

SKCET

Buzz

20th - 26th January 2024



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INSTITUTIONAL EVENTS



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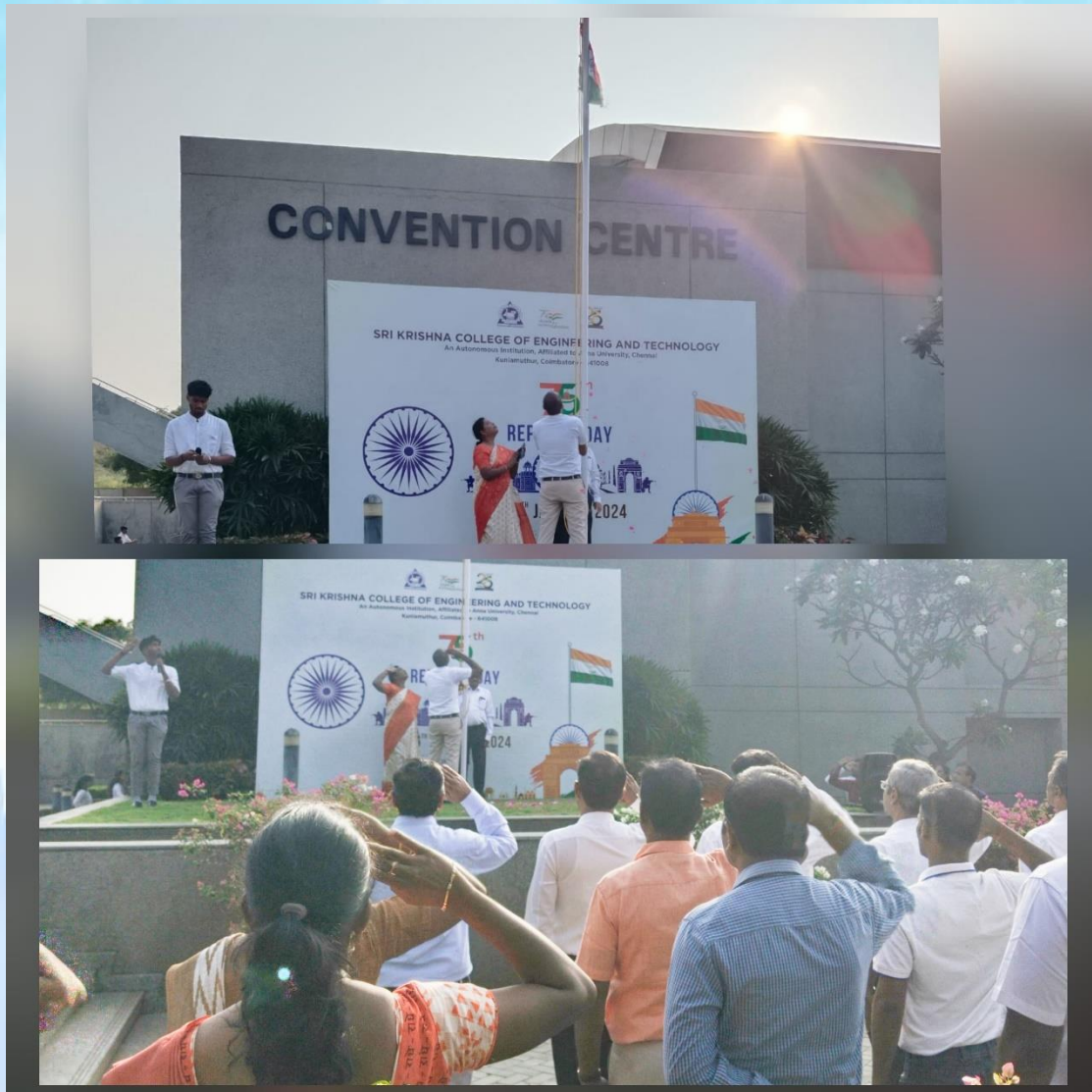


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SKCET | 75th REPUBLIC DAY CELEBRATION



SKCET: 75th REPUBLIC DAY CELEBRATION

Republic Day - The day of rejoicing was celebrated with great eclat at SKCET. The Chief guest of the ceremonious event was Dr.K Sundararaman, CEO, SKCET and our Principal Madam Dr.J.Janet presided over the event. With utmost respect and deep love for our nation, the Tricolor flag was hoisted and honored.

SKCET | 75th REPUBLIC DAY CELEBRATION



SKCET: 75th REPUBLIC DAY CELEBRATION

In a demonstration of national identity and unwavering patriotism, SKCET, as one family, administered the Oath of allegiance to the Republic of India.

SKCET | 75th REPUBLIC DAY CELEBRATION



SKCET: 75th REPUBLIC DAY CELEBRATION

An insightful speech marking the 75th Republic Day was delivered by our Chief Guest **Dr.K Sundararaman**, CEO, SKI.

Highlights of the Speech:

- Call for collective efforts in building a prosperous and harmonious nation.
- Responsibility of every citizen in overcoming challenges.

SKCET | 75th REPUBLIC DAY CELEBRATION



SKCET: 75th REPUBLIC DAY CELEBRATION

In celebration of India's glory and the sacrifice of its freedom fighters on this Republic Day, the dance crew of SKCET expressed their love for the nation through their captivating dance performance.

SKCET | 75th REPUBLIC DAY CELEBRATION



SKCET: 75th REPUBLIC DAY CELEBRATION

SKCET family relished the moments of true freedom

SKCET | MOU WITH AMBAL AUTO



SKCET formalized a Memorandum of Understanding with **Ambal Auto**, a division of **Sree Saradhambal Automobiles (P) Ltd.** Our beloved Principal **Dr. J. Janet** and **Mr. K. B. Sibimon**, Assistant General Manager of Ambal Auto exchanged the MoU. The agreement outlines the provision of automotive training for students and driving instruction for both students and faculty members of SKCET.

SKCET | EMPOWERING COMMUNITIES



Dr. J. Janet, Principal, along with faculty coordinators and the student volunteer team of UYIR club participated in the launch of the Village Development Program in Sundapalayam. This initiative was spearheaded by Anna University, Chennai. The event was graced by **Mr. V. Balakrishnan**, IPS, Commissioner of Police, Coimbatore City, and several other distinguished dignitaries. This undertaking represented a notable advancement within the Anna University-Village Adoption Scheme, known as "**Naadu Nam Veedu.**"



