We Make You Shine

St. JOSEPH'S INSTITUTE OF TECHNOLOGY

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OMR, CHENNAI - 119

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING






TOP NEWS

- PROFESSIONAL CHAPTER ACTIVITIES
- ALUMNI ACTIVITIES
- CLUB ACTIVITIES
- SEERA
- NGO VISIT
- INDUSTRY INTERACTION
- FACULTY ACHIEVEMENTS
- STUDENT ACHIEVEMENTS

We Exist Everywhere

NEXTGEN NEWS JANUARY 2025

St. JOSEPH'S GROUP OF INSTITUTIONS OMR, CHENNAI - 119

The Choice of Disciplined Toppers

Professional Chapter Activity - IEEE Computer society

The Department of Computer Science and Engineering and IEEE Computer Society, Madras jointly organised an event on the theme "Imagination Meets Reality - Photography Contest" on 27th January 2025 from 8.00 a.m. to 9.00 a.m at CSE Lab -1, bringing together students to explore the intersection of futuristic ideas and their real-world implementations. Successfully bringing together organized an exciting event, bringing together tech enthusiasts and creative minds to explore the intersection of technology and visual storytelling. The event encouraged participants to showcase their photography skills while capturing themes related to innovation, computing, and digital transformation.

PHOTOGRAPHY CONTEST WINNERS LIST:

- ☑ **Sakthi Lakshman**
- ☑ **Rithik V Kumar**
- ☑ **Sherly W**

Professional Chapter Activity - Computer Society of India

The Department of Computer Science and Engineering and Computer Society of India local chapter, Kanchipuram jointly organised an event on the theme " QUIZ VIBE- State Level Quiz Competition " on 25th January 2025 from 9.00 a.m. to 3.00 p.m at AV hall -1. The state-level quiz competition, Quiz Vibe, organized by the Department of Computer Science and Engineering in collaboration with the Computer Society of India (CSI) Chapter, brought together 26 school students from 7 regions Chennai, Kancheepuram, Trivandrum, Sivakasi, Coimbatore, Trichy, Vellore, Salem, and Cochin. Competing in teams of two, the 13 teams participated in multiple rounds that tested their knowledge in General Knowledge, Science & Technology, and Logical Reasoning. After an intense and engaging competition, the top three teams emerged victorious, showcasing exceptional teamwork and intellectual prowess. This event provided an excellent platform to connect students across regions, fostering a spirit of learning and collaboration in the field of technology and beyond.



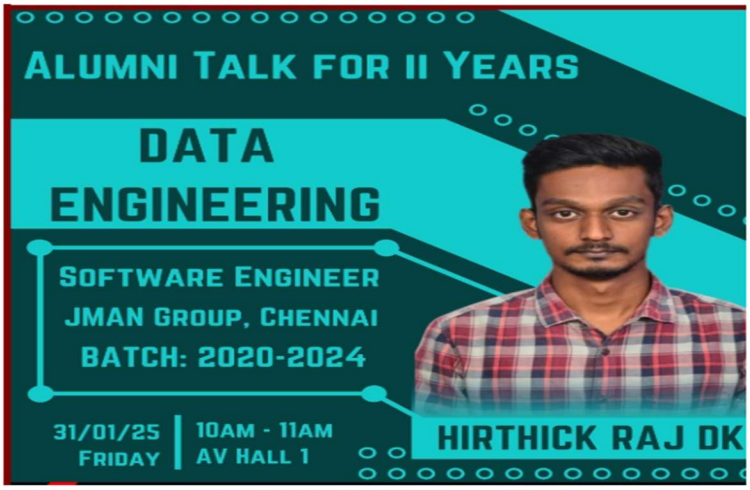


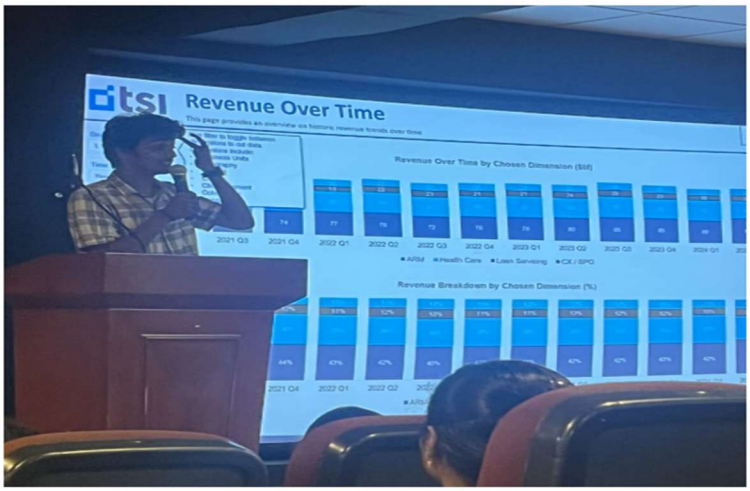

Alumni Activity – Tech Talk

The Department of Computer Science and Engineering organized an engaging Alumni Talk on Data Engineering on 31st of January 2025. The event featured Mr.Hirthick Raj DK , a Software Engineer at JMAN Group and an esteemed alumna from the Batch of 2020-2024, held in AV Hall-1 from 10.00 to 11.00 AM, the talk was specifically aimed at II-year students. The Alumni Talk on Data Engineering provided an insightful discussion on the role, responsibilities, and career pathways in data engineering. The event was an excellent opportunity for students and professionals to learn from an experienced alumnus. The speaker emphasized the growing demand for data engineers and provided practical tips on building a strong portfolio and gaining relevant experience.

