

ICRIC 2025

International Conference on Research Innovations & Challenges (ICRIC 2025)

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Centre for Research & Training (CRT)

National Foundation for Entrepreneurship Development (NFED)
Coimbatore, Tamil Nadu, India

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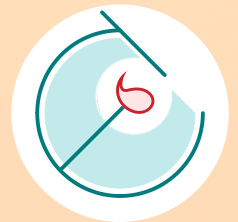
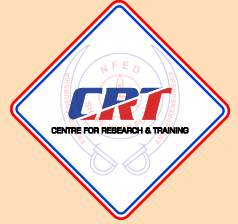
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30th January - 1st February 2025

Edited By

KVJ. Prof. Dr. R. Ganesan



International Conference on Research Innovations & Challenges

ICRIC 2025

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**Centre for Research & Training (CRT)
National Foundation for Entrepreneurship Development
(NFED)**

Coimbatore, Tamil Nadu, India



KVM. Prof. Dr. R. Ganesan

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Greatness of Any Research Work is Only through its Wider Applicability

- RVM. Prof. Dr. R. Ganesan

ICRIC 2025

Conference Proceedings

Acknowledgements

On behalf of the Presidium of NFED, I express my sincere thanks to our Conference Chair & Chief Patron, Hon'ble Chairman, Karma Veer Maharatna. Prof. Dr. R. Ganesan for successfully organizing and hosting this international conference.

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Our sincere thanks to all the Authors and Research Scholars from various academia and organizations for submitting their invaluable research contributions to this international conference.

We thank the media and friends for their constant encouragement and support for publicizing ICRIC 2025 across their networks and groups.

Sd/-

Ms. Ramya Kandavel
Conference Director & Convener, ICRIC 2025
&
Executive Chairman & Director, NFED

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Chief Editor / Editor-in-Chief

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Technology-Information-Management-Entrepreneurship - Review

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ICRIC 2025

Conference Blurb

The current global scenario is ever-changing and demanding, wherein the sustenance and livelihood will be more challenging in the ensuing years. Furthermore, the knowledge sharing through congregation of research across inter-disciplines and multi-disciplines for upbringing the overall socio-economic development and progression is quite indispensable.

Today's globalization has nurtured advancements in science & technology, entrepreneurial innovations, ergonomic practices, etc. due to IT interventions and digitalization. This has triggered the new gamut in the research arena, and it needs to address the upcoming trends in all sectors towards bringing in a holistic development. Hence, there is a need to holistically gauge the overall requirements of mankind in terms of achieving socio-economic sustenance and global stability.

Keeping these above-mentioned aspects in view, the international conference intends to focus on the paradigms of research innovations in the disciplines of sciences, engineering, technology, entrepreneurship, management, arts, humanities and other inter-disciplines to have wider knowledge integration. Also, to envisage future challenges through a radical approach for the betterment of mankind.

Hence, the conference has been officially coined by the Conference Chair & Chief Patron as 'International Conference on Research Innovations & Challenges' – ICRIC '2025 to garner the inter-disciplinary and multi-disciplinary research contributions across the nation and globe. This international conference has been created and powered by Centre for Research & Training (CRT) – A Growth Action Unit under the renowned National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu, India and officially scheduled on 30th January 2025 - 1st February 2025.

Sd/-

KVM. Prof. Dr. R. Ganesan
Conference Chair & Chief Patron, ICRIC '2025
&
Chairman / Presidium Chair, NFED



ICRIC 2025

Conference Objectives

To highlight the holistic research innovations in accordance with the current trends and future challenges for bringing in the socio-technological transformation

To congregate the research trends across various domains for upbringing socio-economic development and sustenance

To act as a global platform for knowledge sharing of various research contributions towards societal upliftment and global development

To encourage and promulgate the research acumen of young students, budding researchers, scholars, academicians, entrepreneurs, industrialists, and practitioners



National Foundation for Entrepreneurship Development (NFED)



Coimbatore, Tamil Nadu, India

(In Pursuance to Create Socio-Economic Sustenance through Entrepreneurship Development)

www.nfedindia.org | www.nfedconferences.org | www.nfedawards.com | www.nbffindia.com | www.timerjournal.org

NFED is a unique organization which is predominantly into promulgating entrepreneurship cult across the nation. NFED is driving and thriving on socialistic notion with righteous academicians, corporate citizens and entrepreneurs in its fold, which has been established as a virtual organization, since 2003 and registered as a Trust on 7th November 2013 towards accomplishing its mission 'In Pursuance to Create Socio-economic Sustenance through Entrepreneurship Development'. It is headquartered at Coimbatore District, Tamil Nadu and pertinent information regarding activities is floated in its aforementioned official websites.

NFED primarily aims in creating enterprising communities at large in Schools, Colleges and Varsities through its training and development activities, faculty development programmes on research and entrepreneurship development, awareness, workshops, refereed conferences, seminars, etc. pertaining to Management Development, Research Emancipation, Technology Innovation and Entrepreneurship Development. It frequently engages in research and development activities by publishing research articles, book chapters and edited books on holistic research, which congregates the disciplines like, engineering, technology, sciences, management, arts and humanities and women development. It also recognizes the talents of teachers, academicians, researchers, professionals, entrepreneurs (including social entrepreneurs), practitioners, freelancers, etc. throughout the globe through its National Awards since 2010.

NFED encourages the entrepreneurial spirit of youths and facilitates them with opportunity guidance. Also, serves under a glocal perspective to bring in prosperity by and large to foster entrepreneurial progression amongst all communities in general and women in particular, across the nation. It has associated and collaborated with academia including, schools, colleges, varsities, etc. and also with national and international organizations. NFED has instituted numerous programmes hitherto towards promulgating entrepreneurship development, career development, employability skills, research publications, women empowerment, etc. Thus, to promulgate entrepreneurship development and research & development, the presidium of NFED has constituted two apex units on 7th November 2015 namely NFED Business Facilitators Forum (NBFF) – A Strategic Action Unit under NFED and Centre for Research & Training (CRT) – A Growth Action Unit under NFED.



Centre for Research & Training (CRT)

Centre for Research & Training (CRT) is a growth action unit under National Foundation for Entrepreneurship Development (NFED) initiated on 7th November 2015 with a goal to bring in quality research and promulgate enterprising faculties within the globe. CRT aims to bring in research and development climate through addressing mainstream aspects of research such as research structuring, research insights, publication process and publication strategies, thereby creating and nurturing research acumen within the aspirants across academia and industry. In addition to this, it also frequently engages in conducting Faculty Development Programmes (FDPs), Research Orientation Programmes (ROPs), Quality Publications (QPs) through infusing the importance of research and development. CRT has delivered more than 150 sessions and conducted numerous conferences, seminars, webinars, research workshops and faculty development programmes for understanding the new vistas in research and facilitating research career of academicians, scholars, practitioners, etc. at national and international levels.



NFED Business Facilitators Forum (NBFF)

NFED Business Facilitators Forum (NBFF) is a strategic action unit under National Foundation for Entrepreneurship Development (NFED) initiated on 7th November 2015 with a goal to congregate entrepreneurs to create an entrepreneurial cult across the globe and foster entrepreneurship development process. NBFF aims to bring in an entrepreneurial climate through encouraging youths and interested individuals to vent into entrepreneurial activities by providing the platform for fulfilling their business aspirations. Furthermore, to act interfacing plank for enhancing their motivation and inclinations to become prosperous and potential entrepreneurs. In addition to this, it also insists on business growth through the concept of interdependence by creating channels and integrating entrepreneurial talents for collective existence, sustenance and survival. NBFF has delivered more than 120 sessions and conducted numerous national seminars & workshops, international and national webinars in entrepreneurship fundamentals & emerging trends, facilitating entrepreneurship development among teaching faculties and promulgating entrepreneurial acumen of students across the nation.



NFED Publications

NFED believes that greatness of any research work is only through its wider applicability. Our academic and research aim is not only to publish a quality-centric book with ISBN but also to provide a strong reference and splendid foundation for research emancipation towards holistic research thereby attaining integrated knowledge development and overall nation building. NFED's publications focus on understanding various challenges in society, not only at the perspective level, but also in various realms of research that are conducted towards upbringing the socio-economic and socio-technological development, which strives to facilitate the future generations to compete with excellence in innovation. Also, it intends to congregate and upbringing the innovative research and its new vistas in terms of science, engineering, applications, approaches, policy initiatives, enterprise development, technology innovation, case studies, strategies, systems, best practices, problems, factors, challenges etc. pertaining to research and development through genuine research findings for achieving overall development. NFED publications has completed 42 published works, which include books, edited books, award compendiums, ready reckoners and conference proceedings.



Technology-Information-Management-Entrepreneurship - Review (TIMER - A Multidisciplinary Refereed Journal of NFED)

Technology-Information-Management-Entrepreneurship - Review (TIMER) is an International Online Multidisciplinary Refereed Journal (Open Access) under the aegis of National Foundation for Entrepreneurship Development (NFED), Tamil Nadu, India with E-ISSN: 2584-1602. The key objective of TIMER is to publish new vistas in research domain and to promulgate scientific advancements & innovations in terms of info-engineering, info-technology, techno-innovation, techno-management, techno-sciences and techno-arts. It will function as a torch bearer to academia and industrial research to be at par with global advancements by envisaging into social, economical, environmental, and entrepreneurial avenues. The journal intends to congregate the Diverse Disciplines of Engineering, Technology, Management, Entrepreneurship, Basic & Life Sciences, Medical & Paramedical Sciences, Social Sciences and Arts & Humanities through appropriate inventive cum innovative research and development activities on inter-disciplinary avenues, which is of prime importance for enhancing socio-economic sustenance, educational excellence, nation building and global restructuring with talent convergence. It welcomes original, empirical, experimental, conceptual, contextual, analytical papers / articles / manuscripts / cases using appropriate research structuring.