HACKATHON ACCOLADES



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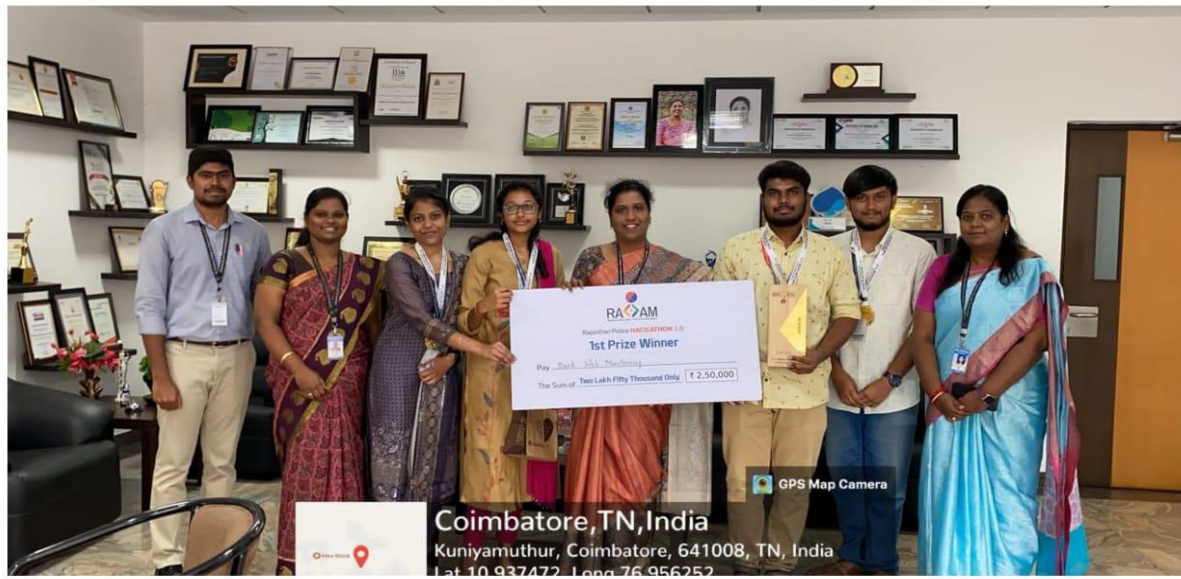
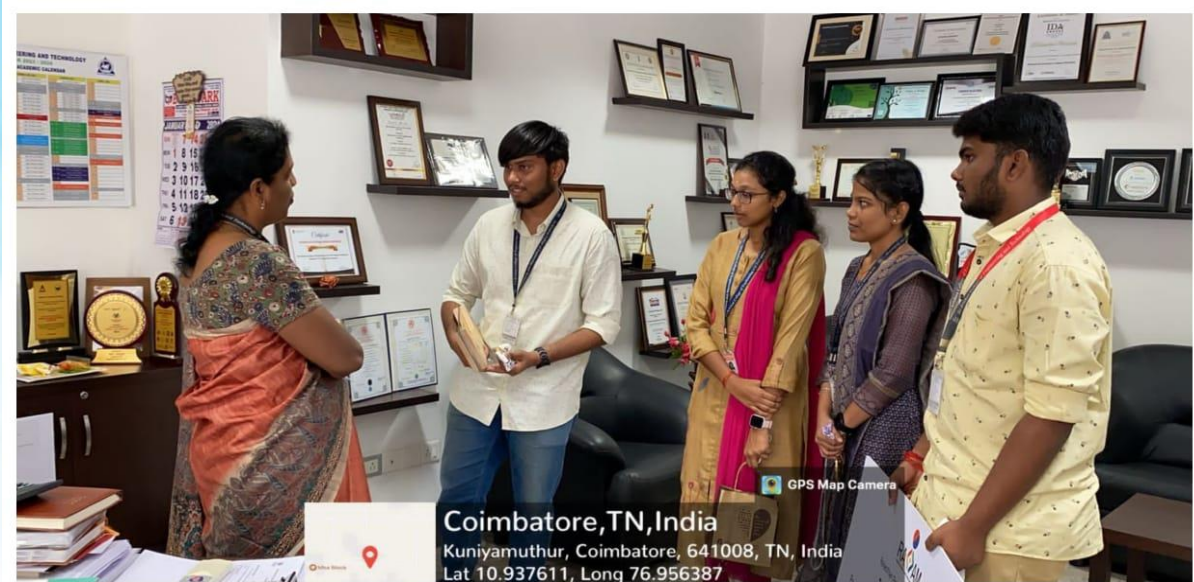


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M.TECH CSE | RAJASTHAN POLICE HACKATHON



Principal Madam **Dr. J. Janet**, conveyed her heartfelt congratulations to the enthusiastic **Third year M.Tech CSE** teams for securing the **First place** in the overall category of the **Rajasthan Police Hackathon** with cash award of **Rs. 2.5 Lakhs**. Madam expressed her profound encouragement to the accomplished teams, urging them to maintain their proactive approach, stay abreast of cutting-edge technologies and problem-solving.

CSE | RAJASTHAN POLICE HACKATHON SELECTION LIST



The **CSE** department proudly announces that Eight of our outstanding teams have emerged as finalists in the **RAJASTHAN POLICE HACKATHON 2024** - 17th & 18th January 2024. This remarkable achievement reflects the dedication and innovation embedded in the fabric of our department, showcasing our commitment to nurturing future leaders in the field. We extend our warmest Congratulations to each team and eagerly anticipate their impactful contributions to the final competition.

CSE | RAJASTHAN POLICE HACKATHON SELECTION LIST

Team Name 1 :Pyrocoders

	Name	Stream	Year
Team Member	Rooban Chakravathi S	CSE	I
Team Member	Rithesh S	CSE	I
Team Member	Praneetha R B	CSE	I
Team Member	Ratik Krishna M P	CSE	I

Team Name 2: Zero Bugs

	Name	Stream	Year
Team Member	Aditya Subramanian S	CSE	I
Team Member	Ahil Aditya R S	CSE	I

Team Name 3: ZZy squad

	Name	Stream	Year
Team Member	Bharath M	CSE	I
Team Member	Chandru R	CSE	I
Team Member	Darsan G	CSE	I
Team Member	Hariharak K		I

Team Name 4: Network Knights

	Name	Stream	Year
Team Member	Aryan Sharma	CSE	I
Team Member	Ajay Balaji B	CSE	I
Team Member	Cibi Sadhana D	CSE	I

Team Name 5: Code mavs

	Name	Stream	Year
Team Member	Praveen Kumar B	CSE	I
Team Member	Hari Varadhan NR	CSE	I
Team Member	Surabhi	CSE	I

Team Name 6: Team Eternals

	Name	Stream	Year
Team Member	Saran Kishore J S	CSE	I
Team Member	Sanjay K	CSE	I
Team Member	Nithishwar V	CSE	I

Team Name 7: StarBugs

	Name	Stream	Year
Team Member	Amala Ithayan M	CSE	I
Team Member	Rishi Kathick	CSE	I
Team Member	Dharunika H	CSE	I

Team Name 8: IntegrityXSquad

	Name	Stream	Year
Team Member	Jahan Sai J	CSE	I
Team Member	Dharanidharan S	CSE	I
Team Member	Gowtham S	CSE	I
Team Member	Gokul Kumar S		

Team Mentors:

Ms.S.Biruntha, AP and Ms.G.Renugadevi, AP, CSE

EEE | RAJASTHAN POLICE HACKATHON



Student's team of **EEE** Department has secured **4th place** out of 30 competing teams in **Rajasthan Police Hackathon** grand finale held at Rajasthan International Centre, Jaipur from 17.01.2024 to 18.01.2024. They have showcased exceptional brilliance for the Problem Statement '**System for Geotagging of Privately-Owned Cameras**'. The students were awarded with Merit Certificates.

Team Members:

1. Rejiv Elshan Nify J - III EEE B
2. Rathika P - III EEE B
3. Sharath K - III EEE B
4. Suriya Prasath NS - III EEE B

Faculty Mentor:

Mr. V.V.Vineeth, AP/EEE

ECE | RAJASTHAN POLICE HACKATHON



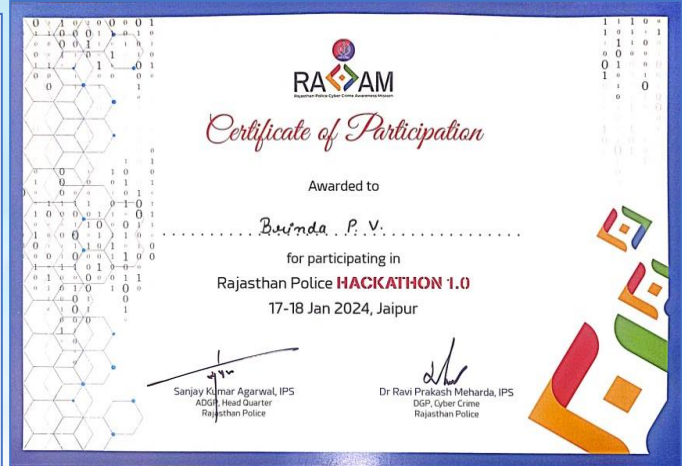
Third year Students from the Department of **Electronics and Communication Engineering** in their participated in the Hardware Edition of Rajasthan Hackathon-1.0 held at Rajasthan International Center, Jaipur, organized by the Rajasthan Police and has received recognition from esteemed Scientist Juries for their innovative project: “Anti Hostile Drone System”

Team Name: TEAMX

Team Members: Madhavan K, Karthikraja K, Rajaswathi G, Maragathalakshmi S

Team Mentor: Dr.B.Maruthi Shankar & Dr.J.Rejina Parvin, ECE

AI&DS | RAJASTHAN POLICE HACKATHON



Second year students team from Artificial Intelligence and Data Science comprising of P.V.Brinda, S.Logesh, K.V.Bharath and S.Amrith Menon, have participated in Rajasthan Police Hackathon 1.0 from 17.01.2024 to 18.01.2024 at Jaipur.



