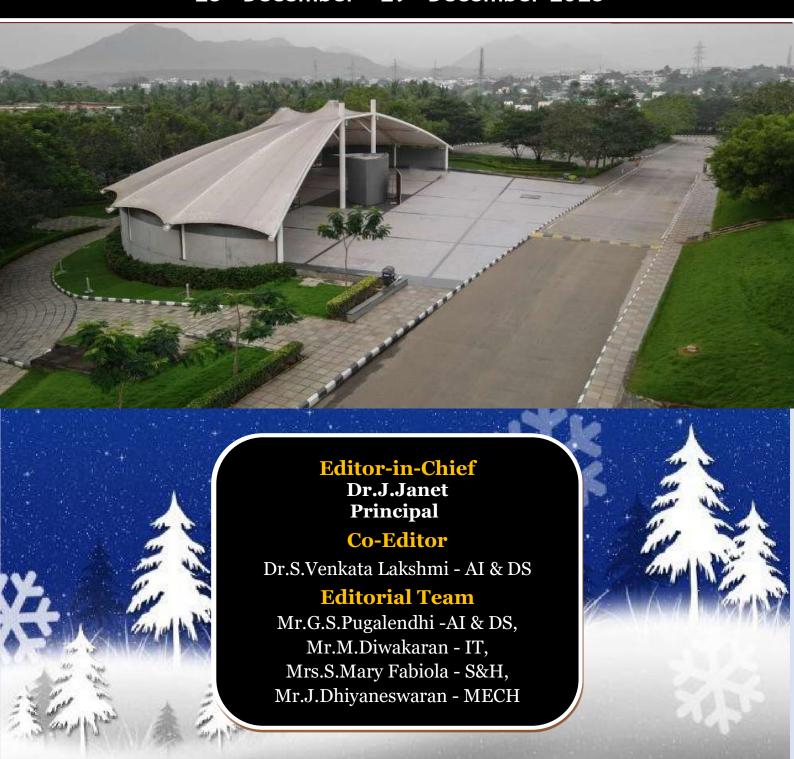


23rd December - 29th December 2023





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py Reading







SMART INDIA HACKATHON WINNERS 2023



SKCET- Streak of Triumph at Smart India Hackathon 2023

Four hardware teams of SKCET Mechanical Engineering (MECH) and Electrical & Electronics Engineering (EEE) departments* have showcased unparalleled innovation and problem-solving prowess at Smart India Hackathon 2023 hardware edition.

Three teams have won first prizes in SIH software edition earlier in the problem statements issued by

- 1. AICTE
- 2. Ministry of Housing and Urban Affairs, Govt of India
- 3. Govt of Kerala.



SMART INDIA HACKATHON WINNERS 2023







Outshining competitors, two exceptional Mech teams EEE teams secured the first place, each earning a substantial prize of ₹1 Lakh.

Team 1: Team Hydra

Project: Estimation of inflow to a reservoir from rainfall, considering soil moisture in its catchment and releases from upstream reservoirs. The system automatically opens reservoir gates for moderate water release, preventing basin flooding.

Category: Ministry of Jal Shakti

Members: - Harshavarthan M - II MECH A,, - Pavankumar M A - IV MECH B, Dharshana Priya V - II MECH A, Rithanyaa D S - II ECE C, Aathikesavan S - I MECH A, Harrinraj K - I MECH A

Mentors: Ramchandran N - Academic mentor, Shridhar E - Industrial mentor

Team 2: Team Blizzards

Project: Automated Water Hyacinth Removal Rover automates the Water Hyacinth Removal process using sensor integration. It classifies the hyacinths for further processes and incorporates a weedicide spraying system to inhibit further growth in commercial aquatic ecosystems.