KEY TAKEAWAYS:

Introduction to Data Engineering, Tech Stack & Tools, Career Pathways, Industry Trends, and Q&A Session





Alumni Activity – Mock Interview

The Department of Computer Science and Engineering organized a Mock Interview & Hands-On Session to Strengthen the Resume was a three-day event (21st, 22nd and 25th January 2025) designed to help participants enhance their resumes and improve their interview skills. Hosted by experienced alumni and HR professionals, the session provided valuable insights into resume building, interview techniques, and industry expectations.

KEY HIGHLIGHTS OF THE EVENT:

- ☑ **Resume Enhancement – Experts reviewed and refined resumes to align with industry standards.**
- ☑ **Mock Interviews – Participants faced real-time interview scenarios with constructive feedback.**
- ☑ **HR & Alumni Insights – Guidance on career growth, job market trends, and common interview mistakes.**
- ☑ **Interactive Q&A – Personalized advice and networking opportunities.**

The event saw enthusiastic participation, equipping attendees with practical skills and confidence to excel in job applications and interviews.

Club Activity - Machine Learning Club

On 22nd Januray 2025, the Machine Learning Club of the Department of Computer Science and Engineering (CSE) organized a dynamic and engaging activity titled "Brainquest – A Quiz Competition". The event aimed to deepen the participant's understanding of machine learning fundamentals and advanced concepts in a gamified format. The event featured 60 participants. The quiz, conducted via Quizizz, covered two primary sections: basic and advanced topics in machine learning. The interactive platform allowed participants to join using a shared game code, and the event was enhanced by live leaderboards and engaging visuals. A total of 15 teams participated, demonstrating an average accuracy of 75% throughout the quiz. The event featured a live leaderboard, gamifying the learning experience and keeping participants motivated. The time-limited questions and visually engaging interface added excitement and a competitive edge.

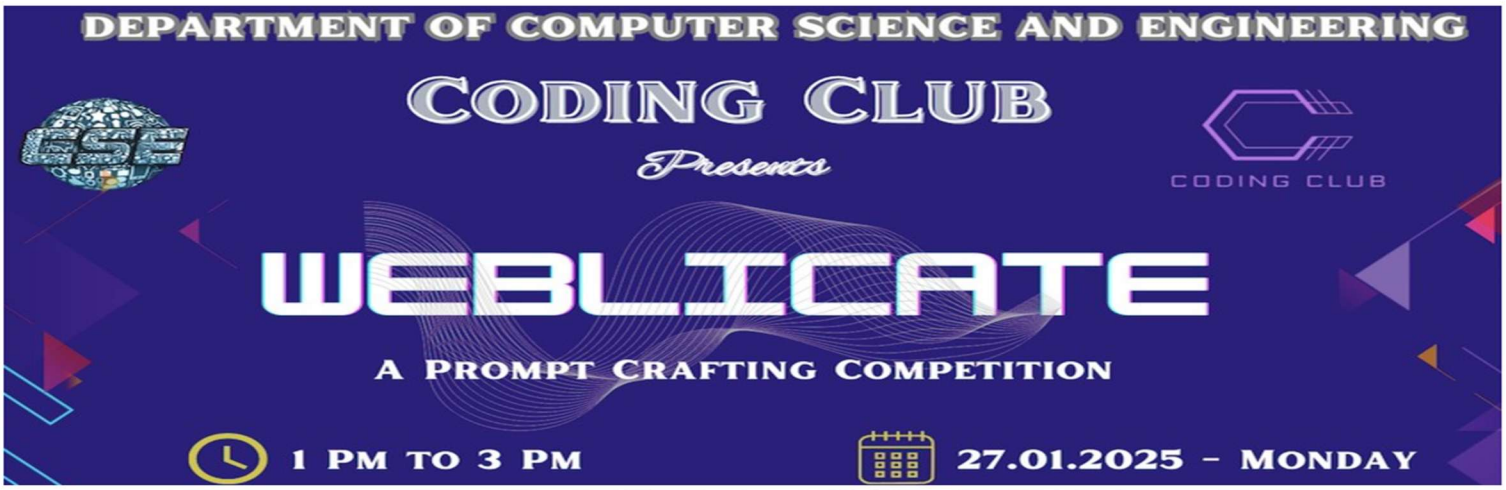
Club Activity - GLUG Club

The Department of Computer Science and Engineering, in collaboration with GLUG club conducted a seminar for Second year CSE GLUG club members on "LARGE LANGUAGE MODELS on 29th January 2025. This session was facilitated by Mr. Berwin N, III-year Student, Cyber for Women Safety Hackathon Winner, Department of Computer Science and Engineering. This session opened with an overview of Large Language Models (LLMs). During the discussion, DEEPSEEK, a recent advancement in the field, was examined along with its market implications. The conversation highlighted the advantages of utilizing tailored large language models as opposed to commercially available chatbots. Mr. Berwin's engaging facilitation and technical expertise provided an enriching learning experience. The event did break the barriers in understanding the technical jargons of large language models and made it simple for students to experiment on the models.




Club Activity - Coding Club

The Department of Computer Science and Engineering, in collaboration with Coding club conducted a competition for Second year CSE coding club members on "WEBLICATE - Prompt Crafting Competition" on 27th January 2025. The main objective of coding club aims to establish a coding culture on campus, reaching every student passionate about coding. The club's motto is to Create-Build-Innovate. The benefits of such a program are to ensure opportunities for student's success by distinguishing tasks that are neither easy nor too difficult. Also, to help the students to grow technically strong, thorough with the basic concepts in HTML, CSS and Java Script so that they will be bold enough in facing technical rounds of interview. The Prompt Crafting Competition was a highly engaging and educational event that highlighted the importance of prompt engineering in the AI era. Participants left with enhanced skills and newfound enthusiasm for exploring AI-driven creativity.