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Karma Veer Maharatna. Professor Dr. R. Ganesan earned his doctorate from the reputed IIT Delhi with a special focus on Entrepreneurship Development. He possesses more than 26 years of research experience in the field of entrepreneurship and management. He has served in different academia ranging from Deemed Varsities, Engineering Colleges, Arts & Science Colleges, B-Schools, and International Varsities. He has more than 85 research contributions to his credit, which are published in refereed and indexed journals, books, book chapters, monographs, and conferences. He is a global author in Women Entrepreneurship, whose research papers are listed in Google Scholar and indexed in Web of Science ISI (AHCI & ESCI), MLA Citations, Scopus, ABDC, EBSCO, Cabells' Directory, etc. He has authored two books on women entrepreneurship development and insurance management, which have been published at Germany and published 30 edited books. He is serving as an editorial member and reviewer for numerous journals and possesses more than 22 years of editorial experience. He has edited more than 950 research articles and chapters to his credit, which includes his editorial experience across refereed and indexed journals, conferences, and book chapters at national and international levels. He has organized and hosted 3 national conferences, 7 international conferences, 4 international seminars and conducted 51 faculty development programmes (FDPs). He has delivered more than 275 national and international sessions (including webinar sessions) on Research & Development (Research Insights, Research Structuring, Publication Strategies, Statistical Insights, Crafting Literature Review and Publication Prospects), Entrepreneurship Development, Innovation, Managerial Skills, Career Development, Self-Management, Design Thinking, Employability Skills, Digital Marketing, etc. and inaugurated many Entrepreneurship Development Cells (EDCs) across the nation. He is the chief mentor for certification programs on E-Entrepreneurship and Innovation & Creativity for Business and Soft Skill Courses (Personality Development & Leadership Quality and Development). He has a deep inclination towards bringing up social sensation across communities and has hosted & organized 37 national award ceremonies for recognizing national and global talents. Also, he has an exorbitant interest in Tamil Literature, wherein he has written and published Agakurals (Voice of Self) for civility and few Traditional Poetries for self-realization and societal development. In commemorating his laudable academic, research and societal transformational services through upbringing entrepreneurship

development he has been conferred with the prestigious title Karma Veer Jyoti (KVJ) by Indian Confederation of Non-Governmental Organizations (iCONGO), New Delhi, India on 22nd March 2015. He is the recipient of PFLA Excellence Award for his ‘Outstanding Service to Education and Entrepreneurs’ community from People First Leadership Academy (PFLA), Bengaluru, Karnataka on 19th January 2019. He has been conferred with ‘Order of Eminence’ the highest honour for his global contribution to research, teaching, and training in Entrepreneurship Development by the Presidium of NFED in its 10th National Teachers’ Day Awards on 5th September 2019 at Coimbatore, Tamil Nadu. He has been conferred with the Prestigious MTC Global Distinguished Teacher Award in Entrepreneurship Development in the 9th World Edu Summit organized by Management Teachers Consortium (MTC) Global on 7th September 2019 at Bengaluru, Karnataka. He has been bestowed with the prestigious Pride of India Award by South Asian Institute for Advanced Research and Development (SAIARD), Kolkata, West Bengal on 16th October 2022. He has been bestowed with Karma Veer Maharatna (KVM) by Indian Confederation of Non-Governmental Organizations (iCONGO), New Delhi, India under Social Justice & Citizen Action for his lifelong services towards bringing Social Transformation through Entrepreneurship Development on 26th November 2024 at Noida, Uttar Pradesh. In recognizing his immense contribution to Innovation and Development he has been endorsed with the coveted Global Leadership Award on 7th December 2024 in the International Conference on Interdisciplinary Research in Technology & Management (IRTM)-December 5-7 ‘2024 conducted at NIT Calicut, Kozhikode, Kerala organized by Institute of Engineering & Management (IEM) - University of Engineering & Management (UEM) Group, Kolkata, West Bengal. He is the Founder Chairman and Presidium Chair of the renowned National Foundation for Entrepreneurship Development (NFED) and Founder & Chief Executive Officer of Technovate Educational & Consulting Services (TECS), Coimbatore, Tamil Nadu. He is the Founder and Editor-in-Chief of the reputed Technology–Information–Management–Entrepreneurship–Review (TIMER) - A Multidisciplinary Refereed International Journal published under the aegis of NFED. Also, he is the Founder & Chair of NFED Business Facilitators Forum (NBFF) – A Strategic Action Unit, Centre for Research & Training (CRT) – A Growth Action Unit and NFED Publications under the ambit of NFED, Coimbatore, Tamil Nadu, India.

Conference Director & Convener

Mrs. Ramya Kandavel



Mrs. Ramya Kandavel earned her Master's in Statistics from the University of Madras, Chennai and Master's in Applied Psychology from Bharathiar University, Coimbatore. She holds a Diploma in Transactional Analysis from South Asian Association of Transactional Analysts (SAATA). She is a Psychological Counsellor and a Master Practitioner in Neuro-Linguistic Programming. Her expertise as a counsellor includes Personal One-to-One Counselling, Psychotherapy, Stress Management and Dream Interpretation. She has published her research work in national and international journals, book chapters in edited books and presented papers at numerous research conferences. She commenced her professional career in the ITES Sector and possesses more than 20 years of administrative experience at various corporates and academic institutes. She joined as an active member in the renowned National Foundation for Entrepreneurship Development (NFED) and has facilitated its national events as Event Anchor, Programme Coordinator, Programme Director, Chief Coordinator and Conference Director. She has hosted and organized 7 international conferences, numerous faculty development programmes (FDPs) and webinars focusing on research & development, entrepreneurship development, digital marketing, etc. at national and international levels. She is the Executive Chairman & Director and Financial Trustee / Treasurer of the NFED Trust, Coimbatore, Tamil Nadu. Also, she is functioning as the Chief Coordinator and Member Secretary of NFED Business Facilitators Forum (NBFF), Centre for Research & Training (CRT) and NFED Publications, and Editorial Director of TIMER (A Multidisciplinary Refereed Journal of NFED). She oversees the entire administrative activities of NFED and promulgates its social sensational programmes across the nation and globe.



International Conference on Research Innovations & Challenges



**ICRIC
2025**

30th January 2025 – 1st February 2025

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Executive Chairman & Director

National Foundation for Entrepreneurship Development (NFED)

Coimbatore, Tamil Nadu, India

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Professor & Principal

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Kadapa, Andhra Pradesh, India

Dr. R. Rajeswari

Professor

Department of Electrical & Electronics Engineering

Government College of Technology (Autonomous)

Coimbatore, Tamil Nadu, India



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Siliguri, West Bengal, India

Dr. V. Sailaja

Assistant Professor
Department of Zoology
Vikrama Simhapuri University College
Kavali, SPSR Nellore District, Andhra Pradesh, India

Dr. Bhuvanewari S

Assistant Professor
Department of Management Science
B.S. Abdur Rahman Crescent Institute of Science & Technology
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Institute for Development & Communication (IDC)

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Skill Development Centre
Savitribai Phule Pune University, Pune, Maharashtra, India

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School of Law, Pondicherry University, Puducherry, India

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Department of Basic Sciences & Humanities
Silicon University, Bhubaneswar, Odisha, India

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Mewar Institute of Management, Ghaziabad, Uttar Pradesh, India

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School of Humanities & Social Sciences
Sathyabama Institute of Science & Technology (Deemed To Be University)
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Dr. Manju Mittal
Assistant Professor
School of Commerce & Management
GSSDGS Khalsa College (Autonomous), Patiala, Punjab, India

Dr. A. Krishnarathi
Assistant Professor
Unity College of Teacher Education
Dimapur, Nagaland, India



ICRIC 2025

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Keynote Speakers - Day I (30th January 2025)

Dr. Patrick Osa. Oviasuyi

Professor

Department of Public Administration, Faculty of Management Sciences
Ambrose Alli University, Ekpoma, Nigeria

Dr. Mythili Kolluru

Assistant Professor

Professional Studies & Undergraduate Department
College of Banking & Financial Studies
Muscat, Sultanate of Oman

Dr. Gurmeet Singh

Vice Principal and Associate Professor & Head

P.G. Department of Mathematics

GSSDGS Khalsa College (Autonomous), Patiala, Punjab, India

Dr. D. Anitha Kumari

Associate Dean (Admissions)

&

Associate Professor & Programme Coordinator - MBA (SLM)

Department of MBA, School of Management Studies & Commerce
Vels Institute of Science Technology & Advanced Studies (VISTAS)
(Deemed to be University)
Chennai, Tamil Nadu, India

Dr. Sheeba Khalid

Assistant Professor – III

Amity Law School, Amity University Lucknow Campus
Lucknow, Uttar Pradesh, India

Mr. Arasu M T

Founder & CEO

Clicks Talent Connect Pvt. Ltd.
Bengaluru, Karnataka, India



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Keynote Speakers - Day II (31st January 2025)

Dr. Nazrul Islam

Professor

School of Business & Entrepreneurship (SBE)
Independent University, Dhaka, Bangladesh

Dr. Baby Sam Saamuel

Director

New York Council of Non-Profits (NYCON), USA

Dr. Priti Srinivas Sajja

Professor & Director

Department of Computer Science & Technology
Sardar Patel University
Anand, Gujarat, India

Dr. Kavana GV

Professor & Head

Department of Physiology
Haveri Institute of Medical Sciences
(Govt. Autonomous Institution)
Haveri, Karnataka, India

Dr. Subrata Chattopadhyay

Professor

Department of MBA
Institute of Engineering & Management (IEM)
University of Engineering & Management (UEM)
Kolkata, West Bengal, India

Mr. G. Raja

Founder & Managing Director
Imhotef Pharmaceuticals Pvt. Ltd.
Padi, Chennai, Tamil Nadu, India



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Keynote Speakers - Day III (1st February 2025)

Ms. Theviga Rani Wemel

Co-Founder & Chief Operating Officer
LTT Global Communications Sdn Bhd
Kuala Lumpur, Malaysia

Dr. S. Anuzsiya

Senior Lecturer Gr.I in History
Department of Social Sciences, Faculty of Arts & Culture
South Eastern University of Sri Lanka, Oluvil, Sri Lanka

Dr. Bhuvana Venkatraman

Professor
Department of Commerce, School of Studies of Commerce & Management
Guru Ghasidas Vishwavidyalaya (A Central University)
Koni, Bilaspur, Chhattisgarh, India

Dr. R. Deepalakshmi

Assistant Professor, Department of Computer Science
&
Director, Data Processing Centre
The Tamil Nadu Dr. Ambedkar Law University
Perungudi, Chennai, Tamil Nadu, India

Dr. Yogesh. S

Senior Assistant Professor
Institute of Internal Medicine, Madras Medical College
&
Rajiv Gandhi Government General Hospital
Chennai, Tamil Nadu, India

Ms. Padmajah Narasimhan

Founder & Director
Niyathi Training & Content Solutions (NTCS) Pvt. Ltd.
Ittamadu, Bengaluru, Karnataka, India



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Valediction Keynote Speakers - Day III (1st February 2025)

Dr. Luzaan Hamilton

Associate Professor
School of Management Studies
North-West University (Vanderbijlpark Campus), South Africa

Dr. G. Fathima

Professor & Head
Department of Computer Science & Engineering
Adhiyamaan College of Engineering (Autonomous)
Hosur, Krishnagiri District, Tamil Nadu, India

Dr. V. Arulmurugan

Associate Professor & Head
Department of Commerce
School of Management, Pondicherry University Karaikal Campus
Karaikal, Puducherry, India

Dr. Rufus D

Assistant Professor
Department of Criminology & Police Studies
Sardar Patel University of Police, Security & Criminal Justice
Jodhpur, Rajasthan, India

Dr. Darishisha W. Thangkhiew

Assistant Professor
Department of Economics
School of Economics, Management & Information Sciences
North-Eastern Hill University
Shillong, Meghalaya, India

Mr. Owaiz Khan

Founder & Technical Head
Cynaris Solutions Pvt. Ltd. (CSPL)
Bengaluru, Karnataka, India



International Conference on Research Innovations & Challenges



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Session Chairs

Track 1 - Science, Engineering & Technology (SET)

Dr. V. Sreevidya

Professor & Head

Department of Civil Engineering

Sri Krishna College of Technology (SKCT)

Coimbatore, Tamil Nadu, India

Dr. Gurumeet Singh

Vice Principal and Associate Professor & Head

P.G. Department of Mathematics

GSSDGS Khalsa College (Autonomous)

Patiala, Punjab, India

Dr. V. Sailaja

Assistant Professor

Department of Zoology

Vikrama Simhapuri University College

Kavali, SPSR Nellore District, Andhra Pradesh, India

Track 2 - Management, Entrepreneurship & Innovation (MEI)

Dr. R. Ganesan

Professor & Chair

Centre for Research & Training (CRT)

National Foundation for Entrepreneurship Development (NFED)

Coimbatore, Tamil Nadu, India

Track 3 - Arts & Humanities (AHU)

Dr. Indira Lepcha Nee Lama

Associate Professor

Department of Geography & Applied Geography

University of North Bengal

Siliguri, West Bengal, India

Dr. G. Subhalakshmi

Assistant Professor

School of Law

Pondicherry University

Puducherry, India



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Conference Highlights

The Three-Day International Conference on Research Innovations & Challenges (ICRIC '2025) has completed numerous deliberations in terms of keynote address, valedictory keynote address, session chairing, paper presentations and participation across the nation and globe.