Category: Student Innovation Category

Members: Rishi Karthikeyan V P - IV MECH B, Akilesh V - IV MECH A, Mohammed Riyash J - IV MECH B, Geethanjali S - II MECH A, Thangamithra P - II ECE C, Sri Shanmugavel M - IV MECH A

Mentors: Ramchandran N - Academic mentor, Arun Balaji R - Industrial

mentor



SMART INDIA HACKATHON WINNERS 2023



Team 3: Team Hawks

Project: Geo-tagging of plantation in the catchment area of Hydro Project.

Category: Ministry of Power

Nodal Centre: Manay Rachna International Institute of Research and Studies,

Faridabad, Haryana

Members: Padma Priya S R - III EEE B, Santhip Kumar S - III EEE B, Sasipriya S - III EEE B, Srivisveswara M S - III EEE B, Haricharan R - III EEE A, Saran

R - II FFF B

Mentor: Ms. R.Geethamani

Team 4: Team Aurora

Project: Smart Motor management for E-vehicle.

Category: AICTE Student Innovation

Members: Naveen M - III EEE A, Naveenkumar T - III EEE A, Aravind Miras N

- III EEE A, Rasika B - III IT C, Soma Sundari R - III IT C, Usha K - III IT C

Mentor: Mr. S.Boobalan.

7 teams from SKCET have won accolades in SIH 2023.







M.TECH CSE | AFE SCHOLARSHIP



A Nivedhitha, student of Second year MTech CSE, has been awarded a scholarship from AFE (Amazon Future Engineer), one of the sponsors for FFE (Foundation For Excellence). Her selection for the AFE Scholarship was based on her outstanding academic performance in both the past and present. In the initial year (March 2023), she received a scholarship of Rs. 40,000, and in the second year (October 2023), she was granted a scholarship of Rs. 50,000. Additionally, AFE has also provided her with a Lenovo laptop to support her studies.







CSY | LITERARY FEST'23







Mahannad Aslam, Sahana S, Danu Sri S H, students of First year CSE (Cyber Security), have obtained a certificate acknowledging their participation in Singing competition organized by Science and Humanities Association on 20th December 2023.



CSBS | SPEAK FOR INDIA





Dhasagreevan C, student of Third year Computer Science and Business **Systems**, has been honored with a Certificate of Merit for actively participating in the district-level Speak for India - Tamil Nadu Edition. This state-level inter-collegiate debate competition took place on December 19, 2023, at CMS College of Science & Commerce. His commendable involvement in the event showcases his dedication to intellectual discourse and excellence in public speaking.

CSY | QUIZ COMPETITION

Barani Priya R C, students of First CSE (Cyber Security), has won First Prize. the Quiz competition conducted on "National Mathematics Day '23" organized by Science and Humanities Association dated on 20th December 2023.





CSBS | DIGITAL NATIONAL HEALTHCARE **HACKATHON 2023**









Archisha R, Swatha S, Trisha N, Harshitha V, students of First year Computer Science and Business Systems, has received a certificate of achievement for their participation in Digital National Healthcare Hackathon 2023 powered by Planotech Group of Companies.



CSY | SPEAK FOR INDIA



Pranav S, student of First year CSE - Cyber Security has participated in the District Level Speak for India - Tamil Nadu Edition 2023-2024, a state level intercollegiate debate competition held on 15.12.2023 at Kongunadu Arts and Science College. This is a Federal Bank CSR initiative in association with The Times of India.



CSBS | LINKEDIN CERTIFICATION













Varun Revanth V, student of First year Computer Science and Business **Systems**, has successfully completed the following online Courses: "Generative AI", "Communicate to Influence", "Emotional Intelligence", "Advanced Business Development", "Interpersonal Communication", "Three Pillars of Effective Communication" powered by Linkedin Learning on December 27, 2023.



CSBS | LINKEDIN CERTIFICATION







Iswarya Verma V, student of First year Computer Science and Business **Systems**, has successfully completed the online Course on "What is Project Management", "Scrum: The Basics", "The Project Management Basics" Powered by Linkedin Learning on Dec 27, 2023.