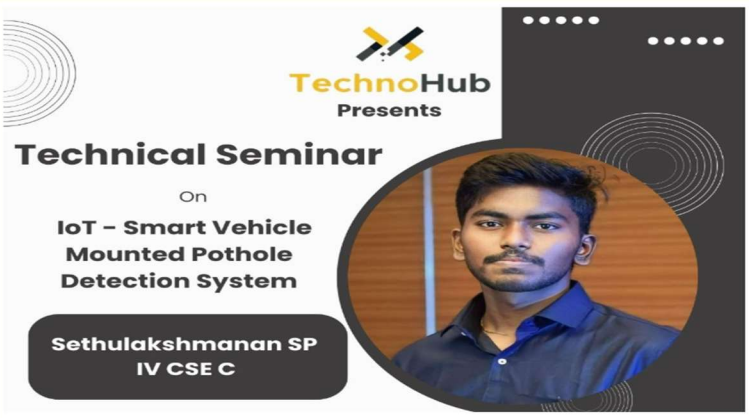


Club Activity - TechnoHub Club

The Department of Computer Science and Engineering, in collaboration with TechnoHub club conducted a technical seminar for Second year CSE TechnoHub club members on "IOT – Smart vehicle Mounted pothole Detection System" on 10th January 2025. The seminar aimed to introduce students to IoT-based smart solutions for real-world infrastructure challenges, particularly in road safety and maintenance. The seminar provided insights into how IoT technology can be leveraged for developing a smart pothole detection system, which helps in identifying and reporting road irregularities using sensor-based vehicle-mounted systems.

OUTCOME

- ☑ **Enhanced students understanding of IoT applications in smart infrastructure.**
- ☑ **Encouraged students to explore real-time data collection, processing, and cloud-based reporting for IoT solutions.**
- ☑ **Inspired participants to develop their own projects related to smart transportation and urban management.**



Club Activity – EDC Club

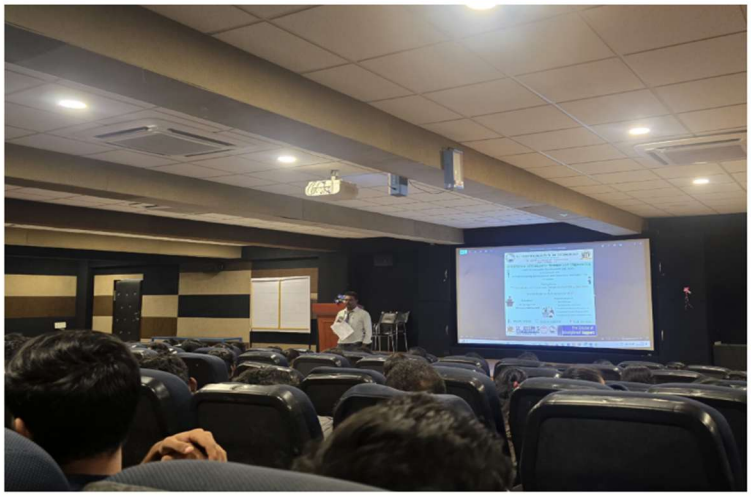
The Department of Computer Science and Engineering, in collaboration with ED Cell conducted a technical seminar for Second year CSE students on "Orientation and Awareness Program on MSME Schemes & Innovation in Entrepreneurship" on 9th January 2025 at 1.00 pm to 3.00 pm.

This informative session designed to educate entrepreneurs, startups, and small business owners about various Micro, Small, and Medium Enterprises (MSME) schemes and innovation-driven entrepreneurship opportunities.

Key Highlights of the Event:

Introduction to MSME Schemes, Entrepreneurial Innovation, Funding & Financial Assistance, Skill Development & Training, Networking & Collaboration, Q&A Session.

This program aims to empower entrepreneurs with knowledge and resources to scale their businesses and drive innovation in the MSME sector.

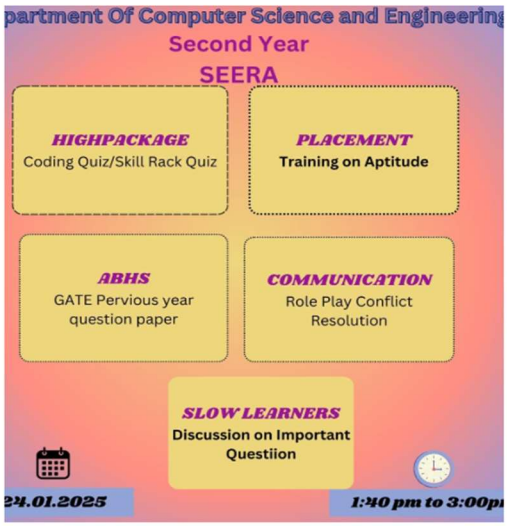


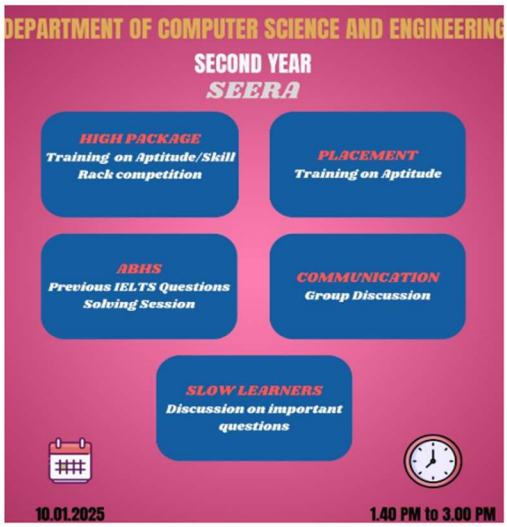
Student Employment Enhancement and Research Activities (SEERA)

As part of the SEERA Program, the Department of Computer Science and Engineering (CSE) organized a technical seminar on 3rd, 10th, 24th January for II Year Students.