STUDENTS CERTIFICATION



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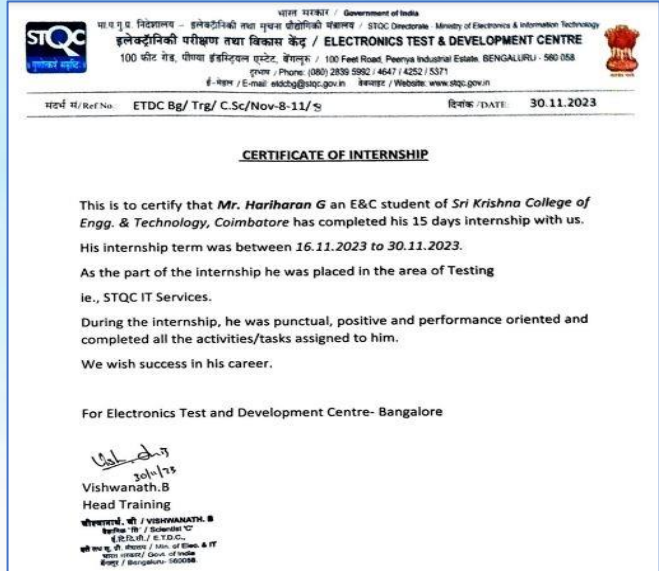
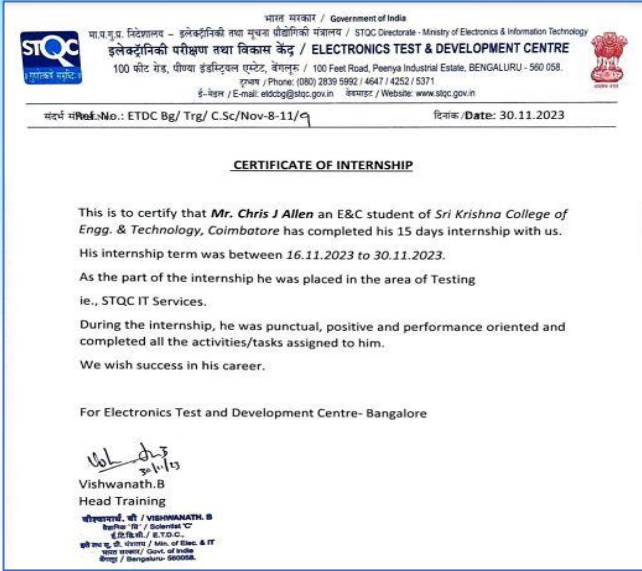


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ECE | INTERNSHIP @ ELECTRONICS TEST & DEVELOPMENT CENTRE



Chris J Allen and Hariharan G students of **ECE** Department have successfully completed Internship in **Electronics Test and Development Centre, Bengaluru**, for the period of 15 days from 16.11.2023 to 30.11.2023.

AI&DS | WORKSHOP PARTICIPATION



S.M Ashika, student of **Third year AI&DS** has attended a workshop on **"Present and Future Computing System"** at Indian Institute of Science, Bengaluru from 12.01.2024 to 15.01.2024.

CSBS | PAPER PRESENTATION



Sneharajalakshmi P, Midhun Kumar VN, Vikash Kumar S , Final year students from the Department of **Computer Science and Business Systems** under the guidance of **Dr.G.Ignisha Rajathi**, Associate Professor, **CSBS** have presented a paper titled **“KENKO - An AI System to Hold Health Records and Assist Individuals Across Cross Domains”** in the 6th International Conference on Recent Trends in Advanced Computing Theme: Cutting Edge Technologies in Computing- SDG (ICRTAC 2023) organized by the School of Computer Science and Engineering (SCOPE) in collaboration with VIT Business School from December 14th to 15th at Vellore Institute of Technology, Chennai.

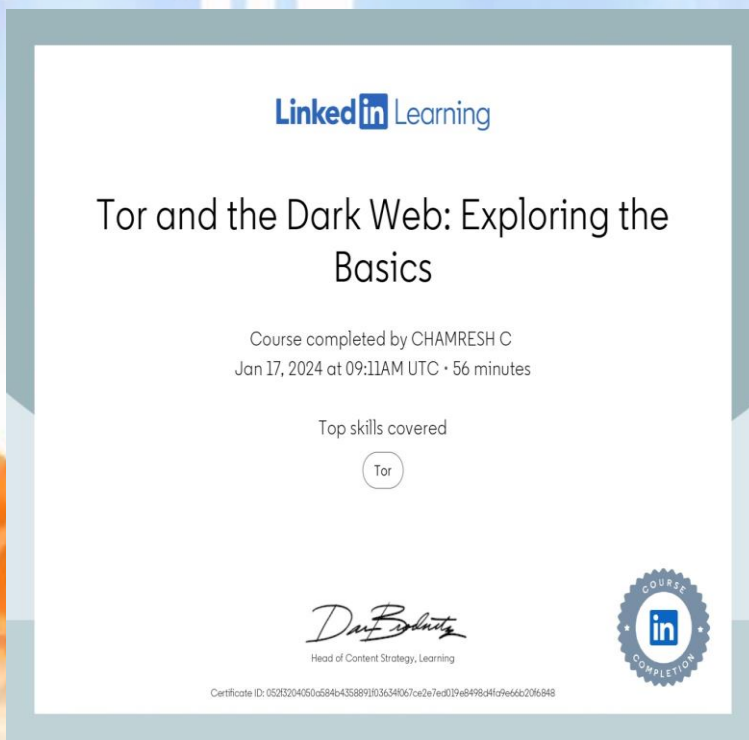
MECH | LEAN SIX SIGMA CERTIFICATION

Mr. Shivanshu Dabas, Third year,
Mechanical Engineering student,
has completed Green Belt
Programme on “Lean Six Sigma
Methodology” from KPMG, India.



CSY | LINKEDIN CERTIFICATION

Chamresh C, student of First
year **CSE (Cyber Security)**,
has successfully completed
the online Course of “**Tor and
the Dark Web**” powered by
LinkedIn Learning on
January 17th, 2024.



CSBS | PAPER PRESENTATION



Prakalya B S, Nitin Sailesh V, Sanchana M, Anbu Gandhi P, students of **Final year CSBS** under the guidance of **Dr.G.Ignisha Rajathi**, Associate Professor, CSBS have presented the paper titled **“SHOPSPHERE – Recommendation system to develop a warehouse with personalized troupe of products”** in the 6th International Conference on Recent Trends in Advanced Computing Theme: Cutting Edge Technologies in Computing-SDG (ICRTAC 2023) organized by the School of Computer Science and Engineering (SCOPE) in collaboration with VIT Business School from December 14th to 15th at Vellore Institute of Technology, Chennai.