I intend to place the conference highlights in the capacity as Conference Chair & Chief Patron of ICRIC '2025 and Founder & Chairman / Presidium Chair of National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu, India.

This three-day international conference has exhibited 24 Keynote Addresses delivered by International Keynote Speakers from Nigeria, Sultanate of Oman, Sri Lanka, United States of America, Malaysia, South Africa, Bangladesh and the National Keynote Speakers from various States and Union Territories of India namely Tamil Nadu, Karnataka, Puducherry, Uttar Pradesh, Gujarat, Maharashtra, Punjab, Chhattisgarh, West Bengal, Rajasthan and Meghalaya.

The keynote speakers of this international conference included renowned academicians, entrepreneurs, and professionals across the world. An important aspect of this international conference is that it has given enormous importance to women academicians, which includes the Conference Director & Convener, Co-Conveners / Associate Conveners and maximum of women academicians as Organizing Secretaries, Organizing Committee Members and Session Chairs. Also, majority of the paper authors and participants to ICRIC '2025 are women. This clearly indicates that National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu, India has been empowering women at all spheres and regards them as the potential workforce for nation building and global socio-economic transformation.

There are three main tracks in this international conference namely Science, Engineering & Technology (SET), Management, Innovation & Entrepreneurship (MEI) and Arts & Humanities (AHU), which comprise of 25 streams under these tracks, which are indicated below:

- 1) Under the SET Track there are 14 streams, namely Computer Science & Engineering, Electronics & Communication Engineering, Civil Engineering, Structural Engineering, Environmental Engineering, Textile Technology, Energy Studies, Mathematics, Computer Science, Geology, Earth Sciences, Chemistry, Environmental Science and Pharmacology, wherein it included 23 paper presentations.
- 2) Under the MEI Track there are 5 streams, namely Entrepreneurship, Organizational Behaviour, Commerce, Finance and Economics, wherein it included 10 paper presentations.
- 3) Under the AHU Track there are 6 streams, namely Law, Criminology, Victimology, Geography, Applied Geography and Women's Studies, wherein it included 8 paper presentations.

There are 41 paper presentation sessions, which have been scheduled and distributed across the aforesaid tracks, which are chaired and moderated by 6 session chairs from India viz. Tamil Nadu, Andhra Pradesh, Punjab, and Puducherry. A total of 35 online paper presentations have been completed, covering 85.37 percent, which is one of the remarkable achievements of our three-day International Conference (ICRIC '2025). The e-proceedings covered 41 abstract submissions.

A total of 100 registered participants from 21 States and 3 Union Territories out of India's 28 States and 8 Union Territories constituting 66.67 percent of India's representation across its length and breadth in this international conference. Also, there are few international paper presentations from Australia, Hungary, Iraq and Bangladesh.

The research presentations have provided adequate knowledge sharing and intellectual enrichment. The keynote address by various international and national speakers have highlighted the research innovations and upcoming challenges through addressing New Research Trends, Importance of Interdisciplinary Research, Globalization Perspectives, Creativity & Research, Skill Training & Employability Perspectives, Application of AI in Research & Innovation, Knowledge Transformation & Integration, Multidisciplinary Research in Social Sciences, Digital Innovation, Entrepreneurial Ecosystem & Development, Research Trends in Business, Healthcare Awareness & Innovation, Holistic Restructuring, Energy Management, Mathematical Applications & Techniques, Women Empowerment, Innovative Research Approaches, and Sustainable Development.

I am sure the scientific researches, technological innovations, management processes, artistic approaches, and humanistic views have provided insights about the global happenings through this international conference (ICRIC '2025). Also, the research deliberations are truly intellectual and indispensable to the global community for sustenance and growth. This knowledge sharing platform paves the way for holistic global restructuring and transformation towards addressing various research innovation endeavours. Also, ICRIC 2025 has reinvigorated all of us to enrich our research potential and its promulgation through righteous research contributions towards achieving socio-economic growth and overall sustenance.

My hearty congratulations to the Conference Director & Convener, ICRIC '2025 and Executive Chairman & Director, NFED Mrs. Ramya Kandavel for her indomitable efforts towards meticulously conducting and successfully hosting this three-day ICRIC 2025 to become a grand success.

My sincere thanks to Technical Head & Adviser, Mr. Jaswin Kumar N. R., for his continuous support in organizing this virtual international conference.

My best wishes to all international and national keynote speakers, session chairs, conference co-conveners, organizing secretaries, organizing committee members, paper authors & presenters and participants of this international conference.

Thank You

Sd/-

KVM. Prof. Dr. R. Ganesan
Conference Chair & Chief Patron, ICRIC'2025



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Paper Presentation Awards

Track 1: Science, Engineering & Technology (SET)

TR1-ICRIC2025-SET-05

Signed-Distance Approach for Ranking Pentagonal Fuzzy Numbers
Mr. Ram Govind Sen, Ms. Shatabdi Sinha & Dr. Shiv Prasad

Track 2: Management, Entrepreneurship & Innovation (MEI)

TR2-ICRIC2025-MEI-04

A Study on Sustainable Business and Green Entrepreneurship in the Circular Economy
Ms. Mallika Roy & Dr. Anita Medhekar

Track 3: Arts & Humanities (AHU)

TR3-ICRIC2025-AHU-04

Structural Inequalities in Gender and Sexualities in the Context of Cultural Anthropology
- A Conceptual Study
Dr. Suvashree Suvadashinee



Conference Paper Abstracts

Artificial Intelligence in Pharmacy Education: Balancing Technological Advances and Ethical Concerns among Aspiring Pharmacists

Mr. Ubada Aqeel

Assistant Professor

Department of Healthcare and Pharmaceutical Management

School of Management and Business Studies

Jamia Hamdard (Deemed-to-be University)

New Delhi, India

Abstract

Artificial Intelligence (AI) is transforming healthcare, including pharmacy practice, by enhancing access to information, reducing errors, and supporting decision-making. However, its integration into pharmacy education remains underexplored. The present study investigates pharmacy students' perceptions of AI's impact on their profession and the need for curriculum reform. A cross-sectional survey was conducted among 245 Bachelor of Pharmacy (BPharm) students from Jamia Hamdard, India. The data is collected using a structured questionnaire covering knowledge, perceptions, and opinions on AI in pharmacy. The responses are analyzed using non-parametric tests, including the Mann-Whitney U and Kruskal-Wallis H tests, to examine the group differences and Exploratory Factor Analysis identified the dimensions of perceptions. The results revealed that majority of the students (89.8 percent) believed AI could enhance healthcare professionals' access to information, while 78 percent responded to improved patient service access. However, 60.5 percent expressed concerns about AI diminishing humanistic aspects of pharmacy. Ethical challenges, such as data confidentiality breaches are highlighted by 37.2 percent of respondents. Also, a significant proportion (80 percent) supported incorporating AI-related knowledge and skills into the pharmacy curriculum. Differences in perception scores are observed across academic years, reflecting evolving views with exposure to education. Also, a significant proportion of students demonstrated favorable perceptions regarding the concepts and advantages of AI. Additionally, majority of respondents emphasized the necessity of revising the pharmacy curriculum to better align with the evolving landscape. Such updates should focus on empowering BPharm students with the knowledge and skills needed to effectively utilize AI applications while safeguarding professional values and ensuring ethical practices are upheld.

Can Technology Meet the Challenges Posed by Two of the Most Serious Problems Faced by Planet Earth: Global Warming and Pollution?

Dr. Shahid Abbas Abbasi

Distinguished Professor

School of Advanced Engineering

University of Petroleum & Energy Education (UPES)

Dehradun, Uttarakhand, India

&

Dr. Tasneem Abbasi

Advisor

Encore Environmental Products & Service Pvt. Ltd.

Puducherry, India

Abstract

Barring a very few exceptions, every citizen of the world – be it a head of state, a civil servant, an entrepreneur, an academician, any other intellectual, or a layperson – is aware that global warming and environmental pollution are rapidly taking the Earth's ecosystem towards a collapse. Everyone talks of sustainable development, acting towards climate-friendly manners, reducing pollution, and greening the world. More and more scientists have been investing ever more intensive and expensive efforts to develop cleaner, greener, and more eco-friendly technologies. Numerous summits by various heads of states underline the urgency to reverse global warming and pollution. There is endless emphasis on the five 'Rs': Reduce, Reuse, Recover, Recycle and Repurpose. The aforesaid five Rs equally and strongly emphasize the concept of 'circular economy'. However, happenings of the last 50 years, beginning with mid 1970s – when general awareness towards pollution and its control began to grow across the world – is showing us that despite all the resolutions to reduce them, global warming and pollution are only increasing with time across the world. Worse, the rate of this increase is growing exponentially over time. This study examines the question: can technology solve the problems of global warming and pollution that are threatening to destroy the world? The world believes so, which is why it is relying more on 'cleaner technology', but how realistic is the belief? Based on these aspects a detailed analysis has been carried out in the context of global perspective by the researchers in accordance with their own and combined experience of about 75 man-years in developing greener technologies. The authors arrived at the conclusion that only drastic socio-political and socio-economical re-engineering can create the expected impact. Otherwise, advantages of better technologies will keep negated due to incorrect and / or exorbitant use of these technologies.