The seminar focused on four key areas:

- ☑ **Higher Package**
- ☑ **Placement**
- ☑ **ABHS (Related to Higher Studies)**
- ☑ **Communication**
- ☑ **Slow Learners**





NGO Visit

On 25th January 2025, a team from 2nd year (Section B) Computer Science and Engineering students visited the Anjalammal Special School, an old age home, as part of an NGO outreach program. The visit aimed to provide emotional support, interact with the elderly residents, and contribute to their well-being. Upon arrival, we were warmly welcomed by the staff and residents, who shared their life experiences and personal stories. The day was filled with various activities, including storytelling sessions interactive games, all designed to bring joy and engagement. A small donation drive was conducted, where essentials such as food distribution. The visit provided a deep insight into the challenges faced by senior citizens and highlighted the need for companionship and emotional support in their lives. It was a heartwarming experience that reinforced our commitment to continued engagement with the elderly community. The day concluded with heartfelt conversations and expressions of gratitude, leaving both volunteers and residents with a sense of fulfilment and connection.







NGO Visit

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NGO VISIT

III CSE B

Amma appa old age home
70, Lakhsmi Nagar, Kundrathur, Chennai,
Tamil Nadu 600069

09–01–2025

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NGO VISIT

III CSE C

Mahimai Illam,
Opposite CMC, Chengalpattu

09–01–2025

NGO Visit

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NGO VISIT

III CSE A

Annai Parvaiyatror Sangam ,
No. 1713, Mayilai Balaji Nagar, 3rd Zone,
Pallikaranai, Chennai, Tamil Nadu 600100

04–01–2025

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NGO VISIT

II CSE A

Amma appa old age home
70, Lakhsmi Nagar, Kundrathur, Chennai,
Tamil Nadu 600069

25–01–2025

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Industry Interaction by our Faculties








POINTS DISCUSSED

1. How to prepare for industry recruitment problem-solving questions.
2. How should teachers prepare for teaching coding?
3. Discuss the industry's expectations from students.
4. Discuss the question patterns of product-based companies.
5. At Zoho School, discussed the technologies to be taught and observed the environment for efficient working.
6. Discuss the syllabus framework in collaboration with industry needs.
7. The marketing sector also has a need for software engineers.
8. Discuss the availability of internship roles in product-based companies and the importance of internships.
9. Discuss Zoho products and collaborating industries, which have specific needs.
10. How should colleges prepare for industry expectations regarding the recruitment of software engineers, technical support, sales & marketing, patent publishing, and research?

Industry Team

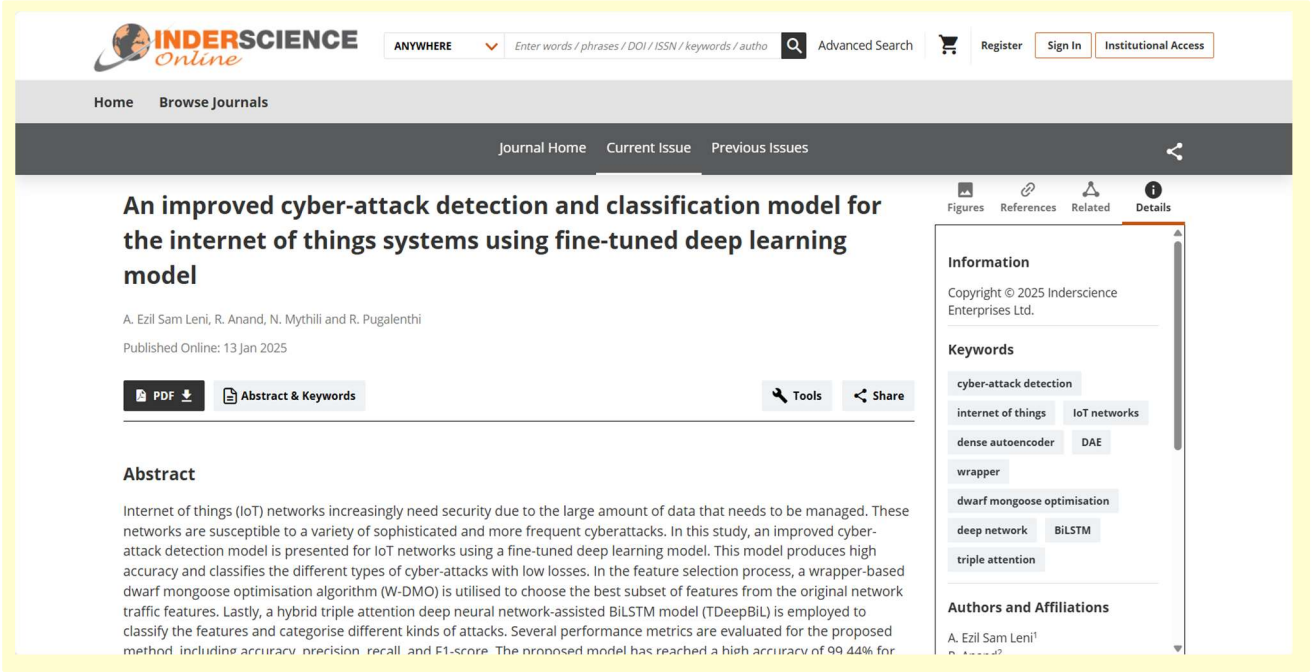
1. Mohammed Sohail, Head- Talent Acquisition and Global HR Operation, Zoho Corporation.
2. Uma Maheswari R, Director, Zoho Schools of Learning, Chennai.
3. Nirmal Kumar M, Regional Director- Sales & Marketing, Zoho Corporation.