EVENTS



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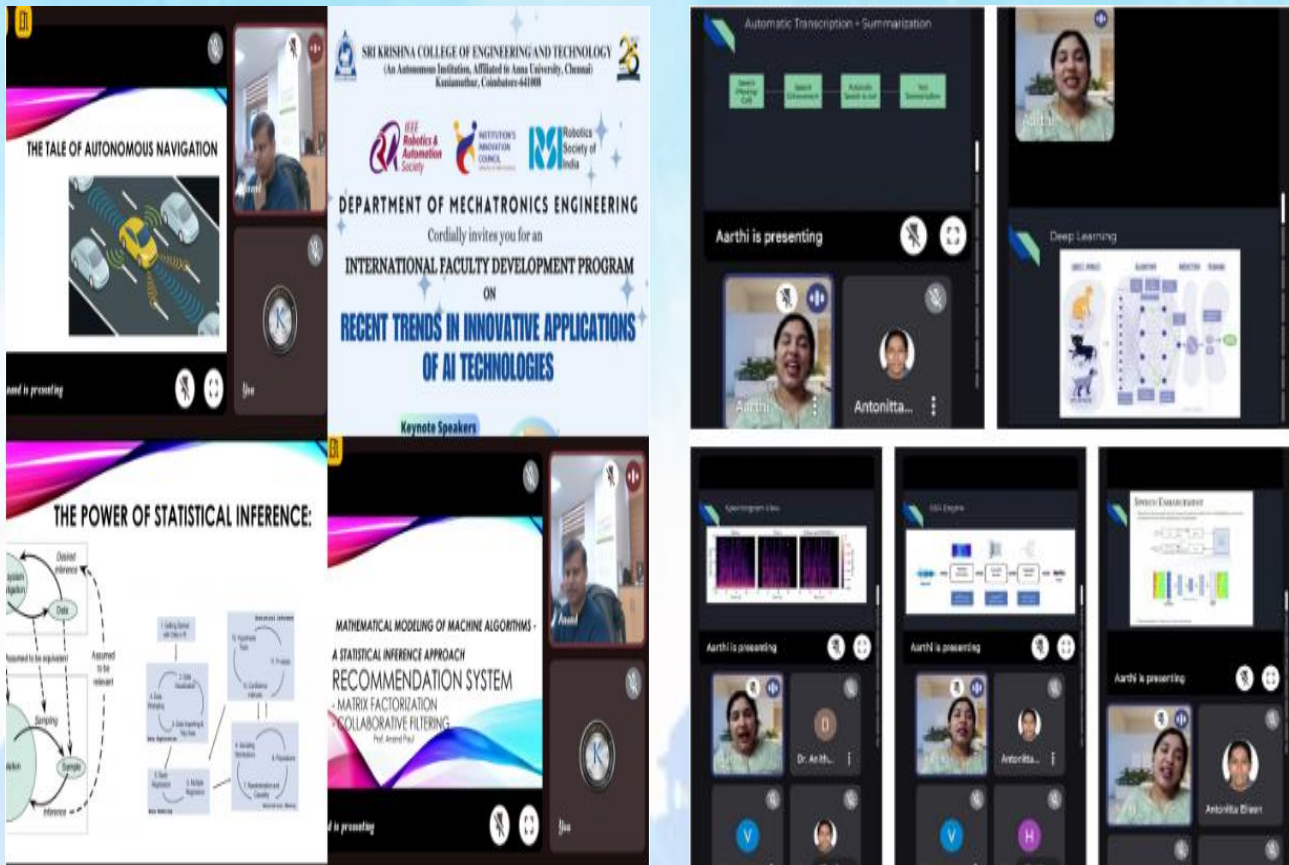


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MCT | FDP ON RECENT TRENDS IN INNOVATIVE APPLICATIONS OF AI - DAY-1



Session 1:

Resource Person: Dr Anand Paul, Director, Connected Computing & Media Processing Laboratory, Kyungpook National University, South Korea.

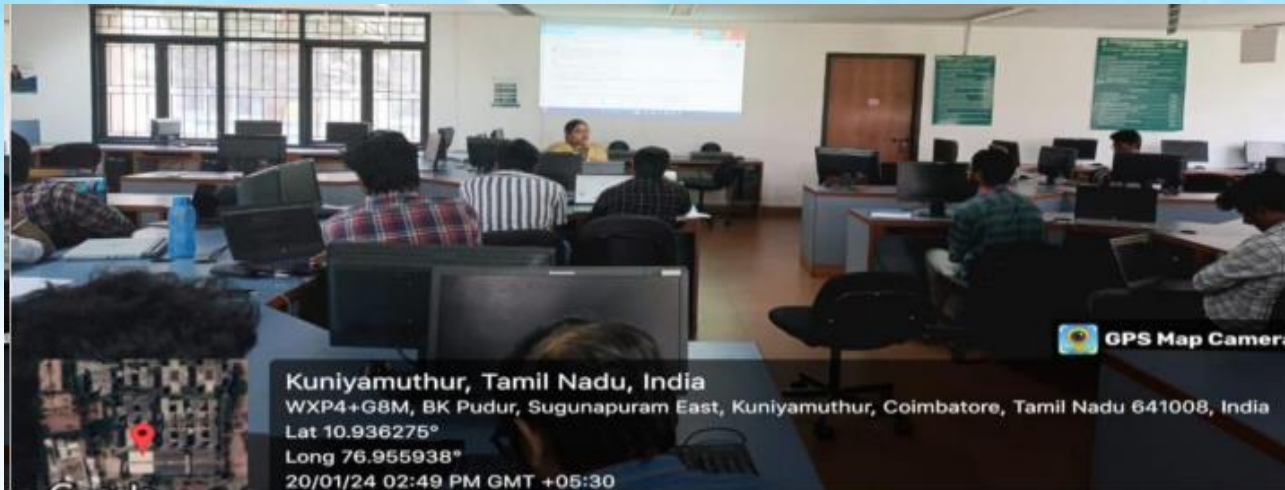
Session Takeaways: Recommendation System, Autonomous Navigation, Neural Network, Matrix Factorization, Collaborative Filtering.

Session 2:

Resource Person: Ms. Aarthi Juliana, AI Engineer (Audio), Zoho Corporation.

Session Takeaways: PEAS Concept, Adaptation of AI, ABCD of AI, AI tools and applications, Live demo of AI tools.

M.Tech CSE | HANDS ON WORKSHOP IN MACHINE LEARNING

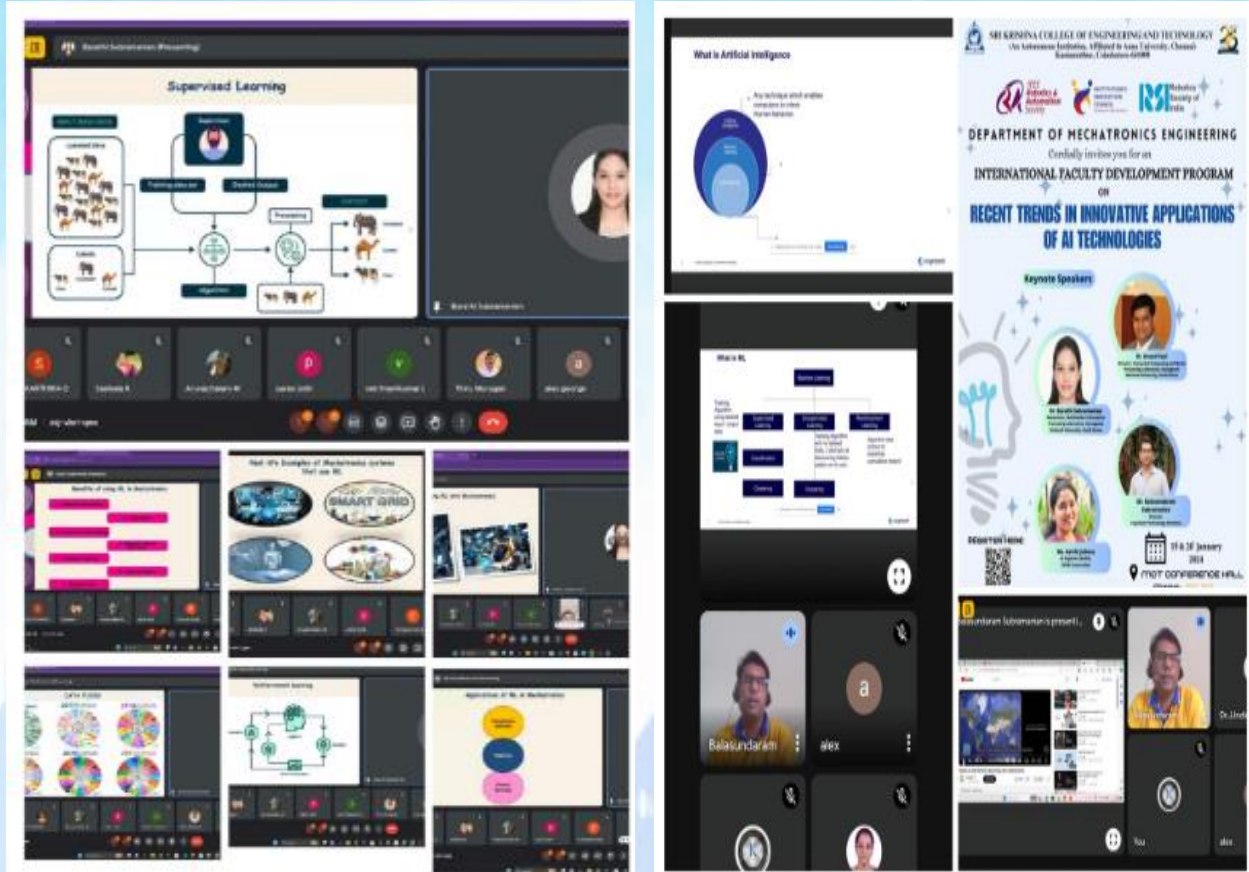


Department of **M.Tech.CSE** organized **Two Days Hands-on Workshop on Machine Learning** for the Final year **M.Tech CSE** students on 18.1.2024 and 19.1.2024.