Application of Nanotechnology in the Food Industry – A Conceptual View

Ms. Parul Tomar
Assistant Professor
Department of Chemistry
NAS College (C.C.S University)
Meerut, Uttar Pradesh, India

Abstract

Nanotechnology has been applied to a variety of industries, including food, medicine, and agriculture. As a new technology in the fields of food processing, safety, and packaging, nanotechnology is very interesting to the food business. For instance, it can be applied to food processing to improve the food's overall quality, including its flavor, taste, and bioavailability. Nanotechnology is used in food safety to improve barrier qualities and identify contaminants and pathogens in food products. Furthermore, nanotechnology is commonly employed in food packaging to create intelligent packaging and act as an antibacterial. Also, it aids in increasing the shelf-life of products and it is zero percent harmless to human health. However, it is advised to have sufficient regulatory process in administering nanotechnology applications in the food industry. The present study proposes implementing a system to control the possible risks related to applications of nanotechnology. Moreover, the assessment by the researcher has addressed classifications, safety concerns, and use of nanotechnology in food safety and packaging.

Extension of Complex Interval Valued Neutrosophic Soft Set and its Augmentation Applied to Decision Making

Ms. V. Nagarani

Assistant Professor

Department of Mathematics

SRM Valliammai Engineering College

Kattankulathur, Tamil Nadu, India

&

Dr. K. Ganesan

Professor

Department of Mathematics

SRM Institute of Science & Technology

Kattankulathur, Tamil Nadu, India

Abstract

The decision-making method based on complex interval valued neutrosophic soft sets has been the intent of present research. Keeping this in view, this paper focuses on two complex intervals valued neutrosophic soft sets and their similarities. Also, comparing the criteria with professional guidance has been the goal in order to identify the optimal choice. The recommended method's superiority and validity are demonstrated by a comparison with the current method. The sensitivity analysis and comparison results has led to the conclusion that suggested methodology is more reliable and quite efficient. The researchers have discussed the mathematical characteristics of the score values, wherein there are certain instances which are identified and illustrated respectively. Thus, by using a numerical example, flowchart-based decision making has been presented to further illustrate the efficacy of proposed method. This research provides an understanding of how enhanced the score values are used in the real world.

Signed-Distance Approach for Ranking Pentagonal Fuzzy Numbers

Mr. Ram Govind Sen

Research Scholar*

&

Ms. Shatabdi Sinha

Research Scholar*

&

Dr. Shiv Prasad

Assistant Professor*

*Department of Mathematics

Binod Bihari Mahto Koyalanchal University

Dhanbad, Jharkhand, India

Abstract

Fuzzy numbers have become instrumental in decision-making processes, where uncertainty and imprecision are prevalent. Among the various types of fuzzy numbers, pentagonal fuzzy numbers have attained significant attention in recent years due to their enhanced capability to encapsulate a broader spectrum of uncertainty and imprecision. This paper proposes a new method for ranking pentagonal fuzzy numbers based on signed distance of the centroid of centroids of left-right spreads from the original point. The proposed method can concurrently rank two or more pentagonal fuzzy numbers, regardless of their linear or non-linear membership functions. Furthermore, the signed distance consistently ranks pentagonal fuzzy numbers and their partnered images including symmetric pentagonal fuzzy numbers of the same altitude. This study gains significance by using various types of pentagonal fuzzy numbers taken intuitively and from the literature for a better comparison and investigation of the proposed method's superiority.

Solving Fully Fuzzy Replacement Problem Based on a Ranking Function

Dr. Anjana Sinha

Postdoctoral Researcher*

&

Dr. Shiv Prasad

Assistant Professor*

*Department of Mathematics

Binod Bihari Mahto Koyalanchal University

Dhanbad, Jharkhand, India

Abstract

Replacement Problem (RP) is a useful application in decision analysis in real-world systems. In traditional replacement problems, the parameters are taken as crisp numbers, but in real-world scenarios, there are a lot of uncertainties and imprecisions in data. Fuzzy numbers facilitate in solving real-life problems with uncertainties and imprecisions. In the proposed method, all the parameters like the capital cost, scrap or resale value, and maintenance or running cost, are represented as triangular fuzzy numbers (TFNs). The study suggests a new technique based on a ranking function defined as the mean on horizontal axis of points on the fuzzy number's left and right membership functions. The points divide the respective membership function in the ratio $p:q$. In furtherance, real-life problems and comparative studies have been illustrated to validate the proposed approach.

Application of Relative Weight Method for Groundwater Quality Assessment in and around Cement Industrial Corridor at Kadapa District, Andhra Pradesh

Dr. Vangala Sunitha

Professor*

&

Mr. Jinkala Naveen Kumar

Project Fellow*

&

Dr. Etikala Balaji

Postdoctoral Fellow*

&

Ms. Parikisetti Deepthi

Project Fellow*

*Department of Geology

Yogi Vemana University

Kadapa, Andhra Pradesh, India

Abstract

Groundwater is a vital resource for most of the developmental activities. It is to be noted that the demand for groundwater is increasing due to paucity of surface water and recurrent failures of monsoons. The increasing demand for groundwater causes water level to decline and water quality to deteriorate. The present study intended to determine ground water quality index (WQI) using arithmetic weight methods to establish groundwater quality assessment in and around Yerraguntla, Y.S.R District at Andhra Pradesh. The calculation of WQI for various parameters such as pH, electrical conductivity (EC), total dissolved solids (TDS), total hardness (TH), and major cations and anions. Most of the groundwater samples are exceeding the permissible limits with respect to pH, EC, TDS, TH, nitrates and fluoride. This classification reveals that most of the groundwater is not suitable for drinking purpose. This is clear from this study that groundwater quality is very poor and proper monitoring and management techniques are needed to maintain and improve water quality standards and health of local community.

Appraisal of Groundwater Quality in and around Tummalapalle Uranium Mine at Kadapa District, Andhra Pradesh – A Chemometric Approach

Dr. Vangala Sunitha

Professor

Department of Geology*

&

Ms. Parikisetti Deepthi

Project Fellow

Department of Geology*

&

Dr. L. Dakshayani

Associate Professor

Department of Genetics & Genomics*

*Yogi Vemana University

Kadapa, Andhra Pradesh, India

Abstract

Drinking water and its purity is quite indispensable for a healthy living of mankind. Therefore, the purity of drinking water is often subjected to periodic assessments for alleviating contamination and taking precautionary measures for balancing the environment. The current study emphasizes on seasonal hydrogeochemistry, appraisal of groundwater quality for drinking purposes in the Tummalapalle uranium mining region, which is one of India's largest uranium reserves. The study included twenty groundwater samples from the study area. The physiochemical examination of groundwater is measured and compared to World Health organization (WHO) standards. Water samples are analysed for pH, Electrical Conductivity (EC), Total hardness (TH), Total dissolved solids (TDS), calcium (Ca^{2+}), magnesium (Mg^{2+}), sodium (Na^+), potassium (K^+), carbonates (CO_3^{2-}), bicarbonates (HCO_3^-), chlorides (Cl^-), sulfates (SO_4^{2-}) and nitrates (NO_3^-). The results revealed that groundwater in the study area is neutral to slightly alkaline in nature. Moreover, the EC, total alkalinity, total hardness, magnesium, and sodium, nitrates exceed the WHO acceptable limit. The study utilized chemometric analysis and basic statistics, Gibbs ratio, and index of base exchange to understand the mechanism of controlling the groundwater chemistry in the study area. The present study indicated that the groundwater chemistry is mostly controlled by geogenic processes (weathering, dissolution, and ion exchange) and some extent of anthropogenic activities.

Trust Management Framework for Safeguarding Industrial IoT Environment

Dr. Mohammed Alshawki

Assistant Professor

Department of Computer Algebra

Eötvös Loránd University (ELTE), Budapest, Hungary

Abstract

The Industrial Internet of Things (IIoT) has revolutionized the manufacturing industry by enabling enhanced connectivity and communication between physical devices and automation systems. However, with the increasing use of IIoT devices, security concerns have been increased. The trust management in safeguarding IIoT is a critical framework that ensures secure and reliable interactions among participating entities within industrial environments. It involves establishing, verifying, and maintaining trust between various IIoT entities by employing mechanisms such as authentication, authorization, encryption, and continuous monitoring. Moreover, the effective trust management addresses vulnerabilities arising from the diverse and interconnected nature of IIoT networks, mitigating risks such as unauthorized access, data breaches, and cyberattacks. This paper discusses how leveraging advanced technologies like blockchain, artificial intelligence, and zero-trust architectures can provide a secure trust management framework, which ultimately safeguards the integrity and functionality of IIoT ecosystems. Blockchain in the proposed work ensures secure and tamperproof data exchanges through decentralized ledgers, fostering transparency and trust among devices. Furthermore, utilizing AI enhances threat detection and predictive analytics, enabling proactive responses to potential attacks. Zero-trust architectures enforce a ‘never trust, always verify’ principle, which ensures that every entity in the IIoT environment is continuously authenticated and authorized. The access control mechanisms regulate permissions based on roles and context, while strong authentication protocols validate the identities of users and devices. Together, these technologies create a multi-layered defense system that secures IIoT networks, protects sensitive data, and ensures reliable operations.

Denial of Service (DoS) Attack Detection and Mitigation: A Hybrid Approach

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University of Kufa
Najaf Governorate, Iraq

Abstract

Denial of Service (DoS) is a type of attack in IT whose purpose is to deny access to services to legitimate users of the service. These attacks represent a serious challenge for modern network security, wherein having a successful DoS attack detection strategy is vital and an important part of cybersecurity mechanism in any network. For example, schools and universities often provide part of their services online to thousands of users and devices. A successful DoS attack on the university or school network can severely undermine the important academic processes and possibly reveal sensitive information to unauthorized entities. The networks in schools and universities are usually open to everyone, which usually have easy access bandwidth, and contain several user types such as students, faculty, or researchers, which makes them more prone to these attacks. Special efforts are needed to detect and mitigate DoS attacks in such networks to support service continuity and prevent losses. This paper discusses how a combination of Artificial Intelligence (AI) and conventional approaches can be utilized as a powerful solution to detect the DoS attack efficiently. Using AI, there are methods with the capability to integrate machine learning algorithms into identifying anomalies in network traffic, in some cases, instantaneously. The researcher has utilized UNSW-NB15 developed by the Australian Centre for Cyber Security (ACCS) to simulate modern network environments and used the realistic network traffic in this dataset based on the IXIA PerfectStormOne tool, which is part of the ACCS Cyber Range.