CSBS | GOOGLE PLAY ACADEMY **CERTIFICATION**

Vishal Chinnasamy, student of **Third** year **Computer** Science and **Business Systems**, has successfully completed the Course on "Google Play Store Listing Certificate" powered Google Play Academy on December 23, 2023.



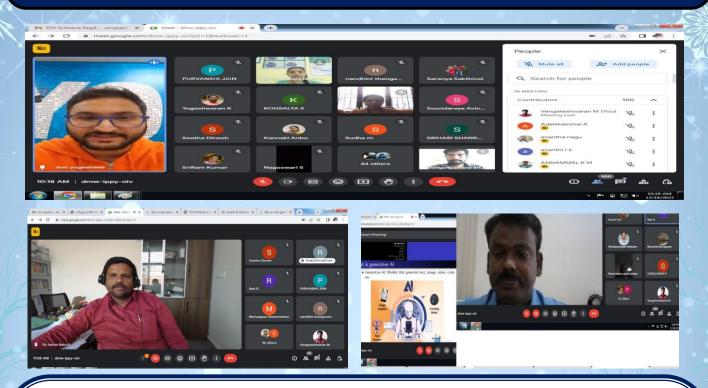




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CSE | FDP ON MODERN RESEARCH **CONVERGENCE IN NEXT GENERATION COMPUTING | DAY - 1**



Session Mr. Yogeshwar 1: Resource Person: Bodicherla Rambob. Asst.Support Engineer, Primark, Ireland

Session Takeaways: Challenges & opportunities in IT sector, Software Tools & Trends for industrial solution, Scope & Future of Next Generation Computing.

Session 2: Resource Person: Dr.K.Sathya Babu, HOD/CSE, IIITDM Kurnool, Kurnool.

Session Takeaways: Recommender Systems Functions, Data & Knowledge Recommendation Techniques, Collaborative& Sources. content-based recommendation, Matrix Factorization models & Neighborhood models.

Session **Resource Person:** Dr.V.Masilamani, HOD/CSE, IIITDM 3: Kancheepuram, Chennai

Session Takeaways: Overview on Generative AI, How to use of Transformers, GPT, Working Principle of BERT, Image GPT Techniques, Real time use cases& Experimental Result



S&H | EXTENDED HOUR ACTIVITY





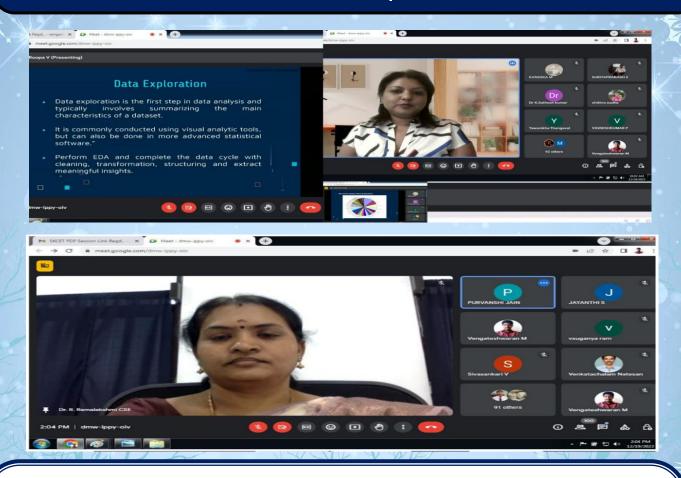




Theatre Club of SHA conducted Let the Music Speak event for the First year students to promote the highest levels of human aspiration and artistic integrity through the composition and performance of music.