Resource Persons: Dr.P.M.Durai Raj Vincent, Professor, VIT- Vellore, Dr.C.Vanmathi, ASP (Sr.Grade), VIT- Vellore, Dr.Nivedhitha Mahendran, AP, SRM University, Chennai.

Session Takeaways: Principal Component Analysis, Ensemble Learning, Bagging and Boosting algorithms, Perceptrons and Classification.

MCT | FDP ON RECENT TRENDS IN INNOVATIVE APPLICATIONS OF AI - DAY-2



Session 1:

Resource Person: Dr Barathi Subramanian, Researcher, Multimedia Information, Processing Lab, Kyungpook National University, South Korea.

Session Takeaways: Artificial Intelligence, Biological Neural Network vs Artificial Neural Network, Machine Learning in Mechatronics, Supervised Learning, Reinforcement Learning.

Session 2:

Resource Person: Mr. Balasundaram Subramanian, Director, Cognizant Technology Solutions.

Session Takeaways: Generative AI, benefits of Generative AI, Impact of Generative AI, Chat GPT.

MECH | IMTEX FORMING 2024



Mr.N.Ramachandran and Mr.N.Babu, Assistant Professors, Department of **Mechanical Engineering**, attended the inaugural event of IMTEX Forming 2024 - an International Machine Tool and Manufacturing Technology Exhibition organised at the Bangalore International Exhibition Centre from January 19th to 23rd , 2024. In this event, SKCET showcased the new aged technologies, including the Augmented and Virtual Reality projects in the stall.

IT | CURRICULUM DEVELOPMENT CELL MEETING



Department of **Information Technology** conducted Curriculum Development Cell meeting on 25.01.2024. The meeting was convened by **Dr. N. Susila**, Professor and Head, IT, as a preparation for the Board of Studies for formulating the syllabus under regulation 2021 & 2022. All the faculty members actively participated and provided suggestions during the brainstorming session.

CSE | PLACEMENT TALK



Dr. Jayasudha Subburaj, Dean Placement along with **Dr. K. Sasi Kala Rani**, Professor and Head, addressed the **Third** year students of Computer Science Engineering, emphasizing the critical role that placements play in molding their professional paths. They collectively stressed the importance of actively participating in placement processes, considering them as gateways to apply theoretical knowledge in real-world scenarios. The students were urged to seize this opportunity to exhibit their skills and aptitude, paving the way for a promising career. The message echoed the idea that the placement journey is not merely a step forward but a strategic leap towards unlocking their full potential.

IT | GUEST LECTURE ON CYBER SECURITY ESSENTIALS



Department of **Information Technology** organized a Guest lecture on **Cyber Security Essentials** on 20.01.2024. **Mr.Mohamed Sunfeer.H**, Senior Software Engineer, Qualcomm Inc San Diego, California, USA was the Resource Person.

Session Takeaways:

- Fundamentals of security
- Importance of embedded security
- Security attacks
- Mitigation techniques
- Arm trustzone

MCT | PLACEMENT TALK



Dr.S.Jayasudha, Dean (Placement) and **Dr.M.Lydia**, HoD, MCT addressed Third year students on 22.01.2024. The focus of the discussion was to inspire students to approach placement classes with dedication. Emphasis was placed on the importance of actively participating in all placement-related tests and coding contests. Students were advised to consistently work with a high level of commitment to increase their chances of securing positions in their desired companies.

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TUTOR WARD MEETING



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AI&DS | CLASS COMMITTEE MEETING



Department of **Artificial Intelligence and Data Science** conducted Class Committee Meeting for the Third year students on 17.01.2024 **Dr.K.Ramesh**, Professor, CSE chaired the meeting. The meeting pointers were: Syllabus Coverage status, Theory & Lab Subject Feedback, Placement - Problem of the Day, Subject Study Materials, and Participation in Extracurricular Events.



PLACEMENT AND TRAINING



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PLACEMENT | TESTIMONIAL BY PLACED STUDENTS

I can confidently say that my college provided me with the best education and experiences I could have ever imagined. From the professors who went above and beyond to ensure our success, to the diverse range of clubs and activities available, I felt supported and challenged every step of the way. Not only did I receive a top-notch education, but I also gained valuable skills and experiences that helped me in my professional and personal life. The education I received prepared me well for my career, and I am grateful for the guidance and support of my professors and advisors to secure my placement in Zoho. Thanks to my parents, SKCET Management, Principal, department and the entire SKCET family for the wonderful opportunity.

**MADHAVARAMAN V -
CSBS (2023 Batch)
ZOH0**



PLACEMENT | TESTIMONIAL BY PLACED STUDENTS

I am **Mugeshkumar M** from **Mechanical Engineering** of batch **2023**. I am thrilled to share my experience as a placed student with **Sri Krishna College of Engineering and Technology**. The support and guidance I received throughout the placement process was outstanding, and it made all the difference in securing my dream job. The training and resources provided helped me to hone my skills and build confidence in my abilities, preparing me for the demands of the workplace. The interview preparation, mock interviews, and career counseling sessions have boosted my confidence and made me well-prepared to face the recruitment process. The exposure to various industrial scenarios and hands-on training provided during my course has been immensely helpful in my professional career. Moreover, the connections I made through the placement program opened doors to networking and career opportunities that I would not have otherwise had access to. Thanks to SKCET Placement Team, I am now working in my desired field, and I am excited about the possibilities for growth and development ahead. I am grateful to the institution for providing me with this wonderful opportunity and helping me shape my career.

**MUGESHKUMAR M, MECH
(2023 Batch)
SECURDEN**



R&D | PAPER PUBLICATION | MCT



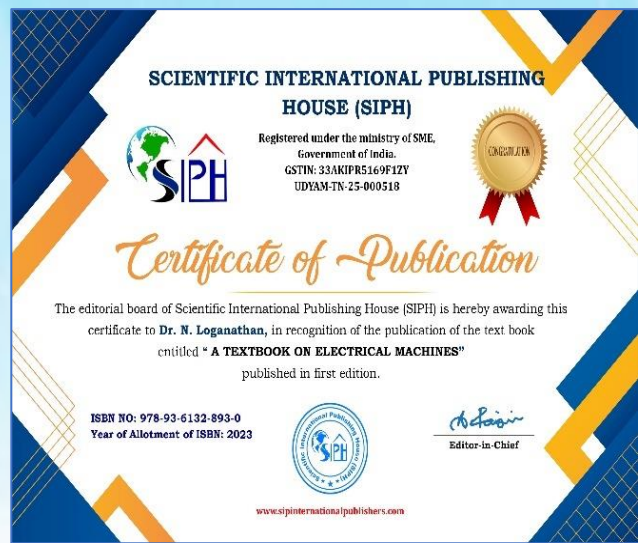
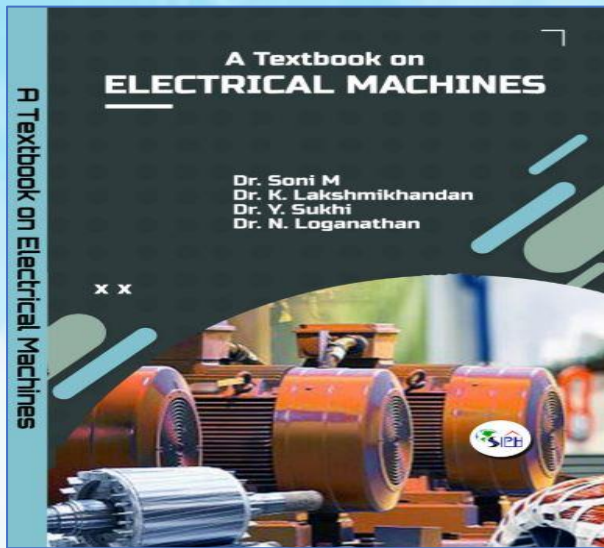
Dr. D. Pritima, Professor, MCT, has published a paper entitled “Optimization of Welding Parameters for better tensile strength through Coupled Genetic Algorithm and Firefly Algorithm for AA70110 – SiC – Al₂O₃ Hybrid Composite” in the Journal of Ceramic Processing Research. This is a Scopus Indexed publication.