Drug Discovery: The Role of Artificial Intelligence and BigData in Modern Pharmaceuticals

Ms. Angel G

PhD Full Time Scholar

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&

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Abstract

Artificial Intelligence is an emerging field that has drawn a lot of interest because of its potential to expedite, time-saving, and lower the cost of drug development process. Traditional drug discovery process has demanded significant time and resources, requiring an average of 12-15 years and cost of US\$2.5-3 billion to advance a single molecule from conception to FDA approval. This review elucidates the multifaceted applications of AI and ML across various stages of drug development, role of big data, highlighting significant advancements, and methodologies. It delves into AI's instrumental role in predicting drug efficacy and toxicity, optimizing clinical trials, drug repurposing, personalized medicine, and drug design. Developing newer algorithms and architectures to mine the databases has fulfilled the specific needs of various drug discovery processes such as virtual drug screening, de nova molecule design, and discovery in the big data era. It also addresses the regulatory considerations and challenges associated with AI in pharmaceuticals, including safety measures, privacy, and data security of AI models. Despite AI's promising advancements, this review also addresses the limitations and challenges encountered including the lack of adequate curated data and data availability, which can be a hurdle to this process. It is to be noted that though AI technology and massive data sources have contributed enormously to speeding up the drug discovery pipeline, experiments are still needed to be conducted before the drugs can be approved. Finally, this review summarizes the role of AI techniques and big data currently being implemented to satisfy the increasing research demands in drug discovery.

Experimental Study on Understanding Science of Enzyme Discharge in Fashion

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&

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Abstract

The increasing effort on sustainability in fashion has driven the need for eco-friendly textile technologies. This study investigates the use of acid cellulase enzyme for discharge printing on cotton fabrics dyed with five natural dyes: red, green, brown-black, blue, and dark blue. The objective is to understand the molecular bonding of natural dyes with cotton fabric and explore how the enzyme can discharge these dyes, offering a safer and more eco-friendly alternative to traditional formaldehyde-based discharge methods, which pose environmental and health risks to artisans. In this experimental research, cotton fabrics are dyed using traditional methods in Rajasthan to preserve the ecological and cultural relevance of natural dyeing. The enzyme recipe has been optimized by adjusting pH, temperature, time, and concentration. Phytochemical analysis and FTIR tests are conducted to examine dye-fabric bonding. Discharge effects are measured using a spectrophotometer, while tensile strength and Chemical Oxygen Demand (COD) tests assessed fabric durability and environmental impact. The results revealed that red, green, and brown-black dyes are successfully discharged without significantly weakening the fabric, as they form weaker bonds with cotton fibers that enzyme can break down. However, no discharge occurred on indigo-dyed fabrics and partial discharge has been observed in dark blue samples, wherein only pomegranate rind components are removed. This is due to the stronger, more stable covalent bonds formed by indigo and dark blue dyes, making them resistant to enzymatic discharge. This study highlights the enzyme-assisted discharge printing as a promising sustainable technology in fashion design thereby offering more eco-friendly alternative.

Pollution Index of Groundwater and Human Health Risk Assessment in Parts of Nellore City at SPSR Nellore District, Andhra Pradesh

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Abstract

Groundwater in highly urbanized areas and regions with extensive human activities is susceptible to pollution. Nellore, a significant area in the SPSR Nellore District at Andhra Pradesh, has experienced rapid urbanization and industrialization in recent years. Therefore, to assess the water quality, 25 groundwater samples were collected from Nellore City during the pre- and post-monsoon seasons. The samples are analyzed for physicochemical parameters, including pH, EC, TDS, and major ions, using standardized methods (APHA) and equipment (Portable Waterproof pH/EC/TDS Meter). Saturation indices are calculated using PHREEQC, a chemical equilibrium model. The pollution index and spatial distribution patterns are determined using standard procedures and Arc GIS, respectively. A human health risk assessment (HHRA) for nitrates has been conducted using USEPA guidelines. The results revealed that elevated levels of TDS, Cl^- , and NO_3^- , indicating rock-water interaction, silicate weathering, and anthropogenic contamination. The Pollution Index (PI) showed that 40 percent of the groundwater samples fall under moderate to low pollution category, primarily in the northern direction. However, approximately 65 percent of the samples exhibited a hazard quotient >1 (HQ) for nitrates, posing a potential health risk to humans, particularly infants, children, and adults. These findings emphasize the need for immediate implementation of remedial measures and stringent policies to mitigate groundwater pollution risks.

Green Audit in Academic Institutions of Bargarh Town in Odisha – A Comprehensive Study

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Abstract

Green audit is a process of evaluating an organization's environmental impact and identifying opportunities for improvement. Green audit in academic institutions to assess their environmental management practices and identify opportunities for improvement. This research comprises of collecting data from various sources, including surveys, interviews, and case studies, and analyzing it using various techniques. Also, it focuses on the development and application of a tool for calculating the carbon footprint of an academic institution. The user-friendly carbon footprint calculation tool has designed which is easy to use. It allows the academic institutions to input data on their energy consumption, waste management, and transportation. Based on the inputs it generates a report detailing their carbon footprint and suggesting areas for improvement. The present research found that green audits can be a powerful tool for reducing the environmental impact of academic institutions and promoting sustainability. The carbon footprint calculation tool developed by the researchers is a valuable resource for institutions looking to assess their environmental performance and identify opportunities for improvement. The present study has made a significant contribution to the field of sustainability in academic institutions and also provides practical guidance for institutions looking to reduce their environmental impact.

Utilization of Biomass Using Carbohydrate Based Ionic Liquids – An Overview

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Abstract

For over a decade, carbohydrate based ionic liquids (CHILs) are being extensively researched as natural substitutes for traditional ionic liquids. Carbohydrate based ionic liquids are characterized by lower toxicity or high biodegradability, less impact on environment during their synthesis and for their varied applications. This carbohydrate based ionic liquids have emerged as an alternate green solvent to Volatile Organic Compounds (VOCs) to develop sustainable and eco-friendlier techniques. The present study overviews the published research involving the use of carbohydrate-based ionic liquids for biomass utilization.

Assessing Groundwater Quality in Shaikpet Region, Hyderabad Using the Water Quality Index

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Abstract

The hard rock terrain of Hyderabad, Telangana in India's Shaikpet region includes groundwater as one of its sources for drinking and household water. In this research work, an effort has been made to comprehend whether groundwater is suitable for human consumption. The quality of groundwater is evaluated by analysing characteristics such as pH, electrical conductivity, total dissolved solids, alkalinity, total hardness, calcium, magnesium, sodium, potassium, bicarbonate, sulphate, chloride, fluoride, and nitrate. The water quality index (WQI) has been used to classify the water quality into the following categories: Excellent (less than 50), Good (between 50 and 100), Poor (between 101 and 150) and Very Poor (between 151 and 200), and Unfit for drinking (>201). This is a very helpful way for the public and policymakers in the area to determine the quality of groundwater. The research area's WQI falls between 151.51 and 186.28. The study included five test stations', wherein water quality is in extremely bad condition and WQI aggregate showed that the groundwater is unsafe and unfit for human consumption. After weathering, the orthoclase feldspar and biotite minerals found in granite-gneiss produce groundwater that is high in bicarbonate and chloride. According to the present study, the groundwater in the area with declining water quality needs to be treated before being used for human consumption in order to prevent geogenic, anthropogenic, and industrial pollution.

Planning, Design, and Estimation of the S3 Supermarket Using Tekla Structural Designer Software

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Abstract

This research focuses on the planning, design, and cost estimation of the S3 Supermarket, an innovative hybrid supermarket-complex store proposed in Mylapore, Chennai covering a plinth area of 11,625 sqft. Combining the traditional functionality of a supermarket with the versatility of a complex store, this concept creates a modern, multi-purpose retail space that addresses the evolving needs of urban consumers at affordable prices. The four-story building structure includes a front lobby, parking area, common toilets on each floor, and strategically designed retail spaces offering a range of products and services. The layout ensures smooth customer movement with well-placed stairs and accessibility features, making the space user-friendly for all visitors. The structural design has been developed using Tekla Structural Designer ensuring precise modeling, structural safety, and cost optimization. It focuses on material efficiency while adhering to safety standards, including dead, live, and seismic load considerations. The design also incorporates sustainable practices, such as energy-efficient systems and resource-conscious construction to meet global environmental standards. The project deliverables include a detailed working plan, architectural and structural layouts, and a comprehensive cost estimate based on the Public Works Department (PWD) schedule of rates as per Government of Tamil Nadu. The S3 Supermarket is designed to offer quality products at reasonable prices, making it accessible to all income groups and fostering inclusivity. Thus, by blending innovation, affordability, and sustainability the S3 Supermarket sets a new benchmark for urban retail spaces, offering solutions for modern urban living while being adaptable to global markets.

Status of Indoor Air Pollution in Schools at Imphal and Mitigation Strategies – An Overview

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Abstract

The air pollution problem is becoming one of the most critical issues of the present era, affecting climate change and public health. In an urban set-up, industrial and vehicular emissions are the leading cause. Urbanites living in areas with high levels of air pollution are exposed to hazardous gases, particulates, pathogenic bioparticles, heavy metals and a host of other chemicals. Urban school-going children are routinely exposed to air pollutants in heavy streets and school campuses. The concentration of pollutants inside the school may sometimes exceed the levels in the surrounding environment. Deterioration in indoor air quality is a serious concern as children spend longer indoors and are the most vulnerable. The present study intends to understand the status of indoor air pollution in schools at Imphal and mitigation strategies. Moreover, the air quality management process is a stepwise procedure to identify the air quality control area based on ambient air status and a framework program involving all the stakeholders. The successful execution of a management plan depends on strength of the objective, monitoring network, emission inventory, air quality modelling, control strategies and public participation. The study provides an overview of indoor air pollution at schools and suggesting the appropriate mitigation strategies for better management of environment.

Negative Emissions and Removal Technologies of Atmospheric Methane

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Abstract

Over the last couple of centuries, there has been a steady increase in the concentration of greenhouse gases (GHGs) in the atmosphere, enhancing global warming. Methane is one of the most important GHG contributing to the present-day global warming. As CH₄ is far more potent than CO₂ in radiative forcing, CH₄ emissions abatement and absorption is considered as a major option to restrict global climate change. Technologies pertaining to negative emissions aim particularly to capture carbon including CH₄, in the atmosphere. The technologies for CH₄ removal include photocatalysts, metal catalysts associated with zeolites and porous polymer networks, biological CH₄ removal, industrial approaches and approaches for managing soils in agriculture, etc. It is noteworthy to mention that negative emissions technologies should be viewed as complementary to conventional decarbonization methods and not a substitute. Today, most of the negative emission technologies are in the developing stage, which needs further research, technological innovations, investment, incentives and policy guidance. Hence, the present study focuses on the negative emissions and removal technologies of atmospheric methane and the observations are discussed accordingly. Also, it is to be noted that in due course of time, these technologies are expected to play a vital role in climate change mitigation.

