory of marketing management says it's the right time to do modification during the phase of maturity, now the current scenario demands to learn and take up a research from the traditionally gained knowledge which thought us to CHANGE, for products its maturity stage and for human life the maturity stage will occur during the phase of employment, to avoid the reach of saturation in growth, resilience helps us as a life jacket. The growth of the business is based on the turnover. This turnover can be added, multiplied based on the performance of the employees. The leverage of the business can be compared with the gears in the levers which creates leverage. In business, a best performing employee can be compared with a positive gear which increases or sometimes doubles the profit of the company. Hence, it is the responsibility of the business to identify the performance which can be easily put under mechanism by career resilience. The study was made to the staff working in IT sector within Chennai. The present focuses on the importance of performance management strategies which can be achieved through career resilience.

Keywords: Performance Management, Resilience, Career Development.

1 INTRODUCTION

Human resource is considered to be the master mind to all discoveries, inventions and innovations whenever there is positive curve or a negative curve or the business stands static the reason behind is the HUMAN BRAIN. So, from the above content its, has been clearly understood that HR is the vein of all business henceforth Human Resource is the way for the success for the company. The purpose of drafting this article is to understand the major reasons behind the company's weakness in holding its employees (Retention) and also to cull out the reasons responsible for the lack of competencies

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with the current employees and finally to create a bridge among the Employer and the employee by creating a solution in the form of resilience.

1.1 HRM – Transformation from Industrial Relation Era to Human Resource Management Era:

For perceiving the functions and modern practices of HRM, it's important to know about the Evolution of HRM. From Industrial Revolution era to Human Resource Management era, every succeeding period has been overlapping all the times. After 1980's Industrial Relation department transformed as Personnel Management, here socio-psychological beings are considered as an ultimate authority of organizational persuasiveness. Huge organizations changed from Personnel Department to Human Resource Department. Human Resource Management is still developing to become a fusion of organizational behavior, personnel management, industrial and labor relation.

2 CAREER RESILIENCE

Career Resilience is the competence to adopt wavering circumstances, maintain equilibrium in workplace during the period of organizational change and stress. In other words, an employee should emphasize control, adaptability, dynamism and taking positive action towards that situation. It is not about adaptability to workplace change but also about increasing control over one's own personal goals for the future.

2.1 Significance of Career Resilience in IT Sector

In the general run of things, IT sector face frequent organizational changes, fastest career growth and high attrition rate. In the digital transformation journey, there is a huge demand for new-age technology skills. In the talent war, whoever with the proper tool will grab the opportunities otherwise you will throw out of the war. According to the employment outlook report of Team Lease Services, IT sector was faced the highest attrition rate 8.03% among all industries in India. After pandemic, IT employees are working in hybrid work model. All their team meetings, client meetings, trainings are going on through both online and offline according to the convenience of clients. With all these constraints, they have to make them prepared for the indefinite workplace change by way of observing the industry's trends.

3 REVIEW OF LITERATURE

[8] found that, human beings must readjust themselves to survive in the work domain. To reach that frame of mind, an employee requires career adaptability. Career adaptability is a capacity to use psychosocial resources to make changes in self and situation for career development and success. [9] stated that, updates skills and forever internal

network can enable the employees to be resilient within their current career and helps them to create external contacts. This approach will help the employees to adopt the career shock, either it may be a positive or a negative career shock. [2] found that, workplace uncertainty and social isolation are the impacts of COVID-19, creates the awareness about the career resilience. Career Resilience process helps to expand psychological resources such as confidence, hope, optimism and support networks that builds the career over the life span. [1] stated that communication and co-operation between employer and employees are essential to improve employee's self-efficacy, that is one of a deciding factor of resilience in the uncertain working conditions of employees. [4] argued that career resilience can diminish the negative mastery of challenge aggravated stressors include job complexity, time pressure and workload on positive emotion. [7] pointed that development in technology, lack of skills, increasing employee turnover and frequent expectation changes from Generation Z employees encourages the organization to consider the significance of developing a career resilient in the workplace. [8] stated that, career resilience is the employee's capacity to face, overcome and improve from negative career shock, uncertain situations and harsh working conditions in the workplace. [5] described that, through career resilience employees could able to manage emotional qualities includes self-awareness, self-management and relationship management that support employees to manage change and provides the way of career development. [6] reviewed that, career resilience is an ability of individual to comeback from work-oriented complications and process.

4 RESEARCH METHODOLOGY

After COVID pandemic, in the Indian IT sector there is a mismatch between the demand-supply in digital skills. As a result, there has been an increased in attrition rates compared to the preceding periods. This study will reveal that in the career world, which is stamped by change, where the identity development is in demand, there performance management through career resilience will lay paths to job security and healthy career.

4.1 Objective of the study

The **primary objective** is to bridge the expectations of the employer with the Employee Skills through Resilience. The secondary objectives are:

- To explore the reasons behind the increasing rate of attrition in ITES Companies after COVID and the future coming competitive situations.
- To measure the Emotional Clinch among the employees witnessed during the transformation of Work Place.

This paper is an outcome of a descriptive research with reference to various strategies influencing career resilience, detailed questionnaire was distributed using Google Forms through various social media platforms. Sample size denotes the number of elements selected for the study. Out of 218 responses that were obtained, we narrowed the

sample of 193 responses, after eliminating entries that were either unfilled or inaccurate. Excel was used to analyze the data obtained through the survey. In order to receive a respective sample, we applied Convenience sampling method.

5 DATA ANALYSIS AND INTERPRETATION

Table 1. Demographic Analysis

Age of Respondents	Frequency	% of Respondents
21 – 30	68	35%
31 – 40	75	39%
41 – 50	42	22%
Above 50	8	4%
Gender	Frequency	% of Respondents
Male	106	55%
Female	87	45%

Table 2. Number of Years working in the current organization.

No. of Years	Frequency	% of Respondents
0 – 1 Year	33	17%
1 – 5 Years	112	58%
5 – 10 Years	26	13%
10 – 20 Years	19	10%
Above 20 Years	3	2%

Table 3. Number of Career Changes

	Frequency	**% of Respondents**
No career Change	24	12%
One time	63	33%
Two times	66	34%
More than 2	40	21%

Table 4. In the most recent 1 year, have you ever attended any workshop or training Programs or more than one week

Workshop or Training Programs At-	**Frequency**	**% of Respond-**
Yes	152	79%
No	**41**	**21%**

Table 5. Was the training program effective?

	Frequency	% of Respondents
Yes	71	37%
No	122	63%

Table 6. Major Workplace Change and Acceptability Level

Various Workplace Change	Totally Unacceptable	Slightly Unacceptable	Neutral	Slightly Acceptable	Totally Acceptable
Technological Change	57%	25%	11%	7%	-
Team Change	24%	28%	9%	37%	2%
Leadership Change	24%	32%	22%	21%	1%
Software Environment Change	-	5%	12%	11%	72%
Product Change	49%	21%	16%	9%	5%

Table 7. Are organizational objectives clearly defined?

	Frequency	% of Respondents
Yes	129	67%
No	64	33%

Table 8. Do you feel difficult to accept organizational goals to be set as your objectives?

	Frequency	% of Respondents
Yes	101	52%
No	92	48%

Table 9. Are your goals are matching with the organizational objectives?

	Frequency	% of Respondents
Yes	69	36%
No	124	64%

Table 10. Adaptation to the new circumstances like hybrid-style work is easy.

	Frequency	% of Respondents
Yes	63	33%

No	130	67%

Table 11. Employees are feeling comfortable to share the issues and seeking help from their peer groups, team leader and mentor.

	Frequency	% of Respondents
Comfortable	118	61%
Hesitate	75	39%

Table 12. Strategies Direct oneself towards Career Resilience

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Willing to handle emotions during negative career shock	25%	28%	32%	9%	6%
Seek out challenging experiences as an opportunity to learn and improve	2%	9%	20%	24%	45%
Likely to be happy to change plans according to the workplace change	29%	22%	33%	13%	3%
Always believe that things will work out well in the end	4%	6%	18%	25%	47%
I have an everyday work plan and I will review my activities towards my daily achievements and I fix what I need to be achieved in the next day	29%	14%	13%	25%	19%
During challenging moments, I can maintain positive relationship with the internal environment.	34%	36%	19%	9%	2%

6 FINDINGS

- 58% of employees are working in the current organization for more than 1 year and less than 5 years
- 67% of the employees said that the current employment is second or third place of work
- 79% of the employees agreed that they have attended training programs
- 37% of the employees agree to the fact that the training program was very effective
- 58% of the employees feel that technical challenges are very difficult to adopt
- 24% feel that, if there is a change in Team Leader or Mangers or change in team that creates emotional clinch
- 6.49% of the Employees feels that whenever there is a change Product, it leads to a challenging situation
- 72% of the respondents feel that learning is a continuous process in the field of information and technology as they witness huge changes in the software they use.
- 67% of the employees feel that, the organization's objective is clearly explained.
- 52% of the employees feel difficult to accept organizational goals to be set as their objectives.
- 64% of the employees feel that their goals are mismatching with the company's objectives.
- 67% of the employees feel that it is difficult to adopt to the new circumstances such as working from home for a few days and in the office for few days.
- 39% of the employees hesitate to share their problems and seek help from their peer group, mentors, team leaders.
- Only 15% of employees are having a courage that they could able to handle emotions even during the negative career shock.
- 45% of employees are seeking out challenging experiences as an opportunity to learn and improve their career development skills.
- Nearly 51% of respondents are not likely to be happy to change their plans according to the workplace change.
- Almost 47% of respondents are strongly believed that things will work out well in the end.
- Most of the respondents could not able to maintain the positive relationship when they go through hardships in their workplace.

7 SUGGESTIONS:

- Strategies to progress career resilience have to look at the broader view and engage on employee's incessant career development. First and foremost, thing is to fight against your distracted emotions and boosting up your growth mindset.

- Immediate next is the self-assessment, an important phase in career development.
- Employees should involve in self-caring activities like regular exercises, good nap, healthy food habits etc. These activities will recharge body and mind, boost oneself to think optimistic.
- Employees are in the compulsion to match their personal responsibility with the organizational responsibility for career development. Accordingly, try to setup your personal goals in the way, that makes you more comfortable during changes happen.
- For the safer side some employees also develop self-employed work alongside their full time or part time work like investing in share markets, real estate etc.
- Even a workplace might not be willing to offer you formal training but informal training could able to make values. Best opportunities are always arising out of uncertainties. Informal opportunities like discussing someone's career, how they reach there and working on projects as a volunteer, even in an unrelated field with the new teammates.
- Instead of comparing yourself with others, focus on what you may learn from them.
- Work with Error Management and accept that flaws and omission are the usual part of the learning and development process.
- Minimizing defensiveness by the way of expressing your opinion and feedback in a kind manner with the peer groups and team heads will create strong social network.
- Apart from all the above, "Mental Dexterity" is needed to get the balance right, whether you are an employer or employee.
- For collaborating and building relationships with team members, employees have to work on-site more than remote work, that will lead to in-person interactions. The meeting and collaboration help the employees to socialize and connect with others.
- Habits of work plan helps to balance work-life balance and taking care of one's physical as well as mental health. These aspects will keep an employee more positive at workplace and makes them more comfortable when the changes arise.
- Maintaining support system is vital for employee's good mental health that helps to handle tough times. But we need to accept that, it is impossible at all times.

8 CONCLUSIONS

Stories regarding economic crisis and employment problems changed the expectations of both the employer and employee. Employers value more about, whether employees are having skills required for the organization at that time than they are long term employee or new employee. Employee progress is unique towards transition. Some are going through anxiety, fear, depression and some are ready with happiness and feels

challenging. Finally, 90% of the employees are gradually accepting the workplace change and moving forward with positive anticipation. However, career resilience not only save an employee from attrition but also shapes the whole of their work life.

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PERCEPTION TOWARDS THE KNOWLEDGE OF GST AMONG THE DEGREE STUDENT SPECIAL REFERENCE TOKANCHIPURAM TOWN

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ABSTRACT:

Introduction of GST will make indirect tax reform more easy and efficient. By consolidating a huge figure of central & state taxes into a solitary tax and permitting the discharge of taxes at an earlier stage, it would soften the sinful effect of tiring and cover the method for a mutual nationwide marketplace. Certain provided encouraging feedback and others providing bad criticism. Taxes may be burdensome to some as they outcome in greater value for goods and services. The study was conducted to find out how much awareness and knowledge students have about the application of Goods and services tax. The sample consisted of 60 students from different backgrounds and years of study. The choice was made at random, but there is a chance that it will be something you like. It's a problem if people are still confusedor ignorant about GST taxation, and it gets worse when publics don't pay taxes. Goods and Services tax is a common government project that is debated by people every period. Students may be aware of the program but may not know how it works.

COMPARATIVE ANALYSIS OF CRYPTOCURRENCIES AND INDIAN EQUITY MARKET INDICES IN THE PER-AND POST-COVID PERIOD

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Abstract: Cryptocurrencies are among the more secure long-term investments, according to the majority of Indian investors. Likewise, over 115 million Indians, or 15% of the population, between the ages of 18 and 60, possess cryptocurrencies or, for the most part, have exchanged them in the last six months. Because of this, Indian investors believe that cryptocurrencies are among the safest long-term investments. The study primarily examines the interactions and complex relationships between the Indian stock market's indices and the indices for

cryptocurrencies. The research is being conducted primarily through empirical research, which demonstrates that the study is especially focused on the influence and interaction between Indian equity market indices and cryptocurrencies and their indices. A statistical method is used to assess the significance of price movements in crypto currencies on the Indian Stock Market. The majority of the research was done during a five-year period, from January 2017 to December 2022. Correlation, regression, ADF, unit root test, and Granger Causality Test are the specific research tools used. Since the study primarily focuses on the impact and relationship between Indian Equity market Indices and Cryptocurrencies and its Indices, which is kind of major, it may be used mostly by traders and investors who are investing in the cryptocurrency and equity markets.

Keywords: Cryptocurrencies, Indian Equity Market Indices, Granger Causality, Crypto Market Indices, Digital Currency.

EXPLORING RETAILERS ACCEPTANCE OF QR CODE PAYMENTS: A STUDY IN SOUTHERN KERALA

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ABSTRACT

The advent of digital technologies has ushered in a transformative era in the world of payments. Quick Response (QR) code payments are one such technique that is rapidly gaining popularity. The study aimed to identify the factors that influence retailers' decisions to either embrace or hesitate when it comes to adopting QR code payments as a method of transaction and the challenges faced by them. And also, to assess the extent of awareness and understanding of QR code payments among retailers. As Southern Kerala stands at the intersection of tradition and modernity, the study's outcomes are expected to have implications beyond the regional scope, providing valuable insights for fostering a more inclusive and efficient digital payment ecosystem. The findings of this research are expected to provide practical recommendations for policymakers, businesses, and other stakeholders aiming to enhance the acceptability and integration of QR code payments among retailers in Southern Kerala.

Keywords: QR code payments, Retailers, Acceptability, Southern Kerala

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The Essentials of

BIG DATA ANALYTICS

for Beginners

Dr. E. DIVYA
Dr. M. DEEPIKA
Ms. S. SIVARANJANI
Ms. K. RAMYA

The Essentials of Big Data Analytics for Beginners

Authored by

Dr. E. Divya, Dr. M. Deepika, Ms. S. Sivaranjani and Ms. K. Ramya

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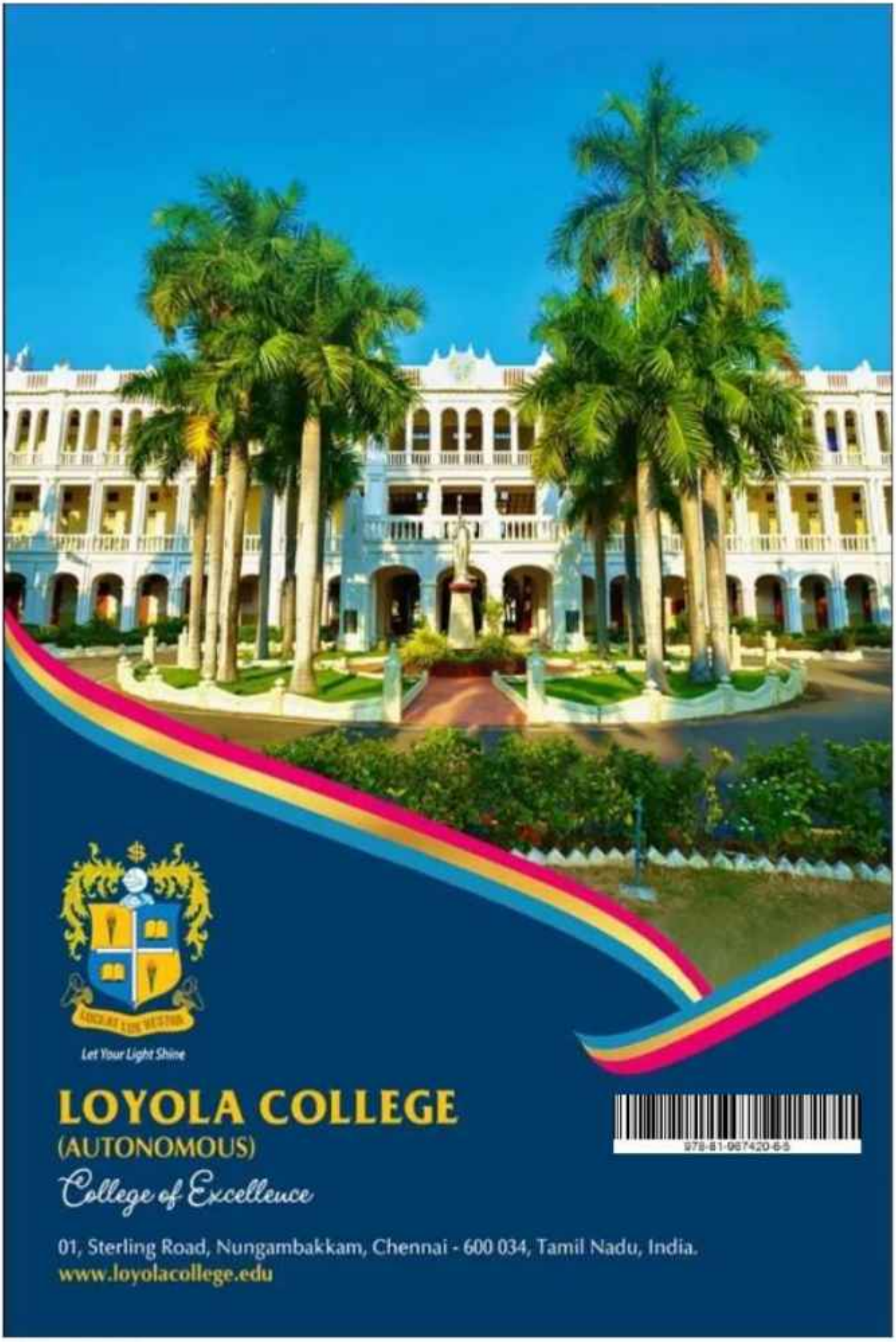

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ANALYSIS OF DATA MINING TECHNIQUES FOR PRECISION FARMING

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Abstract

In India, agriculture plays a significant role. The use of new technologies can improve farmers' circumstances and decision-making in the agriculture sector. It is now even more
important for farmers to use information and receive assistance when making important farming decisions due to weather conditions, soil variability, input levels, insects, seeds, combinations and commodity pricing. One way to address the demands for sustainability while addressing an increasing need for food can be accomplished by precision farming. Strong analytical tools that can process and analyze massive amounts of data in order to produce more accurate information and forecasts are crucial as the amount of agricultural data grows rapidly. Farmers and other decision makers are able to forecast the consequences of drought and other climatic factors since it contains highly dimensional information between complicated yearly and seasonal climatic patterns which impact crop productivity. The PAM, CLARA, DBSCAN, Decision Tree Regression, Linear Regression, Random Forest Regression are the data mining methods that are capable of high precision. It is possible to strengthen the classification performance in agricultural prediction of yields through the use of the artificial neural network and neural networks classification approach. To understand how to determine crop yield, this paper analyses how these methods can be used to challenging agricultural datasets.

Keywords: Agriculture, Decision Tree Regression, DBSCAN and Random Forest Regression

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PROGNOSTICATION OF CRYPTOCURRENCIES USING MACHINE LEARNING

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ABSTRACT

Due to its optimistic perspective on the future of cryptocurrencies, the price of Bitcoin has increased significantly during the last nine years in the history of the market. Traders have noted that there are several benefits that Bitcoin offers over the established banking system. One feature of Bitcoin is its ability to provide decentralised banking, which means that big banks are unable to control it. Bitcoin utilises a blockchain, or ledger, to address the issues of transaction security. This allows for the visible and private recording of transaction history by combining all past transactions into a single, continuous hexadecimal "chain" of anonymous transactions. This paper uses a machine-learning algorithm LTSM system to anticipate cryptocurrency prices.

KEYWORDS

Cryptocurrency, Price Prediction, Machine Learning, LTSM.

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द्वारका दास गोवर्धन दास वैष्णव कॉलेज, चेन्नई-106.