R&D | PAPER PUBLICATION | MCT

Dr.M.Bhuvaneshwari and Mr.S.MadhanKumar, Assistant Professors of MCT along with the Final year MCT students C.Elango, S.Jagadeeshwaran and J.S Mohammed Riyaz have filed a design patent entitled “Solar Food Dryer”.

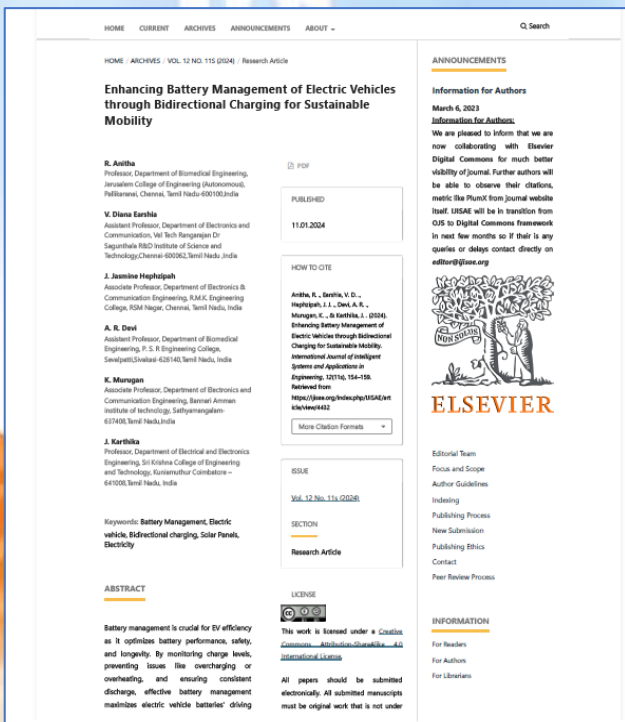


R&D | BOOK PUBLICATION | EEE



Dr.N.Loganathan, Assistant Professor, EEE Department, has published a book entitled “**Electrical Machines**” by Scientific International Publishing House.

R&D | JOURNAL PUBLICATION | EEE



Dr.J.Karthika, Associate Professor, Department of EEE has published a paper entitled “**Enhancing Battery Management of Electric Vehicles through Bidirectional Charging for Sustainable Mobility**” in the International Journal of Intelligent Systems and Applications in Engineering. It is indexed in Scopus journal with an impact factor of 0.342.

R&D | PAPER PUBLICATION | ECE

Dr.R.Senthil Ganesh, Associate Professor, Department of **ECE**, has published SCI and Scopus indexed Journal titled **“FPGA Implementation of a Phase Optimizer - Assisted PTS Scheme for PAPR Reduction in OFDM Systems”** in the IETE Journal of Research. <https://doi.org/10.1080/03772063.2023.2273293>.

IETE JOURNAL OF RESEARCH
https://doi.org/10.1080/03772063.2023.2273293

Check for updates

FPGA Implementation of a Phase Optimizer-Assisted PTS Scheme for PAPR Reduction in OFDM Systems

S. A. Sivakumar¹, C. Arvind², R. Senthil Ganesh³ and B. Maruthi Shankar³

¹Department of Electronics and Communication Engineering, Dr. N.G.P. Institute of Technology, Coimbatore, India; ²Department of Electronics and Communication Engineering, Karapagam College of Engineering, Coimbatore, India; ³Department of Electronics and Communication Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, India

ABSTRACT
This article proposes a phase optimizer-assisted partial transmit sequence (PO-PTS) scheme for minimizing PAPR values in OFDM systems. The novel PO-PTS scheme after validation, based on simulation results, is implemented using a Xilinx system generator on a field programmable gate array (FPGA). The phase optimizer (PO) module is employed to select optimal phase weighting factors to perform scaling with the data sequence in the PTS scheme. The computational complexity and the redundancy involved in producing the candidate signals are significantly reduced by the PO-PTS compared with the conventional PTS method. The proposed method reduces PAPR for a QPSK-OFDM signal by 56.16% compared to the original OFDM signal without compromising on the bit error rate (BER) performance. In addition, the performance of PO-PTS in terms of PAPR reduction for 32QAM and 64-QAM modulated OFDM systems is also presented to justify the robustness of the proposed scheme. Moreover, when PO-PTS is implemented using FPGA, it uses only 1% of the hardware available in Virtex.

KEYWORDS
Bit error rate (BER), implementation, OFDM, partial transmit sequence, peak to average power ratio, phase optimization

1. INTRODUCTION
OFDM is a widely used multiplexing scheme for wireless data transmission due to its effective spectrum usage and its robustness to preserve data in a fading channel [1]. It is widely used in IEEE 802.11, digital audio broadcasting (DAB), digital video broadcasting (DVB), Wireless Local Area Network (WLAN), and WiMAX applications [2]. It is also preferred due to its simple receiver implementation which uses a single tap equalizer.

Despite the several advantages stated above, a large PAPR value of OFDM signal can lead to non-linear distortion of the signal during transmission and demands the use of a high power amplifier (HPA). However, the HPA could not resolve the dynamics of the OFDM signal with a large PAPR value due to which the signal is truncated at specific points to result in spectrum distortion, inter-channel interference, and in-band radiation [3]. Moreover, OFDM has a non-constant envelope and it is highly sensitive to the non-linearity of high-power amplifiers [4]. Hence, numerous solutions to minimize PAPR value without compromising on the BER performance at the receiver were suggested in the literature.

The rest of the article is organized as follows. Section 2 discusses the principle of OFDM and its limitation due to its large PAPR value. Section 3 presents a brief survey of the various existing PAPR reduction schemes while Section 4 proposes the PO-PTS scheme for minimizing PAPR. Section 5 focuses on the simulation and comparative analysis of PO-PTS with the existing methods. Section 6 explains the FPGA-based implementation of the PO-PTS-based OFDM system and its significance. Finally, Section 7 presents the conclusion.

2. OFDM SYSTEM AND PAPR PROBLEM
A 16-QAM or QPSK-modulated OFDM signal in the frequency domain is given as

$$D = [D_0, D_1, D_2, \dots, D_{N-1}] \quad (1)$$

The OFDM signal in the time domain is represented as

$$d_n = \frac{1}{\sqrt{N}} \sum_{k=0}^{N-1} D_k e^{j2\pi kn/N}, 0 \leq n \leq N-1 \quad (2)$$

where N is the number of subcarriers and D_k is the k^{th} frequency domain OFDM symbol.

PAPR of the OFDM signal is defined as the ratio of peak power to average power [5] and is expressed

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R&D | BOOK CHAPTER PUBLICATION | MECH

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EVOLUTION OF INDUSTRY 4.0 IN THE INDIAN MANUFACTURING SECTOR AND ITS EFFECTS

Vigneshkumar M¹, Gokilakrishnan G², Sreejith S Nair³, Ashoka Varthanan P⁴

^{1&4} Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, ²Department of Mechanical Engineering, Sri Eshwar College of Engineering, ³Department of Mechanical Engineering, Dr. Mahalingam College of Engineering and Technology

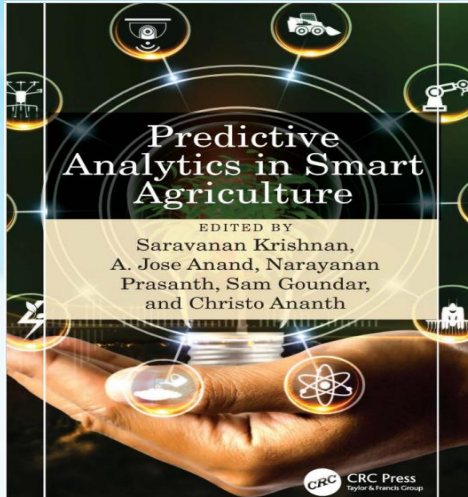
Abstract- The fourth industrial revolution, Industry 4.0, has emerged as a transformative force globally, revolutionizing manufacturing processes through the integration of digital technologies. This chapter explores the evolution of Industry 4.0 in the Indian manufacturing sector and assesses its profound effects on operational efficiency, technological integration, and overall competitiveness. Through an extensive literature survey, a detailed methodology, and an analysis of results, this chapter provides a comprehensive understanding of India's journey towards Industry 4.0 and its implications.