CSE | FDP ON MODERN RESEARCH **CONVERGENCE IN NEXT GENERATION COMPUTING | DAY - 2**



Session 1: Resource Person: Dr.Roopa Venkatakrishnan, Data Analyst, AAFC (Government ltd), Canada

Session Takeaways: Narrate Data capture on context, Visualization approaches, Insights-Tailor data presentation to identified, Impact Analysis Algorithm & recent trends

Session Resource Person: Dr.Ramalakshmi, Director (CDOE), Kalasalingam University, Sriviliputhur

Session Takeaways: Overview on Edge Computing, Video Analytics Techniques, Fog Assisted Edge, Working Principle & Architecture of EVA, Demo with usecases, EVA Datasets for Research.

Feedback @ skcetbuzz@skcet.ac.in



MECH | INTERNATIONAL CONFERENCE ON TRENDS IN AUTOMOTIVE PARTS SYSTEMS AND **APPLICATIONS**















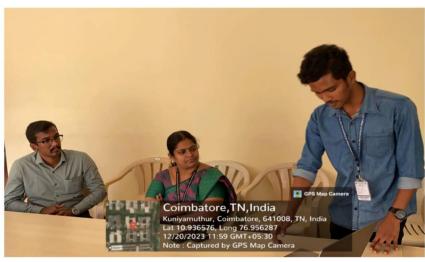




Department of Mechanical Engineering & SAE INDIA SKCET Collegiate Club organized an International Conference on 'Trends in Automotive Parts **Systems and Applications**' on 21.12.2023. The conference was inaugurated by **Dr. Nanda Kumar C S**, Program Head, Electric and Hybrid vehicle projects, Bosch, Coimbatore. Dr. P. Ashoka Varthanan, Head - Mechanical **Engineering** welcomed the gathering and delivered the welcome address. Dr. R. Soundararajan, Professor – Mechanical Engineering and Faculty Advisor – SAE India SKCET Collegiate club briefed about the conference. He also informed that all the scientific articles selected to be presented will be published in the Scopus-indexed journal (SAE Technical Paper). The session featured a keynote address by Dr. Aqib Mashood Khan, Associate Professor Nanjing University of Aeronautics and Astronautics, China and Dr. Gabriela Marginean, Associate Professor, Westphalian University of Applied Science, Germany. The conference focused on the latest technological developments in the automotive field. The conference proceedings were also released during the inaugural function.



EEE | INDUSTRIAL PROJECT





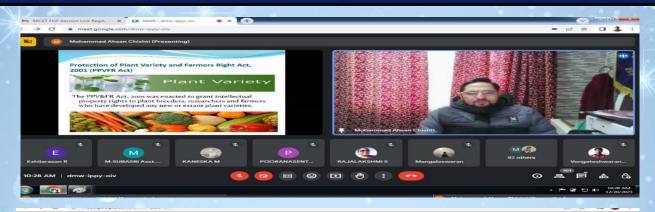
Aakash, student of Third year EEE A has engaged in an Industrial Project Design titled User Registration Management using React JS captivating intellectual discussion with an Industrial expert Mr.V.Srijith, Shree Sai Systems, Coimbatore.

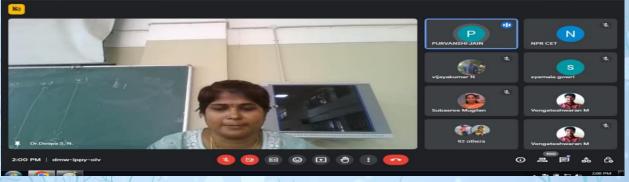
The expert actively added his valuable suggestions in extending this project with multidisciplinary platforms and also appreciated the work designed by the student towards the project.

- Tech Stack analysis
- React JS Tailwind Css coding
- User friendly access



CSE | FDP ON MODERN RESEARCH **CONVERGENCE IN NEXT GENERATION COMPUTING | DAY - 3**





Session 1:

Resource Person: Dr.Mohamad Ahsan Chishti, HOD/CSE,NIT Srinagar, Jammu & Kashmir

Different IPR'S, Session Takeaways: types of Utilization Commercialization, Patent Application Filing & Processing, Various Timelines for the Patents, Introduction to Designs, Trademarks & Copyrights, Geographical Indications.