कृष्ण यानी हज़ारों वर्षों से व्यक्त-अव्यक्त रूप में भारतीय जनमानस में गहरे तक रचा-बसा एक कालजयी चरित्र, एक धीरोदात्त नायक, एक लीला-पुरुष, एक महान तत्वशास्त्री, एक आदर्श प्रेमी और सखा, एक महान विद्रोही, एक दुरंधर युगपुरुष।

हर समाज, देश और युग में कोई न कोई अवतार या महानायक हुआ है जिसने अन्याय और अत्याचार के तत्कालीन यथार्थ से जूझते हुए स्थापित व्यवस्था को चुनौती दी है और सामाजिक न्याय की स्थापना के प्रयास करते हुए न सिर्फ़ अपने समकालीन समाज को बल्कि आने वाली पीढ़ियों को भी गहरे तक प्रभावित किया है। भारत के संदर्भ में राम और कृष्ण ऐसे ही दो नाम हैं। विगत लगभग दो हज़ार वर्षों में इन दो अवतार पुरुषों ने भारतीय साहित्य और समाज को जितना प्रभावित किया है उतना शायद ही किसी अन्य कथा-नायक या अवतार पुरुष ने किया हो। राम और कृष्ण दोनों को ही विष्णु का अवतार माना गया है। राम अंशावतार माने गए हैं, जबकि कृष्ण को पूर्णावतार माना गया है। कृष्ण के चरित्र में सभी कलाओं का पूर्ण विकास हुआ है और राम के मुक़ाबले उनका व्यक्तित्व भी काफ़ी जटिल है। धर्म की रक्षा और विजय के लिए बड़े से बड़ा 'अधर्म' करने को तत्पर रहने के प्रतीक हैं कृष्ण।

जितनी लीला, उतने नाम : कृष्ण की जितनी लीलाएँ हैं, उतने ही हैं उनके नाम भी। हर लीला के अनुरूप अलग-अलग नाम हैं। वे यशोदानंदन भी हैं और देवकीनंदन भी। नंदलाल भी हैं और वासुदेव भी। बालकृष्ण भी हैं और श्यामसुंदर भी। मुरलीधर भी हैं और गिरधारी भी। केशव भी हैं और माधव भी। गोविंद भी हैं और मिलिंद भी। नटवर भी हैं और अच्युत भी। रासबिहारी भी हैं और गोपिकावल्लभ भी। रुक्मिणीरमण भी हैं और राधारमण भी। मधुसूदन भी हैं और कंसनिषूदन भी। पार्थसारथी भी हैं और रणछोड़ भी। वे वृंदावनबिहारी भी हैं और द्वारकाधीश भी। जितना व्यापक और विविधतापूर्ण है कृष्ण का जीवन, उतनी ही व्यापक और वैविध्यपूर्ण हैं कृष्ण की लीलाएँ। किंतु कोई भी एक व्यक्ति न तो

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जीवन की संपूर्ण व्यापकता का अनुभव कर पाता है और न ही उसकी समग्र विविधता को आत्मसात कर पाता है। सभी अंश में जीते हैं और संपूर्ण के भ्रम में रहते हैं। तीव्रतम संवेदनाओं से युक्त कवि और भक्त भी इसके अपवाद नहीं रहे। सभी ने अपनी-अपनी मानसिक और आध्यात्मिक आवश्यकताओं के अनुरूप कृष्ण-लीला चुनी, जिससे कृष्ण कथा की निधि समृद्ध होती चली गई। किसी को कृष्ण की बाल लीला ने रिझाया तो किसी को उनके प्रेमी रूप ने लुभाया।

पूर्व-पश्चिम की एकता के नायक

कृष्ण-चरित्र के अधिकृत संदर्भ मुख्यत: श्रीमद भागवत, महाभारत और हरिवंश, पद्म आदि पुराणों में मिलते हैं। इन सब ग्रंथों में वर्णित कृष्ण-चरित्र पर पिछले हज़ारों वर्षों से सापेक्ष विचारों की मनगढ़ंत परतें भी चढ़ती रही हैं। ऐसा अज्ञानतावश भी हुआ है और कृष्ण को चमत्कारी व्यक्तित्व निरुपित करने के कारण भी। फिर भी आमतौर पर उन्हें एक लोक कल्याणकारी व्यक्तित्व के रूप में ही प्रस्तुत किया गया है। भागवत और पुराणों में कृष्ण भक्ति की महिमा गाई गई है तो महाभारत में उनके युगेश्वर रूप का दिग्दर्शन कराया गया है। आधुनिक भारतीय चिंतकों और विचारकों ने उन्हें राष्ट्र निर्माता युगपुरुष के रूप में प्रस्तुत किया।

देश की स्वतंत्रता के बाद की स्वार्थसनी और समाजद्रोही राजनीति से चिंतित और उद्वेलित डॉ. राममनोहर लोहिया ने कृष्ण को भारत की पूर्व-पश्चिम (मणिपुर से द्वारका तक) की एकता का नायक माना और उनकी तुलना उदात्त और उन्मुक्त हृदय से की। जैसे हृदय अपने लिए नहीं, बल्कि शरीर के दूसरे अंगों के लिए धड़कता रहता है, उसी तरह कृष्ण का हर एक काम अपने लिए न होकर दूसरों के लिए था।

सामाजिक समरसता के प्रवक्ता

कृष्ण के बारे में कई आलोचकों ने गीता के एक श्लोक 'चातुर्वण्यम् मया सृष्टम्' के आधार पर कृष्ण की निर्मम आलोचना की है और उन्हें वर्ण व्यवस्था का प्रणेता और पोषक निरुपित किया है। लेकिन यह आलोचना तथ्यपरक नहीं है। सच तो यह है कि कृष्ण ने सामाजिक अन्याय का प्रतिकार करने के लिए अपने जीवन में सिर्फ़ नाते-रिश्ते के बंधनों को ही नहीं तोड़ा बल्कि सामाजिक रूढ़ियों और जाति-वर्ण की बेड़ियों पर भी सुदर्शन चक्र चलाया। पौराणिक कथाओं के अनुसार कृष्ण की आठ रानियों में से एक आदिवासी थी - ऋक्षवान

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पर्वत के आदिवासी राजा जाम्बवान की बेटी जाम्बवती। प्रश्न उठता है कि एक आदिवासी स्त्री से विवाह करके उसे अपनी पत्नी का दर्जा देने वाला व्यक्ति भला वर्ण या जाति व्यवस्था का पोषक कैसे हो सकता है?

यही नहीं, जिसने अपना बचपन और किशोरावस्था ब्रज के ग्वाल-गोपालों के साथ बिताई हो, जिसने अवसर आने पर सारथी दारुक को रथ के भीतर बैठाकर स्वयं गरुडध्वज रथ का सारथ्य किया हो, जिसने पांडवों के राजसूय यज्ञ के दौरान आमंत्रितों के जूठे बर्तन उठाने का दायित्व स्वेच्छा से संभाला हो और जो जीवन में किसी भी कर्म को अपने लिए निषिद्ध न मानता हो, ऐसा कृष्ण आख़िर कैसे कह सकता है कि वर्णाश्रम व्यवस्था का कर्ता मैं ही हूँ।

इंद्र की व्यवस्था को चुनौती कृष्ण की एक अन्य छवि उभरती है सामाजिक क्रांति के योद्धा-नायक के रूप में। इस छवि के लिए आवश्यक सामग्री कृष्ण की विभिन्न लीलाओं में भी है और भागवत में भी यह उपलब्ध है। आख़िर क्रांति का नायक कौन होता है? वही, जिसके पास आदर्श समाज की कोई सुविचारित कल्पना हो और जो सड़ी-गली व्यवस्था को चुनौती देकर उसके स्थान पर नई वैकल्पिक व्यवस्था की नींव रखने की क्षमता रखता हो। तो क्या कृष्ण के पास ऐसी कोई कल्पना थी और ऐसा कोई प्रयास उन्होंने किया था या कि वे भी पुरातन व्यवस्था के ही पोषक संरक्षक या यथास्थितिवादी थे? इस सवाल का थोड़ा बहुत जवाब गोवर्धनलीला में मिलता है।

इंद्र प्रतीक थे पुरातन धार्मिक व्यवस्था के। वह व्यवस्था बंधी थी यज्ञ-याग और कर्मकांड से। ब्रजभूमि में भी इंद्र की पूजा का रिवाज़ था। माता यशोदा और बाबा नंद भी परंपरा के अनुसार इंद्र की पूजा कर उन्हें भोग लगाना चाहते थे, लेकिन बाल कृष्ण ने उनके ऐसा करने पर ऐतराज़ किया।

वे इंद्र को लगाया जाने वाला भोग ख़ुद खा गए और कहा, देखो माँ, इंद्र सिर्फ़ वास लेता है और मैं तो खाता हूँ। यशोदा और नंद बाबा ने कृष्ण को समझाया कि मेघराज इंद्र अपनी पूजा से प्रसन्न होते हैं उनकी पूजा करो और उन्हें भोग लगाओ तो वे जल बरसाते हैं और ऐसा न करने पर वे नाराज़ हो जाते हैं। कृष्ण के गले में यह बात नहीं उतरी। उन्होंने आसमानी देवताओं के भरोसे चलने वाली इस व्यवस्था को चुनौती दी। गोपों की आजीविका को इंद्र की राज़ी-नाराज़ी पर निर्भर रहने देने के बजाय उसे उनके अपने ही कर्म के अधीन बताते हुए कृष्ण ने कहा था कि इस सबसे इंद्र का क्या लेना-देना। उन्होंने इंद्र को चढ़ाई जाने वाली पूजा यह कहते हुए गोवर्धन को चढ़ाई थी, हम गोपालक हैं, वनों में घूमते हुए

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गायों के ज़रिए ही अपनी जीविका चलाते हैं। गो, पर्वत और वन – यही हमारे देव हैं।

तब रक्षक–प्रहरी बनकर उभरे थे कृष्ण

आसमानी देवताओं या आधुनिक संदर्भों में यूँ कहें कि शासक वर्ग और स्थापित सामाजिक मान्यताओं से जो टकराए और चुनौती दे उसे बड़ा पराक्रम दिखाने तथा तकलीफें झेलने के लिए भी तैयार रहना पड़ता है। अपनी पूजा बंद होने से नाराज़ इंद्र के कोप के चलते प्रलयंकारी मेघ गरज–गरजकर बरसे थे व्रज पक्ष। आकाश से वज्र की तरह व्रजभूमि पर लपकी थीं बिजलियाँ। चप्पा–चप्पा पानी ने लील लिया था और जल प्रलय से त्रस्त हो त्राहिमाम कर उठे थे समूची व्रज भूमि के गोप। अपने अनुयायियों पर आई इस विपदा की कठिन घड़ी में समर्थ और कुशल क्रांतिकारी की तरह रक्षक–प्रहरी बनकर आगे आए थे कृष्ण। उन्होंने गोवर्धन पर्वत को अपनी अंगुली पर उठाकर इंद्र के कोप से गोपों और गायों की रक्षा की थी।

गोवर्धन धारण का अर्थ

कृष्ण के गोवर्धन धारण करने का एक ही अर्थ है कि जो व्यक्ति स्थापित व्यवस्था को चुनौती दे उसे मुक्त क्षेत्र का रक्षक–प्रहरी भी बनना पड़ता है। व्रजभूमि के गोपों में इतना साहस कहाँ था कि वे इंद्र को चुनौती देते। किसी भी समाज में स्थापित मान्यताओं और व्यवस्थाओं के विरुद्ध विद्रोह एकाएक ही नहीं फूट पड़ता। उसके पीछे सामाजिक चेतना और उससे प्रेरित संकल्प के अनेक छोटे–बड़े कृत्य होते हैं। कृष्ण की बाल लीला ऐसे ही कृत्यों से परिपूर्ण थी। नायक के अद्भुत साहस और पराक्रम को अलौकिक मानने वाली दृष्टि ने कृष्ण के इस रक्षक रूप को परम पुरुष की योगमाया या अवतार पुरुष के चमत्कार से जोड़ दिया।

लेकिन ज़्यादा संभावना यही है कि कंस के संगी–साथियों और सेवकों के अत्याचारों से पीड़ित व्रजवासियों में कृष्ण ने अत्याचारों का प्रतिकार करने की सामर्थ्य जगाई हो। यह सामर्थ्य उपदेशों प्रवचनों से जाग्रत नहीं होती, बल्कि उसके लिए नायक को ख़ुद पराक्रम करते हुए दिखना पड़ता है।

गोप–ग्वालों में कहाँ से आई चेतना

कृष्ण लीला में जिन्हें पूतना, तृणावर्त, बकासुर, अघासुर, धनुकासुर कहकर

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आसुरी परंपरा से संबद्ध कर दिया गया है, वे सभी किसी न किसी रूप में क्रूरकर्मा कंस की अत्याचारी व्यवस्था से जुड़े हुए थे। वे सभी उस व्यवस्था की रक्षा के लिए और उसके दम पर ही लोगों पर अत्याचार करते थे। ऐसे सभी आततायियों से कृष्ण लड़े और जीते। इससे ही गोप-ग्वालों में इतनी जाग्रति आई कि वे देवराज इंद्र को भी चुनौती दे पाए और कंस की अत्याचारी व्यवस्था के विरुद्ध भी संगठित हो सके। क्रांति शास्त्र का सार्वकालिक और सर्वमान्य सिद्धांत है कि साहस का एक काम हज़ारों-हज़ार उपदेशों से ज़्यादा प्रभावी होता है।

कंस वध की युगांतरकारी घटना

कृष्ण के नेतृत्व में ब्रजवासियों के पराक्रम की पराकाष्ठा हुई कंस के वध में। कितनी युगांतरकारी घटना रही होगी वह जब कृष्ण ने अत्याचारी कंस के केश पकड़कर उसे सिंहासन से नीचे गिराकर उसका वध किया होगा और उसके जुल्मी शासन का अंत हुआ होगा। यशोदानंदन के साथ आए गोप-ग्वाल विजयोल्लास में झूम उठे थे और उन्होंने घोषणा की थी कि अब राज्य शक्ति हमारे हाथों में होगी। लेकिन कंस वध के पीछे कृष्ण का मक़सद उसकी सत्ता पर काबिज होना क़तई नहीं था।

कृष्ण सत्ताकामी नहीं, क्रांतिकारी थे और यह उनके क्रांतिकारी व्यक्तित्व का ही प्रमाण है कि कंस वध के बाद उन्होंने ख़ुद राजसत्ता नहीं संभाली। महान उद्देश्यों के लिए संघर्षरत व्यक्तियों के लिए सत्ता कभी साध्य नहीं होती और न ही वे सत्ता को किसी बड़े सामाजिक परिवर्तन का औज़ार मानते हैं।

यही वजह है कि कृष्ण ने राज सिंहासन पर ख़ुद बैठने के बजाय उस पर किसी और को बैठाया और ख़ुद शेष कामों को पूरा करने में जुट गए। इस परिप्रेक्ष्य में हम महात्मा गाँधी को कृष्ण-परंपरा का वाहक कह सकते हैं। ऐसे ही लोग एक के बाद दूसरे क्षेत्र में सामाजिक जड़ता और अन्याय की शक्तियों से जूझते हुए और जोखिमों से खेलते हुए परिवर्तन को दिशा दृष्टि देते रहे हैं। कृष्ण को भी यही दिशा-दृष्टि मथुरा से द्वारका ले गई।

द्वारका को बनाया शक्ति केंद्र

सेनारहित और संपत्तिविहीन कृष्ण-बलराम और उनका यदु कुल ब्रज से बहुत दूर द्वारका को अपने कौशल और पराक्रम के बल पर एक शक्ति केंद्र बनाने में सफल रहा। यह केंद्र इतना शक्तिशाली था कि उसने अपने सहयोगी पांडवों के साथ मिलकर न सिर्फ़ जरासंध और शिशुपाल जैसे दंभी और अन्यायी शासकों

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का अंत किया, बल्कि महाभारत के माध्यम से अन्याय के विरुद्ध न्याय का निर्णायक युद्ध भी लड़ा। यशोदानंदन से कंसनिषूदन तक की कृष्ण कथा तो प्रस्तावना मात्र थी। इसकी अंतिम परिणति थी अन्यायी कौरव साम्राज्य की जगह न्याय आधारित धर्म राज्य की स्थापना, भारत की पूर्व-पश्चिम एकता और योगेश्वर के रूप में कृष्ण को देवत्व की प्राप्ति में। अपनी इस लंबी संघर्ष यात्रा में कृष्ण ने मानव जीवन को उसकी संपूर्णता में समेटा है।

***

श्रीमद्भगवद्गीता का पांचवां अध्याय
कर्म सन्यास योग नामक नाम से अभिहीत किया
जाता है। इस अध्याय में कुल 29 श्लोक हैं। इस
अध्याय का प्रारंभ अर्जुन उवाच –
सन्यासं कर्मणां कृष्ण पुनर्योगं च संससि।
यच्छ्रेय एतयोरेकं तन्मे ब्रूहि सुनिश्चितम्।।
तथा इसकी समाप्ति,
भोक्तारं यज्ञ तपसां सर्वलोकमहेश्वरम्।
सुहृदं सर्वभूतानां ज्ञात्वा मां शान्तिमृच्छति।।
श्लोक पर होती है।

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भक्ति आंदोलन - सूरदास की कृष्ण भक्ति

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अरूम्बाक्कम, चेन्नई - 106.

हिंदी साहित्य के मध्यकाल में सगुण भक्ति की जो लहर वैष्णव भक्ति आंदोलन के रूप में समग्र उत्तर भारत में फैलकर साहित्य के प्राणों को सींच रही थी, उसके प्रवर्तन का श्रेय दक्षिण के उन भक्त कवियों को है, जो विक्रम की सातवीं शताब्दी में क्रमश: मंद होते हुए वैष्णव धर्म को पुनर्जीवित करने का प्रयत्न कर रहे थे।

कृष्ण भक्ति को चरमोत्कर्ष की स्थिति प्रदान करने का कार्य सोलहवीं शताब्दी में स्थापित सम्प्रदायों को है। इनमें प्रमुख हैं - वल्लभाचार्य जी का पुष्टि सम्प्रदाय, चैतन्य स्वामी का गौडीय सम्पद्राय, गोस्वामी हितहरिवंश का राधा-वल्लभी सम्प्रदाय और स्वामी हरिदास का सखी सम्प्रदाय।

वल्लभाचार्य जी ने सगुण रूप को ही वास्तविक परमार्थक रूप बताया और ब्रह्म में ही सब धर्म माने। समस्त सृष्टि को उन्होनें लीला के लिए ब्रम्हा की आत्मकृति कहा। अपने को अंश रूप जीवों में बिखराना ब्रम्हा की लीला मात्र है। माया की कोई वस्तु नहीं है। ब्रम्हावाद में से माया को अस्वीकार करके वल्लभाचार्य ने ब्रम्हावाद को पूर्णतया शुद्ध कर दिया। अत: उनका दार्शनिक सिद्धांत 'शुद्धाद्वैत ब्रम्हावाद' कहा जाता है।

वल्लभाचार्य के मतानुसार श्रीकृष्ण ही परम ब्रम्हा है, जो समस्त दिव्य गुणों से सम्पन्न होकर पुरूषोत्तम कहलाते हैं। आनंद का पूर्ण आविर्भाव इन्हीं में है। पुरूषोत्तम श्री कृष्ण की लालाएँ नित्य हैं। वे अपने भक्तों के लिए व्यापी बैकुण्ठ में अनेक प्रकार की क्रीडाएँ करते रहते हैं। गोलोक इसी व्यापी बैकुण्ठ का एक खण्ड है, जिसमें नित्य रूप में यमुना, वृंदावन, निकुंज इत्यादि सब कुछ है। भगवान कृष्ण की इस नित्य लीला सृष्टि में प्रवेश करना ही जीव की सर्वोत्तम गति है।

भक्ति की साधना के लिए वल्लभाचार्य जी ने उसके श्रद्धा के अवयव को छोडकर केवल प्रेम लिया। प्रेम लक्षणा भक्ति ही उन्होनें ग्रहण की। प्रेम साधना में

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वल्लभाचार्य ने लोक मर्यादा और वेद मर्यादा दोनों का त्याग विधेय ठहराया। इस प्रेम लक्षणा भक्ति की ओर जीव की प्रवृत्ति तभी होती है जब स्वयं भगवान का अनुग्रह होता है। जिसे पोषण या पुष्टि कहते हैं। इसी से वल्लभाचार्य ने अपने भक्ति मार्ग को रखा है।

कृष्ण भक्ति को उत्कर्ष प्रधान करने का कार्य करने वाला द्वितीय सम्प्रदाय है चैतन्य देव का गौडीय सम्प्रदाय। इसके अनुसार परम तत्व एक है और यह अनन्त शक्तियों का आधार है । इसकी शक्तियाँ अचिन्त्य है, क्योंकि उनमें एक साथ ही पूर्ण एकत्व और पृथकत्व तथा अंशभाव और अंशीभाव विद्यमान रहते हैं। श्री कृष्ण ही परम तत्व है। वे ही सर्व कारणों के कारण तथा प्रकाशशील है। वस्तुतः यह भेदाभेद दर्शन है, जिसे चैतन्य ने यथावत स्वीकार किया है।

कृष्ण भक्ति की प्रतिष्ठा में राधा वल्लभी सम्प्रदाय का भी अपना विशिष्ट स्थान है। इसकी स्थापना गोस्वामी हितहरिवंश ने संवत 1550 के आस पास की थी । इससे संबंधित कवियों ने राधा कृष्ण की कुंज क्रीडा और सुख विलास का ही चित्रण मधुर रूप में किया है। उन्होनें कर्म और ज्ञान का खण्डन करते हुए स्पष्ट रूप से भक्ति का प्रतिपादन किया है।

स्वामी हरिदास ने सखी सम्प्रदाय का प्रवर्तन किया। इनकी भक्ति का उद्देश्य कृष्ण युगल की उपासना है। यह राधा कृष्ण की विहार लीलाओं का आनंद सखी भाव के अवलोकन से लुटा करते हैं। स्वामी हरिदास स्वयं को ललिता सखी का अवतार मानते थे जो राधा कृष्ण की क्रीडा के समय सदैव उपस्थित रहती थी।

वयक्रमानुसार अष्टछाप के कवियों का क्रम इस प्रकार निर्धारित किया जाता है । कुभभनदास, सूरदास, परमानंददास, कृष्णदास, गोविदंसामी, छीतस्वामी, चतुर्भुजदास और नंददास। इनमें चार कवि महाप्रभु वल्लभाचार्य के शिष्य थे - सूरदास, कृष्णदास, परमानंददास और कुभभनदास तथा कवि गोसाई विठ्ठलदासनाथ जी के शिष्य थे - नंददास, चतुर्भुजदास, छीतस्वामी और गोंविदस्वामी।

सूरदास

वल्लभाचार्य द्वारा प्रवर्तित कृष्ण भक्ति धारा के सर्वाधिक महत्वपूर्ण कवि के रूप में सूरदास का नाम विश्व विख्यात है। वे अष्टछाप के सर्वश्रेष्ठ कवि एवं पुष्टिमार्ग के जहाज के रूप में जाने जाते हैं।

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सूरदास के नाम से प्राप्त ग्रंथो की संख्या 25 तक मानी गई है परन्तु अंतिम रूप में सूरदास के तीन ग्रंथ प्रामाणिक माने जाते हैं –