1 INTRODUCTION

Industry 4.0, characterized by the convergence of digital technologies like the Internet of Things (IoT), Artificial Intelligence (AI), Big Data, and Cyber-Physical Systems (CPS), is reshaping the manufacturing landscape globally [1-4]. India, with its significant role in the global manufacturing sector, is actively embracing these advancements to enhance competitiveness. This chapter aims to delineate the evolution of Industry 4.0 in the Indian manufacturing sector and elucidate its multifaceted effects.

Dr.M.Vigneshkumar, Associate Professor and **Dr.P.Ashoka Varthanan**, Professor & Head, Department of **Mechanical Engineering**, published a chapter entitled **“Evolution of Industry 4.0 in the Indian Manufacturing Sector and its Effects”** in the book **“Contemporary Research, Innovations and Trends in Engineering, Applied Sciences, Management & Humanities (IC-CRIT-2023).**

R&D | BOOK CHAPTER PUBLICATION | MECH



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*Nestor Ulloa, R. Sharmila, E. Brindha, R. Deepalakshmi,
R. Arunbharathi, and K. Divya Vani*

Dr.R.Arunbharathi, Assistant Professor, Department of Mechanical Engineering, has published a chapter titled “Decision Support System for Smart Agriculture in Predictive Analysis” in the Book titled “Predictive Analytics in Smart Agriculture” in CRC Press. It is a Taylor & Francis Group.

R&D | BOOK CHAPTER PUBLICATION | MECH

Dr.C.Samson Jerold Samuel, Associate Professor, Department of Mechanical Engineering, has published a chapter “Innovative Surface Modification Techniques to combat Corrosion” in the book entitled Recent Trends in Engineering, Management, Arts and Science [ISBN: 978-93-91697-68-6].

Chapter-25

Innovative Surface Modification Techniques to Combat Corrosion

—C. Samson Jerold Samuel¹, S. Gnanasekaran², S. Sivananthan³

Abstract

Corrosion mitigation and prevention is one of the key areas of research in the present world scenario. Lot of damage is inflicted on the infrastructure due to corrosion. Since corrosion is a surface related mechanism, it can be controlled or even prevented by adequate surface modification technique. This chapter presents information about different innovative coating methods that are applied over substrates for reducing corrosion without altering the properties of the substrate. The benefits and limitations of the techniques are presented. Some notable studies conducted on various coating methods are also discussed.

Keywords: Corrosion, Surface engineering, Coating techniques

1. Introduction

The economic development of any region, state or country, depends not only on its natural resources and productive activities but also upon the infrastructure that accounts for processing and marketing of goods. Irrigation systems, roads, bridges, airports, maritime, land and air transport, school buildings, offices and housing, industrial installations are all prone to corrosion and therefore susceptible to property deterioration and degradation with time. Corrosion is a worldwide crucial problem that strongly affects natural and

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R&D | PATENT GRANT | CSBS

Dr.S.Balakrishnan, HoD,
CSBS and **Mr. I. Anantraj,**
Assistant Professor, **CSBS**
have received the **Certificate of Registration of Design** issued by The Patent Office, Government of India on 06.11.2023.



R&D | ARTICLE PUBLICATION | MECH

Dr.S.Karthik, Assistant Professor, Department of **Mechanical Engineering,** has published a research article titled **“Optimization of control factors influencing the wear behavior of inflorescence fibril fortified epoxy composites”** in Current Materials Science. It is indexed in Scopus.

Current Materials Science

VOLUME 17, , NUMBER , 2024
ISSN: 2666-1462 (Online) - ISSN: 2666-1454 (Print)

Optimization Of Control Factors Influencing The Wear Behaviour Of Inflorescence Fibril Fortified Epoxy Composites.

Authors:
S. Karthik, R. Abinav, N. Arjun Kumar, M. Hariharan, S. Induprakash, V. Akilesh and Divya Bajpai Tripathy

Affiliation:
Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, 641008 India

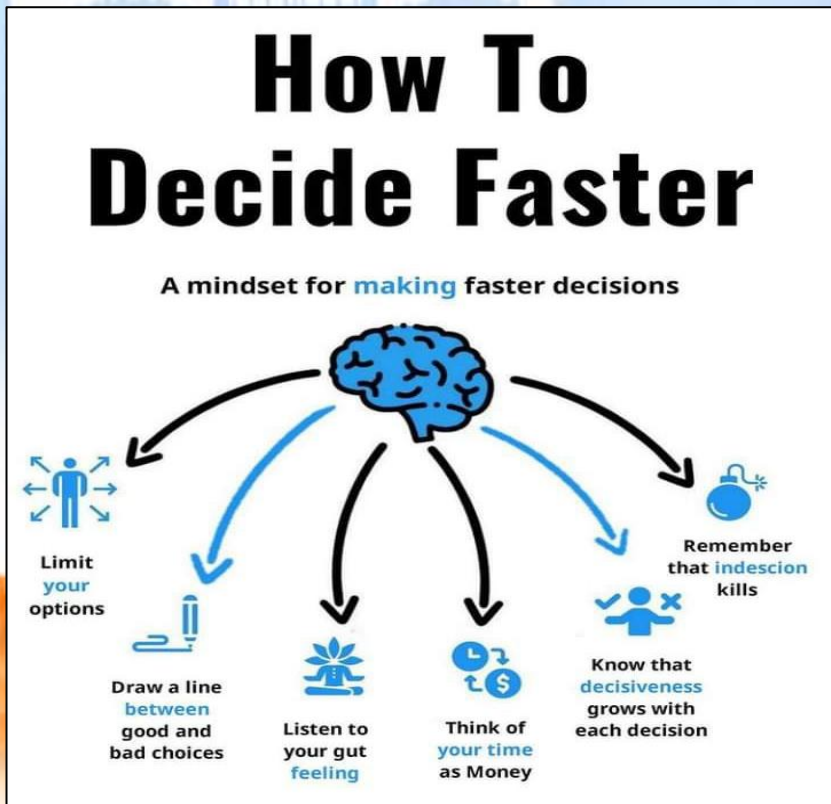
Abstract:
Introduction: Augmenting concern towards effective utilization of agro waste into useful products has formed the scientific community to look for alternate sources of materials. On a circular economy contemplation, natural fibers extricated from agro waste have a potential headway towards the evolution of newer materials.
Methods: The current research activity is focused on the optimization of influential parameters, namely fiber volume, load, sliding distance and sliding velocity on the wear characteristics of inflorescence fiber-fortified epoxy composites. Coconut Inflorescence fiber is selected as reinforcement material for the present work. NaOH treatment at 5% wt/vol for 1 hour towards removal of amorphous contents present in the fibers. Taguchi-inspired L16 orthogonal array is used for the design of experiments using Minitab software. The control factors chosen for the optimization study are namely fiber content (10 mm, 15 mm, 20 mm and 25 mm), a load of (5 N, 10N, 15 N and 20 N), a sliding distance of (200 m, 400 m, 600 m and 800 m) and sliding velocity of (6 m/s, 12 m/s, 18 m/s and 24 m/s).
Results: The optimal combination of parameters, namely fiber content of 20 wt%, load of 5N, a sliding distance of 600 m and sliding velocity of 24 m/s, contributed to the merest wear rate of 4.328 m3 /N.m. Morphological evaluation of the composites revealed agglomeration of fibers in the matrix, thereby, the matrix was not able to transfer load uniformly.
Conclusion: Leading to failure of composites as a result of wear rate increase. Thus, inflorescence fiber-fortified epoxy composites fabricated on the above-mentioned control factors will have better wear rate for futuristic applications.

R&D | DESIGN PATENT GRANT | MECH



Dr. Yuvaraj K.P, Associate Professor, **Mechanical Engineering** has been granted a Design Patent titled **'Intelligent Monitoring System for Aquatic Ecosystems'** by The Patent Office, Government of UK.

INFOGRAPHICS





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MCT | FACULTY PRESENTATION



Dr. K. Ananthi, Assistant Professor of **MCT** has presented a paper (Online Mode) titled **“A Comprehensive Study on Fast Charging in Smart Phones”** in the International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2024) held during 18th and 19th, January 2024 at Tribhuvan University, Nepal.

CSE | FACULTY DEVELOPMENT PROGRAM

Ms. S. Biruntha, Assistant Professor, **CSE** has attended Two day International Faculty Development Program on **“Recent Trends in Innovative Applications of AI Technologies”** conducted by the Department of Mechatronics Engineering, Sri Krishna College of Engineering and Technology, Coimbatore from 19.01.2024 to 20.01.2024.