Session 2:

Resource Person: Dr.S.N.Deepa, Associate Professor, NIT Calicut, Kozhicode, Kerala.

Session Takeaways: Overview on Natural Language Processing, Sentiment Analysis, Process, Platform, Classification, Models, Deep learning algorithms -CNN, RNN, Transformer.



CSE | FDP ON MODERN RESEARCH **CONVERGENCE IN NEXT GENERATION COMPUTING | DAY - 4**



Session 1:

Resource Person: Dr.R.Bhavani, HOD/CSE, Annamalai University,

Chidambaram

Session Takeaways: Evolution of AI, Impacts of AI on day to day activities, Research opportunities, Strategies for implementing AI in Education, Future Direction, ML Techniques.

Session 2:

Resource Person: Dr. Priyadharsini Rajaram, Program Director, School of Technology, Cardiff Metropolitan University, Wale, UK

Session Takeaways: Overview on Data Science, KDD Process & Statistics concepts, Data munging & wrangling, Real time demo with Skin Disease Detection, Error metrics, Core Research issues.

Feedback @ skcetbuzz@skcet.ac.in



MECH | INDUSTRIAL VISIT







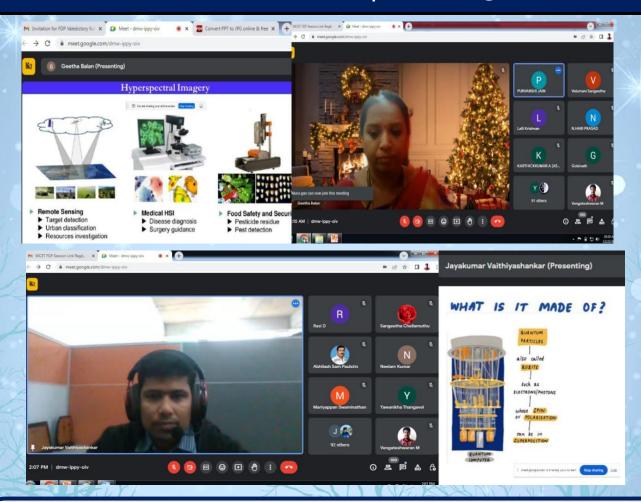


Following students from the Department of Mechanical Engineering visited Roots Industries India Private Limited (Automotive Division), Coimbatore on 21.12.2023. The Industry visit was organized by SAEISS Coimbatore Division. Students were exposed to Vehicle Horn technologies and their manufacturing processes.

- 1. Thiru Arvinda Samy. P I Mech 'B'
- 2. Ragahavkrishna.M I Mech 'B'
- 3. Vimal Kumar .V I Mech 'B'
- 4. Sharuk Ahmed.S I Mech 'B'
- 5. Nafil Ahmed .A I Mech 'B'



CSE | FDP ON MODERN RESEARCH **CONVERGENCE IN NEXT GENERATION** COMPUTING | DAY - 5



Session 1: Dr.S.Geetha, Dean (Research), VIT University, Chennai Session Takeaways: Fundamentals of Computer Vision, 2-D Projective Geometry, homography, and Properties of homography, Feature detection and description, Feature matching and model fitting, Dimensionality reduction and sparse representation, Deep neural architecture and applications

Session 2:

Resource Person: Dr. Jayakumar, IBM Quantum Educator, Bangalore Session Takeaways: Understand quantum computation, Quantum algorithms(Simon's & Prime factorization algorithm), Mathematical models of quantum computation to physical systems, Quantum error correcting codes, Quantum cryptography, Quantum fault tolerance.