1. **सूरसागर** – यह सूरदास का सर्वमान्य प्रामाणिक ग्रंथ है और यही उनकी प्रसिद्धि का प्रमुख कारण है। इसमें 4936 पद हैं जो 12 स्कंधों (अध्यायों) में विभक्त है । सूरसागर में दशम स्कंध सर्वाधिक महत्वपूर्ण है। इसको सूरसागर का प्राण माना जाता है। यद्यपि सूरसागर के वर्ण्य विषय का श्रीमदभागवत की कला से बहुत साम्य है, तथापि सूरसागर श्रीमदभागवत का अनुवाद नहीं है। इसमें सर्वत्र सूर की मौलिकता के दर्शन होते है।

2. **साहित्य लहरी** – इसमें 118 पद संकलित हैं। यह एक शास्त्रीय ग्रंथ है और इस पर कवि के पांडित्य की छाप स्पष्ट है। इसमें रस, अलंकार और नायिका भेद कथन के पद है। इसमें अनेक पद दृष्टकूट की श्रेणी के हैं। इस ग्रंथ में रीतिकाल के बीज प्राप्त होते हैं।

साहित्य लहरी के पद संख्या 108 और 109 में इतिहास संबंधी संकेत है। इस ग्रंथ का संग्रह भारतेन्दु हरिशचंद्र ने किया था। इसमें कई पद ऐसे भी हैं जो सूरसागर में भी मिलते हैं। यह एक स्वतंत्र ग्रंथ है।

3. **सूर सारावली** – यह एक स्वतंत्र ग्रंथ न होकर सूरसागर की अनुक्रमणिका है। यह बात प्रसिद्ध है कि सूरदास ने सवा लाख पद लिखे थे परन्तु अभी तक उनके प्रामाणिक पदो की संख्या 6 हजार से आगे नहीं बढ सकी है।

4. **सूरदास का वात्सल्य प्रेम** – वात्सल्य का मूल भाव अपत्य स्नेह है, जो रति स्थायी भाव का ही एक विभेद है। अत: शास्त्रीय दृष्टि से वात्सल्य रस स्वतंत्र रस न होकर श्रृंगार रस का ही एक विभेद ठहरता है। काव्यशास्त्र के कुछ आचार्य वात्सल्य रस को एक स्वतंत्र रस मानते हैं। उनके मतानुसार वात्सल्य स्नेह जीव मात्र की एक व्यापक प्रवृत्ति है। इसी के वशीभूत होकर प्राणी संसार में आसक्त और लिप्त होता है। दण्डी, भामह तथा कई अन्य अनेक आचार्यो ने वात्सल्य को प्रेयस रस कहा है।

सूरदास ने श्रीकृष्ण के बालक रूप को दृष्टि में रखकर अनेक छंद लिखे हैं। ये छंद रस परिपाक की दृष्टि से तथा वैमिन्य एवं व्यापकत्व की दृष्टि से अप्रतिम है। सभी आलोचको ने सूर के वात्सल्य वर्णन की भूरि–भूरि प्रशंसा की है।

डॉ. रामचंद्र शुक्ल के कथनानुसार – वात्सल्य के क्षेत्र में जहाँ तक इनकी दृष्टि पहुँची, वहाँ तक अन्य किसी कवि की नहीं। बाल चेष्टा के स्वाभाविक मनोहर

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चित्रों का इतना बडा भण्डार और कहीं नहीं मिलता है।

डॉ. रामकुमार वर्मा ने सूर के मनोवैज्ञानिक चित्रण कौशल का उद्घाटन करते हुए यह महत्वपूर्ण कथन कहा है - इन्होने बालक कृष्ण और माता यशोदा के हृदयों की भावनाओं को इतने सार्वजनिक रूप में प्रस्तुत किया है कि वे चिंरतन और सत्य हैं। बालक के सरल से सरल कार्य का वे बालक बनकर ही वर्णन करते हैं और उसका अपार सौन्दर्य पाठकों के सामने बिखेर देते हैं।

सूरदास के वात्सल्य वर्णन का क्षेत्र अत्यंत व्यापक है। सूरदास कृत सूरसागर के बालकृष्ण लीला वर्णन को मुख्यतया इन चार भागों में विभक्त किया जा सकता है - (1) रूप वर्णन (2) चेष्टाओं और क्रीडाओं का वर्णन (3) अन्तर्भावों का वर्णन और (4) उत्सवों, संस्कारों और समारोहों का वर्णन।

सूरदास के वात्सल्य वर्णन के कई आश्रय हैं - माता यशोदा, बाबा नंद तथा ब्रज की वयस्क नारियाँ। वसुदेव-देवकी में भी इस भाव की थोडी-सी छाया पाई जाती है। उनके सन्दर्भ में वात्सल्य वर्णन उतना मार्मिक एवं सफल नहीं है क्योकि उनके भाव का आलम्बन बालक कन्हैया न होकर ऐश्वर्यशाली एवं प्रतापशाली पुत्र श्रीकृष्ण हैं।

सूरदास ने वात्सल्य भाव की सर्वाधिक मार्मिक एवं विशद व्यंजना यशोदा के संदर्भ में की है। माता यशोदा के वात्सल्य में ही वात्सल्य की परिपक्वता है जो वात्सल्य को रस की कोटि तक पहुँचा देती है। वात्सल्य भाव के आलम्बन बाल कृष्ण है और उनकी चेष्टाएँ उद्दीपन का कार्य करती है।

यशोदा और कृष्ण सम्बधी कथा को हम दो भागों में विभक्त कर सकते हैं (1) जब कृष्ण माता यशोदा के साथ ब्रज में निवास करते हैं तथा (2) जब कृष्ण अक्रूर के साथ मथूरा चले जाते हैं और वहीं बस जाते हैं। इनको हम क्रमश: संयोग वात्सल्य और वियोग वात्सल्य कहते हैं। सूरदास ने दोनों स्थितियों में अपने को यशोदा के रूप में रखकर देखा है और उनका वर्णन करते हुए चमत्कार कर दिखाया है।

यशोदा के साथ ब्रज की नारियाँ भी उनके सौदर्न्य पर इतनी मोहित हो जाती हैं कि वे भी कृष्ण के सामीप्य को नहीं छोडना चाहती है -

सूर प्रभू के प्रेममग्न भई ढिंग न तजति ब्रज बाल की।

श्रीकृष्ण स्वच्छ आंगन में दौडते-फिरते हैं और उसमें अपने प्रतिबिम्ब को देखते है तथा उसको पकड़ने के लिए दौडते हैं। इस बाल सुलभ चेष्टा का वर्णन

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सूरदास जी ने बडी ही मार्मिक शैली में किया है –

निरखि–निरखि अपनी प्रतिबिंब हँसत किलकत औ'
पाछै चितै फेरि–फेरि मैया–मैया बोलै।

माता की स्वाभाविक इच्छा होती है कि बालक दूध पिये, परन्तु बालक दूध पीने से जी चुराता है। कृष्ण भी यही करते हैं। माता यशोदा उनको प्रलोभन देती है कि दूध पीने से तेरी चोटी बढ़ जाएगी।

कजरी को पय पियहु लला तेरी चोटी बढै।
सब लरिकन में सुनु सुन्दर सुत तो श्री अधिक बढै।।

इस प्रकार के न मालूम मातृ हृदय के कितने भाव सूरदास जी ने अपनी बंद आँखों से देखे हैं। सूरसागर में ऐसे वर्णनों की बाढ़–सी दिखाई देती है।

सूर श्रीकृष्ण के परब्रम्हात्व के प्रति भी सजग दिखाई देते हैं। ऐसे स्थलों के लीला वर्णन में वात्सल्य के साथ अद्भुत रस का भी समावेश हो जाता है –

कर पग गहि अँगुठा मुख मेलत
सिव सोचत, विधि बुद्धि विचारत,
वट बाढयौ सागर जल झेलत
बिडरि चले घन प्रलय जानि कै,
दिगपति दिग दंतीनी सकेलत
मुनिगन भीत भये, भव कंपित,
सेष सकुचि सहसौ फन पेलत
उन ब्रजबासिनि बात न जानी,
समुझे सूर सकट पग ठेलत।।

कृष्ण के अनुपम शारीरिक सौंदर्य के साथ आन्तरिक बुद्धि चातुर्य का सुखद संयोग भी दिखाई देता है। कृष्ण बाहय सौंदर्या के कारण जितने आकर्षक हैं, उतने ही मोहक वे अपने बुद्धि कौशल एवं वाक चातुर्य के कारण हैं।

कृष्ण माखन चोरी के लिए किसी ग्वालिन के घर में घुस जाते हैं और चोरी करते हुए ऐन मौके पर पकड़े जाते हैं। दही की मटकी में हाथ डाला ही था कि गृह स्वामिनी गोपी आ जाती है और उनको पकड़ लेती है । वह कहती है –

श्याम कहा चाहत से डोलत?
बूझेहू ते वदन दुरावत सूधे बोल न बोलत।।

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सूने निपट अँधियारे मंदिर दधि भाजन में हाथ
अब कहि कहा बनैयौ ऊतरू कोऊ नाहिंन साथ।।

गोपी समझती है कि चोर इकबाली हो जाएगा, परंतु कृष्ण भी कम नहीं है, तुरन्त चतुराई भरा उत्तर देते हैं –

मैं जान्यो यह घर अपनौ है या धोखे में आयौ
देखत हों गोरस में चेंटी काठन कौ कर नायौ।।

उत्तर सुनकर गोपी गदगद हो जाती है। तन की माधुरी और मन की माधुरी का संगम उसको आनन्दातिरेक से भर देता है।

सुनि मृदु वचन निरखि मुख सोभा ग्वालिन मुरि मुसक्यानी।

सूरदास के साथ पाठक भी गा उठता है –

सूर स्याम तुम ही नटनागर बात तिहारी जानी ।

माता यशोदा के पास शिकायत आती है कि कृष्ण घर–घर जाकर माखन चोरी करते फिरते हैं।आज पकड़े गये हैं। माता संटी लेकर उनकी पिटाई करने को तैयार है। कृष्ण अपनी माखन चोरी की बात माता से किस चतुराई से छिपाने का प्रयत्न करते हैं, यह भी देख लीजिए –

मैया मैं नंहि माखन खायौ
ग्वाल सखा सब बैर परे हैं,
बरबस मुख लपटायौ
प्रात समै बंसीवट पठयौ साँझ परे घर आयौ ।
मैं बालक बैहनि को छोटी छींकौ केहि विधि पायौ ।
तू जननी मन की अति भोरी इनके कहे पतियायौ ।।

इतने पर भी माता जब नहीं मानती दिखाई देती है, तो वे ब्रह्मास्त्र का प्रयोग कर देते हैं –

तेरे जिय कछु भेद उपजिहै जानि परायौ जायौ
ये लै अपनी लकुट कमरिया, बहुतै नाच नचायौ।।

बस अब क्या है, माता का जीवन कृत कृत्य हो जाता है।

डारि सांटि मुसकाइ तबहीं गहि सुत कौ कण्ठ लगायौ।

बालक कृष्ण अपने साथियों के साथ खेलते है, झगडते हैं, रूठते हैं, माता के पास आकर बलदाऊ के उलाहने बताते हैं, गायें चराने जाते हैं आदि। सूरदास ने

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उनकी प्रत्येक क्रीडा का सजीव एवं चित्रात्मक वर्णन किया है।

खेलत में को काको गुसैयाँ।
जाति पाँति हम तें बड नाहीं,
नाहिंन बसत तुम्हारी छैयाँ।
अति अधिकार जनावत यातें,
अधिक तुम्हारे हैं कछु गैयाँ ॥

गायों को चराने के लिए जब श्री कृष्ण वन में जाते हैं तब माता यशोदा कभी तो उनको रोकती है और कभी उनके लिए प्रेम से छाछ जोडती, कृष्ण के बिना घर को सूना देखकर वह कभी झुंझला उठती हैं और कभी उनकी प्रतीक्षा में बेचैन दिखाई देती है। कृष्ण वन से गायें चराकर लौटते हैं।

दिन भर के बाद अपने लाडिले लाल को देखकर माता यशोदा प्रेमपूरित हो जाती है। यह देखकर तो माता की खुशी का ठिकाना ही नहीं रहता है कि उसका लाल उनके लिए वन से फल लाया है। पूत की कमाई को माता का हृदय कहाँ रखे, कहाँ उठावे? प्रज्ञाचक्षु सूरदास द्वारा मातृ हृदय के मनोभावों की यह सहज अभिव्यक्ति देखते ही बनती है –

जसुमति दौरि लिए हरि कलियाँ।
आजु गयौ मेरी गाय चरावन,
हाँ बलि जाऊँ निछनिया।
मो कारन कछु आन्यौ है बलि,
वन फल तोरि कन्हैया
तुमहि मिले मैं अति सुख पायौ,
मेरे कुँवर कन्हैया ॥

सूरदास ने संयोग से वात्सल्य वर्णन में अंग-अंग के प्रत्येक रसावयव का सांगोपाँग वर्णन पूरे मनोयोग के साथ किया है। वर्णन में आलम्बन श्रीकृष्ण हैं, आश्रय माता यशोदा, नंद बाबा अथवा ब्रज की गोपियाँ। कृष्ण का अप्रतिम शारीरिक सौन्दर्य, उनकी बाल क्रीडाएँ, बचन चातुरी एवं पराक्रम उद्दीपन विभाव है। यशोदा का प्रसन्न होकर कृष्ण को गोद लेना, चूमना आदि चेष्टाएँ अनुभाव हैं। पुलक, हर्ष आदि व्याभिचारी या संचारी भाव हैं – वात्सल्य रस परिपाक की सम्पूर्ण सामग्री अलौकिक आनंद की सिद्धि करने में पूर्णतया समर्थ है।

कृष्ण के मथुरा गमन की सूचना के साथ ही वियोग की अनुभूति का प्रारम्भ

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हो जाता है। माता के लिए यह इच्छा करना स्वाभाविक है कि कृष्ण मथुरा न जाएँ। वह सोचती है कि कृष्ण वहाँ करेगा भी क्या? इसे ठीक से धोती तक बाँधनी नहीं आती है।

सूरदास माता यशोदा के मन की बात जान जाते हैं और लिखते हैं –

जसोदा बार बार यों भाखे
है ब्रज में कोऊ हितू हमारी चलत गोपालहिं राखै।।

कृष्ण के मथुरा चले जाने पर माता यशोदा दिन रात उनको याद करती है और सोचती है –

वैसे भाग बहुरि है हैं, मोहन गोद खिलाऊँ।

मथुरा में कृष्ण यद्यपि राजभवन में माता देवकी के पास हैं और उनको समस्त सुख सुविधाएँ प्राप्त हैं, तथापि माता यशोदा को यह विश्वास नहीं होता है कि कृष्ण के मन और सुख का जितना ध्यान वे रखती थीं, उतना ध्यान और कोई भी रख सकता है। यशोदा मथुरा के लिए देवकी को यह मार्मिक संदेश भेजती है –

संदसौ देवकी सों कहियों
हो तो धाय तिहारे सुत की,
मया करति ही रहियौ।
तुम तो टेव जानतिहि है हौ,
तऊ मोहि कहि आवै
प्रात उठत मेरे लाल लडैतेहि
माखन रोटी भावै।।

वियुक्त प्रिय पुत्र के सुख के अनिश्चय की पहुँची हुई दीनता भावना और क्षेमजन्य उदासीनता उक्त वचनों में टपक रही है। यशोदा के मन में कृष्ण के कुशल क्षेम को लेकर अनेक भाव तंरगें उठती है। वे अपनी सब खीझ नंद पर उतारती हुए कहती है कि तुमने भी उसको मथुरा जाने से नहीं रोका –

छाँडि सनेह चले मथुरा,
कल दौरि न चीर गहम्हौ1
फाटि न गई ब्रज की छाती,
कत यह सूल सम्हौ।।

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इस पर नंद यशोदा पर उलट पडते हैं -

तब तू मारिबोई करति
रिसनि आगे कहि जो आवति,
अबकै भाँडे भरति।
कठिन हिय करि तन जो बाँध्यौ,
अब वृथा करि भरति।।

झुंझलाहट में वियोग वात्सल्य साकार हो उठा है। उधर कृष्ण भी यशोदा और नंद के वियोग में विकल दिखाई देते हैं। वे मथुरा से उपालम्भ भरा संदेश भेजते हैं-

नीके रहियौ जसुमति मैया
आवेंगे दिन, चारि पाँच में हम हलधर दोउ भैया
कहियो जाय नंद बाबा सों निपट कठिन हिय कीन्हौ
सूर स्याम पहुँचाय मधुचाय मधुपुरी बहुरि सँदेस न लीन्हौं

इस संदेश को पाकर माता-पिता के हृदय की करूणा उमड पडती है। माता यशोदा तो मथुरा जाने तक को तैयार हो जाती है!

नंद! ब्रज लीजै ठोंकि बजाय
देहु बिदा मिलि जाहि मधुपुरी,
जहँ गोकुल के राय।।

'ठोंकि बजाय' में कितनी गहरी व्यंजना है। तुम अपना ब्रज सम्भालों - मैं तो चली मथुरा अपने लाल के पास। गहरी उत्सुकता और अधीरता के साथ विरक्ति और तिरस्कार मिश्रित झुंझलाहट के मेल भावों का यह इन्द्रधनुष हृदय की आँखों द्वारा ही देखा जा सकता है। एक-एक शब्द के साथ मातृ हृदय लिपटा हुआ दिखाई देता है।

सूरदास वर्णित वात्सल्य में तन्मयता, वास्विकता और मनोवैज्ञानिकता कूट-कूट कर भरी है। इसमें कोई संदेह नहीं कि सूर मातृ हृदय का कोना-कोना झाँक आए हैं।

श्रृंगार रस के भक्ति पक्ष का संबंध उपासना पद्धति से है। वल्लभाचार्य जी ने भक्ति की साधना के लिए प्रेम तत्व को अपनाया। इसी प्रेम तत्व की पुष्टि में सूर की वाणी प्रवृत्त हुई। एक सच्चे भक्त कवि की भांति सूरदास परम पद की झांकी के लिए व्याकुल रहते हैं। रहस्यवादी कवियों की भाँति उनकी कल्पना कभी-कभी इस लोक का अतिक्रमण करके आदर्श लोक की ओर संकेत करने लगती है।

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चकई री चलि चरन सरोवर, जहाँ न प्रेम वियोग
निसि दिन राम राम की वर्षा भय रूज नहिं दुख भोग।।
सो सर छौडि कुबुद्धि विंहगम इहाँ कहा रहि कीजै।।

सूरदास के लिए राम और कृष्ण में कोई अंतर नहीं है। 'सूरसागर' में कई ऐसे स्थल आते हैं जहाँ सूरदास ने कृष्ण की स्तुति इस प्रकार की है मानो राम और कृष्ण एक ही हों। डॉ. हरवंशलाल जी ने सूर की भक्ति भावना के विषय में लिखा है – 'वह साम्प्रदायिकता से बहुत दूर थे और भगवत का अनुसरण करते हुए भी भागवत पुष्टिमार्गी भक्ति पद्धति के समस्त अवयवों के निर्वाह के कारण ही गोस्वामी विठ्ठलदास जी ने सूरदास को पुष्टि मार्ग का जहाज बताया था।'

निष्कर्ष रूप में सूरदास की भक्ति भावना की विशेषताएं निम्न प्रकार है –

1. सूर उच्च कोटि के भक्त हैं। उनकी भक्ति भावना अन्त:करण की प्रेरणा और हृदय की अनुभूति से उद्भूत हैं। भक्ति उनकी रग-रग में समाई है। भक्ति के बिना उनका जीवन व्यर्थ है।

रे मन मूरख जनम गँवायौ
करि अभिमान विषय रस गीध्यौ,
श्याम सरन नहिं आयौ।।

2. सूरदास ने पुष्टि सम्प्रदाय में दीक्षित होकर जिस भक्ति पद्धति का अनुसरण किया, वह वैष्णव सम्प्रदाय में संख्या कोटि की अन्नय भक्ति कही जाती है। दार्शनिक पद्धति से दूर रहकर सूरदास ने पुष्टि भक्ति को काव्य की भावभूमि पर प्रतिष्ठित किया।

3. सूरदास ने नवधा भक्ति के समस्त रूपों का वर्णन किया है। परन्तु मुख्य रूप से संख्य भक्ति, वात्सल्य भक्ति और मथुरा भक्ति का ही पल्लवन किया है।

4. सूरदास ने प्रेम की परिपुष्टता के लिए विरह की तन्मयता की शक्ति को आवश्यक बताया है।

5. सूरदास ने भक्ति की प्राप्ति के लिए वैधी भक्ति की आवश्यकता पर बल दिया है।

6. रहस्यवादी कवियों की भाँति उनकी कल्पना कभी-कभी इस लोक का अतिक्रमण करके आदर्श लोक की ओर संकेत करती हुई दिखाई देती है।

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7. तुलसी की भाँति सूर ने भी राम और कृष्ण के अभेद को स्वीकार किया है।

8. अन्तःसाक्ष्य और ब्राहयसाक्ष्य से यह स्पष्ट हो जाता है कि सूरदास ने अधिकाश पदों की रचना वल्लभाचार्य जी के वचनों को स्पष्ट करने के लिए की है।

9. आचार्य वल्लभ से मिलने के पूर्व वे विलय के पद लिखा करते थे। आचार्य से दीक्षा लेने के बाद वे हरिलीला के गायन में ही लगे रहे।

10. सूर की भक्ति भावना में दार्शनिकता, आध्यात्मिकता और रहस्य व रहस्यात्मकता का सुखद समन्वय मिलता है।

11. सूरदास की भक्ति भावना जहाँ एक ओर भागवत की भक्ति द्वारा प्रभावित है, वहाँ दूसरी ओर वे वल्लभ सम्प्रदाय की मर्यादा का भी यथावत पालन करते हुए देखे जाते है।

12. सूर के पदों में दैन्य भाव का विशिष्ट स्थान है। दैन्य सूर के मन का स्थायी भाव है जो उनकी श्रद्धा विनयशीलता, भक्ति भावना की तीव्रता तथा सहज द्रवणशीलता का परिचायक है।