29.01.2025

Faculties
Dr. L. Sai Ramesh, M. E., Ph. D.
Professor,
Mr. P. Mithun, M. Tech., (Ph. D.)
Assistant Professor,
Dept. of CSE

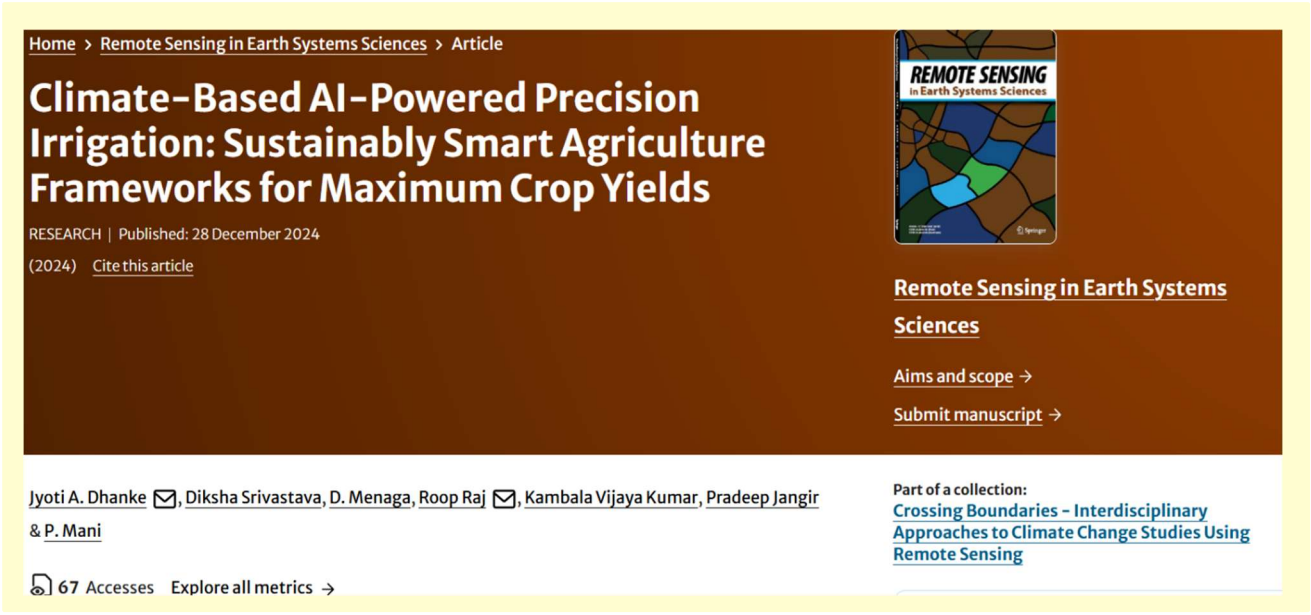
Faculty Achievements – SCIE Journal Publication

- ☑ **Dr. N. Mythili published a paper titled " An improved cyber-attack detection and classification model for the internet of things systems using fine-tuned deep learning model", in the International Journal of Sensor Networks, January 2025.**
- ☑ **Dr. L. SaiRamesh published a paper titled Intelligent Intrusion Detection and Prevention System for IoT Using Game Theoretic Approach", in the International Journal of Wireless Personal Communications, January 2025.**



Faculty Achievements – SCOPUS Journal Publication

- ☑ **Dr. D.Menaga published a paper titled " Climate-Based AI-Powered Precision Irrigation: Sustainably Smart Agriculture Frameworks for Maximum Crop Yields", in the International Journal of Remote Sensing in Earth Systems Sciences, January 2025.**
- ☑ **Ms. V.C.Ranganayaki published a paper titled "Secure Routing E-voting Protocol based on Wireless Sensor Network Platform with Block chain", in the International JOurnal for Electrical and Electronics Research, January 2025.**



Home › Remote Sensing in Earth Systems Sciences › Article

Climate-Based AI-Powered Precision Irrigation: Sustainably Smart Agriculture Frameworks for Maximum Crop Yields

RESEARCH | Published: 28 December 2024

(2024) Cite this article

Remote Sensing in Earth Systems Sciences

Aims and scope →

Submit manuscript →

Jyoti A. Dhanke, Diksha Srivastava, D. Menaga, Roop Raj, Kambala Vijaya Kumar, Pradeep Jangir & P. Mani