AI&DS | INFOSYS CERTIFICATION

Mr.G.S.Pugalendhi, Assistant Professor of **AI&DS** has successfully completed a course on **“Implementing Deep Learning: Optimized Deep Learning Applications”** by Infosys Springboard on 03.01.2024.



CSE | INFOSYS CERTIFICATION



Dr.G.Vijaya G, Professor, CSE has successfully completed the **Infosys Spring board Certification course** on **“Techniques for Big Data Analytics”** on January 23,2024.

EEE | FACULTY DEVELOPMENT PROGRAM



Dr.N.Loganathan, Ms.T.Malini and Ms.C.Pavithra, Assistant Professors, EEE Department has participated in Two Days International Faculty Development Program on “Recent Trends in Innovative Applications of AI Technologies” organized by the Department of Mechatronics Engineering, Sri Krishna College of Engineering and Technology, Coimbatore from 19-01-2024 to 20-01-2024.

AI&DS | INFOSYS CERTIFICATION



Mr.G.S.Pugalendhi, Assistant Professor of **AI&DS** has successfully completed “**Hands on React Applications with React Hooks**” by Infosys Springboard on 15.01.2024.

AI&DS | FACULTY DEVELOPMENT PROGRAM



Dr.T.Sujatha, Associate Professor of **AI&DS** has successfully participated in the Two day International Faculty Development Program on “**Recent Trends in Innovative Applications of AI Technologies**” organized by Sri Krishna College of Engineering and Technology from 19.01.2024 to 20.01.2024.

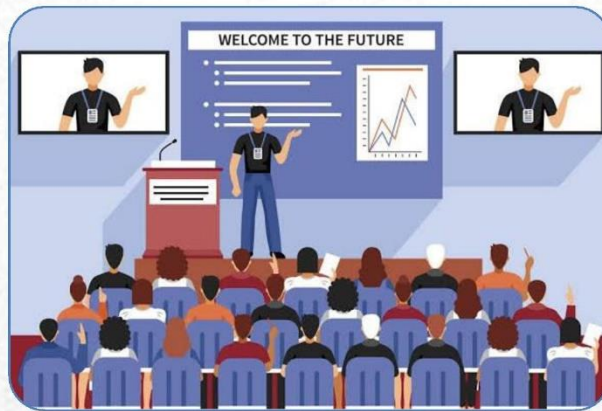
IT | FACULTY DEVELOPMENT PROGRAM



Dr. M. Arunachalam, and Ms.A.Raihana, faculty members of IT Department have participated in the two days International FDP on “Recent Trends in Innovative Applications of AI Technologies” conducted by the Department of Mechatronics Engineering, SKCET, Coimbatore from 19.01.2024 to 20.01.2024



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CONFERENCE PRESENTATION | CIVIL



Mr.S.C.Boobalan, Assistant Professor, Department of Civil Engineering, presented a paper “Enhancing road safety: a novel fuzzy-RBF based approach for car accidents prediction” in the 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS-2023) organized by the Department of Electronics and Communication Engineering, Mount Zion College of Engineering and Technology, Pudukottai, Tamil Nadu, India held during 11th to 13th December 2023.

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SKCET | ALUMNI ASSOCIATION MEETING



SKCET Alumni Association Meeting was conducted on 18.01.2024. **Dr.Jayasudha Subburaj, Dean, Placements, Dr.K.C.Ramya, HoD, EEE, SKCET** and various department Alumni Coordinators discussed on the initiatives for upcoming **Bangalore Chapter Alumni meet** to be conducted on **24th February 2024**.

MCT | ALUMNI RECOGNITION



SKCET ICON AWARD

Mr. M. Raghul
2006-2010 Batch
Senior Tech Lead,
Mercedes Benz,
R & D India.



OUTSTANDING CONTRIBUTOR AWARD

Mr. R. S. Vignesh Ramkumar
2014-2018 Batch
Director,
V. R. K Power Controls
Coimbatore



Office Bearer – Coimbatore Chapter

Mr. Saktheeswaran Govindarajan
2018-2022 Batch
R&D Engineer,
Easwara Groups,
Coimbatore.



OUTSTANDING CONTRIBUTOR AWARD

Mr. B. Shakthi
2011-2015 Batch
Senior Associate
Consultant, Bosch
Coimbatore.



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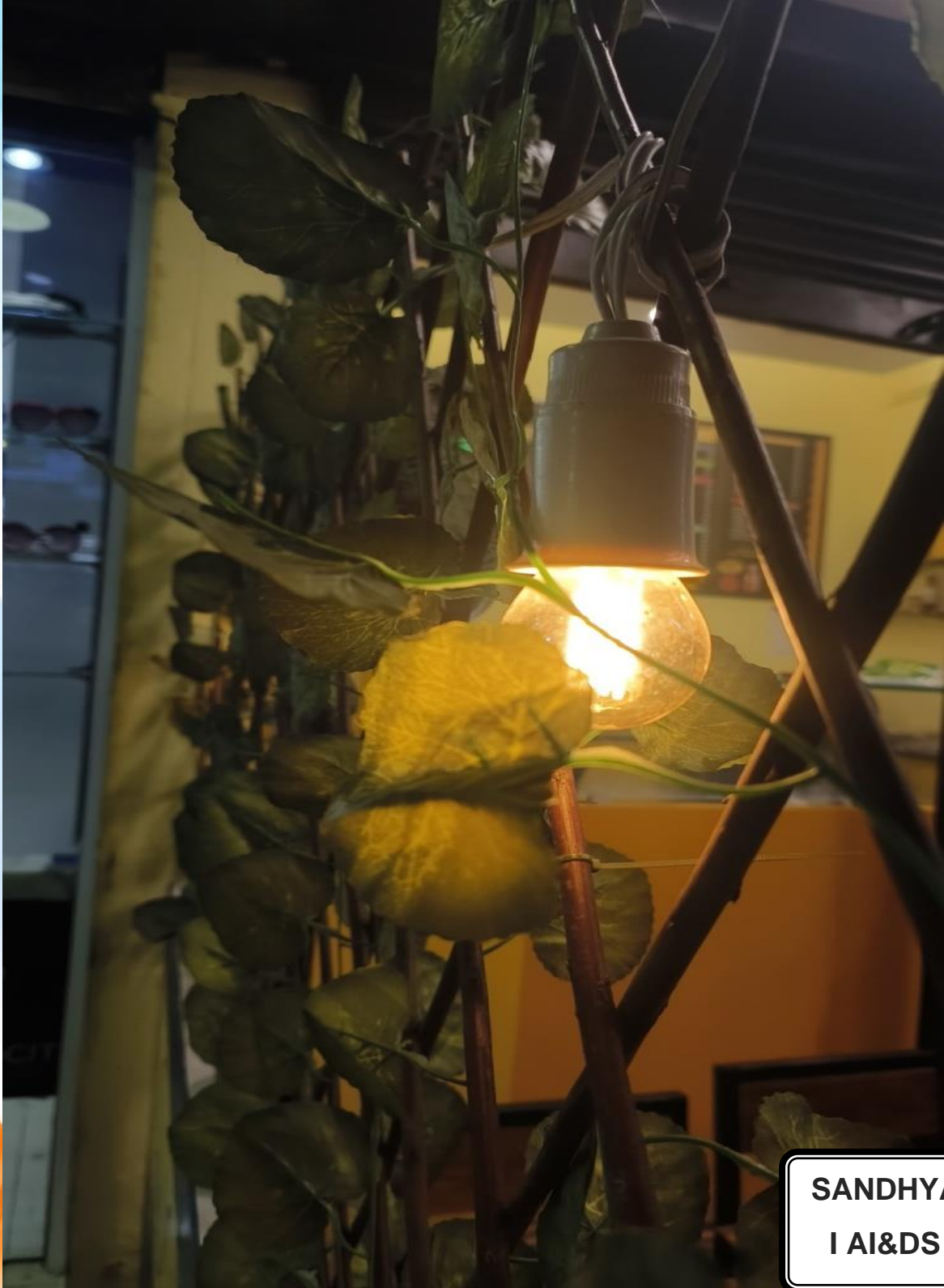


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