सूरदास वल्लभाचार्य जी पुष्टि सम्प्रदाय में दीक्षित हुए थे। अतः उन पर वल्लभाचार्य के शुद्धाद्वेत ब्रम्हावाद का प्रभाव होना स्वाभाविक था। वे भक्ति विरोधी ज्ञान को अस्वीकार करते हैं। उनकी गोपियाँ ज्ञानी उद्धव से स्पष्ट कह देती हैं –

बार बार ये वचन निवारी, भक्ति विरोधी ज्ञान तुम्हारी।।

सूरदास ने सर्वप्रथम ब्रजभाषा का साहित्यिक एवं व्यवस्थित रूप प्रस्तुत किया। सूर की कविता के प्रमुख विषय हैं – शृंगार और वात्सल्य। इन्हीं के अनुसार सूर की भाषा में माधुर्य गुण कोमलकांत पदावली से युक्त है। सूर का शब्द भंडार अत्यंत विशाल एवं विस्तृत है। सूर के शब्द भंडार में तत्सम, तदभव, पाली, प्राकृत एवं अप्रभंश के शब्दों के अतिरिक्त हिंदी की बोलियों-अरबी, खडीबोली, कन्नौजी आदि के शब्द भी पाये जाते हैं। अरबी, फारसी तथा तुर्की भाषाओं के भी प्रचलित शब्द सूर की कविता में हैं।

लोक-प्रचलित मुहावरों, लोकोक्तियों तथा लोकचित्रों का आश्रय लेकर सूर ने अपनी भाषा को अभीष्ट भावों की अभिव्यक्ति के सर्वथा उपयुक्त बनाया है। सूर के काव्य में संगीतात्मकता का अपूर्व निर्वाह है। शायद ही कोई ऐसी राग रागिनी हो जो सूर के पदों में न मिलती हो। सूर के पद गायन के बिना भक्ति संगीत

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सम्मेलन अधूरा समझा जाता है । वे सचमुच ब्रज भाषा के वाल्मीकी हैं। दृष्टिकूट पदों में सूरदास के भाषाधिकार एवं पांण्डित्य का विशेष परिचय प्राप्त होता है।

डॉ. विजयेन्द्र स्नातक के कथनानुसार - 'मध्यकालीन वैष्ण भक्त कवियों में सूरदास का स्थान शीर्ष पर है। जयदेव, चंडीदास, विद्यापति और नामदेव की सरस वाग्धारा के रूप में भक्ति श्रृंगार की जो मंदाकिनी एक विशिष्ट सीमा कूलों में प्रवाहित होती चली आ रही थी उसे सूरदास ने जनभाषा के व्यापक धरातल पर आधारित करके संगीत और माधुर्य से मंडित किया। भक्ति काव्य में सूरदास जी की कृष्ण भक्ति युगों-युगों तक जानी जाएगी।'

सहायक ग्रंथ :

1. भक्ति आदोंलन एवं कृष्ण काव्य : रा. शोरिराजन
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3. सूरदास रचनावली : डॉ कृष्ण कुमार गोस्वामी

श्रीमद्भगवद्गीता का द्वितीय अध्याय
सांख्य योग के नाम से जाना जाता है,
इसमें 72 श्लोक हैं। इस अध्याय का प्रारम्भ,
संजय उवाच -
तं तथा कृपया विष्टमश्रुपूर्णाकुलेक्षणम्।
विषीदन्तमिदं वाक्यमुवाच मधुसूदनः।।
से होकर
एषा ब्राह्मी स्थितिःपार्थ नैनां प्राप्य विमुह्यति।
स्थित्वास्यामन्तकालेऽपि ब्रह्मनिर्वाणमृच्छति।।
पर समाप्त होती है।

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श्री राम चरित मानस में रामराज्य :
एक आदर्श और आधुनिकता का विश्व

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वर्तमान समय में राम राज्य की अत्यन्त आवश्यकता है क्योंकि पूरा विश्व आज घोर आपसी वैमनस्य और आर्थिक संकट से गुजर रहा है। आज के समय में राजा की दिनचर्या कैसे हो, या वर्तमान समय में जो पूरे विश्व में जिस प्रकार से शासन प्रणाली चल रही है उसमें अमूल-चूल परिवर्तन की आवश्यकता है। आज अमेरिका, भारत, चीन, ब्रिटेन जैसे देशों का अनुसरण कर लगभग विश्व के समस्त देश इन्हीं के शासन प्रणाली का अनुसरण करते हैं।

राम चरित मानस में एक आदर्श राज्य का दिग्दर्शन होता है। राम राज्य एक आदर्शवादी प्रजातंत्र की आत्मिक व्यवस्था है। राम राज्य में किसी भी प्रकार का शोषण और अत्याचार नहीं होते थे। सभी लोग एक दूसरे से प्रेम व स्नेह करते थे। राम राज्य में लोग एक दूसरे के शत्रु नहीं बल्कि प्रेम के प्रतीक थे।

रामराज्य बैठे त्रैलोका, हरषित भये गये सब सोका ।
बयरु न कर, काहू सन कोई, राम प्रताप विषमता खोई ।।

भगवान श्रीराम निष्काम और अनासक्त भाव से अयोध्या में राज्य करते थे। उनमें कर्तव्य परायणता और मर्यादा के अनुरूप आचरण थे। राम राज्य में अयोध्या के लोग भी बड़े सौभाग्यशाली थे। उस अयोध्या के वैभव का वर्णन नहीं किया जा सकता।

रमानाथ जहँ राजा सोपुर बरनि कि जाइ ।
अनिमादिक सुख सम्पदा रही अवध सब छाइ ।।

अयोध्या में सर्वत्र प्रसन्नता दिखती थीं। वहाँ किसी भी प्रकार की दुःख दरिद्रता का नामोनिशान नहीं था, न तो कोई अकाल पड़ता था और न ही किसी प्रकार की पीड़ा से लोग दुःखी थे। उसका कारण लोग अपने वर्ण और आश्रम के अनुरूप धर्म में तत्पर रहते थे और वेद मार्ग के पथ पर चलते थे। और वे लोग उसी में आनन्द की अनुभूति करते थे। राम राज्य में दैहिक, दैविक, भौतिक ताप किसी को भी नहीं सताते थे।

दैहिक, दैविक, भौतिक तापा। राम राज नहि काहुहि व्यापा ।
सब नर करहि परस्पर प्रीती। चलहि स्वधर्म निरत श्रुति नीती ।।

राम राज्य में राजनीति स्वार्थ से पेरित न होकर प्रजा की भलाई के लिए काम करता था। राम का राज्य मानव कल्याण के लिए आदर्श से युक्त एक ऐसा राज्य था जिसमें निस्वार्थ प्रजा की सेवा, निष्पक्ष आदर्श, न्याय व्यवस्था एवं सुखी-समृद्धि समाज व्यवस्था थी।

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आज सम्पूर्ण भारतीय समाज में राम राज्य की परिकल्पना एक आदर्श के रूप में
भगवान श्रीरामचन्द्र को उत्तर से दक्षिण तक सभी लोगों ने स्वीकार किया है। उत्तर में
गुरु गोविन्द सिंह ने राम कथा लिखी। महाराष्ट्र में भावार्थ रामायण हिंदी भाषी क्षेत्र में
तुलसी रामचरित मानस जो तुलसीदास द्वारा रचित है आज वह घर-घर में पूजनीय है।
तमिल क्षेत्र में महाकवि कंबन द्वारा लिखित **कंब रामायण** अत्यन्त भक्तियुक्त पूर्ण ग्रंथ है।
मनुष्य के जीवन में आनेवाली सभी सम्बन्धों को पूर्ण एवं उत्तम रूप से निभाने की
शिक्षा देनेवाला प्रभु श्रीरामचन्द्र के चरित्र के समान दूसरा कोई चरित्र नहीं है।

आज वर्तमान समय में रामनीति की अत्यन्त आवश्यकता है, क्योंकि पूरा विश्व घोर
आपसी वैमनस्य और आर्थिक संकट से जूझ रहा है। राजा की दिनचर्या कैसी होनी
चाहिए या वर्तमान समय में आज पूरे विश्व में कैसी शासन-प्रणाली चल रही, इनमें
अत्यधिक अमूल्-चूल परिवर्तन की आवश्यकता है। महामना मदनमोहन मालवीय के
शब्दों में राम चरित मानस में हिंदू-सभ्यता के जिस ऊँचे आदर्श का इतिहास है। वह
सदा पढ़ने और मनन करने योग्य है।

श्रीराम चरित मानस में हिंदू गृहस्थ जीवन का आदर्श बतलाया गया है। आप सभी
नित्य रामायण का पाठ करें और उसमें बतलाएं हुए मार्ग पर चलकर हिंदू जाति को
पुनः राम-राज्य के सुख भोगने वाली बना दें।

गोस्वामी तुलसी दास जी की लोकप्रियता एवं राम चरित मानस के महत्व तथा
उसके चिरस्थाई प्रभाव को देखकर विदेशी विद्वान भी तुलसीदास जी की ओर
आकर्षित हुए। रामकथा के प्रभाव से सोवियत संघ भी अछूता न रह सका। रूस के
सुदूर उत्तर के विस्तृत भूभाग साइबेरिया तक रामकथा का विस्तार हुआ। तिब्बती और
चीनी भाषा में लिखी रामकथा रूस में प्रसारित हुई और जिसका समय तीसरी से
नवीं सदी तक बताया जाता है। सुप्रसिद्ध सोवियत भारत विद्या विद् अल्सेई ब्रोनिकोव
(1890-1952) ने 10 वर्ष से अधिक परिश्रम के पश्चात् तुलसीकृत रानचरित मानस का
रूसी भाषा में बंदोबस्त अनुवाद किया जिसे सोवियत संघ की विज्ञान अकादमी ने सन्
1948 में प्रकाशित किया। लेकिन आज वर्तमान में रूस जिसने अपने पूर्वजों की इस
अनुपम कृति का अनुसरण न कर राक्षसी प्रवृत्ति का अनुकरण किया जिसका परिणाम
यूक्रेन ही नहीं, बल्कि पूरी मानव जाति झेल रही है। यदि आज रूस और हमास में
राम चरित मानस का अध्ययन किया होता, तो भगवान राम की शत्रु के प्रति जो नीति
थी जिसे श्री हनुमान जी महराज ने और उनके बाद अंगद जी ने क्रियान्वित किया था
ताकि भीषण युद्ध को रोका जा सके, लेकिन केवल अपनी स्वार्थी भावना के कारण
आज पूरा विश्व संकट को झेल रहा है। इस घोर संकट के समय सभी धर्मावलंबी जनों
से यही प्रार्थना है कि कुछ समय के लिए राम नीति की अवधारणा को अपनाया जाए
ताकि पूरे विश्व में शांति-समृद्धि और एकता स्थापित हो।

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रामराज्य वह राज्य है जहाँ प्रजा का हित राजा और राज परिवार से बड़ा हो, जहाँ प्रजा की खुशी ही राजा की खुशी हो और प्रजा के हित के लिए राजा सर्वस्व न्योछावर कर दें। ऐसा आदर्श राज्य ही रामराज्य ही हो सकता है। इसी को साकार करना रामराज्य लाना है। राम चरित मानस में गोस्वामी तुलसीदास ने केवल पात्रों का ही आदर्श रूप में वर्णन नहीं किया वरन राजा प्रजा, शासन और राज्य के भी आदर्श रूप में प्रस्तुत किया है। जिसे राम राज्य कहते हैं। जिस तरह पिता अगर राजा दशरथ की तरह हो, माता कौशल्या की तरह, भाई लक्ष्मण और भरत, शत्रुघ्न की तरह हो तो पत्नी सीता की तरह। गुरु वशिष्ठ की तरह हो तो सेवक हनुमान की तरह हो अगर विमाता कैकेयी की तरह हो तो दुश्मन भी रावण जैसा हो। इसी कारण राम चरित मानस को आदर्श ग्रंथ कहा जाता है। जिसमें समाज को सीखने के लिए सब कुछ है।

एक श्लोकी रामायण में लिखा है –

आदौ राम तपोवनादि गमनं हत्वा मृगं कांचनम् ।
वैदेही हरणं जटायु मरणं सुग्रीवसम्भाषणम्
बालीनिर्दलनं समुद्रतरणं लंकापुरी दाहनम्
पश्चाद्रावण कुम्भकर्ण हननं एतद्धि श्रीरामायणम् ।

राम राज्य का मतलब – गरीबी का उन्मूलन और अपनी सौहार्द की स्थापना करना है। राम राज्य की प्रमुख विशेषता थी कि इस काल में सभी सुखी है, सभी कर्तव्य परायण है, सभी दीर्घायु हैं, सभी में दाम्पत्य प्रेम हैं। प्रकृति उदार है और सभी में नैतिक उत्कर्ष देखा जा सकता है। रामयण में लगभग 24000 श्लोक है।

रामायण में एक राजा, एक आदर्श पिता, एक आदर्श पुत्र, आदर्श पत्नी, आदर्श भाई, आदर्श सेवक के रूप में रिश्तों के कर्तव्यों को समझाया गया है। रामराज्य में सभी एक दूसरे के प्रति स्नेह भावना रखते थे यदि किसी पर कोई मुशीबत आती थी तो वे अपने प्राणों की बाजी लगा देते थे। श्रीराम चरित मानस में जटायु और रावण प्रसंग को बड़ी ही मार्मिकता के साथ दर्शाया गया है। रामायण और महाभारत का एक दृष्टांत प्रस्तुत है। जटायु और भीष्म पितामह को इच्छा मृत्यु का वरदान प्राप्त था लेकिन दोनों में बड़ा अन्तर है। जब रावण ने जटायु के दोनों पंख काट दिए तो मृत्यु आई, लेकिन जटायु ने कहा जब तक मैं सीता मइया का हाल अपने प्रभु श्रीराम को न सुना दूँ तब तक तुम दूर रहना। मौत कांपती रही, वहीं भीष्म पितामह बाणों की शय्या पर लेटे छः महीने हो गए फिर भी वह मृत्यु का इंतजार करते रहे। कितना अलौकिक दृश्य था। दोनों राज्यों के शासन काल का।

बाल्मीकी रामायण के तीन पाठों में कोई उल्लेखनीय अन्तर नहीं मिलता। जटायु रावण को देखकर सीताहरण के कारण उसकी निंदा करता है। तथा युद्ध के लिए चुनौती देता है। इस युद्ध में जटायु अपने नखों से रावण को आहत करता है। तथा

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उसके दो धनुष छीनकर नष्ट करता है। वह रथ के खरों का वध करके रथ को तोड़ देता है। रथ में बैठे हुए राक्षसों को गिरा देता है। तथा सारथी को भी मार डालता है। फिर रावण सीता के साथ भूमि पर गिर जाता है।

स भग्नधन्वा विरथो हताश्वो हत सारथिः ।
अंकेनादाय बैदेही पपात भूवि रावणः ।।

अन्त में रावण सीता को छोड़ देता है तथा जटायु के अंग काटकर भूमि पर गिरा देता है। जटायु ने नारी का सम्मान किया प्राणों की आहुति दी। इसलिए राम ने उसे अपने गोद की शय्या दी।

सत्य परेशान जरूर होता है पर पराजित नहीं।

मैथिलीशरण गुप्त ने लिखा है –

होगी सफलता क्यों नहीं, कर्तव्य पथ पर दृढ़ रहो ।
अधिकार खोकर बैठ रहना, यह महादुष्कर्म है ।।

न्यायार्थ अपने बन्धु को दण्ड देना धर्म है। परन्तु आज यह सुकर्म बन गया है कि चाहे जो होता रहे कोई आवाज़ उठानेवाला नहीं, तर्क है – हम क्या कर सकते हैं। कर के जटायु भी कुछ भी नहीं कर सका था उसे पता था रावण की शक्ति से जूझना काल को निमंत्रण देना है, पर अपनी आँखों से अन्याय होते देखना और चुप बैठना कायरता ही नहीं, महापाप भी है। नीति की दुहाई देना और भी बड़ी कायरता है। जटायु ने अन्याय का विरोध किया, परिणाम कुछ भी रहा हो। यदि आज भी समाज में ऐसे प्रकाशपुंज उभर सके तो चारों ओर व्याप्त यह अन्याय कुछ तो मिटेगा ही।

यह भी कटु सत्य है कि अन्याय करने वाले से अधिक अन्याय सहने वाला दोषी होता है। ऐसा अन्तर इसलिए कि भरें दरबार में भीष्म पितामह ने द्रौपदी का चीरहरण देखा था, विरोध नहीं कर पाये और मौन रहे। यदि भीष्म पितामह दुःशासन को ललकारते, दुर्योधन को ललकारते तो साहस नहीं होता लेकिन द्रौपदी चीखती रही, चिल्लाती रही, लेकिन भीष्म पितामह सिर झुकाएं बैठे रहे। नारी की रक्षा नहीं कर पाएँ उसका परिणाम यह निकला कि इच्छा मृत्यु का वरदान पाने पर भी भीष्म पितामह को शरों की शय्या मिली। इसका मतलब यह है कि जो दूसरे के साथ गलत होते देखकर आँखें मूँद लेते हैं उसकी गति भीष्म जैसी होती है। कहने का भावार्थ यह है कि जटायु भगवान के गोद रूपी शय्या पर लेटे हैं और भगवान राम रो रहे हैं और जटायु हंस रहे हैं। वही महाभारत में भीष्म बाणों की शय्या पर लेटे-लेटे रो रहे हैं और भगवान हंस रहे हैं।

इस वृत्तान्त से यह स्पष्ट होता है कि उस समय भी अपराध था लेकिन उन अपराधों को रोकने के लिए लोग तैयार रहते थे। आज का विश्व ऐसा प्रतीत होता है कि बड़े-बड़े युद्ध को लोग और उकसाते हैं और अपने स्वार्थ हित में लोगों की हत्यायें होने

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से चुप बैठते हैं। रामराज्य में ऐसा नहीं था कि अपराध न हो लेकिन अपराधों के खिलाफ लोग एकजुट होकर उस अपराध को खत्म कर देंगे। उस समय भी लोग आपस में एकजुट होकर गलत लोगों के खिलाफ आक्रमण करते थे। उनका उस समय कोई स्वार्थ नहीं होता था। वह निस्वार्थ भाव से लोगों की रक्षा करते थे। ऐसा था हमारा राम राज्य। आज समूचे राष्ट्र में भावात्मक एवं सांस्कृतिक एकता खण्डित होती जा रही है। लोग अपनी पहचान विस्तृत कर रहे हैं। चारों तरफ देश की एकता एवं अखण्डता की बात की जा रही है। किन्तु यह एकता और अखण्डता केवल परिहास बनकर रह गई। आज हम सबको एकजुट होकर विश्व में हो रही घटनाओं को रोकना होगा। अपनी आवाज़ उठानी होगी तभी हम नये राम राज्य की परिकल्पना कर सकते हैं।

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कृष्ण साहित्य का सामाजिक आदर्श

प्रधान संपादक :
डॉ. अशोक कुमार मूँधड़ा

संपादक :
डॉ. अशोक कुमार द्विवेदी

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श्रीमद्भगवद्गीता में श्रीकृष्ण के दस सामाजिक आदर्श

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सहायक प्रवक्ता - हिन्दी विभाग,
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अरूम्बाक्कम, चेन्नई - 106

भगवान श्री कृष्ण जगत गुरु के अलावा उनके अनेक नाम है, कोई उन्हें गिरधारी, कोई रणछोर तो कोई श्रीकृष्ण कहते है। भगवान श्री कृष्ण के आदर्श आज समाज में बहुत कुछ सिखाता है।

जीवन जीने का तरीका यदि किसी ने परिभाषित किया है तो वो श्री कृष्ण ही है। कर्म से लेकर परमात्मा तक जाने का रास्ता यदि किसी ने बतलाया तो भगवान श्री कृष्ण ही हैं। संसार से वैराग्य को सिरे से नकारा है । कर्म का कोई विकल्प नहीं है, यह श्री कृष्ण गीता में बताते हैं।

कर्मण्ये वाधिकारस्ते मा फलेषु कदाचन ।
मा कर्म फलहेतुर्भूमा ते संगोऽस्त्वकर्मणि ।।

श्रीकृष्ण कहते है जब-जब पाप और अत्याचार एवं प्रेम और भक्ति का उजाला होता है ऐसे दोनों स्थितियो में निश्चित ही आता हूँ। श्री कृष्ण का जीवन ऐसी ही बातों से भरा पड़ा है। जरूरत है, उन्हें पहचानने की। श्रीकृष्ण का जीवन हमारे लिए मायथोलाजी का एक हिस्सा भी हो सकता है, और हमारा पूरा जीवन बदलकर रख देने वाला ज्ञान भी है। कृष्ण मात्र कथाओं में पढ़ा या सुना जाने वाला पात्र नहीं है। वो चरित्र एवं व्यवहार में उतारे जाने वाले देवता हैं। श्रीकृष्ण से सीखें, कैसे जीवन को श्रेष्ठ बनाया जाय। यदि हम दस बातें श्रीकृष्ण की अपने जीवन में उतार लें, तो सफलता हमें निश्चित ही मिलेगी।

1. जन्म से मृत्यु तक जीवन संघर्ष ही है

श्रीकृष्ण के आदर्शों को देखें तो कृष्ण के जन्म से ही संघर्ष शुरू हो जाता है। जब श्रीकृष्ण कारागार में जन्म लेते हैं, तो उन्हें रात्रि के समय यमुना पार गोकुल ले जाया जाता है। पूतना के मारने से लेकर देह त्यागने एवं द्वारिका को डुबोने तक उनके जीवन में संघर्ष ही रहा। श्रीकृष्ण के अनुसार संसार में जो भी आया उसको

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संघर्ष रहेगा ही। मानव जीवन में परमात्मा भी सांसारिक चुनौतियों से बच नहीं सकते। श्रीकृष्ण कहते हैं - परिस्थितियों से भागना नहीं चाहिए, बल्कि डटकर उनका मुक़ाबला करना चाहिए।