Improving Security and Privacy in Mobile Devices Using Elliptic Curve Cryptography Technique Integrating with Machine Learning Algorithms

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Abstract

Cybersecurity is the keyhole, which ensures security where the data is kept confidential and protecting computers and its application programs. The data from unauthorized access or attacks that are aimed for exploitation is often referred to as Cyber Security. In today's world, mobile security is also more crucial not only for our society but also for every individual. In furtherance, everyone wants their own mobile device, which has results in a growth of increase in number of Android users around the world. Each device with internet access with a wide variety of applications, resulting in a large number of malwares in the mobile device. The present research adopted Elliptic Curve Cryptography (ECC), which is a public key cryptographic algorithm that uses pairs of public and private keys to encrypt and decrypt data, which is more suitable public key cryptography scheme for applications like payment systems in mobile devices where fast operations are needed. It is to be noted that data security in mobile devices not only depends on mathematical safe cryptographic algorithms but also integrates machine learning algorithms. This study presents a new technique for the mobile malware detection based on malwares network feature analysis. It uses Support Vector Machine (SVM) for malicious programs detection. This approach provides the ability to detect malware in the mobile devices. Moreover, this research exhibits a comprehensive assessment of machine learning and deep learning approaches and techniques for electronic information security in mobile networks. This study also suggests the hybrid approach using Elliptic Curve Cryptography (ECC) and Advanced Encryption Standard (AES), which provides a strong solution for improving the security of mobile device ensures that data is kept secure and confidential. Also, the research study uses ECC-AES is an encryption technique used to secure big data storage with the deep learning techniques for android malware classification.

Effective Source Segregation of Waste through Adopting Behaviour Change Communication Framework in Municipality at Andhra Pradesh

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Abstract

The effective source segregation of waste is quite crucial for sustainable waste management, especially in small municipalities. Hence, this research study focuses on Rajam Municipality at Andhra Pradesh to understand and evaluate the role of behaviour change communication (BCC) in enhancing source segregation practices among key stakeholders—households and municipal monitoring staff. The study included 200 households from Rajam Municipality through stratified random sampling. The key interventions comprise of door-to-door awareness campaigns, interactive workshops for households, and capacity-building sessions for municipal staff to emphasize their role in ensuring compliance. Moreover, community-focused messaging has been designed by researchers to address the local cultural norms and behaviours, fostering collaboration between residents and monitoring staff. The researchers adopted a mixed methods approach by combining quantitative and qualitative data for analysis. The post-intervention analysis revealed a significant improvement in segregation practices, with 76 percent of households adhering to source segregation compared to 30 percent at baseline. Additionally, the municipal staff reported enhanced monitoring efficiency and compliance tracking due to targeted training. The barriers are identified as inconsistent household participation and gaps in staff resources, which have been addressed through iterative feedback mechanisms. The study underscores the importance of engaging both households and municipal staff in a structured BCC framework. Also, recommended scaling-up such models in similar settings with a focus on sustained communication, regular monitoring, and infrastructure support to ensure long-term success.

Enhanced Spectrum Detection Framework for Proficient Wireless Communication in Wireless Sensor Networks

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Abstract

Spectrum sensing is fundamental in cognitive radio networks (CRNs), allowing unlicensed users to utilize underused frequency bands without causing disruptions to licensed or primary users (PUs). Due to the advent of wireless communication devices, there is a need for efficient spectrum utilization due to spectrum scarcity. The recent developments in deep learning techniques have improved signal analysis, outperforming conventional approaches like energy detection. This study proposes an innovative spectrum sensing technique that combines Bidirectional Gated Recurrent Units (BiGRU) with Transformer networks (TNs) to enhance spectrum efficiency. The BiGRU architecture is proficient in capturing temporal dependencies in both directions within the spectrum data, facilitating the extraction of significant features from in-phase and quadrature (IQ) signals. Conversely, the transformer networks are particularly effective at capturing long-range correlations, which further refines these extracted features, thereby enhancing detection accuracy. The proposed framework in this research will significantly reduce sensing inaccuracies and increase detection probability by adeptly recognizing patterns within the spectrum. In furtherance, evaluation metrics such as Cohen's Kappa coefficient and F1 score can be evaluated to this methodology for better spectrum sensing strategy. The combination will be a potential framework for applying the BiGRU-Transformer model in practical wireless communication scenarios, leading to improved spectrum management and valuable advancements in this domain.

A Study on Eco-Restoration at Gowtham Khani Open Cast Coal Mine in Kothagudem at Telangana

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Abstract

Biodiversity is a term we use to describe the variety of life on Earth. It refers to a wide variety of ecosystems and living organisms, animals, plants, their habitats and their genes. Furthermore, biodiversity boosts productivity of the ecosystem, wherein each species, no matter how small, all have an important role to play. Coal mining is usually associated with the degradation of natural resources and destruction of habitat. This causes invasive species to occupy the area, thus posing a threat to biodiversity. Huge quantities of waste material are produced by several mining activities in the coal mining region. If proper care is not taken for waste disposal, then coal mining will degrade the surrounding environment. The method of waste disposal affects the land, water and air, which in turn deter people's quality of life in the adjacent areas. Ecosystem destruction by mining coal to meet the demands of industries is an inevitable part of civilization. In furtherance, all over the world, the mining sector is crucial in bringing development and economic prosperity. More than 80 percent of mineral production is done by open cast mining method, which ends up in the production of large quantities of overburden. The increasing human need and greed for these different resources is accelerating the degradation of natural habitats because most of the mining areas are on the land, which was previously occupied by forests. Today, the world is facing the challenge of meeting the developmental needs of the growing population from shrinking natural resources. This study focuses on eco-restoration through adopting possible sustainable development patterns. The reason being sustainable development by itself is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for future generations.

Navigating India's Fintech Revolution: Technology, Finance, and Policy Insights

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Abstract

India's fintech sector is experiencing exponential growth, with a market size projected to reach USD 421 billion by 2029. The increasing smartphone penetration has necessitated the regulators proactively towards fostering a supportive environment. The reason being a large un-banked population drive this growth, which account for future economic development. With over 11,000 fintech startups, including 25 unicorns and a decacorn, the sector is reshaping the financial landscape. Digital payments, led by the Unified Payments Interface (UPI), which has grown from 1 million transactions in 2016 to over 14 billion monthly transactions in 2024. It underscores its transformative impact on financial inclusion. This is because of pandemic and post-pandemic effects since March 2020, wherein the digital payments gained enormous momentum. Additionally, funding in fintech remains robust with significant investments in payments and lending platforms. However, this rapid expansion also brings challenges such as regulatory uncertainties, cyber-security risks, consumer protection issues, and operational scalability. These challenges require immediate attention to ensure sustainable growth. The research uses a mixed-methods approach, which included both qualitative and quantitative analyses. It also includes literature reviews and case studies. The key findings of this study highlight the dominance of digital payments, need for robust cyber-security frameworks, and significance of regulatory sandboxes for fostering controlled innovation. Economic benefits included reduced transaction costs, increased access to financial services, and improved consumer welfare. However, limitations such as regulatory uncertainty, low digital literacy, and data privacy concerns remain significant hurdles. The study concludes that understanding global benchmarks like Kenya's M-Pesa and Estonia's blockchain initiatives, alongside India's Aadhaar-enabled Payment System (AePS) can offer valuable insights for creating resilient and inclusive financial systems. Thus, by addressing these challenges and leveraging its strengths, India is well-positioned to lead the global fintech revolution.

Financial Performance Evaluation of Private Banks Listed in Nifty Bank Index: A Decadal Study using the Camel Framework

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Abstract

Private banks play a significant role in the economic development of India, and understanding their performance over time helps to assess their strengths and areas of improvement. This research study evaluates the financial performance and stability of three private banks (HDFC Bank, Axis Bank, and ICICI Bank) based on the market capitalization listed in the Nifty Bank Index, using the CAMEL rating system from 2014-2023. The CAMEL framework has been employed to assess banks' overall performance across five key dimensions: Capital Adequacy, Asset Quality, Management Efficiency, Earnings Quality, and Liquidity. A longitudinal data set covering 10 years has been analyzed, and composite rankings are calculated for each bank based on their performance metrics. The results indicated significant variations in the performance of the selected banks. AXIS bank emerged as top-performing bank with the highest composite average score of 21.14, showing excellent management efficiency and earning quality. HDFC bank followed closely, with a composite average of 20.74, displaying a consistent performance across most parameters. ICICI bank ranked lowest with a composite average of 20.28, which attributed to weaker asset quality and liquidity management during the study period. ICICI banks should implement strategic improvements in their management practices and asset quality to enhance their performance. Additionally, these banks should focus on strengthening their capital adequacy ratio and liquidity management to ensure long-term sustainability in a competitive banking environment.

Role of Innovation and Technology in Entrepreneurship and Development – A Conceptual Overview

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Abstract

Innovation and Technology are the most interesting concepts for promoting entrepreneurship development. Entrepreneurial activities require innovation when entrepreneurs tend to move from initial disequilibrium to equilibrium. Technological innovation plays a pivotal role in transforming industries, creating competitive advantages, and fostering sustainable economic growth. Innovation and technology have become central drivers of entrepreneurship and economic development. With the rapid advancement of technology, new opportunities for entrepreneurs are emerging, enabling them to introduce disruptive solutions, enhance product offerings, and reach broader markets. The government policies have been supporting both entrepreneurship and innovation as such support is helpful for organizations as they design programs and develop policies for growth and sustainability. This study explores the role of innovation and technology in entrepreneurship and development, highlighting how various technologies, such as artificial intelligence (AI), blockchain, and Internet of Things (IoT) are reshaping entrepreneurial landscapes and contributing to economic growth. Moreover, the paper delves into the ways in which technological innovation supports entrepreneurship and accelerates development, emphasizing the importance of innovation in creating new industries and driving competitive economies.

A Study on Sustainable Business and Green Entrepreneurship in the Circular Economy

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Abstract

Sustainable business practices, green entrepreneurship, and circular economy are reshaping industries by promoting resource efficiency and reducing waste. Despite growing awareness of environmental issues, many businesses continue to struggle with adopting sustainable practices, leading to inefficient resource use and increased waste. The aim of this study is to explore the research trends regarding the potential of sustainable business practices, green entrepreneurship, and circular economy in improving resource efficiency, minimizing waste, and promoting environmental sustainability in modern industries. This study has conducted a bibliometric analysis based on 546 English-language documents indexed in Scopus as of December 2024 from a total of 551 records. This study provides a comprehensive analysis of these themes using co-authorship, keyword co-occurrence, and journal collaboration networks. The co-authorship analysis highlights influential contributors such as Nancy M.P. Bocken, Martin Geissdoerfer, and Daniela C.A. Pigasso with prominent clusters reflecting collaborative networks and thematic groupings. In furtherance, the keyword co-occurrence maps highlight the ‘circular economy’, ‘sustainability’ and ‘waste management’ as key themes linked to innovation, corporate responsibility, and digitalization respectively. The emerging trends includes applications in fashion, microalgae, and developing countries, with a focus on recycling, resource efficiency, policymaking, and stakeholder engagement. The journal collaboration network identified journals like Journal of Cleaner Production, Sustainability (Switzerland), and Business Strategy and the Environment as key contributors, with increasing publication trends (2020–2024) reflecting the growing global interest in these fields. This study addresses the research gaps by mapping interdisciplinary collaborations, emerging trends, and high-impact themes in sustainability and circular economy, offering policymakers to have actionable insights to design evidence-based strategies and foster sustainable development.