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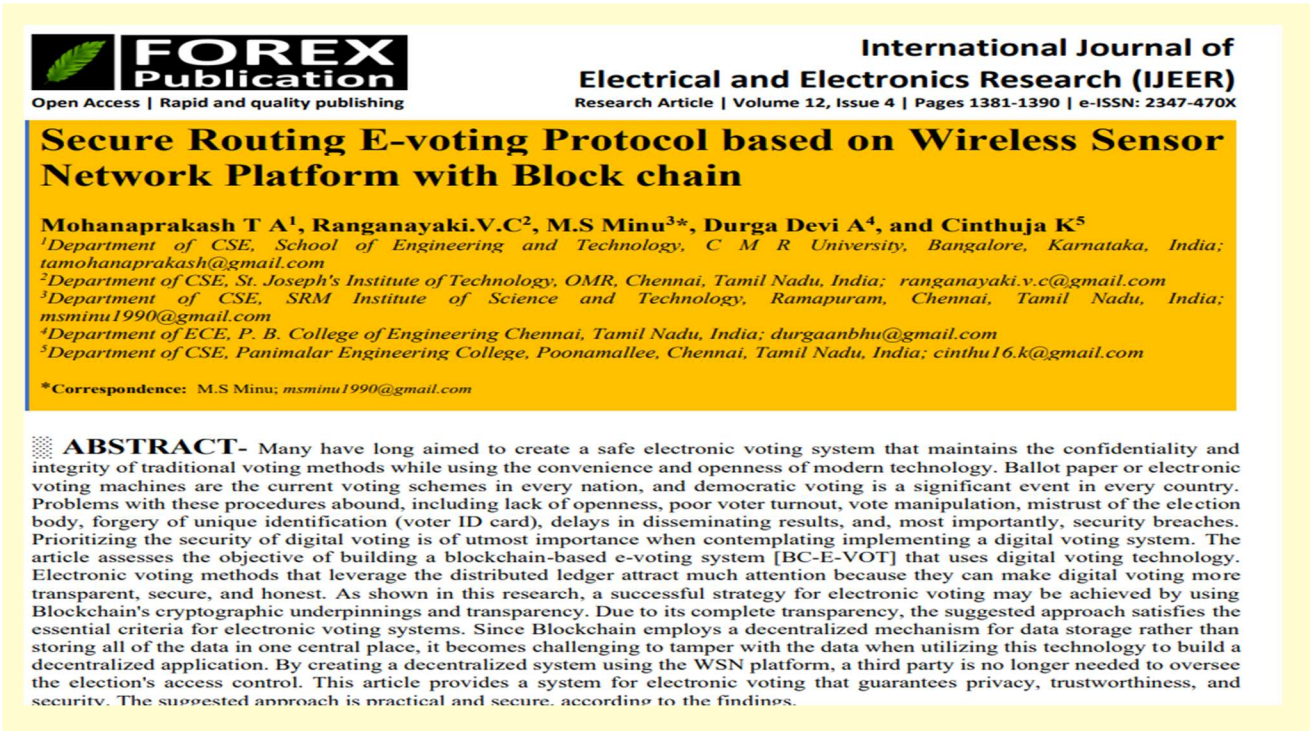
Part of a collection:
Crossing Boundaries – Interdisciplinary Approaches to Climate Change Studies Using Remote Sensing



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Research Article | Volume 12, Issue 4 | Pages 1381-1390 | e-ISSN: 2347-470X

Secure Routing E-voting Protocol based on Wireless Sensor Network Platform with Block chain

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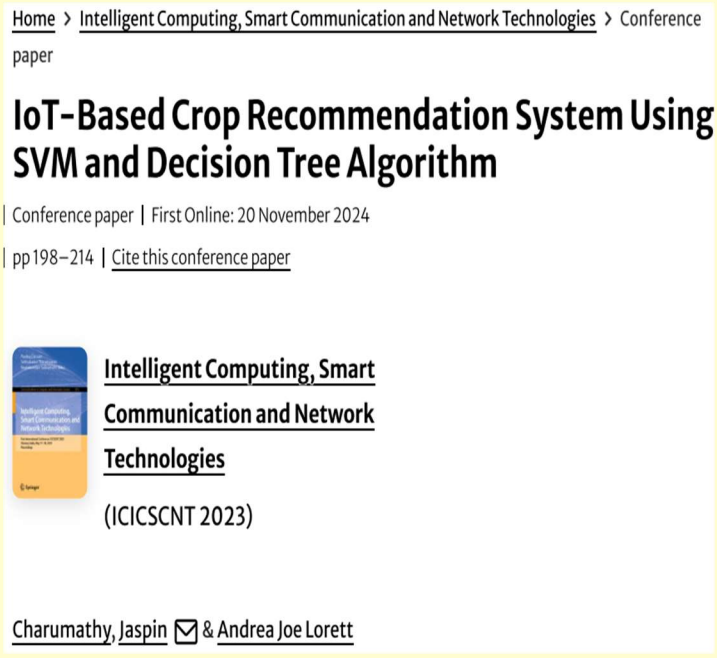
ABSTRACT- Many have long aimed to create a safe electronic voting system that maintains the confidentiality and integrity of traditional voting methods while using the convenience and openness of modern technology. Ballot paper or electronic voting machines are the current voting schemes in every nation, and democratic voting is a significant event in every country. Problems with these procedures abound, including lack of openness, poor voter turnout, vote manipulation, mistrust of the election body, forgery of unique identification (voter ID card), delays in disseminating results, and, most importantly, security breaches. Prioritizing the security of digital voting is of utmost importance when contemplating implementing a digital voting system. The article assesses the objective of building a blockchain-based e-voting system [BC-E-VOT] that uses digital voting technology. Electronic voting methods that leverage the distributed ledger attract much attention because they can make digital voting more transparent, secure, and honest. As shown in this research, a successful strategy for electronic voting may be achieved by using Blockchain's cryptographic underpinnings and transparency. Due to its complete transparency, the suggested approach satisfies the essential criteria for electronic voting systems. Since Blockchain employs a decentralized mechanism for data storage rather than storing all of the data in one central place, it becomes challenging to tamper with the data when utilizing this technology to build a decentralized application. By creating a decentralized system using the WSN platform, a third party is no longer needed to oversee the election's access control. This article provides a system for electronic voting that guarantees privacy, trustworthiness, and security. The suggested approach is practical and secure, according to the findings.