2. स्वस्थ शरीर से ही समाज का विकास

श्रीकृष्ण का पूरा बचपन माखन-मिश्री खाकर गुजरा। कहने का तात्पर्य यह है कि आहार अच्छा होगा तो बच्चों का विकास अच्छा होगा। यदि बच्चों का विकास अच्छा होगा तो वह स्वस्थ समाज की स्थापना करेगा। कहने का मतलब माँ-बाँप को बचपन में अपने बच्चे के खान-पान पर विशेष ध्यान देने की जरूरत है। श्रीकृष्ण का खान-पान बहुत अच्छा था । जीवन भर वह दूध, दही, मक्खन का ही सेवन किए। आज भी श्रीकृष्ण को माखन-मिश्री भोग में लगाया जाता है।

3. पढ़ाई किताबी न होकर रचनात्मक हो

श्रीकृष्ण की पढ़ाई मध्य प्रदेश के उज्जैन में संदीपनी ऋषि के आश्रम में हुई। श्रीकृष्ण 64 दिन में ही 64 कलाओं के ज्ञाता हो गए। वैदिक ज्ञान के साथ-साथ उन्होंने अनेक कलाओं का अध्ययन किया। शिक्षा ऐसी होनी चाहिए जो हमारे व्यक्तित्व का रचनात्मक विकास करे। श्रीकृष्ण के जीवन में संगीत, नृत्य, युद्ध के अलावा 64 कलाओं का व्यक्तित्व मिलता है।

4. जीवन संबंधों से ही है

श्रीकृष्ण जीवन भर जिनका साथ दिया उसको निभाया भी। अर्जुन से मिले तो उनका सम्बन्ध मन से रहा, चाहे वह उद्धव हो या सुदामा। श्रीकृष्ण यदि मान लिये तो जीवन भर उनका साथ दिया। श्रीकृष्ण के अनुसार सांसारिक जीवन की सबसे बड़ी धरोहर सगे-सम्बन्धी होते हैं। इसलिए अपने सगे-संबन्धियों के साथ सदैव प्रेम व्यवहार बनायें रखे।

5. समाज में, परिवार मे नारी का सम्मान सर्वोपरि

एक समय था जब नरकासुर ने करीब 16,100 महिलाओं को बंदी बना रखा था। नारियों के साथ दुराचार करने में ही वह अपने आप को सुखी समझता था। श्रीकृष्ण ने नरकासुर का वध किया। उन नारियों को मुक्त कराया लेकिन घर परिवार के लोग उन्हें अपनाने को राजी नहीं हुये। तभी श्रीकृष्ण ने 16,100 नारियों से विवाह कर उन्हें समाज में उचित सम्मान दिलाया।

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महाभारत की लड़ाई नारी के सम्मान के लिए लड़ी गयी। श्रीकृष्ण ने उन्हें सदैव पूजनीय बताया, महाशक्ति बताया। अतः श्रीकृष्ण के आदर्शों को मा नारी का सदैव सम्मान करना चाहिये।

6. आपके मतभेद किसी के लिए रुकावट न बने

जिस दुर्योधन के खिलाफ कृष्ण ने आजीवन पांडवो का साथ दिया दुर्योधन रिश्ते में कृष्ण का समधी था। उसकी मौत का कारण भी कृष्ण कूटनीति बनी। सांब को कौरवो ने बंदी भी बनाया था, तभी श्री कृष्ण ने दुर्यो को समझाया था कि हमारे मतभेद अपनी जगह है लेकिन हमारे विचार बच्चों के भविष्य में बाधा न बने। दो परिवारों के आपसी झगड़े में बच्चो के भ बलि न चढ़ाई जाय।

7. शांति का मार्ग ही विकास का रास्ता है

श्री कृष्ण महाभारत का युद्ध टालना चाहते थे। शांति से कौरवों और पांड मध्यस्तता किया। हालांकि दोनों ही पक्ष युद्ध के लिए तैयार थे। श्रीकृष्ण चाहते थे कि युद्ध न हो। झगड़ो से समस्याओं का निदान नहीं होता। शांति के पर चलकर ही हम समाज का विकास कर सकते हैं। सुख की प्राप्ति साध नहीं बल्कि शांति से है।

8. हमेशा ऊंची सोच रखे

महाभारत में जुए की घटना के बाद पांडवों को वनवास हो गया। श्रीकृ अर्जुन को समझाया कि ये समय भविष्य के लिए तैयारी करने का है। श्री जानते थे कि दुर्योधन को कितना भी समझाया जाय वो पांडवो का राज्य लौटाएगा। कर्ण के कवच, कुंडल, पांडवो की जीत में आगे आते। श्रीकृ दूरगामी सोच रखी। कोई भी फैसला तत्काल आवेश में आकर नहीं लिया।

9. हर परिस्थिति में मन शांत और दिमाग स्थिर रहे

पांडवों के राजसूय यज्ञ में शिशुपाल कृष्ण को अपशब्द कहता रहा। भाई था इसलिए सारी मर्यादाएं तोड़ दी। पूरी सभा चकित थी कुछ क्रोधित भी लेकिन कृष्ण शांत थे, मुस्करा रहे थे। शांति दूत बनकर गए तो दुर्योधन अपमानित किया। श्री कृष्ण शांत रहे। यदि हमारा दिमाग स्थिर है, मन शां तभी हम कोई सही निर्णय ले पाएंगे।

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10. लीडर बने , श्रेय लेने से बचे

श्रीकृष्ण ने दुनिया भर के राजाओं को जीता था। जहां ऐसे राजाओं का राज था जो भ्रष्ट थे, जैसे जरासंध। लेकिन श्रीकृष्ण ने किसी राजा का सिंहासन नहीं छीना। श्रीकृष्ण के पूरे जीवन काल में ऐसा कभी नहीं हुआ कि किसी राजा को मारकर उसके सिंहासन पर अपना अधिकार जमाया। जरासंध को मारकर उसके बेटे को राजा बनाया जो चरित्र का अच्छा था। सभी जगह ऐसे लोगो को बैठाया जो धर्म को जानते थे। कभी किंग नहीं बने, हमेशा किंग मेकर की भूमिका में रहे। पूरे महाभारत के युद्ध में खुद हथियार नहीं उठाया। पूरा युद्ध कूटिनीति से लड़ा। पांडवों को सलाह देते रहे, लेकिन जीतने का श्रेय भीम और अर्जुन को दिया। गीता में श्रीकृष्ण ने कहा है –

यत्र योगेश्वरः कृष्णो यत्र पार्थो धनुर्धरः।
तत्र श्रीर्विजयो भूतिर्ध्रुवा नीतिर्मतिर्मम ।।

संदर्भ :

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धर्मक्षेत्रे कुरूक्षेत्रे समवेता युयुत्सवः।
मामकाः पाण्डवाश्चैव किमकुर्वत संजय।।

से तथा समाप्ति संजय उवाच –

एवमुक्त्वार्जुनःसंख्ये रथोपस्य उपाविशत।
विसृज्य सशरं चापं शोक संविग्रमानसः।।

इस शलोक पर होता है।

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रामचरितमानस और आज की युवा पीढ़ी

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'निर्गुण' शब्द का प्रयोग प्राचीन साहित्य में भी किया गया मिलता है और यह प्रायः उसी तत्व की ओर निर्देश करता है,जिसकी ओर निर्गुणवादियों ने संकेत किया है। 'श्वेताश्वर उपनिषद' (3/11) में यह उस अद्वितीय 'देव' का विशेषण बन कर आया है जो सभी भूतों में अंतर्हित है, सर्वव्यापी है, सभी कर्मों का अधिष्ठाता है, सबका साक्षी है,सबको चेतनत्व प्रदान करने वाला है तथा निरुपाधि भी है, जिसकी ओर संकेत करते हुए 'श्रीमदभगवद्गीता'(13/12) में भी कहा गया है कि उसमें सब इंद्रियों के गुणों का आभास है, पर उसके कोई इंद्रिय नहीं है, वह सबसे अनासक्त रहकर भी सबका पालन करता है तथा निर्गुण होता हुआ भी, सभी गुणों का उपयोग करता है। संत कबीर ने भी उसी निर्गुण का एक पर्याय 'अगुण' भी दिया तथा उसके द्वारा सूचित होने वाले तत्व को 'गुण अतीत' भी बतलाकर उसकी 'निर्गुण ब्रह्म' के रूप में उपासना करने का उपदेश दिया तथा उसे 'निर्गुण राम' कह कर उसकी 'गति' को अगम्य ठहराया। संत ज्ञानेश्वर के अनुसार अद्वैत में भक्ति है,यह बात न तो सिद्ध करने कि है और न इसका वर्णन ही किया जा सकता है,यह सत्य केवल अपने अनुभव से संबंध रखता है। अपने 'अमृतानुभव' ग्रंथ के अंतर्गत वे इसके लिए एक दृष्टांत भी देते हैं और बतलाते हैं कि जैसे एक ही चट्टान में गुफा, मंदिर, मूर्ति, एवं भक्त के भी आकार खुदवाए जाते हैं, वैसे ही हमें अभेद भक्ति का व्यवहार भी समझ लेना चाहिए तथा विश्व एवं विश्वात्मक देव को एक और अभिन्न मानकर अभेद भक्ति करनी चाहिए। इसी बात को समर्थ रामदास ने भी इस प्रकार कहा है – 'स्वयं अपने को भक्त कहना और उससे (भगवान से) 'विभक्त' रहकर उसकी भक्ति करना कुछ विलक्षण – सा लगता है,क्यों कि भक्त वही हो सकता है जो 'विभक्त' न हो और वही विभक्त भी कहला सकता है,जो 'भक्त' न हो।

गोस्वामी तुलसीदास जी धीरे-धीरे यह स्पष्ट करना नहीं भूलते कि यह राम,शरीर नहीं बल्कि इसे सच्चिदानंद ब्रह्म के भाव से देखकर ही भक्ति का आनंद लूटना श्रेयस्कर है। बाल-वर्णन भी इसका अपवाद नहीं। राम-जन्म से पहले ही नारद मोह प्रसंग का उल्लेख कदाचित उन्होंने रामावतार का एक सबल कारण प्रदर्शित करने के लिए किया है। सती मोह का प्रकरण भी उसी शृंखला में यह प्रदर्शित करने हेतु किया है कि राम साधारण मानव नहीं, बल्कि सच्चिदानंद

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धन परब्रह्म है, जो अपनी योग माया को अंगीकार कर समस्त विश्व का सर्जन, पोषण और संहार करते हैं। राम तो त्रिकाल एक ही हैं, किन्तु जैसी दृष्टि वैसी सृष्टि के अनुसार दर्शक के श्रद्धा भेद से उनमें अंतर दिखाई देने लगता है। राम को लक्ष्मण के साथ एक ही समय शिव और सती दोनों ने देखा किन्तु शिव को शांति और सती को भ्रांति का अनुभव हुआ। बालकाण्ड में होने से यह लीला बाल-लीलाओं में ही समाविष्ट की गई है।

शिवजी ने उसी अवसर पर श्री रामजी को देखा और उनके हृदय में बहुत भारी आनंद उत्पन्न हुआ। उन शोभा के समुद्र (श्री रामचन्द्रजी) को शिव जी ने नेत्र भरकर देखा, परंतु अवसर ठीक न जानकार परिचय नहीं किया। उसी समय उनके भक्त हृदय पर राम दर्शन का ऐसा प्रभाव हुआ कि जगत को पवित्र करने वाले सच्चिदानंद कि जय हो, इस प्रकार कहकर श्री शिवजी चल पड़े। कृपानिधान शिवजी बार-बार आनंद से पुलकित होते हुए सती जी के साथ चले जा रहे थे। किन्तु सती जी को भ्रांति हो गई और वे सीता माता का वेष बना,परीक्षा लेने चल पड़ी। राम तो अंतर्यामी थे, किन्तु सती जी के बनावटी वेष को देखकर लक्ष्मण जी चकित हो गए और उनके हृदय में बड़ा भ्रम हो गया। वे गंभीर हो गए ,कुछ कह नहीं सके। धीर बुद्धि लक्ष्मण प्रभु रघुनाथ जी के प्रभाव को जानते थे की वे ब्रह्मावतार हैं।

सबकुछ देखनेवाले और सबके हृदय की जाननेवाले देवतावों के स्वामी श्री रामचन्द्र ही सती के कपट को जान गये, जिनके स्मरण मात्र से अज्ञान का नाश हो जाता है, वही सर्वज्ञ भगवान श्री रामचन्द्र जी हैं। स्त्री स्वभाव का असर तो देखो कि वहाँ उन सर्वज्ञ भगवान के सामने भी सती जी छिपाव करना चाहती है। अपनी माया के बल को हृदय में बखानकर, श्री रामचन्द्र जी ने हंसकर कोमल वाणी से पहले हाथ जोड़कर सती को प्रणाम किया और पिता सहित अपना नाम बताया। फिर कहा कि वृषकेतु शिवजी कहाँ हैं? आप यहाँ वन में अकेली किसलिए फिर रही हैं?

श्री रामचन्द्र जी के कोमल और रहस्य भरे वचन सुनकर सती जी को बड़ा संकोच हुआ। वे डरती हुई चुपचाप शिव जी के पास चलीं, उनके हृदय में बड़ी चिंता हो गई। चिंता यही थी की मैंने भगवान को साधारण राजकुमार मानकर परीक्षा ली और शंकर जी कहना न माना तथा अपने अज्ञान का श्री रामचन्द्र जी पर आरोप किया। अब जाकर मैं शिवजी को क्या उत्तर दूँगी? सोचते-सोचते सती जी के हृदय में अत्यंत भयानक जलन पैदा हो गयी। अंतर्यामी भगवान श्री रामचन्द्र जी ने जान लिया कि सती जी को दुख हुआ, तब उन्होंने अपना कुछ प्रभाव प्रकट करके उन्हें दिखलाया। सती जी ने मार्ग में जाते हुए यह कौतुक देखा कि श्री रामचंद्र जी सीता जी और लक्ष्मण जी सहित चले जा रहे हैं। (इस अवसर पर सीता जी को इसलिए दिखाया कि सती जी श्री राम के सच्चिदानंदमय रूप को देखें, वियोग और दुख की कल्पना जो उन्हें हुई थी

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वह दूर हो जाए, तथा वे प्रकृतिस्थ हों) पीछे फिरकर देखा तो भी लक्ष्मण और सीता जी सहित सुंदर वेष श्रीराम जी दिखाई दिये, जहाँ देखे वहाँ प्रभु ही विराजमान हैं और चतुर सिद्ध मुनीश्वर सेवा कर रहे हैं। सती जी ने जहाँ-तहाँ जितने रघुनाथ जी देखे, शक्तियों सहित वहाँ उतने ही सारे देवताओं को भी देखा। संसार में जो चराचर जीव हैं। वे भी अनेक प्रकार के सब देखे। उन्होंने देखा कि अनेक वेष धारण करके देवता प्रभु श्री रामचन्द्र जी की पुजा कर रहे हैं। परंतु श्री रामचंद्र जी का दूसरा रूप कहीं नहीं देखा। सीता सहित श्री रघुनाथ जी बहुत से देखे परंतु उनके वेष अनेक नहीं थे।

सब जगह वही रघुनाथ जी, वही लक्ष्मण और वही सीता जी-सती ऐसा देखकर बहुत डर गयी। उनका हृदय काँपने लगा और देह की सारी सुध-बुध जाती रही। वे आंखे मूंदकर मार्ग में बैठ गयीं। फिर आँख खोलकर देखा, तो वहाँ दक्षकुमारी (सती जी) को कुछ भी न दिख पड़ा। तब वे बार-बार श्री रामचन्द्र जी के चरणों में सिर नवाकर वहाँ चलीं जहां श्री शिवजी थे। इस प्रकार श्री राम जी का अलौकिक ब्रह्म रूप शिव के पश्चात सती जी ने भी देखा।

पूर्ण ब्रह्म के पूर्णावतार भगवान राम की बाल-लीलाएं दिव्य हैं। एक बार माता ने श्री रामचन्द्र जी को स्नान कराया और शृंगार करके पालने पर पौढ़ा दिया। फिर अपने कुल के इष्ट देव भगवान की पुजा के लिए स्नान किया। पुजा करके नैवेद्ध चढ़ाया और स्वयं वहाँ गयी जहाँ रसोई बनायी गयी थी। फिर माता वहीं पुजा के स्थान में लौट आयी और वहाँ आने पर पुत्र को इष्टदेव भगवान के लिए चढ़ाए हुए नैवेद्ध का भोजन करते देखा। माता भयभीत होकर पुत्र के पास गयी, तो वहाँ बालक को सोया हुआ देखा। फिर पुजा स्थान में लौटकर देखा कि वही पुत्र वहाँ भोजन कर रहा है। उनके हृदय में कंपन होने लगा और मन को धीरज नहीं होता। वह सोचने लगी कि यहाँ और वहाँ मैंने दो बालक देखे। यह मेरी बुद्धि का भ्रम है या और कोई वेशेष कारण है? प्रभु श्री रामचन्द्र जी ने माता को घबराई हुई देखकर मधुर मुस्कान में हंस दिया। फिर उन्होंने माता को अपना अखण्ड अद्भुत रूप दिखलाया, जिसके एक-एक रोम में करोड़ों ब्रह्मांड लगे हुए हैं। अगणित सूर्य, चंद्रमा, शिव, ब्रह्मा, बहित से पर्वत, नदियाँ, समुद्र, पृथ्वी, वन, काल, कर्म, गुण, ज्ञान, और स्वभाव देखें। और वे पदार्थ भी देखे जो कभी सुने भी न थे। सब प्रकार से बलवती माया को देखा कि वह भगवान के सामने अत्यंत भयभीत हाथ जोड़े खड़ी है। जीव को देखा, जिसे वह माया नचाती है और फिर भक्ति को देखा, जो जीव को माया से छुड़ा देती है। माता का शरीर पुलकित हो गया, मुख से वचन नहीं निकला। तब आँखों को मूंदकर उसने श्री रामचन्द्र जी के चरणों में सिर नवाया। माता को आश्चर्यचकित देखकर खर के शत्रु श्री राम जी फिर बालरूप हो

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सखाओं के साथ भोजन करते हैं और माता-पिता की आज्ञा का पालन करते हैं।

बाल-लीलाओं के निर्गुण ब्रह्म भाव को और अधिक स्पष्ट करते हुए यहाँ तक कहा गया है कि जो व्यापक, अकल (निरवयव), इच्छारहित, अजन्मा और निर्गुण है तथा जिसका न नाम है, न रूप, वही भगवान भक्तों के लिए नाना प्रकार के अनुपम (अलौकिक) चरित्र करते हैं।

भगवान राम द्वारा की गई ताड़का वध लीला भी उनके निर्गुण ब्रह्म भाव पर ही प्रकाश डालती है। पुरुषों में सिंह रूप दोनों भाई राम-लक्ष्मण मुनि का भय हरने के लिए प्रसन्न होकर चले। ये कृपा के समुद्र, धीर बुद्धि और सम्पूर्ण विश्व के कारण के भी कारण हैं।

मार्ग में चले जाते हुए मुनि ने ताड़का को दिखलाया। शब्द सुनते ही वह क्रोध करके दौड़ी। श्री राम जी ने एक ही बाण से उसके प्राण हर लिए और दीन जानकर उसको अपना दिव्य स्वरूप दिया।

यह समाचार सुनकर मुनियों का शत्रु क्रोधी राक्षस मारीच अपने सहायकों को लेकर दौड़ा। श्री रामजी ने बिना फलवाला बाण उसको मारा, जिससे वह सौ योजन के विस्तार वाले समुद्र के पार जा गिरा। फिर सुबाहु को अग्निबाण मारा। इधर छोटे भाई लक्ष्मण जी ने राक्षसों की सेना का संहार कर डाला। इस प्रकार श्री रामजी ने राक्षसों को मारकर ब्राह्मणों को निर्भय कर दिया। तब सारे देवता और मुनि स्तुति करने लगे।

अहल्या उद्धार लीला भी उनके दिव्य ब्रह्म भाव का ही परिचायक है जिसमें कहा गया है कि श्री राम जी के पवित्र और शोक को नाश करने वाले चरणों का स्पर्श पाते ही सचमुच वह तपोमूर्ति अहल्या प्रकट हो गयी। भक्तों को सुख देने वाले श्री रघुनाथ जी को देखकर वह हाथ जोड़कर सामने खड़ी रह गयी। अत्यंत प्रेम के कारण वह अधीर हो गयी। उसका शरीर पुलकित हो उठा, मुख से वचन कहने में नहीं आते थे। वह अत्यंत बड़भागिनी अहल्या प्रभु के चरणों से लिपट गयी और उसके दोनों नेत्रों से प्रेम और आनंद के आंसुओं की धारा बहने लगी।

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संपादक :
डॉ. अशोक कुमार द्विवेदी

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द्वारका दास गोवर्धन दास वैष्णव कॉलेज,
अरुम्बाक्कम, चेन्नई - 106.