Artificial Intelligence and its Impact on Innovation – An Overview

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Abstract

Artificial Intelligence (AI) is revolutionizing various industries by automating repetitive tasks, enabling data-driven decision-making, creating new business models, and improving customer experience. Technologies driving innovation includes Machine Learning, Natural Language Processing, Computer Vision, Robotics, and Deep Learning. Industries transformed by AI viz. healthcare, finance, transportation, retail, and manufacturing. However, AI faces challenges such as data quality, explainability, bias, job displacement, and regulatory frameworks. AI systems can perpetuate existing biases and discrimination, if not designed and trained carefully. The future of AI-driven innovation is expected to see increased adoption across industries, advancements in explainability, a growing focus on ethics, new business models, and human-AI collaboration. Moreover, prioritizing ethics, transparency, and accountability is essential to ensure AI benefits towards its applications for wellbeing of humanity. AI is also facilitating creativity and innovation in arts, boosting decision-making capabilities, and addressing global challenges like climate change, resource scarcity, and disease outbreaks.

Impact of Workplace Culture and Employee Behaviour on Organizational Wellbeing in Amor Management Consultancy, Chennai

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Abstract

In today's fast-paced and highly competitive business environment, the success of an organization is significantly influenced by its human resources. As such, understanding and improving employee performance has become a critical concern for management consultants and organizational leaders. The reason being employee behavior within an organization encompasses a broad range of actions and attitudes that employees exhibit in the workplace. These behaviors are influenced by individual characteristics, organizational culture, leadership styles, and external environmental factors. Furthermore, employee behavior can be constructive, leading to enhanced performance and organizational effectiveness, or it can be detrimental, resulting in reduced productivity and increased turnover. Moreover, understanding the intricate relationship between organizational employee behavior and organizational wellbeing is paramount in modern project management. As organizations strive for efficiency and productivity, it becomes imperative to delve into how employee behavior influences overall performance within the organizational context. Keeping these aforesaid aspects, the study focuses on the exploration of how organizational employee behavior impacts performance management, which is a multifaceted issue that involves psychological, social, and managerial dimensions. This study not only sheds light on individual and team dynamics but also offers insights into crafting strategies to optimize productivity and foster work environment. In furtherance, performance management on the other hand refers to the systematic process by which an organization involves its employees in improving organizational effectiveness in the accomplishment of the organization's mission and goals. The researchers aim to reveal the multifaceted interplay between employee behavior and workplace culture, paving the way for informed decision-making and enhanced outcomes.

Impact of Time Value of Money for Investment Decision in Developing Economy – A Conceptual Overview

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Abstract

Money has a different value based on timing of cash flow. For instance, ₹100 received today is greater than ₹100 receivable in a later year because money has a time value. The value of money keeps declining due to inflation aspect. The time value of money is the reward for the postponement of consumption of money. Also, the time value of money can be different for different people because each one has a different desired compensation for the postponement of consumption. The value of money is based on the sum of inflation rate, real rate of return on risk free investment and risk premium. In order to invest by the individual or the corporate, they need to know the future value of the investment whether they get the profit or not. In case anyone wants to borrow money then they need to pay interest along with the principal amount. Hence, this study focuses on helping individuals in knowing the value of money, which is borrowed and invested based on the timing. There are concepts that are related to the time value of money along with the formula, which has been explained in this research. In furtherance, the study discusses the concept of time value of money and describes it from the viewpoint of individual, both theoretically and practically. This research is more useful for the people who want to invest and to borrow money, wherein they can refer to this study for effective use of the money.

Local Businesses in Economic Growth – A Conceptual View

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Abstract

Local businesses in India are the key drivers of economic growth for a developing country like India. In India, small and micro enterprises contribute an estimated 33 percent to the GDP. Moreover, in every economy, small businesses are a million little integral parts of a lavish car, which help the engine to keep running, but all that someone can see from the outside are the four tyres (i.e., big corporations) that give the car speed. It is confirmed that 65-75 percent of the innovations in India comes from the industry of small business. They have a major role in the country's socio-economic development including employment generation, reducing inequalities, correcting regional imbalances, and providing low-cost raw material for different sectors. Micro-enterprises have limited investment requirements in most cases and are relatively accessible sources of livelihood for people in Tier 2 and Tier 3 as well as rural areas. The micro entrepreneurs are driven by not only just the purpose of earning a better livelihood but also harnessing an opportunity they identified – a challenge at scale, for which they can provide solutions. India's micro entrepreneurs are thus taking the lead in bringing about an upward change and playing a vital role in the country's economic development, with technology as the enabler. The present study intends to conceptually understand the significance of local businesses in economic growth.

A Study on Impact of Entrepreneurship Education and its Adoption as Career Choice Among Students at Adamas University, Kolkata

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Abstract

Entrepreneurs are considered to be the drivers of economic growth in a country. They play an active role in creating jobs which ultimately leads to prosperity of an economy. Many entrepreneurs have a deep concern for society and they are increasingly adopting sustainable business practices to develop a sustainable society. These entrepreneurs may rightly be called sustainable entrepreneurs, who are proponents of sustainable entrepreneurship. The colleges and universities in India should serve as the breeding grounds of wannabe entrepreneurs, including sustainable entrepreneurs, which is the emerging buzzwords in the field of entrepreneurship today. The study aims to broadly assess the impact of entrepreneurship education on adoption of entrepreneurship, especially sustainable entrepreneurship, as a career option by the students. The study has been carried out on BBA students of Adamas University, Kolkata, West Bengal. It explores the effectiveness of entrepreneurship courses of BBA curriculum in generating entrepreneurial interest, including sustainability aspects of business among the students. This study analyses whether students are developing a strong inclination on adoption of entrepreneurship thereby tending towards making a career choice through sustainable entrepreneurship by studying different courses on entrepreneurship. This study provides valuable insights regarding the utility of entrepreneurship courses and useful recommendations for possible improvements (if any) in imparting entrepreneurship education at colleges and varsities.

Identifying Major Problems in Sports Entrepreneurship: A Comprehensive Study in Guwahati City at Assam

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&

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Abstract

The field of sports entrepreneurship plays a crucial role in economic development and job creation, yet it often encounters various hurdles that hinder its progress. This study seeks to examine and understand the primary challenges faced by sports entrepreneurs in Guwahati City at Assam, which is an emerging centre for sports activities in Northeast India. Using a mixed-method approach, this research incorporates both qualitative and quantitative techniques, including structured interviews and surveys conducted with entrepreneurs, industry stakeholders, and experts. The study identifies significant barriers such as inadequate sports infrastructure, limited funding opportunities, insufficient awareness about entrepreneurial prospects in the sports sector, restrictive policies, and a lack of support mechanisms. Additionally, it delves into the socio-cultural and economic factors respectively, which are affecting the region's sports entrepreneurship ecosystem. The initial findings suggest that entrepreneurs in this domain encounter difficulties stemming from a scarcity of financial and institutional resources. The absence of specialized training programs and effective networking opportunities further inhibits the growth of innovative sports ventures. The research underscores the importance of creating targeted policies, establishing sports-focused incubation facilities, and fostering collaborations among stakeholders to develop a supportive entrepreneurial framework. This study offers valuable insights for policymakers, educators, and industry professionals aiming to strengthen the sports entrepreneurship landscape in Guwahati. It also encourages further investigation into developing strategies for overcoming these challenges and ensuring sustainable development within the sector.

Impact of Secondary Victimization among Domestic Violence Victims in Dwarka, Delhi

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Guest Faculty*

&

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Abstract

The trend of NCRB report shows an annual increase in crimes against women, with domestic violence being a significant global concern. Domestic violence is an important social and public health concern that is pervasive around the world. Secondary victimization is a negative social or societal response to first victimization and is perceived by the victim as a further violation of their legal rights or entitlements where victims suffer from an unfavourable outcome which usually goes against their number of crucial expectations. The present study investigates the secondary victimization in domestic violence cases, focusing on the impact of family members, acquaintances, and police officials on reporting culture. Also, it aims to understand if secondary victimization causes recurrence such as the form of victimization that affects victims, identifying the principal perpetrators, fear among stigmatized individuals, and preventative measures. The primary data related to both reported and unreported cases have been collected among 30 victims in Dwarka at Delhi using systematic sampling and snowball sampling methods respectively through interview schedule. Moreover, the collected data are entered in MS Excel and analysed using simple frequency and chi-square test. The results are represented through diagrams, tables, etc. The findings showed that most women have experienced domestic, psychological and emotional abuse from their husbands and in-laws, whereas with secondary victimization victims experienced of being blamed, emotionally blackmailed, and being portrayed as primary aggressors from their in-laws and own family members.

A Study on Correlation Between Social and Economic Pattern Changes in Dhupguri Block at Jalpaiguri District, West Bengal

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Abstract

Dhupguri is a community development block located in the foothills of the Himalayas and is an administrative division of Jalpaiguri district in the Indian state of West Bengal. The study analyzes the key sectors such as agriculture, trade, infrastructure development, and social services to understand the transformation in the Dhupguri economic landscape. With the rise of both traditional and modern industries, the changes highlight shift in employment patterns, income levels, and livelihood strategies. The growing role of agriculture, trade, tea cultivation, alongside the expansion of road networks and connectivity has fostered regional economic integration. The growing role of agriculture, trade, tea cultivation, expansion of road networks and connectivity has fostered economic changes in the Dhupguri Block. The changing landscape of the growing economy of Dhupguri block has been outlined through qualitative and quantitative analysis using data collected through a socio-economic survey and results are discussed accordingly.

Evolving Trends in the Nutritional Health Status among the Women in India: An Overview from NFH Survey Reports

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&

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Abstract

The nutritional status of women in India has been a subject of continuous concern, and the trends over time, as documented by the National Family Health Survey (NFHS) reveals both progress and ongoing challenges. The NFHS data provides valuable insights into the changing patterns of malnutrition, undernutrition and overnutrition among Indian women, reflecting shifts in socio-economic conditions, healthcare access, and dietary habits. Over successive rounds of NFHS, improvements in certain areas such as reduction in the prevalence of underweight women have been observed both in urban and rural areas respectively. The present research is a cross-sectional study based on data from the latest round of National Family Health Survey round 4 and round 5 conducted among urban and rural women. This paper analyses the key trends in women's nutritional status according to NFHS data, wherein it evaluates the effectiveness of government programs like the National Nutrition Mission (POSHAN Abhiyaan) and emphasizes on the need for a comprehensive approach that balances the efforts to combat both undernutrition and overnutrition among Indian women. It is since 1998 the prevalence of undernutrition among women has been decreasing at a considerable rate. Hence, this study attempted to understand the shift in pattern of nutritional health of women in India.