CSE | FDP ON MODERN RESEARCH **CONVERGENCE IN NEXT GENERATION** COMPUTING | VALEDICTORY SESSION



Department of CSE successfully organized a 5-day FDP on "Modern Research Convergence in Next Generation Computing from 18.12.2023 to 22.12.2023, with a notable participation of 1127 individuals, including both Indian and foreign participants. The valedictory session featured external participants from various Institutions. Dr.K.Sasi kala Rani, HOD, CSE, honored the participants with certificates of appreciation. The FDP was a commendable initiative fostering knowledge exchange and collaboration.



CIVIL | HIGHER EDUCATION CELL



Department of Civil Engineering in association with Higher Education Cell organized a Guest lecture on "An Overview of Higher Education" for the Third year Civil Engineering students on 20th December 2023. The Resource Person was Mr. Basker, Marketing Manager, 2IIM, Chennai.

Session Takeaways:

- Career Opportunities available for Civil Engineers
- Process available to get admission in IIMs
- Importance of CAT exams
- Scope for Civil Engineering graduates in various countries.

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TESTIMONIAL BY PLACED STUDENTS

Being a part of SKCET has opened a lot of opportunities for me. Life at SKCET has been an amazing journey and I express my heartfelt gratitude for providing us the state of art facilities which enabled me to nurture my skills and learn new ones. I am particularly grateful for the placement training that was provided to us. This training has helped me towards a great career ahead, and I am confident that I have the skills and knowledge to excel in my chosen field. I know that I am not just taking away knowledge from SKCET, but also some life lessons that will always be with me. I would like to take a moment to express my deepest gratitude to my department faculty members and SKCET Placement cell who helped me hone my skills, challenged me to think critically, to pursue my passions, and to constantly strive for excellence and encouraged me in every step of my journey. I am very much grateful to my parents for choosing SKCET. Thanks to our Principal Madam and the entire SKCET faculty team.

> ARAVIND SAMY S. **CSBS (2023 BATCH)**, **MICROFOCUS**





TESTIMONIAL BY PLACED STUDENTS

I am Brundhavani an alumna of the B.E Mechatronics Engineering program (Batch of 2022) at SKCET. My time as a student at SKCET was truly enriching, providing me with a wonderful environment for learning, exploration, and personal growth. The college has consistently served as an excellent platform for us to build our careers, enhancing our skills and expanding our knowledge. I'm grateful for the unwavering support and guidance I received from the dedicated faculty members and the Placement Officer. The placement cell at SKCET went above and beyond by offering comprehensive placement training and providing access to numerous learning platforms. Participating in various events played a pivotal role in boosting my confidence.

A special note of thanks goes to the placement cell for their guidance, which played a crucial role in securing placements not only in Accenture solutions but also in other esteemed companies. I appreciate the efforts of the SKCET management for their continuous support and guidance throughout my academic journey.

Thank you, SKCET, for being a pivotal part of my educational and career development.

> **BRUNDHAVANI G,** MCT (2022 BATCH), Accenture









R & D | PAPER PUBLICATION | ECE



Ms.R.Niranjana, Assistant Department of **ECE** presented published her conference paper titled "EcoGuard Uniting IoT and AI to Secure Forests and Combat Climate Change in Real-Time" at the 2023 4th International Conference **Smart** on Electronics and Communication (ICOSEC). It is a Scopus Conference.

R & D | PAPER PUBLICATION | MCT

International Journal on Interactive Design and Manufacturing (UIDeM) https://doi.org/10.1007/s12008-023-01687-w

ORIGINAL ARTICLE



Friction and wear optimization of SiC/graphite reinforced AZ31 hybrid composite using Taguchi method

Itha Veeranjaneyulu¹ · V. Haripriya² · Rajasekaran Saminathan³ · B. Vishnu Vardhana Naidu⁴ · J. Justin Maria Hillary⁵ - Adina Srinivasa Vara Prasad⁶ - P. Satishkumar⁷ B. Ch. Nookaraju⁸ - Ram Subbiah⁸