महाभारत में कृष्ण एक महत्वपूर्ण चरित्र हैं। वे हिन्दू धर्म के प्रमुख देवताओं में से एक, लॉर्ड विष्णु के आठवें अवतार के रूप में माने जाते हैं। कृष्ण को भगवान का स्वरूप माना जाता है और उन्हें गहरे नीले रंग के त्वचा वाले मोर पंखों से भूषित एक देवता के रूप में चित्रित किया जाता है। महाभारत में कृष्ण की भूमिका बहुमुखी है। वे पांडवों के पक्ष के प्रमुख मार्गदर्शक और सलाहकार के रूप में कार्य करते हैं। महायुद्ध से पहले कृष्ण महत्वपूर्ण धार्मिक प्रवचन करते हैं जिन्हें 'भगवद्गीता' के नाम से जाना जाता है। भगवद्गीता में धर्म, न्याय और वास्तविकता के बारे में गहरी आध्यात्मिक शिक्षाएँ दी गई हैं।

महाभारत के दौरान कृष्ण की अहम भूमिका का अनुभव महायुद्ध के समय होता है, जहां वे अर्जुन के रथ के चारीवाहक (सारथी) के रूप में सेवा करते हैं। युद्ध के दौरान वे अर्जुन को महत्वपूर्ण समय पर सलाह और मार्गदर्शन प्रदान करते हैं, जिससे उन्हें संदेह और विमर्श के समय उठने वाली समस्याओं को समाधान करने में मदद मिलती है।

अत्यंत प्राचीनकाल से महाभारत भारतीय साहित्य परंपरा का विशाल कोश और नवीन साहित्य-सर्जन का अक्षय स्रोत रहा है। महाभारत में प्राणवान चरित्रों की बहुलता और कथाओं की विविधता का जो अद्वितीय संगम है, उससे कथा और चरित्र ग्रहण कर परवर्ती साहित्य-स्रष्टाओं ने अनेक मनोरम काव्य और नाटकों की रचना की है। गीता महाभारत का एक अंश है जो पूर्ववर्ती भागवत धर्म और परवर्ती वैष्णव धर्म का आधार ग्रंथ तो है ही, वह भारतीय दर्शन का काव्यात्मक विश्वकोश भी है। महाभारत में परिशिष्ट के रूप में पौराणिक कृष्ण कथा के बीजत्व को छिपाए हुए हरिवंश हैं। महाभारत में भारतीय सभ्यता की प्रधानतः बुद्धिवादी मनःस्थिति का काव्यात्मक निदर्शन है। महाभारत एक विकासशील महाकाव्य है और ऐसे महाकाव्य बराबर परिवर्तित और परिवर्धित होते रहते हैं। ऐसे महाकाव्यों के रूप और आकार में परिवर्तन अवश्यंभावी है।

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सुभद्रा हरण का प्रसंग है और खांडववन दाह का भी प्रसंग है। सभापर्व में राजसूय यज्ञ में कृष्ण युधिष्ठिर के सलाहकार हैं। उसी पर्व में शिशुपाल-कृष्ण संवाद और कृष्ण द्वारा शिशुपाल के वध की घटना है। सभापर्व में ही शिशुपाल ने कृष्ण के बाल्यकालीन जीवन की चर्चा करते हुए उनको गोप कहा है तथा बचपन में शकुनी और वृषभासुर के संहारक के रूप में भी कृष्ण की चर्चा की है। इस संवाद में ही शकटभंजन या शकटासुर वध की चर्चा है। इस कृष्ण-शिशुपाल संवाद में कृष्ण के बाल जीवन की अनेक लीलाओं के संकेत सूत्र मिल जाते हैं। द्रौपदी ने अपनी सहायता के लिए कृष्ण को पुकारते हुए हरि, गोविंद, द्वारकवासी, गोपिजनप्रिय आदि कहा है, जिससे गोपीकृष्णलीला और कृष्ण के द्वारिकावास का संकेत मिलता है। सभापर्व में ही कृष्ण द्वारा कंस के वध की कथा का भी संकेत है। महाभारत में प्राप्त कृष्ण की बाललीला संबंधी चर्चाओं से यह स्पष्ट है की महाभारत और भागवत के कृष्ण के व्यक्तित्व, चरित्र और लीला में पर्याप्त समानता है और वे दोनों एक ही है,दो नहीं; जैसा कि कुछ विद्वानों का विचार है। महाभारत में कृष्ण का अद्वैतवाद (अद्वैत वेदान्त) दर्शन प्रस्तुत किया गया है, जिसमें उन्होंने आत्मा और परमात्मा के एकत्व को समझाया है।

श्री कृष्ण के अलौकिक स्वरूप की अभिव्यक्ति उनके अवतारी रूप में हुई है। कृष्ण का दिव्य रूप वह है जहां वे सच्चिदानंद हैं। उनकी विभिन्न लीलाओं के बीच से उनका लीला रूप विकसित हुआ है। अवतारी रूप में उनके जन्म और कर्म दिव्य हैं। वे लीला पुरुषोत्तम, रसरूप सच्चिदानंद हैं। वे ब्रह्म हैं, सर्वोच्च सत्ता हैं। उनके निर्गुण और सगुण दो रूप हैं। सच्चिदानंद ब्रह्म के रूप में वे इस जगत के मूल कारण हैं। यह जगत या सृष्टि उनकी लीला का परिणाम है। सगुण रूप में श्रीकृष्ण अवतारी हैं, साधुहितकारी, भक्तवत्सल और असाधुअहेरी। लीला विग्रह में उनके दो रूप हैं – पहला ऐश्वर्यमय और दूसरा प्रेममय। श्रीकृष्ण के प्रेममय रूप से ही उनकी माधुर्यमयी लीला सम्पन्न होती है।

प्रेममूलक वैष्णव धर्म या भागवत धर्म किसी एक कवि की मिथकीय फैंटेसी या कल्पना का परिणाम नहीं है, अपितु वासुदेव कृष्ण की धारणा के इतिहास का सत्य है जो काव्यात्मक और लोकप्रचलित निजन्धरी कथाओं के विकास से आच्छादित हो गया है। श्रीकृष्ण के स्वरूप और चरित्र के विकास में इतिहास, पुराणकल्प, पुरावृत, अवदान, आख्यान, उपाख्यान, चरित, प्रबंधनकल्पना, गाथा आदि के साथ-साथ दार्शनिक आचार्यों के चिंतन तथा भक्त कवियों की भावना का ऐसा संयोग हो गया है कि उसमें तथ्य और कल्पना को पूर्णतः पृथक

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कर पाना कठिन है। श्रीकृष्ण के चरित्र में नाना वैदिक –अवैदिक, आर्य–अनार्य और शास्त्रीय तथा लौकिक तत्वों का समन्वय हुआ है। कृष्ण का जीवन चरित, व्यक्तित्व और लीलावपु दीर्घकालीन भारतीय विचारधारा और भावधारा के विकास और समन्वय का परिणाम है। भारतीय चिंतन परंपरा का उत्कर्षित रूप श्रीकृष्ण में प्रकट है।

इन सभी पहलुओं के माध्यम से कृष्ण महाभारत के एक महत्वपूर्ण और प्रमुख चरित्र हैं, जो धर्म, न्याय और सत्य के प्रतिनिधि के रूप में प्रस्तुत किए जाते हैं। उनके शिक्षाएँ और आचरण से महाभारत के पाठकों को आदर्शों का प्रतिष्ठान किया जाता है। सम्पूर्ण रूप में कहें तो महाभारत में कृष्ण का चरित्र हिन्दू देवतायों का दिव्य, करुणामय और ज्ञानी पहलू को प्रतिष्ठित करता है, साथ ही साथ उनके कार्य पाठकों और महाभारत के अनुयायों के लिए एक नैतिक नेता की भूमिका निभाते हैं।

संदर्भ ग्रंथ :
भक्ति आंदोलन और सूरदास का काव्य, मैनेजर पाण्डेय, वाणी प्रकाशन
सूरसागर
पंजाबकेसरी.इन

योगेश्वर श्रीकृष्ण और उनके द्वारा कही गयी गीता अपने आप में अतुलनीय है। इसे कोई उपनिषद, कोई प्रस्थानत्रयी की नौका तो कोई कल्याण की नौका इत्यादि के नाम से सम्बोधित करते रहते हैं। विश्व में जितने आदर से गीता पढ़ी और मनन की जाती है, उतना अन्य कोई ग्रंथ नहीं। इसका कारण यह है कि यह ग्रंथ किसी मत विशेष को लेकर नहीं चलती। इस महाग्रंथ का लक्ष्य केवल और केवल कल्याण है। वह चाहे जिस स्थिति–परिस्थित में क्यों न हो? यह तो जीवन के सबसे विद्रुप स्थल युद्ध मे भी आपका कल्याण कर सकती है।

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शब्दाभिषेक शिव का

संपादिका

श्रीमती रुमा मण्डल

सह - संपादक

डॉ. लक्ष्मण मारुतिराव भोसले

संजय कुमार पांडे

अरुणा अग्रवाल

डॉ. जगजात पटेल

Head

शब्दाभिषेक

शिव का

संपादिका

श्रीमती सुमा मण्डल

सह - संपादन

डॉ. लक्ष्मण मारुतिराव भोसले

संजय कुमार पांडे

अरुणा अग्रवाल

डॉ. जगनात बघेल

पारस पब्लिकेशनस्

हैदराबाद - लखनऊ - दिल्ली

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क्या है ... शब्दाभिषेक शिव का

अक्षरों का अपना अपना कोई धर्म नहीं होता, आप उसे जिस साँचे में ढालेंगे वे उसी रूप में अपने अर्थ स्पष्ट करने लगेंगे। इसी बात को सिद्ध किया है इस साझा संकलन ने। जैसा कि संग्रह का नाम है कई महानुभावों ने सोचा होगा कि इस संग्रह में मात्र शिव जी पर केंद्रित रचनाएँ होंगी पर ऐसा कतई नहीं है, इस संग्रह में आप पायेंगे हर विधा की रचनाएँ क्योंकि शिव ही साहित्य है और साहित्य ही शिव है। शिव कहाँ नहीं है? शिव इस सृष्टि के कण-कण में बसा है, चाह कर भी आप अलग नहीं कर सकते, एक बात कभी आपने ग़ौर की है क्या, नहीं ना... आप कोई भी अक्षर का उच्चारण करके देख लें आपको अवश्य 'आ' का उच्चारण सुनाई देगा, 'आ' क्या है 'ओम' का ही तो प्रतिरूप है, इससे स्पष्ट होता है कि हर अक्षर में शिव का वास है, चलिए मित्रों इस शिवरात्रि पर आप हम मिलकर समर्पित करते हैं अपने कलम से निकले बहुरंगी अक्षरों की इस पुष्प माला को अपने आराध्य शिव शंकर को,,,

आप पाठकों की मिली प्रतिक्रिया ही अगले संकलन की नींव डालेगी।

— संपादक मंडल

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कहानी

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मेरी दादी माँ

स्नेह भरी इक औरत की, ममता की मधुर कहानी है।
हुआ घर का हर कोना पुलकित, बालक की इक किलकारी से।
न ही ये कोई कविता है, न ही ये कोई कहानी है।
ये प्यार है उस दादी माँ का, जो पोते के लिए छलकता है।
हुआ जन्म तो इसका माँ के तन से, पर दादी के दिल का टुकड़ा है।
कभी भूख से जब बालक रोये, दादी के दिल के टुकड़े होए।
बस देख पुत्र की स्मृति को, सुख के सागर में डूब गई।
हुआ कष्ट जो कभी, शिशु के तन को, क्षण भर में आँखे भीग गई।
पोते के प्यार में भूल गई, अपने पाँवों के छाले को।
अपनी प्यारी मुस्कान से, हर दिल को ही ये भाता है।
माँ के दिल को ये प्यारा है, पापा का राज दुलारा है।
पर उनकी बातों को सुनना, उसको नहीं गँवारा है।
इस दुनिया का था, एक ही शक्स, जो सबसे उसको प्यारा था।
वो शक्स थी, उसकी "दादी माँ" जिसकी आँखों का तारा है।
खो गई, वो आँखें इस जग से, जिन आँखों का वो तारा है।
कोई ठेस लगे न इसके दिल को, दादी के ये अरमान थे।
एक सर्द हवा के झोंके सी, इसकी प्यारी मुस्कान है।
ये प्यार दिलों का नाता है, ये खुद से ही जुड़ जाता है।
कोई मोल नहीं इस ममता का, जो पोते के लिए छलकता है।
स्नेह भरी इक औरत की, ममता की मधुर कहानी।
ममता की मधुर कहानी है, हाँ, ममता की मधुर कहानी।

डॉ प्रवीण कुमार मिश्र

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रामचरितमानस और आज की युवा पीढ़ी
संपादक: डॉ मनोज कुमार सिंह, डॉ हर्षलता वी शाह

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द्वारका दास गोवर्धन दास वैष्णव कॉलेज, चेन्नई

'रामचरितमानस' में धर्म और समाज के महत्वपूर्ण सिद्धान्तों का विवेचन किया गया है। तुलसीदास जी ने अपने महाकाव्य में श्रीराम चंद्र जी के जीवन के माध्यम से विभिन्न धार्मिक और सामाजिक मूल्यों को प्रोत्साहित किया। श्रीराम चंद्र जी को धर्म योगी, न्याय प्रिय और सच्चे राजा के रूप में प्रतिष्ठित किया गया है।

'रामचरितमानस' की रचना के समय कवि ने रचना-काल का निर्देश आरम्भिक प्रस्तावना में किया है-

संवत सोरह सौ एक तीसा।
करौं कथा हरिपद धरि सीसा।।

'रामचरितमानस', तुलसीदास जी की प्रतिभा, अध्ययन तथा कवि हृदय का सुंदर उदाहरण है। इसमे लोक प्रसिद्ध आख्यान का सुंदर वर्णन है। इस महाकाव्य को सात काण्ड में विभाजित किया गया है।इसमे श्रीराम चन्द्र जी के जन्म से पूर्व से लेकर राम राज्य तक का सम्पूर्ण वर्णन विस्तार के साथ किया गया है। 'रामचरितमानस 'के सात काण्ड निम्नलिखित हैं-

बालकाण्ड, अयोध्याकाण्ड, अरण्यकाण्ड, किष्किंधाकाण्ड, सुंदरकाण्ड, लंकाकाण्ड और उत्तरकाण्ड। यह अवधी भाषा की प्रतिनिधि रचना है। इस महाकाव्य में भक्ति एवं प्रेम रस का पूर्ण आस्वाद है। 'रामचरितमानस' की रचना गोस्वामी जी संवत 1631 में चैत्र शुक्ल राम नवमी (मंगलवार) को किया। इसमें कुल 2 वर्ष 7 माह 26 दिन लगे। अयोध्याकाण्ड को 'रामचरितमानस' का हृदय स्थल कहा जाता है। रामचरितमानस' के धार्मिक स्थलों में 1. राम का अयोध्या त्याग और पथिक के रूप में वन गमन 2. चित्रकूट में राम और भरत का मिलन 3. शबरी का आतिथ्य 4. लक्ष्मण को शक्ति लगने पर राम का विलाप 5. भरत की प्रतीक्षा। तुलसीदास जी ने धर्म के नाम पर फैले हुए आडंबरों का भी विरोध किया है।

हिन्दू धर्म के अवतार के रूप में तुलसीदास जी ने मानव जाति का पतन होने से बचाया। तुलसीदास जी को मानव जीवन की सभी दशाओं का ज्ञान था। वे मानवतावादी कवि थे। धर्म, मानव जीवन की एक अमूल्य वस्तु है। तुलसीदास जी ने सबसे पहले धार्मिक संप्रदायों मे समन्वय स्थापित करने का प्रयास किया। तुलसीदास एक जागरूक दृष्टा थे। इनके प्रखर मूल्य बोध का कारण कदाचित यह रहा है कि इनकी दृष्टि में मानव जीवन अत्यंत दुर्लभ अथवा मूल्यवान है।

बड़े भाग मानुष तनु पावा।
सुर दुर्लभ सद ग्रंथन्हि गावा।।

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'रामचरितमानस' में भक्ति ग्रंथ मात्र मानने वाले समीक्षकों ने उसे आध्यात्मिक दृष्टि से ही देखा है। मानव मूल्यों की दृष्टि से उसकी परीक्षा नहीं की है। 'रामचरितमानस' में रामराज्य मानवीय सुख की ही कल्पना है। इसीप्रकार वर्णाश्रम धर्म का संबंध भी मानव समाज की व्यवस्थित स्थिति से है। श्रीराम चंद्र जी के चरित्र के माध्यम से धर्म नैतिकता, प्रेम और समर्पण का महत्वपूर्ण ज्ञान दर्शाया गया है। तुलसीदास जी ने श्रीराम चंद्र जी को एक आदर्श पुत्र, राजा, पतिदर्शी कुलीन पुरुष के रूप में प्रतिष्ठित किया है। जो धार्मिक और न्यायप्रिय जीवन जीते हैं। उनका आदर्श जीवन धर्म, सजगता और समर्पण के माध्यम से सन्देश देता है।

'रामचरितमानस' में पग-पग पर धर्म की संज्ञा देखने को मिलती है। धर्म को पूरा करने के कारण ही पूरा 'रामायण' रच उठा। जिसका उदाहरण 'रामचरितमानस' के अयोध्याकाण्ड में देखने को मिलता है। जब कैकेयी, राजा दशरथ से राम के वनवास की माँग करती है और राजा दशरथ न चाहते हुए भी अपने प्राणों से प्रिय पुत्र राम को वन जाने से नहीं रोक पाते हैं। यहाँ पर राजा दशरथ को अपने राज धर्म का पालन करते हुए दर्शाया गया है, जो कि वचनों में बंधकर, अपने प्राण तक गँवा देते हैं।

रघुकुल रीति सदा चलि आई।
प्राण जाहुँ बरु बचनु न जाई।।

तुलसीदास जी धार्मिक और सांस्कृतिक परिस्थितियों के कारण ही युग से नहीं जुड़े अपितु 'रामचरितमानस' के अनेक मार्मिक स्थानों में उस समय की सामाजिक परिस्थितियों के प्रति भी सचेत थे। तुलसीदास के ये मार्मिक स्थल रोचकता लाने के लिए नहीं, अपितु युगबोध को स्पष्ट करने के लिए किए गए हैं। तुलसीदास के समस्त साहित्य का अध्ययन करने के पश्चात विचारक कहते हैं कि विश्व में जितने भी मानव हैं, उनकी जितनी संस्कृतियाँ और सभ्यताएं हैं, उन सबका सुंदर समन्वय एक मात्र हिन्दुओं का ग्रंथ 'रामचरितमानस' है। जिसमें सबकुछ अध्ययन किया जा सकता है।

तुलसीदास सामाजिक जीवन के नवीन संस्थापक माने जाते हैं। तुलसी के मानस का उद्देश्य है- एक नई सामाजिक और पारिवारिक व्यवस्था जिसके मूल में प्रेम और सद्भावना निहित हो, एक ऐसी व्यवस्था जिसमें संघर्ष का अभाव और संतुलित जीवन का विकास हो। तुलसीदास जी ने – "सर्वे भवन्तु सुखिनः, सर्वे संतु निरामयः।"4 के आधार पर एक नई व्यवस्था का उद्घोष किया है।'रामचरितमानस' में समाज, समाज के लोगों के दुख-सुख का तथा उनकी भावनाओं का उचित ख्याल रखा गया है। राजा द्वारा प्रजा के प्रति, उनके कष्टों के प्रति प्रतिपल तत्पर रहना और उसका निवारण करना तथा उनके प्रति प्रेम भाव रखना सब कुछ हमें 'रामचरितमानस' में मिलता है। 'रामचरितमानस' में भावों की मार्मिकता, हृदयस्पंदनी रस प्रवाह, ध्वनि चमत्कार की

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अतिशयता, गुणों एवं अलंकारों का उत्कृष्ट विशेषण है और काव्य की उत्कृष्टता का द्योतक है। इसमें व्यापकता और उदारता इन दोनों ही दृष्टियों से मानस महान है।

मानस में श्रीराम को मर्यादा पुरुषोत्तम श्रीराम की संज्ञा दी गई है। श्रीराम चंद्र जी अपने धर्म तथा कर्तव्य के प्रति प्रतिपल तैयार रहते है। कठिन से कठिन परिस्थिति में भी वह पीछे नहीं हटते। माता द्वारा वन गमन की बात सुनकर पिता के वचनों को पूरा करने के लिए श्रीराम चंद्र जी अपने पुत्र धर्म का निर्वाह करते हैं और राजमहल के सभी सुखों का त्याग करके वनवासी बन जाते हैं।

श्रीराम चंद्र जी अपने पुत्र धर्म को निभाने के लिए अपनी माता और अपने पिता की भावनाओं को पीछे छोड़ देते हैं। माता कैकेयी के वरदान का मान रखने तथा पिता को धर्म से विचलित न होने देना ही श्रीराम के पुत्र धर्म को दर्शाता है। जो कि इस श्लोक मे देखने को मिलता है-

सुनु जननी सोइ सुतु बड़भागी।
जो पितु मातु बचन अनुरागी।।
तनय मातु पितु तोषनिहारा।
दुर्लभ जननि सकल संसारा।।

श्रीराम का माता के प्रति यह निःस्वार्थ प्रेम ही उनके चरित्र को उदार बनाता है। श्रीराम ही नहीं अपितु सीता और लक्ष्मण भी अपने धर्म को निभाते हैं। श्रीराम के वन गमन की बात सुन लक्ष्मण भी अपने भाई धर्म को निभाते हुए वन जाने को तैयार हो जाते हैं। दूसरी तरफ माता सीता को अपने पत्नी धर्म का पालन करते हुए वन जाने की बात कहने पर, श्रीराम द्वारा मना करने पर माता सीता के यह मार्मिक वचन सुनकर श्रीराम भी उन्हे उनके धर्म का पालन करने से नहीं रोक पाते-

जिय बिनु देह नदी बिनु बारी।
तैसिअ नाथ पुरुष बिनु नारी।।
नाथ सकल सुख साथ तुम्हारे।
सरद बिमल बिधु बदनु निहारे।।

सीताजी के वचनों को सुनकर श्रीराम भावुक हो जाते हैं और उन्हे भी साथ ले जाते हैं।'मानस' से धर्म, कर्म तथा त्याग का साक्षात्कार होता है। संसार का हर व्यक्ति रामराज्य की कामना करता है क्योकि रामराज्य में धर्म, कर्म, प्रेम, सहयोग और त्याग सबकुछ निःस्वार्थ भाव से परिपूर्ण है। 'मानस' में धर्म का पालन हर अध्याय में देखने को मिलता है।

चित्रकूट की सभा की कार्यवाही में धर्म के एक-एक अंग की पूर्ण और मनोहर अभिव्यक्ति हुई है। परिष्कृत भाषा में प्रवचन पटुता के साथ, प्रस्ताव उपस्थित होते हैं। बहुत ही गंभीरता तथा सूझबूझ के साथ, उत्तर दिये जाते हैं और छोटे- बड़े की मर्यादा

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का पालन बड़ी सरसता से किया जाता है। कोई भी नहीं चाहता कि महाराज दशरथ ने जिस सत्य की रक्षा हेतु प्राण का विसर्जन किया, उसे खण्डित कर दिया जाय। उनकी व्यक्तिगत इच्छा का धर्म के सामने कोई महत्व नहीं है। वे धर्म को सर्वोपरि मानते हैं। समाज की भलाई के लिए सब चाहते हैं, कि श्रीराम अयोध्या लौटें किन्तु कोई यह नहीं चाहता कि भरत वन चले जाएँ। जनक, वशिष्ठ और विश्वामित्र आदि धर्म तत्व के पारदर्शी जो कुछ निश्चय कर दें, उसे श्रीराम सिर झुकाकर मानने को तैयार हैं। किन्तु कोई भी गुरुजन श्रीराम को उनके धर्म से पीछे हटने की आज्ञा नहीं देते। राजा और प्रजा का प्रेम संबंध इतना प्रगाढ़ है कि सब लोग चौदह वर्ष चित्रकूट में ही बिता देना चाहते है। भरत का भाई के प्रति जो प्रेम है उसमें भरपूर अलौकिकता है। जिसका उदाहरण इस दोहे में देखने को मिलता है-