Faculty Achievements – SCOPUS indexed Conference

- ☑ **Dr. L. Sairamesh Present a titled "Real time crop analysis with enhanced image classification using deep learning and fuzzy logic techniques ", in the 2nd International Conference on Computer Vision and Internet of Things on December 2024, indexed in IEEE on January 2025.**
- ☑ **Ms. V.C.Ranganayaki Present a titled "Optuna-Optimized Machine Learning Technique for Accurate Diabetes Prediction and Classification", 4th International Conference on Sustainable Expert Systems, ICSES 2024 on October 2024, indexed in IEEE on January 2025.**
- ☑ **Ms. K.Jaspin Present a titled "IoT-Based Crop Recommendation System Using SVM and Decision Tree Algorithm", in International Conference on Intelligent Computing, Smart Communication and Network Technologies on May 2024, indexed in IEEE on January 2025.**
- ☑ **Mr. M.Krishnaraj Present a titled "Deep Learning Breakthroughs in Leukemia Diagnosis: A Review of White Blood Cell Image Analysis", 4th International Conference on Sustainable Expert Systems, ICSES 2024 on October 2024, indexed in IEEE on January 2025.**
- ☑ **Mrs S M Keerthana Present a titled" Probabilistic and Interpretable Approach for Malaria Transmission Forecasting via ARIMA", in the International Conference on Communication, Computing and Signal Processing, IICCCS 2024, indexed in IEEE on January 2025.**


Home › Intelligent Computing, Smart Communication and Network Technologies › Conference paper

IoT-Based Crop Recommendation System Using SVM and Decision Tree Algorithm

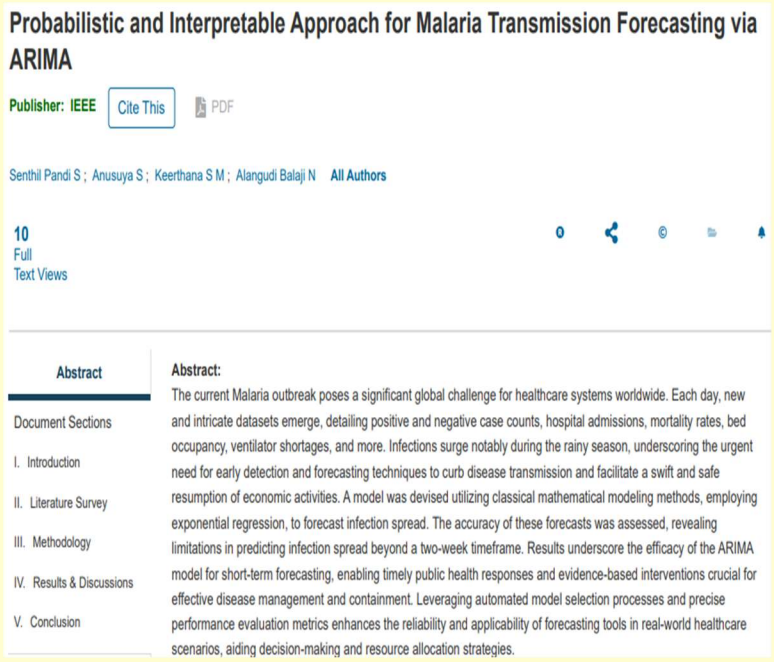
Conference paper | First Online: 20 November 2024

pp 198–214 | Cite this conference paper

Intelligent Computing, Smart Communication and Network Technologies

(ICICSCNT 2023)

Charumathy, Jaspin & Andrea Joe Lorett


Probabilistic and Interpretable Approach for Malaria Transmission Forecasting via ARIMA