Received: 22 August 2023 / Accepted: 24 November 2023 © The Author(s), under exclusive licence to Springer-Verlag France SAS, part of Springer Nature 2023

Abstract

In this work, hybrid nanocomposites were successfully fabricated using a stir casting machine setup with a weight of 3%, 5%, and 7%. Additionally, 7% hybrid nanocomposite was tested for wear behavior under the wear test setup. The experimental parameters were 15-35 N load, 136-409 rpm speed, and 150-450 m distance. Based on controlling variables, including load, speed, and distance, ANOVA was used to analyze how the most significant variables affected the wear rate (WR) and coefficient of friction (COF). The outcomes were assessed using MINITAB Software. S/N Ratio analysis was used to establish the best parameter combination to lower the WR and COF. The WR of specimen was increases as the sliding distance rises. The wear rate of the composites exhibits an increase with higher normal loads. Due to the high interaction between the surfaces of matrix alloy (AZ31) and reinforcements (SiC, Gr), the metallurgical properties of the seven wt% SiC/Gr alloy performed better than those of the base alloy. The microstructure of the worn surface was examined by SEM, and the particles were described by EDS. The maximum amount of wear rate (320 µm) was observed at a maximum load of 35N, speed 409 rpm with sliding distance of 300 m, while the minimum amount of wear rate (79 µm) was found at a minimun load of 15N, speed 136 rpm with sliding distance of 150 m.

Keywords Hybrid nanocomposite · Pin on disc tribometer · Wear rate · COF · ANOVA and Taguchi method

Dr. J.Justin Maria Hillary. Assistant Professor of MCT, has entitled published a paper "Friction and Wear Optimization of SiC / Graphite Reinforced AZ31 Hybrid Composite using Taguchi Method" International Journal on Interactive Design and Manufacturing (IJIDEM). Its a web of science and Scopus Indexed publication.







CSE | PRESTIGIOUS DOMAIN SCHOLAR **CERTIFICATION FROM NPTEL**



Ms. V.R. Azhaguramyaa, Assistant Professor, CSE has received the Prestigious Domain Scholar Certification from NPTEL in the Systems Domain of Computer Science and Engineering. This recognition is bestowed by NPTEL for the successful completion of 4 Core and 2 Elective Courses within the System Domain. Her exceptional performance stands out as she secured the top position in 3 out of the 6 courses undertaken: Cloud Computing: Top 1%, Computer Networks and Internet Protocol: Top 1%,Introduction to Internet of Things: Top 2% Due to these remarkable accomplishments, she has already been honored with the NPTEL Discipline Star Recognition from NPTEL in Jan - Apr 2022. Domain Scholar certification not only reflects her hard work but also signifies a genuine passion and unwavering dedication to continuous learning and professional growth.



CSBS | FACULTY PROGRESSION







Dr. S. Balakrishnan, Head of CSBS/CSY Departments, has been honored with Shri PK Das Memorial **Best Faculty Award 2023** in the Senior category for his remarkable contributions in the field of Computer Science and Engineering, by Nehru College of Education and Charitable Trust. The award was presented by Dr. Garima Gupta, Scientist F, Decision Unit Head for HRD Programmes, DBT, Government of India.

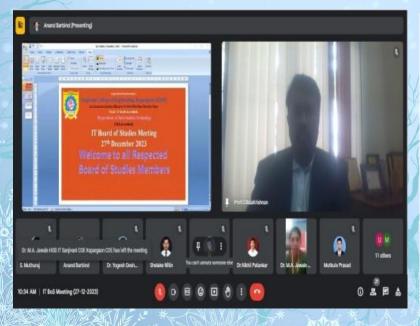


MECH | GUEST SPEAKER IN FDP



Dr. N. **Balaji**, Professor – Mechanical Engineering has been invited as the guest speaker in the National Level Faculty Development Program on 'Cutting-Edge' Developments and Research Frontiers in Mechanical Engineering' organized by SRM Madurai College of Engineering and Technology.