भरत सील गुर सचिव समजू।
सकुच सनेह बिबस रघुराजू।।
प्रभु करि कृपा पांवरीं दीन्ही।
सादर भरत सीस धरि लीन्ही।।

तुलसीदास की दृष्टि में शासन का आदर्श भौतिक समृद्धि ही नहीं है अपितु मन के भाव उसके प्रमुख अंग हैं। इसलिए तुलसीदास नें रामराज्य वर्णन के अंतर्गत जन उत्कर्ष के मानसिक पक्ष को प्रभूत महत्व दिया है। सामाजिक दृष्टि से भावात्मक बहुत महत्वपूर्ण है। सुखी जीवन के लिए लोगों में परस्पर प्रेम भी बहुत आवश्यक है। इसीलिए मानस में कवि ने रामराज्य के अंतर्गत प्राणियों के साथ-साथ पशु-पक्षियों के प्रति प्रेम की परस्पर प्रीति-वृद्धि का उल्लेख किया है-

फूलहिं फरहिं सदा तरु कानन।
रहहिं एक सँग गज पंचानन।।
खग मृग सहज बयरु बिसराई।
सबन्हि परस्पर प्रीति बढ़ाई।।

रामराज्य में सामाजिक स्थिति का जो चित्र हमें देखने को मिलता है, उसमें केवल सुख-शांति नहीं अपितु संपन्नता का समावेश भी देखने को मिलता है। राज्य की इतनी विशालता होने के बावजूद भी वहाँ कोई अव्यवस्था नहीं थी बल्कि सारी प्रजा सुखी थी। इसका पूरा श्रेय राजा को जाता है। रामराज्य में पूरी प्रजा समान रूप से सुखी थी। इतना ही नहीं जिसका जो कर्तव्य था, हर कोई उसे पूरा करता था। राज्य में पूरा-पूरा अनुशासन था किन्तु वह अनुशासन थोपा हुआ नहीं था। हर कोई स्वेच्छा पूर्वक अनुशासित था। जिसके कारण समाज तथा, राज्य, में किसी प्रकार का कोई डर, आतंक तथा भय नहीं था। जिसके फलस्वरूप उस राज्य में विषमता का नितांत अभाव था।

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राम राज बैठे त्रैलोका।
हरषित भए गए सब सोका।।
बयरु न कर काहू सन कोई।
राम प्रताप बिषमता खोई।।

इस तरह से देखा जा सकता है कि 'रामचरितमानस' में धर्म तथा समाज दोनों ही समान रूप से निहित हैं। जहाँ धर्म को निभाने कि बारी आयी, वहाँ पर निःस्वार्थ रूप से धर्म का पालन हुआ और समाज की बात आई तो वहाँ भी पूरी निष्ठा के साथ हर कार्य को पूर्ण किया गया।

'मानस 'तो पूर्ण रूप से धर्म को ही बढ़ावा देता है। सम्पूर्ण 'रामचरितमानस' में ज्ञान, धर्म, प्रेम, परोपकार आदि का वर्णन देखने को मिलता है। परंपरा से मानस कथा की भिन्नता के प्रति कवि की चेतना और मानस कथा की प्रामाणिकता के प्रतिपादन का प्रयास कवि की अनेक पंक्तियों से भी प्रकट होता है-

हरि अनंत हरि कथा अनंता।
कहहिं सुनहिं बहु बिधि सब संता।।
राम कथा कै मिति जग नाहीं।
नाना भांति राम अवतारा।।
रामायन सत कोटि अपारा।
कलप भेद हरि चरित सुहाए।।
भांति अनेक मुनीसन्ह गाए।

'रामचरितमानस' कथा के इन अनेक प्रसंगों के विश्लेषण से तुलसीदास की प्रतिभा का थोड़ा अनुमान लगाया जा सकता है। इस प्रकार हम तुलसीदास की कवित्त शक्ति का पूरा-पूरा मूल्यांकन कर सकते हैं। सच तो यह है कि यह विश्लेषण 'मानस 'के काव्योत्कर्ष को समझने के लिए पर्याप्त नहीं है, उसके लिए तो गहन अंतर्दृष्टि कि आवश्यकता है, जैसा की स्वयं कवि ने कहा है-

आस मानस मानस चख चाही।
भइ कबि बुद्धि बिमल अवगाही।।

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संस्कृति

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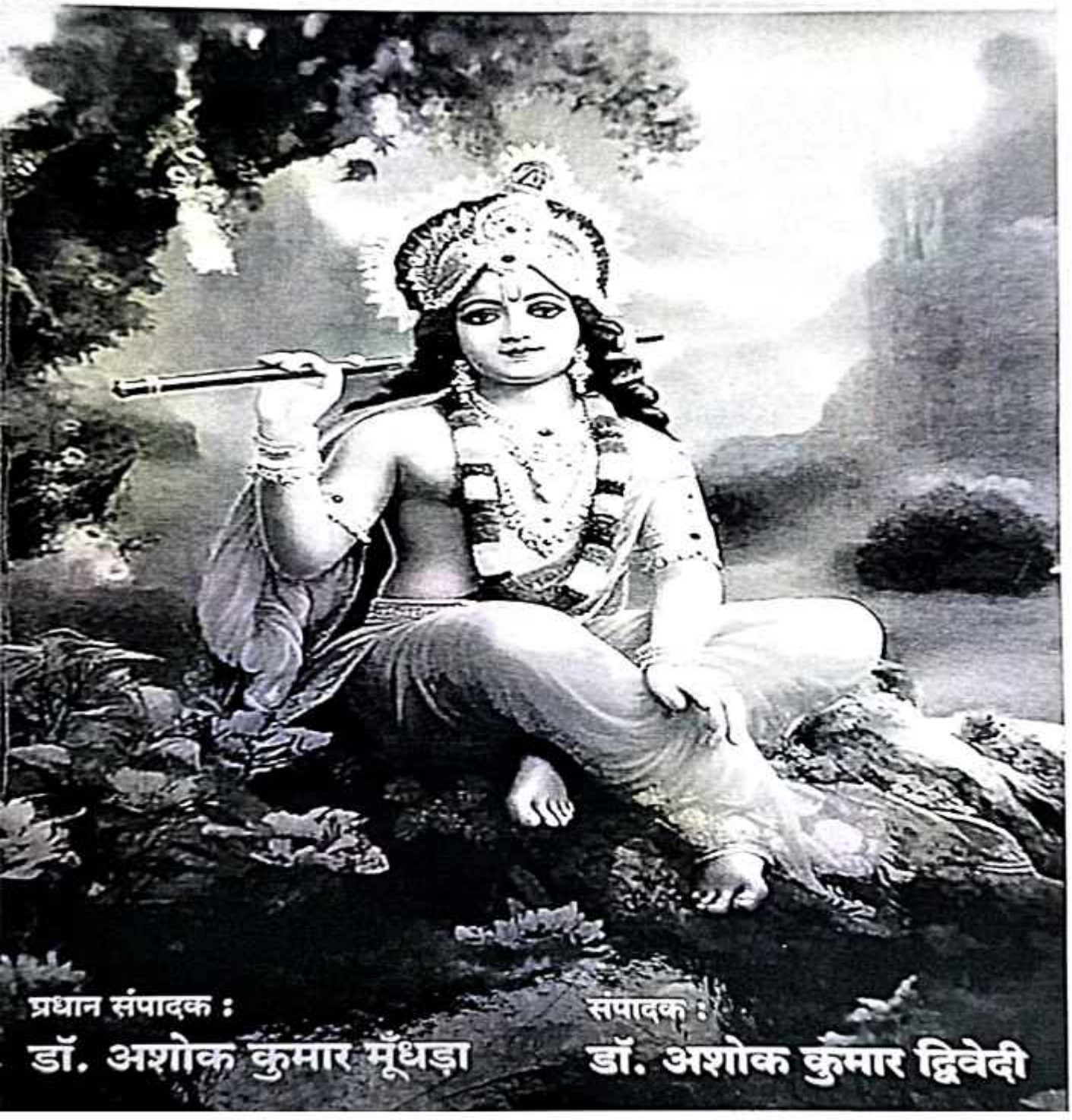
कृष्ण साहित्य का सामाजिक आदर्श



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कृष्ण साहित्य का सामाजिक आदर्श

प्रधान संपादक :
डॉ. अशोक कुमार पृथ्वी

संपादक :
डॉ. अशोक कुमार द्विवेदी

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श्रीकृष्ण साहित्य भारतीय साहित्य का महत्वपूर्ण हिस्सा है। इसमें सामाजिक आदर्शों का प्रतिपादन किया गया है। यह साहित्य सामाजिक आदर्शों को जीवंत और साकार रूप देता है और लोगों को अच्छी और न्यायपूर्ण जीवन जीने के लिए प्रेरित करता है।

श्रीकृष्ण साहित्य में सहभागिता और समानता का महत्वपूर्ण संदेश दिया गया है। भगवान कृष्ण ने सभी मनुष्यों को समान रूप से प्रेम करने की प्रेरणा दी है और उन्होने अपने जीवन में विभिन्न वर्णों, जातियों और युगों के लोगों के साथ सहभागिता की दृष्टि रखी है। इससे लोगों को एकता, बंधुत्व और समरसता के सिद्धांतों की महत्ता का अनुभव होता है।

कर्मयोग श्रीकृष्ण के सामाजिक आदर्शों में एक महत्वपूर्ण सिद्धान्त है जिसका प्रमुख प्रतिष्ठान महाभारत में पाया जाता है। जहाँ कृष्ण भगवान अर्जुन को भागवदगीता के माध्यम से दान, कर्तव्य, सामर्थ्य और समाधान के मूल्यों का संदेश देते हैं। जब अर्जुन युद्ध के समय अपने प्रिय जनो को देखकर भावुक हो अपने पथ से डगमगाते हैं और कहते हैं –

अर्जुन कहते हैं – "हे कृष्ण! इस प्रकार युद्ध की इच्छा रखने वाले अपने मित्रों तथा संबंधियों को अपने समक्ष उपस्थित देखकर मेरे शरीर के अंग काँप रहे हैं, मेरा गाण्डीव धनुष मेरे हाथ से सरक रहा है, और मुझे केवल अमंगल के कारण दिख रहे हैं।"[1]

तब श्रीकृष्ण ने अर्जुन को समाज तथा उनकी प्रजा के हित के लिए अर्जुन के कर्तव्यों का स्मरण कराते हुए कहते हैं –

"हे अर्जुन! तुम्हारे मन मे यह कल्मष आया कैसे? यह उस मनुष्य के लिए तनिक भी अनुकूल नहीं है, जो जीवन के मूल्य को जानता है। इससे उच्चलोक की नहीं अपितु अपयश की प्राप्ति होती है।"[2]

श्रीकृष्ण ने अर्जुन को समाज की सेवा करने के लिए उत्साहित किया। श्रीकृष्ण ने अर्जुन को धर्मयुद्ध करके, धर्म के मार्ग पर चलने के लिए प्रेरित किया।

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इस प्रकार श्रीकृष्ण ने कर्मयोग के माध्यम से समाज के लिए एक आदर्श का उदाहरण प्रस्तुत किया।

श्रीकृष्ण के सामाजिक आदर्शों में धैर्य एक महत्वपूर्ण गुण है; जो हमें जीवन की परिस्थितियों का सामना करने में मदद करती है। दुःख और सुख समान भाव से स्वीकार करना चाहिए। यह सामाजिक समन्वय और सहनशीलता को बढ़ाता है।

श्रीकृष्ण भगवान सभी मानवों के प्रति समान दृष्टि रखते थे। उन्होंने सामा मानवीय भावनाओं को ऊँचा स्थान दिया है और व्यक्ति के सामाजिक आर्थि स्थिति के आधार पर उनकी महत्ता को नहीं माना। उन्होनों धर्म के माध्यम सभी मानवों की हितैषी सेवा को प्रोत्साहित किया है। और जीवन में निःस्वार्थ का महत्व बताया है।

महाभारत में कहा गया है कि –

परोपकारय फलन्ति वृक्षाः परोपकाराय वहन्ति नद्यः।
परोपकाराय दुहंति गावः परोपकाराय इदं शरीरम।।[3]

कहने का अर्थ है कि सभी प्राणियों की सेवा करने से हम अपने आपको भ समाज को उन्नति और सुख प्राप्त करते हैं। श्रीकृष्ण के समाज सेवा का उदाहरण भगवतगीता के इस श्लोक में भी देखने को मिलता है –

परित्राणाय साधूनां विनाशाय च दुष्कृताम।
धर्म संस्थापनार्थय संभवामि च युगे–युगे।।[4]

श्रीकृष्ण के इस श्लोक में धर्म और समाज सेवा दोनों का समाहार मिलता श्रीकृष्ण देवकी का उद्धार करने के लिए प्रकट हुए थे, किन्तु कंश का वध क समाज सेवा का काम करते है। ये उदाहरण कृष्ण साहित्य से लिए गए हैं। सामाजिक आदर्श और समाज सेवा के महत्व को प्रकट करते है।

श्रीकृष्ण का सामाजिक आदर्श समग्रता और एकता पर आधारित है। उन्हें बताया है कि जीवन में सभी क्षेत्रों को समान महत्व होना चाहिए और एक शां समृद्ध समाज का निर्माण करना जरूरी है। श्रीकृष्ण कहते हैं –

अहिंसा परमों धर्मः, धर्म हिंसा तथैन च।
अधर्मस्त्तत्कृत तुद्धारम आदरम परमं च यतः।।[5]

अर्थात अहिंसा सबसे बड़ा धर्म है। धर्म के विपरीत हिंसा भी उसी के सम है। अधर्म को नष्ट करने और सच्ची प्रशंसा करने के लिए ही है।

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श्रीकृष्ण ने अर्जुन को अपनी क्षमता पर विश्वास करने के लिए प्रेरित किया और उसे स्वयं योद्धा की भूमि में खड़ा होने की सलाह दी। यह सामाजिक आदर्शों को आगे बढ़ाने में मदद करता है। इन आदर्शों का अनुसरण करने से समाज में प्रेम, सद्भाव और आत्म निर्भरता की स्थापना हो सकती है।

श्रीकृष्ण ने अर्जुन को उपदेश दिया कि वह निष्क्रिय न हो, अपितु फल के प्रति आसक्त हुए बिना अपना कर्म करें। जिसका उदाहरण इस श्लोक में देखने को मिलता है –

कर्मण्येवाधिकारस्ते मा फलेषु कदाचन।
मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि।।[6]

हर व्यक्ति को अपने कर्म पर अधिकार है, किन्तु फल से लोभित न होकर कर्म करना चाहिए। ऐसे निष्काम कर्म निःसन्देह मुक्ति पथ की ओर ले जाने वाले है।

श्रीमद्भगवतगीता में श्रीकृष्ण के आदर्शों के अनुसार मनुष्य को अपनी क्षमता और अपने स्वभाव धर्म, कुल के अनुसार कार्य करना चाहिए। किसी दूसरे को देखकर उसके प्रति आकर्षित होकर, उसका अनुसरण नहीं करना चाहिए। इस श्लोक में यह पूर्णता दृष्टिबद्ध है –

श्रेयान्स्वधर्मो विगुणः परधर्मात्स्वनुष्ठितात।
स्वभावनियतं कर्म कुर्वन्नाप्नोति किल्बिषम।।[7]

कोई भी कार्य यदि अपनी मर्जी और स्वेच्छा तथा सच्ची श्रद्धा से किया जाता है, तो वह पूर्ण हो या न हो, किन्तु उसका प्रभाव अच्छा ही होता है। कृष्ण द्वारा येसे विचारों को व्यक्त करने से समाज में मनुष्यों को अपने कार्य को करने के लिए उत्साह और लगन की शिक्षा प्राप्त होती है।

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ஓம் ஸ்ரீ கிருஷ்ணா

துளசிதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி)

அருமைக்கடல், சென்னை - 600 100.

தேசியத் தர மதிப்பீட்டுக் குழுமத்தால் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
சிறந்தக்கல்லூரி நிலைத்தகுதி பெற்றது – பொறியியல் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்தால் நிலைப்பேறு பெற்றது

தமிழ்த்துறை

இராமாயணமும் மகாபாரதமும் காட்டும் வாழ்வியல்

பன்னாட்டுக் கருத்தரங்கம்

பாராட்டுச் சான்றிதழ்

துளசிதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை சார்பில் 11.10.2023 & 12.10.2023 ஆகிய இரண்டு நாட்கள் இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் என்னும் பொருண்மையில் நடத்தப் பெற்ற பன்னாட்டுக் கருத்தரங்கில் முனைவர் தே. திருமோஜி, உதவிப்பேராசிரியர், அவர்கள் பங்கேற்று .....

.....பாரதியின் பாஞ்சாலி சபதம் அமைப்பும் கருப்பொருள் திறப்பும்.....

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முனைவர் ப. முருகன்
தமிழ்த்துறைத் தலைவர்

முனைவர் சேது. சந்தோஷ் பாபு
கல்லூரி முதல்வர்

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அரும்பாக்கம், சென்னை - 600 106.

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அரும்பாக்கம், சென்னை – 600 106.

"காப்பியத்தைக் கற்கும் நாம் அதனை எப்படிக் கற்க வேண்டும்? ஒரு சொல்லுக்கு ஒரு சொல், ஓரடிக்கு ஓரடி, ஒரு செய்யுளுக்கு ஒரு செய்யுள், ஒரு படலத்துக்கு ஒரு படலம், ஒரு காண்டத்துக்கு ஒரு காண்டம் விடாத தொடர்பு உடையது. கருத்துப் பின்னிக் கிடப்பது. புலமை பிரிக்க வராதது என்ற ஒருமைப்பார்வையோடு கற்க வேண்டும். இது காப்பியக் கல்வி முறை" (கம்பர், மூதறிஞர் வ.சுப. மா., 2001, ப. - 46)

என்ற மேற்கோளைப் பின்னணியாகக் கொண்டு, 'கம்பன் வீட்டுக் கட்டுத்தறியும் கவிபாடும்' என்ற கவித்துவ வரிகளைக் கொண்டு கம்பனின் கவித்திறத்தில் உணர்ந்த பகுதிகளைப் பற்றி எழுத வேண்டும் என்ற எண்ணத்திற்கு, இராமாயண மகாபாரத பன்னாட்டுக் கருத்தரங்கம் நல்வாய்ப்பினை ஏற்படுத்திக் கொடுத்துள்ளது. கம்பராமாயணத்தில் சமீபகாலத்தில் அதிகமான பாடல்களைப் படித்த பகுதியென்றால் வாலி வதைப் படலம் ஆகும். கிட்கிந்தைகாண்டத்தில் பதினேழு

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் ♦ முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்:** 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு** தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

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♦ **Ramayanam Mahabharadham Kaattum Vazhviyal** ♦ **Chief Editor:** Dr.P.Murugan, **Co-Editors:** Dr.C.Sadhanandan, Dr.K.Girivasan ♦ **First Edition :** February 2024 ♦ **Pages:** 352 ♦ **Subject :** Research Article in Epics ♦ **Copyright :** © Chief Editor ♦ **Release:** Department of Tamil, Dwaraka Doss Goverdhan Vaishnav College (Autonomous), Arumbakkam, Chennai - 600 106. ♦ **Printed :** Real Impact Solutions, Mylapore, Chennai - 600 004.

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இலக்குவனை விஞ்சியவனா பரதன்?

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உதவிப் பேராசிரியர்
தமிழ்த்துறை (சுழற்சி – 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

முன்னுரை

கம்பரையும் திருவள்ளுவரையும் தமிழுக்குக் கதி என்று சொல்லுவார் திருமணம் செல்வக்கேசவராய முதலியார்.

'யாமறிந்த புலவரிலே கம்பனைப் போல்
வள்ளுவன் போல் இளங்கோவைப் போல்
பூமிதனில் யாங்கனுமே பிறந்ததில்லை
உண்மை வெறும் புகழ்ச்சியில்லை'

என்று முண்டாசுக் கவிஞரும் சத்தியம் செய்வார். இவ்வாறு தமிழ் இலக்கியங்களிலேயே தனிப்பெரும் புகழ் பெற்ற இலக்கியமாகக் கம்பராமாயணம் உள்ளது. எனவேதான் 'கம்பன் வீட்டுக் கட்டுத்தறியும் கவி பாடும்', 'கல்வியிற் பெரியர் கம்பர்' போன்ற வழக்காறுகள் பாமர மக்களிடையே கூட இயல்பாக வழங்கி வருகின்றன. இவ்வளவு சிறப்புப் பொருந்திய கம்பராமாயணத்தைச் சுவைத்துக் கொண்டிருக்கும் போதுதான் 'இலக்குவனை மிஞ்சியவனா பரதன்?' என்னும் ஐயம் என்னுள் தோன்றியது.

இலக்குவன் - பரதன்

நம் நாட்டில் இரட்டையர்களாக இரண்டு ஆண் குழந்தைகள் பிறந்தால் இராமன், இலக்குவன் என்றுதான்

ஜெய் ஸ்ரீ கிருஷ்ணா

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி)

அரும்பாக்கம், சென்னை - 600 106.

தேசியத் தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல்வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

தமிழ்த்துறை

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

பன்னாட்டுக் கருத்தரங்கம்

பாராட்டுச் சான்றிதழ்

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை சார்பில் 11.10.2023 & 12.10.2023 ஆகிய இரண்டு நாட்கள் இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் என்னும் பொருண்மையில் நடத்தப் பெற்ற பன்னாட்டுக் கருத்தரங்கில் முனைவர் க. சிவகுமார், உதவிப்பேராசிரியர் அவர்கள் பங்கேற்று .....இலக்குவனை விஞ்சியவனா பரதன்?..... என்னும் தலைப்பில் கட்டுரை வழங்கிச் சிறப்பித்தமையைப் பாராட்டி இச்சான்றிதழ் வழங்கப்படுகிறது.