Publisher: IEEE Cite This PDF

Senthil Pandi S ; Anusuya S ; Keerthana S M ; Alangudi Balaji N All Authors

10 Full Text Views

Abstract

Document Sections

I. Introduction

II. Literature Survey

III. Methodology

IV. Results & Discussions

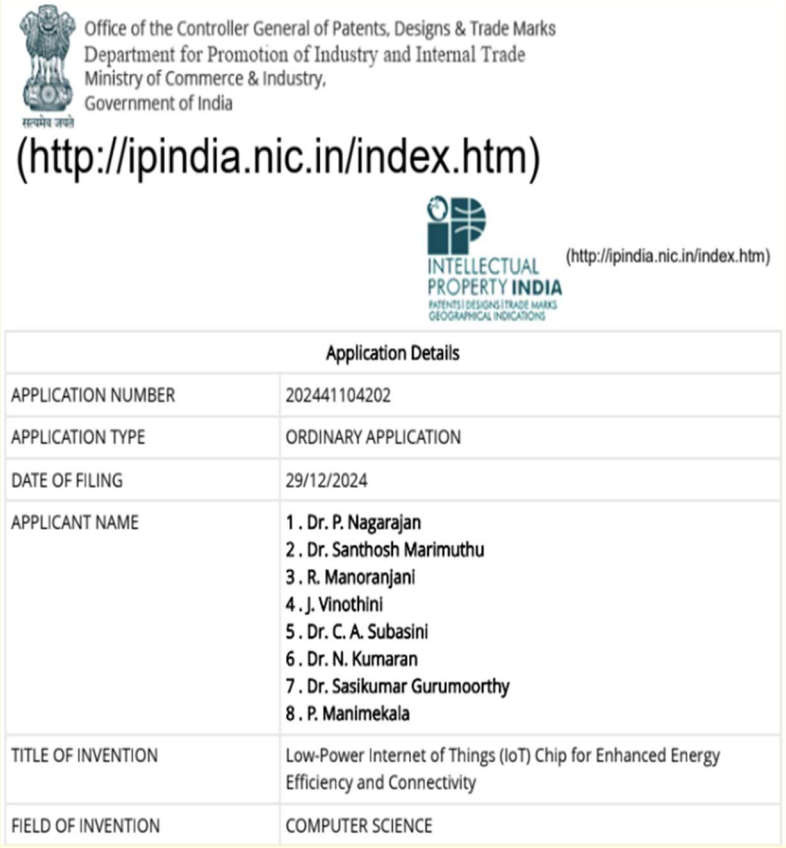
V. Conclusion

Abstract:

The current Malaria outbreak poses a significant global challenge for healthcare systems worldwide. Each day, new and intricate datasets emerge, detailing positive and negative case counts, hospital admissions, mortality rates, bed occupancy, ventilator shortages, and more. Infections surge notably during the rainy season, underscoring the urgent need for early detection and forecasting techniques to curb disease transmission and facilitate a swift and safe resumption of economic activities. A model was devised utilizing classical mathematical modeling methods, employing exponential regression, to forecast infection spread. The accuracy of these forecasts was assessed, revealing limitations in predicting infection spread beyond a two-week timeframe. Results underscore the efficacy of the ARIMA model for short-term forecasting, enabling timely public health responses and evidence-based interventions crucial for effective disease management and containment. Leveraging automated model selection processes and precise performance evaluation metrics enhances the reliability and applicability of forecasting tools in real-world healthcare scenarios, aiding decision-making and resource allocation strategies.

Faculty Achievements – Patent Publication

- ☑ **Mr M.Krishnaraj Kumar has published a patent titled "CYBERCRIME DETECTION AND PREVENTION USING AUTOMATED MACHINE LEARNING IN IOT FORENSICS" with application number 202411094352 on December 2024.**
- ☑ **Ms.K.Sherin has published a patent titled "ENHANCING TEACHING AND LEARNING EFFECTIVENESS THROUGH MACHINE LEARNING DRIVEN PEDAGOGY" with application number 202441101018 on January 2024.**
- ☑ **Mrs. K.Jaspin has published a patent titled "A MACHINE LEARNING-DRIVEN APPROACH TO PANCHAKARMA AND AYURVEDIC THERAPIES FOR HERBAL FORMULATIONS AND CANCER MANAGEMENT" with application number 202411103004 A on January 2024.**
- ☑ **Dr.C.A.Subasini has published a patent titled "LOW-POWER INTERNET OF THINGS (IOT) CHIP FOR ENHANCED ENERGY EFFICIENCY AND CONNECTIVITY" with application number 202441104202 on January 2024.**



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Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Application Details	
APPLICATION NUMBER	202441104202
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	29/12/2024
APPLICANT NAME	1 . Dr. P. Nagarajan 2 . Dr. Santhosh Marimuthu 3 . R. Manoranjani 4 . J. Vinothini 5 . Dr. C. A. Subasini 6 . Dr. N. Kumaran 7 . Dr. Sasikumar Gurumoorthy 8 . P. Manimekala
TITLE OF INVENTION	Low-Power Internet of Things (IoT) Chip for Enhanced Energy Efficiency and Connectivity
FIELD OF INVENTION	COMPUTER SCIENCE

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

INTELLECTUAL PROPERTY INDIA

Application Details	
APPLICATION NUMBER	202441101018
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/12/2024
APPLICANT NAME	1 . T Sunandha Tulasi 2 . Dr K Sailaja Kumar 3 . Dr Devadutta Indoria 4 . Suchana Roy 5 . Dr Brajesh Kumar 6 . Dr I. D. Soubache 7 . Sherin K 8 . K. Swapnika 9 . Dr.R.Sandrilla 10 . Dr Sarah DSouza 11 . Girija Paranjpe 12 . Viral Ahire
TITLE OF INVENTION	ENHANCING TEACHING AND LEARNING EFFECTIVENESS THROUGH MACHINE LEARNING-DRIVEN PEDAGOGY
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patent.vaagaiip@gmail.com


DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Congratulations
cognizant
To our Cognizant GenC
Placed Students
BATCH: 2021-2025
HAINS IMMANUEL VAIZ
JEFFREY SAHAYA DANIEL
JENEFA ANGELIN J
JEREMY JONATHAN RAJ M
Trainee Engineer
CTC- 4 LPA
MEPHI ALBEN A
RAMITH JAGATHESE J
SWETHA S

Student Achievements

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CONGRATULATIONS

To our

Newgen Placed Student

newgen

Mr. Yuvaraj S

Salary Package- 4.25 Lakhs

BATCH: 2021-2025

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CONGRATULATIONS

To our

Cprime Placed Student

cprime

Ms. Janani Priya S

Trainee Software Engineer

Salary Package- 6.24 LPA

BATCH: 2021-2025

Student Achievements