Structural Inequalities in Gender and Sexualities in the Context of Cultural Anthropology - A Conceptual Study

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Abstract

Sex, Gender and Sexualities have undergone paradigm shifts in the recent present. While biological perspectives define sex, gender and sexuality are culturally conditioned. The balance that rules them is reproached without clear distinctions and role plays. Though human sexuality should be natural yet they are often modified, reshaped, controlled and become symbols of cultural importance. The complex and elaborate biological element in them make the whole structure variable. The twenty-first century gender ideologies tend to disseminate the differences to work on common traits and expressions. Furthermore, the gender norms and roles create a behavioural pattern like structure, which should be beneficial for all rather than 'either-or'. Structural inequalities create a crisis of unfair advantage and discrimination. This inevitably affects the social structures that work in and out of it. This research paper attempts to study the structural inequality, its patterns and impact on man and woman in society. It will also trace the structural determiners, which may help to regulate and balance the social and hierarchical relations of power. The study is channelized through cultural anthropology, which outlines the influence of people's credence, practices and foundations that inevitably make adaptations in society, man and woman. There is a need to have a comprehensive understanding of the social implications of these structural inequalities and the way their social determiners need to shift and accommodate the changing gender needs and acceptance of gender identities. Moreover, if the focus can be placed on the dynamics of gender and sexualities then probably differences can be created without compromise.

Analysing the Usage Patterns of Smartphones by Police Personnel for Handling and Controlling Crime Activities at Bikaner District, Rajasthan

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&

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Abstract

The crime activities are changing with time and trends. Therefore, police personnel must update their methods of handling and dealing with it to alleviate the crime happenings to the maximum possible extent. Nowadays, technology makes it easier for the police personnel to execute their roles more effectively. When it comes to technology, smartphones are the basic and widely used portable device. Use of smartphones plays a crucial role in the present scenario. It can assist the police personnel in several ways, including crime investigation, crime scene documentation through photography, arrival at the crime scene, tracking down suspects and criminals, GPS assistance to assist others in need of assistance, and speedy communication with colleagues and various other departments. The major aim of this study is to understand the extent and patterns of usage of smartphones in the professional life of police personnels. The study has been conducted among Rajasthan police personnels of Bikaner District and total 42 samples are collected through personal interview schedule using simple random sampling technique with the help of structured questionnaire. The study included both qualitative and quantitative data, wherein SPSS software is used to analyse quantitative data. The present research suggests better ways to utilize the smartphones effectively in criminal investigations. The researchers have strongly recommended that police departments to be provided with a separate smartphone only for work-related purposes along with adequate training on how to optimally use its features.

Overview of Victimization of Sri Lankan Tamil Refugees in India: Challenges, Solutions and Future Prospects

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Abstract

Sri Lankan Tamils were allowed to settle as refugees in Tamil Nadu in 1980s and 1990s due to systemic violence from the Sinhalese of Sri Lanka. The Sri Lankan Tamil refugees in India has been a matter of international importance in accordance with their peaceful living and prosperity. This includes various aspects in terms of ensuring proper treatment on humanitarian grounds and providing secure living. Moreover, it is a matter of global concern, wherein it indirectly impacts the geopolitics in lieu of global harmony and particularly southern part of India. It is to be noted that the Citizenship (Amendment) Act, 2019 (CAA) was passed by the Parliament of India by the present ruling Union Government on 11th December 2019. This act has excluded 58,000 Sri Lankan Tamil refugees who have lived in India since 1980s. Moreover, the act does not mention anything about Tamil refugees from Sri Lanka. This act was the first time in its kind that religion had been overtly used as a criterion for citizenship under Indian law, wherein it has been subjected global criticism. Despite these aforesaid aspects, victimization has been seen as a practice over the years, wherein the CAA has not made any mention of their safety and protected living conditions. Hence, this paper delves into the plight of Sri Lankan Tamil refugees in India, shedding light on the challenges they face, the factors contributing to their victimization, and potential solutions to mitigate their suffering. Drawing upon a comprehensive review of existing literature, qualitative interviews, and statistical data, this study examines the socio-political, economic, and legal dimensions of the refugees' experience in India. Also, this study explores the historical context of the Tamil refugee crisis, the dynamics of discrimination and marginalization, and the implications of India's refugee policies on the well-being of this vulnerable population. Furthermore, the researcher discusses the role of international organizations, civil society, and governmental agencies in addressing the needs and rights of Sri Lankan Tamil refugees. Thus, by offering insight into the complex realities faced by this marginalized community, this study aims to inform policymakers, humanitarian practitioners, and scholars about the urgent need for targeted interventions and long-term strategies to alleviate their suffering and promote their dignity and rights.

Emerging Trends in Online Banking Frauds: An Analysis of Techniques and Countermeasures

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Abstract

Online banking fraud has become a major threat in the digital age as cybercriminals use new techniques to exploit financial vulnerabilities. This research explores the emerging trends in online banking fraud, including phishing, ransomware, social engineering, and persistent threats. It also examines technologies used by cybercriminals, such as intelligence-driven attacks, deepfakes, and new malware. The study evaluates countermeasures taken by financial institutions, including artificial intelligence, biometric authentication, blockchain technology, and public reporting for fraud detection. This paper aims to review technology and protections to identify the gaps in current systems and offer recommendations to improve online institutional money security.

Trends and Patterns of Educational Migration in India (1991-2021) – A Conceptual Study

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Abstract

Educational migration in India is happening for many years. However, it has gained momentum in accordance with the trends and patterns in the past two decades. Therefore, the present study focuses on the systematic cause of internal migration for ‘education’ or ‘studies’ in India through a conceptual analysis. This analysis examines on the trends, patterns and other relevant characteristics of educational migration during the last three decades (1991-2021). It employs descriptive and inferential statistical methods as well as graphical tools by using secondary datasets from Census of India 1991, 2001, 2011 and NSS 78th Round 2020-21. There have been a few researches on internal migration for education in India. Unlike labour migration, this area of study is relatively less researched. Perhaps, it could be due to the minimal share of educational migrants (1.2 percent in 2011) out of the total volume of internal migration. Moreover, it should not be ignored based on a mere proportional measure. The population dynamics behind educational migration and its impacts need to be studied from different perspectives. It is seen that the actual volume of educational migrants has grown by leaps and bounds. For example, the decadal growth of educational migration during 2001-2011 was 62.8 percent. There are variations or anomalies across selective streams or state or regions. Educational migrants can be considered as precursor of human capital. Hence, this type of migration is directly related to labour market and subsequently economic development. Furthermore, here lies the rationale and purpose of this study to explore the underlying aspects of educational migration in India and its impacts across the terminal places. The findings and suggestions of this research will be useful for better understanding of educational migration.



Karma Veer Maharatna. Professor Dr. R. Ganesan earned his doctorate from the reputed IIT Delhi with a special focus on Entrepreneurship Development. He possesses more than 26 years of research experience in the field of entrepreneurship and management. He has served in different academia ranging from Deemed Varsities, Engineering Colleges, Arts & Science Colleges, B-Schools, and International Varsities. He has more than 85 research contributions to his credit, which are published in refereed and indexed journals, books, book chapters, monographs, and conferences. He is a global author in Women Entrepreneurship, whose research papers are listed in Google Scholar and indexed in Web of Science ISI (AHCI & ESCI), MLA Citations, Scopus, ABDC, EBSCO, Cabells' Directory, etc.

He has authored two books on women entrepreneurship development and insurance management, which have been published at Germany and published 30 edited books. He is serving as an editorial member and reviewer for numerous journals and possesses more than 22 years of editorial experience. He has edited more than 950 research articles and chapters to his credit, which includes his editorial experience across refereed and indexed journals, conferences, and book chapters at national and international levels. He has organized and hosted 3 national conferences, 7 international conferences, 4 international seminars and conducted 51 faculty development programmes (FDPs) respectively. He has delivered more than 275 national and international sessions (including webinar sessions) on Research & Development (Research Insights, Research Structuring, Publication Strategies, Statistical Insights, Crafting Literature Review and Publication Prospects), Entrepreneurship Development, Innovation, Managerial Skills, Career Development, Self-Management, Design Thinking, Employability Skills, Digital Marketing, etc. and inaugurated many Entrepreneurship Development Cells (EDCs) across the nation. He is the chief mentor for certification programs on E-Entrepreneurship and Innovation & Creativity for Business and Soft Skill Courses (Personality Development & Leadership Quality and Development). He has a deep inclination towards bringing up social sensation across communities and has hosted & organized 37 national award ceremonies for recognizing national and global talents. Also, he has an exorbitant interest in Tamil Literature, wherein he has written and published Agakurals (Voice of Self) for civility and few Traditional Poetries for self-realization and societal development. In commemorating his laudable academic, research and societal transformational services through upbringing entrepreneurship development he has been conferred with the prestigious title Karma Veer Jyoti (KVJ) by Indian Confederation of Non-Governmental Organizations (iCONGO), New Delhi, India on 22nd March 2015. He is the recipient of PFLA Excellence Award for his 'Outstanding Service to Education and Entrepreneurs' community from People First Leadership Academy (PFLA), Bengaluru, Karnataka on 19th January 2019. He has been conferred with 'Order of Eminence' the highest honour for his global contribution to research, teaching, and training in Entrepreneurship Development by the Presidium of NFED in its 10th National Teachers' Day Awards on 5th September 2019 at Coimbatore, Tamil Nadu. He has been conferred with the Prestigious MTC Global Distinguished Teacher Award in Entrepreneurship Development in the 9th World Edu Summit organized by Management Teachers Consortium (MTC) Global on 7th September 2019 at Bengaluru, Karnataka. He has been bestowed with the prestigious Pride of India Award by South Asian Institute for Advanced Research and Development (SAIARD), Kolkata, West Bengal on 16th October 2022. He has been bestowed with Karma Veer Maharatna (KVM) by Indian Confederation of Non-Governmental Organizations (iCONGO), New Delhi, India under Social Justice & Citizen Action for his lifelong services towards bringing Social Transformation through Entrepreneurship Development on 26th November 2024 at Noida, Uttar Pradesh. In recognizing his immense contribution to Innovation and Development he has been endorsed with the coveted Global Leadership Award on 7th December 2024 in the International Conference on Interdisciplinary Research in Technology & Management (IRTM)-December 5-7 '2024 conducted at NIT Calicut, Kozhikode, Kerala organized by Institute of Engineering & Management (IEM) - University of Engineering & Management (UEM) Group, Kolkata, West Bengal. He is the Founder Chairman and Presidium Chair of the renowned National Foundation for Entrepreneurship Development (NFED) and Founder & Chief Executive Officer of Technovate Educational & Consulting Services (TECS), Coimbatore, Tamil Nadu. He is the Founder and Editor-in-Chief of the reputed Technology-Information-Management-Entrepreneurship-Review (TIMER) - A Multidisciplinary Refereed International Journal published under the aegis of NFED. Also, he is the Founder & Chair of NFED Business Facilitators Forum (NBFF) - A Strategic Action Unit, Centre for Research & Training (CRT) - A Growth Action Unit and NFED Publications respectively under the ambit of NFED, Coimbatore, Tamil Nadu, India.

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