CSBS | BOARD OF STUDIES





Dr. S. Balakrishnan, Professor and Head, Department of Computer Science and Business Systems has acted as the Member (Academics), Board of Studies, Department of Information Technology at Sanjivani College of Engineering, Kopargaon, Maharashtra, on 27th December 2023.







M.TECH CSE | FACULTY DEVELOPMENT **PROGRAM**



Dr.P.Kavitha Rani, Professor and Head, Department of M.Tech. CSE **CSD** and has successfully completed one week Development Program titled "Social Entrepreneurship" conducted by NITTTR in association with AICTE from 20.11.2023 to 24.11.2023.

M.TECH CSE | FACULTY DEVELOPMENT **PROGRAM**

Dr.P.Prabha, Professor. Department of M.Tech. Science Computer and **Engineering** has successfully completed one week Faculty Development Program titled "Social Entrepreneurship" conducted by **NITTTR** in association with AICTE 20.11.2023 to 24.11.2023





MCT | ATAL FDP PARTICIPATION



Dr.M.Bhuvaneswari. Assistant Professor of MCT has successfully participated and completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on "Unveiling New Avenues in the Design of Next Generation Semiconductor Devices" at KGSIL Institute of Technology from 18/12/2023 23/12/2023.

CIVIL | ATAL FDP







Mr. S. C. Boobalan, Mr. R. Vighnesh and Ms. R. Hemavathi, Assistant Professors, Department of Civil Engineering, have participated and completed an ATAL FDP on "Innovative Construction Materials and Techniques for Sustainable Development (ICMTSD-2023)" from 11th to 16th December 2023 organised by SKCET.



ECE | FDP PARTICIPATION



Joby Titus, **Associate** Professor, Department of ECE has attended one-week Faculty Development Program (FDP) on "Antenna Design Next Generation Wireless Communications" durina December and 8th December 2023. organized by Vellore Institute of Technology.

ECE | INFOSYS SPRINGBOARD

Dr.T.Joby Titus. **Associate** Professor, Department of **ECE** have successfully completed a course on "Python for Beginners: Python Programming (Python 3)" certified by Infosys Springboard.









R&D | PAPER PRESENTATION | M.TECH.CSE





2023 Global Conference on Information Technologies and Communications (GCITC) 1st - 3rd Dec, 2023

Certificate

This is to certify that Or./Prof./Mr./Ms. Sreeraj S has presented paper entitled Experimental Evaluation of Internet of Things Assisted Industrial Automation System with Smart Emergency Alert Mechanism in 2023 Global Conference on Information Technologies and Communications (GCITC) during 1st & 3rd December 2023.

Dr. Mallikarjun M Kodabagi General Chair, GCITC

Dr. Vishwanath R Hulipalled General Chair . GCITC

Mr.S.Sreeraj, Assistant Professor, Department of M.Tech. Computer Science and Engineering has successfully presented a paper titled "Experimental **Evaluation of Internet of Things Assisted Industrial Automation System** with Smart Emergency Alert Mechanism" in the 2023 Global Conference on Information Technologies and Communications (GCITC) during 1stand 3 rd December 2023 organized by IEEE Banglore Section in association with REVA University Bangalore.







EEE | ALUMNI INTERACTION



Department of Electrical and Electronics Engineering organized alumni interaction on the topic "Strategic Path to Land in Core Industry" for the Third year EEE students on 20.12.2023 by Ms. Rebecca Merlin Rozario (2011-2015 Batch Alumnus) working as Product Test Engineer- Digital, Qualcomm Test Center of Excellence, Singapore.

Key Deliberations

- Various opportunities in core sector
- Clear Goal setting for career path
- Upgradation of skill set to shine
- Understand the concept of learning.







EEE | CREATIVE CORNER



S Megaa II-EEE-A

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