முனைவர் ப. முருகன்
தமிழ்த்துறைத் தலைவர்

முனைவர் சேது. சந்தோஷ் பாபு
கல்லூரி முதல்வர்

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

வெளியீடு

தமிழ்த்துறை

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி

தேசியத்தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல் வளத் தனித் தகுதி பெற்றது - மொழியாசிரியர் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்பு பெற்றது

அரும்பாக்கம், சென்னை - 600 106.

தமிழ்த்துறை வெளியீடு
எண் : 13

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நூல் விவரம்

♦ **இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்** ♦ **முதன்மைப் பதிப்பாசிரியர்** : முனைவர் ப. முருகன், **இணைப் பதிப்பாசிரியர்கள்** : முனைவர் சி. சதானந்தன், முனைவர் க. கிரிவாசன் ♦ **முதற்பதிப்பு** : பிப்ரவரி 2024 ♦ **பக்கங்கள்:** 352 ♦ **பொருண்மை** : இதிகாச ஆய்வுக் கட்டுரைகள் ♦ **உரிமை** : © முதன்மைப் பதிப்பாசிரியருக்கு ♦ **வெளியீடு:** தமிழ்த்துறை, துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி), அரும்பாக்கம், சென்னை – 600 106. ♦ **அச்சாக்கம்** : ரியல் இம்பேக்ட் சொல்யூஷன், மயிலாப்பூர், சென்னை– 600 004.

தமிழ்த்துறை வெளியீட்டு எண் : 13

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24. கம்பன் காட்டும் உவமையும் வாழ்க்கையும்:
குகப்படலத்தை முன்வைத்து...
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28

இதிகாசங்கள் காட்டும் உளவியல் நுட்பங்கள்

முனைவர் து. அருண்பாண்டியன்
உதவிப்பேராசிரியர்
தமிழ்த்துறை, (சுழற்சி 2)
துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி
அரும்பாக்கம், சென்னை – 600 106.

அறிமுகம்

இந்தியாவில் தோன்றிய இதிகாசங்கள் என்றால் இராமாயணமும் மகாபாரதமும் ஆகும். இத்தகைய இதிகாசங்கள் நேரடியாக அறக்கருத்துக்களைக் கூறாமல் கதைகளின் மூலமாக எடுத்தியம்புகின்றன. இத்தகைய பழங்கதைகளை தொன்மம் என்று அடையாளப்படுத்துவர். இதிகாசத்தை அடுத்து பதினென் புராணங்களும் இந்தியாவில் காணக்கிடைக்கின்றன. இத்தகைய தொன்மத்தில் உளவியல் நுட்பங்கள் நிறைந்து கிடக்கின்றது. இத்தகைய இதிகாசங்களை வாசிப்பதின் வாயிலாக மனிதர்களிடையே இயல்பாகவே வாழ்வியல் சிக்கல்களுக்கு தீர்வுகாணும் அறிவு தூண்டப் படுகிறது என்பதே உளவியல் ஆகும். அத்தகைய உளவியல் நுட்பங்களை எடுத்தியம்புவதே இவ்வாய்வின் நோக்கமாகும்.

இராமாயணம்

பாரத திருநாட்டின் இதிகாசங்களுள் ஒன்று இராமாயணம். அத்தகைய இராமாயணம் வால்மீகியால் வடமொழியில் எழுதப்பட்டது. வால்மீகிக்கு முன்பும்

ஜெய் ஸ்ரீ கிருஷ்ணா

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரி (தன்னாட்சி)

அரும்பாக்கம், சென்னை - 600 106.

தேசியத் தர மதிப்பீட்டின் மூன்றாவது சுற்றில் A++ அங்கீகாரம் பெற்றது
ஆற்றல்வளத் தனித்தகுதி பெற்றது – மொழிவாரிச் சிறுபான்மை நிறுவனம்
சென்னைப் பல்கலைக்கழகத்துடன் இணைப்புப் பெற்றது

தமிழ்த்துறை

இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல்

பன்னாட்டுக் கருத்தரங்கம்

பாராட்டுச் சான்றிதழ்

துவாரகதாஸ் கோவர்தன்தாஸ் வைணவக் கல்லூரித் தமிழ்த்துறை சார்பில் **11.10.2023** & **12.10.2023** ஆகிய இரண்டு நாட்கள் இராமாயணம் மகாபாரதம் காட்டும் வாழ்வியல் என்னும் பொருண்மையில் நடத்தப் பெற்ற பன்னாட்டுக் கருத்தரங்கில் முனைவர் து. அருண்பாண்டியன், உதவிப்பேராசிரியர் அவர்கள் பங்கேற்று ..... இதிகாசங்கள் காட்டும் உளவியல் நுட்பங்கள் ..... என்னும் தலைப்பில் கட்டுரை வழங்கிச் சிறப்பித்தமையைப் பாராட்டி இச்சான்றிதழ் வழங்கப்படுகிறது.

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தமிழ்நாட்டின் சமணக் கோவில்களின் தலைமைப் பீடமாக விளங்குவது மேல் சித்தாமூர் ஜினகஞ்சி சமணக்கோவிலும் மடமும் ஆகும். பழைமையான இரண்டு கோவில்கள் உள்ளன. ஒன்று மலைநாதர் கோவில், மற்றொன்று பார்சுவநாதர் கோவில். மலைநாதர் கோவில் கி.பி. 9ஆம் நூற்றாண்டுடையது என அங்குள்ள கல்வெட்டு சான்று பகர்கின்றது. சோழப்பேரரசின் ஆட்சியின் போது பார்சுவநாதர் கோவில் தோற்றுவிக்கப்பட்டும் 16ஆம் நூற்றாண்டில் பெரிய அளவில் கட்டப்பட்டது என்றும் கூறப்படுகின்றது.

சமணர்களின் சிற்பக் கலைகளின் நோக்கத்தையும் கலைநயத்தையும் அவைக் கூறும் வரலாற்றையும் ஆராய்தலை மையமாக வைக்கிறது இவ்வாய்வுக்கட்டுரை.

மேல்சித்தாமூர் பார்சுவநாதர் கோவிலின் தூண்களின் சிற்பங்கள் ஆய்வுக்கு எடுத்துக் கொள்ளப்பட்டுள்ளன.

பலநூற்றாண்டு காலத் தொன்மைக்குச் சொந்தமானது தமிழகச் சமணம். தமிழ்ச் சமணத்திற்கானத் தனித்துவமான சான்றுகளைக் குகைகளிலும் குன்றுகளிலும் கல்வெட்டிலும் மட்டுமே தேடுவது மரபாக இருந்து வருகின்றது. கால மாற்றத்திலும் வளர்ச்சியிலும் இவைகள் கற்கோயில்களாக உயர்ந்து நிற்கத் தொடங்கின. பாண்டியர்கள், அதியர்களால் சமைக்கத் தொடங்கிய இந்தக் கோவில் வடிவங்கள் பின் வந்த சோழர்களால் உச்சம் பெற்றது. விஜயநகரப் பேரரசும் நாயக்கர்களும் தமிழர்களின் பழைய மரபிற்குப் புதிய கோணத்தை வழங்கினர்.மராட்டியர்களும் அவர்களின் பங்கிற்கு அவர்கள் பாணியில் ஆக்கமும் வளர்ச்சியையும் தந்தனர்."பொதுவாகக் கி.பி. ஒன்பதாம் நூற்றாண்டு முதலாகக் கோவிற் கட்டிடங்கள் உருவாயிற்று என்று தொல்லியல் வல்லுநர்கள் கூறுவர்" (வெள்ளையாம்பட்டுச் சுந்தரம்)

கட்டிடங்களில் தூண்களுக்கும் சிற்பங்களுக்கும் முதன்மை இடம் வழங்கப்பட்டு வந்தது. அந்த வகையில் மேல்சித்தாமூர் பார்சுவ நாதர் கோயிலில் இடம்பெற்றுள்ள தூண்களும் அதில் செதுக்கப்பட்டுள்ள புடைப்புச் சிற்பங்களும் நீண்ட வரலாற்று ஆய்வுக்குரியது.

கோயிலில் தேரின் வடிவத்தினை ஒத்த கல்லாலான மண்டபம் ஒன்று உள்ளது. அடித்தளத்துடன் மாடம் போன்ற கல்லில் மீது மண்டபம் கட்டப்பட்டுள்ளது. நான்குக் கூட்டுத் தூண்களின் மீது தேர் மண்டபத்தில் கூரை அமைக்கப்பட்டுள்ளது. ஒரு தூணில் உள்ள ஒவ்வொருஇணைத் தூண்களும் உட்தூண்களைக் கொண்டன.

மண்டபத்தின் முன் பகுதியுடன் இணைந்த இரு யானைகளின் சிற்பங்கள் உள்ளன. இவை தேர் போன்ற அமைப்புடன் மண்டபத்தினை இழுத்துச் செல்வது போன்று தோன்றுகின்றது. துதிக்கைகளைத் தொங்கவிட்டபடி நிற்கும் யானைகள் அலங்கார வேலைப்பாடுகளுடன் செய்யப்பெற்றுள்ளன. ●

135. செய்யாறு வட்டார விடுகதைகளில் கிராமப்புற வாழ்வியல்

முனைவர் து. அருண்பாண்டியன்
எம்.ஏ.,எம்.பில்.,பிஎச்.டி
உதவிப்பேராசிரியர், தமிழ்த்துறை

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தமிழ்நாட்டில் திருவண்ணாமலை மாவட்டத்தில் அமைந்துள்ள செய்யாறு நகராட்சியில் ஐம்பத்து மூன்று கிராமப்புற ஊராட்சிகள் அமைந்துள்ளன. பக்தி இயக்கக் காலத்தில் திருஞானசம்பந்தரின் பாடல் பெற்ற திருவோத்தூர் திருத்தலம் அமையபெற்ற பழம்பெரும் சிறப்புக்குரிய ஊராகச் செய்யாறு அமைந்துள்ளது. இத்தகைய செய்யாறு அருகேயுள்ள நாட்டுப்புறங்களில் வழக்கத்தில் இருந்து தற்போது அழிந்துவரும் விடு கதைகளைத் தொகுத்துப் பதிவு செய்தும் அவற்றின் வாயிலாக நவீன காலத்திற்கு முந்தைய கிராமப் புறங்களின் வாழ்வியலை ஆய்வு செய்து அவற்றை விளக்குவதுமாக இக்கட்டுரை அமையப்பெறும்.

செய்யாறு வட்டார விடுகதைகளின் வாயிலாக 200 ஆண்டுகளுக்கு முந்தைய கிராமப்புற வாழ்வியலை முன்வைத்து அக்காலம் இனியதான வாழ்விணைக் கொண்டதாக இருந்துள்ளமையை அறிந்துகொள்ளக்கூடும். மேலும் அன்றையகால பொழுதுபோக்குக்கும் அறிவுநுட்பத்திற்கும் விடுகதைகள் பங்காற்றியிருக்கக் கூடும்.

நாட்டுப்புற விடுகதையை உளவியல் வாயிலாகவும் விளக்கமாக எடுத்துரைக்க உளவியல் மற்றும் விளக்கமுறை வாயிலாக ஆய்வு மேற்கொள்ளப் பெறும்.

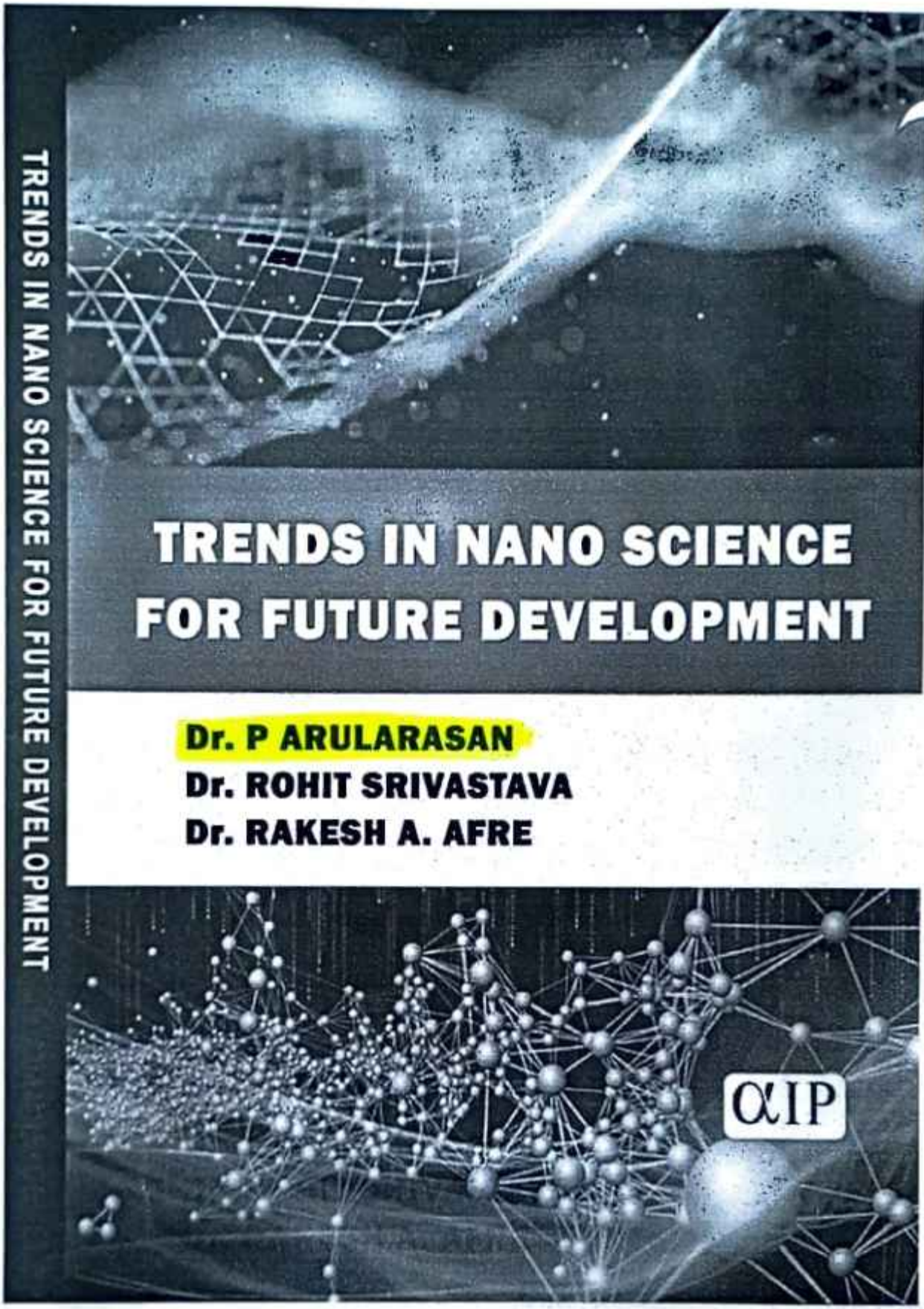
செய்யாறு வட்டாரத்தைத் சார்ந்த சில முதியவர்களின் வாய்மொழியாகச் சொல்லப் பட்ட விடுகதைகளே ஆய்விற்குரிய மூலங்களாகும்.

முன்னுரை, நிறைவுரை நீங்கலாகச் செய்யாறு வட்டாரக் கிராமப்புறங்கள், கிராமப் புற விடுகதைகள், இளைஞர் வட்டாரம், காதல் சந்திப்பு, குடும்ப வாழ்வியல், நம்பிக்கைகள், வழிபாடுகள், விடுகதை உளவியல் போன்றவற்றை உட்தலைப்புகளாக அமைக்கப் பெற்றிருக்கும்.

கிராமப்புறத்தில் 15 வயது இளைஞர்கள் கூடி மாலை நேரத்தில் பொழுது போக்கிற் காகவும் விளையாட்டிற்காகவும் விடுகதைகளை வினாவாகத் தொடுப்பர். இதற்கு விளக்கத்தினை எதிரணி விடை பகர வேண்டும். விடை பகரவில்லை எனில் விடுகதை தொடுத்தவர் வெற்றி பெற்றவராவார். எடுத்துக்காட்டாக,

கண்டதொரு காயிலாங்குட்டி
கடித்ததோ கம்மங்கட்டு
அவரைக் கொடி என் விரலைக் கடி. (விடுகதை -1)

என்ற விடுகதைக் குறிப்பிற்கு விளக்கமளிக்க வேண்டும். இதற்குப் பின்வருமாறு கதை கூறப்படுகிறது. 12 வயதுடைய சிறுமி ஒருத்தி வயலில் பசுவிற்கு புல் அறுத்துக் கொண்டு இருக்க அறுவா அவளின் விரலில் கீறல் ஏற்படுத்தி விடுகிறது. அவள் விரலில் ஏற்பட அங்கு நஞ்சற்ற பாம்பான காயிலாங்குட்டி கண்டு வைத்தியர் வீட்டுக்குச் செல்கிறாள். இதனை அறிந்த அவர், கண்டது பாம்பு, கடித்ததோ அருவா, அதற்கு வைத்தியம் அவரைக் கொடி எனச் சொல்லி என் விரலைக் கடி என நகைச்சுவையாகக் கூறுவோர்.



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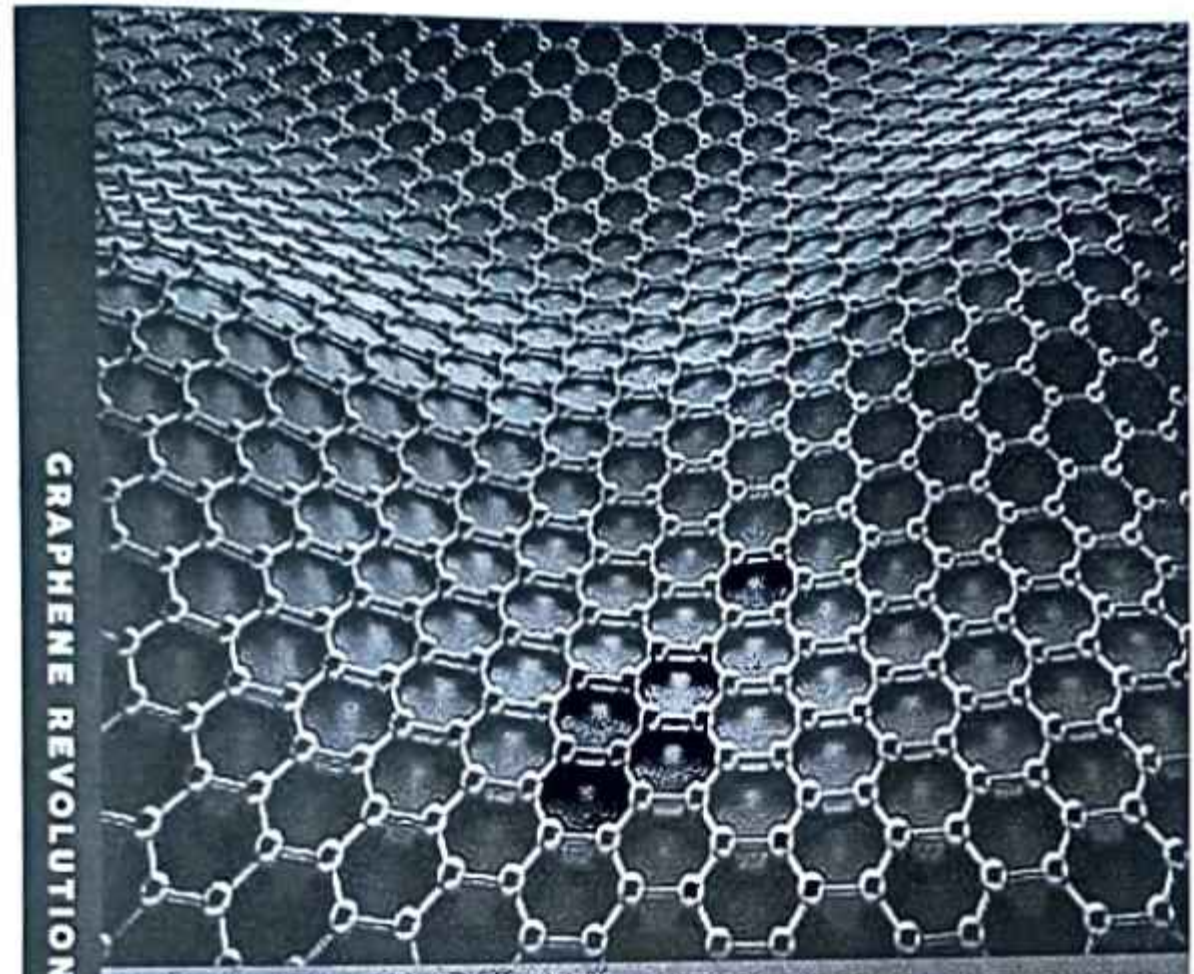

GRAPHENE REVOLUTION AND CHALLENGES

GRAPHENE REVOLUTION AND CHALLENGES

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SIPH

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CHAPTER-50

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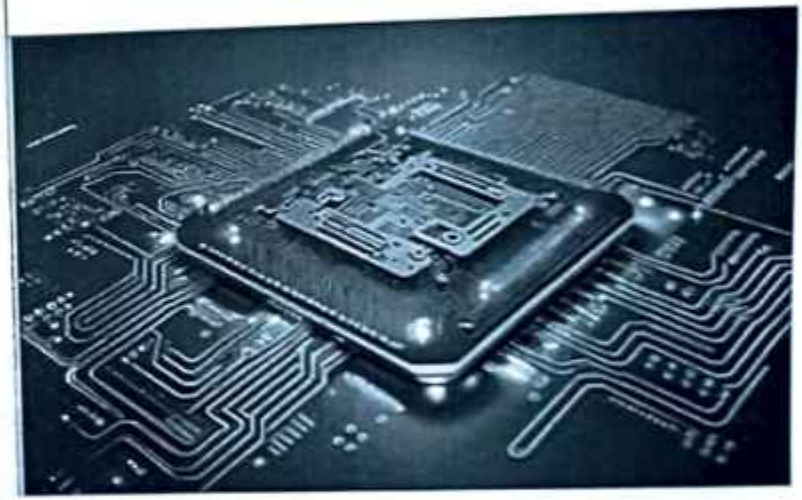

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