

# SMRITI

*Department of  
Computer Science and Engineering*

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The logo for Sree Siddhanta University (SSU) is located in the bottom right corner. It consists of the lowercase letters 'ssn' in a bold, blue, sans-serif font. The 's' and 'n' are connected, and the 's' has a distinctive shape with a thick stroke.

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## EDITORIAL DESK

In this edition, we are delighted to present to you, all of the commendable accomplishments of the department, during this quarter. This edition is replete with information about various competitions, workshops, paper publications etc, that the department has been a part of.

During this period, the department organized workshops on Cyber security, Embedded software development and Data Science with Julia to nurture the skill set of our students. The department also conducted an outreach programme on Machine Learning to foster the diploma students. An upskilling programme on Linux System Administration was also organized to enhance the skill set of the lab assistants. We appreciate the time and effort taken by the organizers in making this happen. In order to lay good paths for the freshers of the postgraduate programme the department organized orientation programme to kindle their thoughts. We congratulate Dr. Shahul Hamead H for presenting his work in NetMob 2023 conducted at the Puerta de Toledo campus of Universidad Carlos III de Madrid, Spain. Our heartfelt congratulations to Dr. D. Thenmozhi and Dr. B. Bharathi for receiving the best teacher award.

Our students have always contributed to the growth of the department by participating in various technical and non-technical events. We appreciate Rohit Ram for securing 1<sup>st</sup> place in national level bytecraft hackathon organized by IIIT Nagpur. Also we congratulate Raghul Yadav K, Swathika D, Rahul B who were guided by Dr. S. Angel Deborah for bagging second runner up place in Kumaraguru Livestock Hackathon. The Livestock Hackathon team along with Rajasekar S was placed second in the HackinHub conducted by Sairam Institute of Technology . This period also witnessed many of our students participating in hackXGPT, HerEmpower, PSG iTech HackFest. Apart from participating and winning in external national level hackathons, our students were very keen and active in participating in Smart India Hackathon 2023 internal selection.

We commend the efforts taken by Vijai Aravindh R, Sathvika VS, Vaishnavi S and Yashasvee who were mentored by Dr. S. Rajalakshmi to secure third place among the 40 projects displayed during SSN Innovation day. The department appreciates Pooja Premnath for receiving a Student Grant sponsored by the Spanish Ministry of Economic Affairs and Digital Transformation through PRTR and the European Union-NextGenerationEU to attend NetMob 2023. The efforts taken by the students in organizing Invente-2023 are commendable. The placement season of the department progressed well, with students bagging incredible packages from top companies that include D.E. Shaw, Avalara Technologies, BNY Mellon.

We are also very proud of the achievements of V. S. Sathvika of the 3<sup>rd</sup> year, who secured first place, in various State level Table Tennis Tournaments organized by Anna University and Kongu Engineering college.

We are delighted to note that the department's accomplishments are not limited to a single scope by any means. This edition clearly shows that the students and teachers of the department excel in everything they do. We look forward to a very successful upcoming quarter for the department. Happy Reading!

**SMRITI Editorial Team**

# EXTERNAL INTERACTIONS AND RECOGNITIONS

## Board of Studies

Dr. Jansi Rani S. V., ASP/CSE attended the Board of Studies meeting at Karpaga Vinayaga College of Engineering & Technology on 22/07/2023.

## Invited Lectures - Outside SSN

1. Dr. Angel Deborah S, AP/CSE acted as a Resource Person for the workshop on "Foundation of Data Science" at the Department of MCA, DG Vaishnav College, Chennai on 18th August 2023.
2. Dr. Thenmozhi D, ASP/CSE delivered talk on "Semantics & Pragmatics" in the Anna University sponsored six days FDTP programme on AL3501- Natural Language Processing during 3rd August 2023 at St. Joseph College of Engineering, OMR, Chennai.
3. Dr. Jansi Rani S. V., ASP/CSE delivered a guest lecture on "Emotional AI" at Karpaga Vinayaga College of Engg & Tech, Chengalpattu on September 15, 2023.
4. Dr. Bharathi B., ASP/CSE delivered a guest lecture on "AI in speech processing" at the department of CSE, VIT-Chennai on 25-09-2023
5. Dr. Bharathi B., ASP/CSE delivered a guest lecture on "Speech processing with machine learning" at the department of CSE, VIT-Chennai on 26-09-2023.
6. Dr. Thenmozhi D, ASP/CSE delivered a talk on "Information Extraction from Tamil Medicinal Documents" on 13th October 2023 in an "International conference on Tamil Computing" organized by Kumaraguru College of Technology, Coimbatore and INFITT.
7. Dr. T. T. Mirnalinee Prof/Head was invited as a speaker for the ATAL FDP programme on "Embracing Design Thinking for Success" scheduled from 30th October to 4th November, 2023 at Sathyabama Institute of Science and technology.

## Viva Voce Examiner

Dr. Kavitha S.,ASP/CSE Corrected the thesis entitled as “Investigations On Adaptive Video Steganography Techniques For Secure Communications” and attended a viva voce at VIT, Vellore on 31.07.2023

## Session Chair

Dr. Thenmozhi D, ASP/CSE served as a session chair for poster presentation at Third Workshop on Language Technology for Equality, Diversity and Inclusion (LT-EDI 2023) on 7th September 2023. This workshop was conducted as part of the recent advances in Natural Language Processing Conference.

## DC Members

1. Dr. Priyadharsini R,AP/CSE served as DC member for a full time Anna Univ scholar Ms.Subha Shini R, for her I DC meeting on 14.08.2023
2. Dr. B. Bharathi ASP/CSE attended a first DC meeting for the scholar Ms.Reenu Paul, Hindustan Institute of Technology and Science,Chennai on 07-08-2023.
3. Dr. J. Suresh, ASP/CSE attended as a Doctoral Committee Member for the scholar, Ms. Neenu Francis, convened by Dr. Vadivu, Prof/CSE, SRM Institute of Science and Technology, on 10.08.2023.
4. Dr. Kavitha S.,ASP/CSE attended a first Doctoral Committee meeting of the research scholar named Ms. Keerthana G, St.Joseph's College of Engineering on 25/07/2023.
5. Dr. B. Bharathi, ASP/CSE attended a first DC meeting for the scholar Mr. T.C.Sankar, Chennai Institute of Technology and Science, Chennai on 18-08-2023 in online mode.
6. Dr. D Venkata Vara Prasad ,Prof/CSE attended virtual DC meeting of Ms. L. PAVITHRA VIT University
7. Dr. Saraswathi S,AP/CSE, attended the DC meeting at Dr.M.G.R. Educational and Research Institute on 16-08-2023.
8. Dr. Chamundeswari A.,Prof/CSE was invited for the DC confirmation meeting by Dr.R.I.Minu, Professor,Department of Computing Technologies, School of Computing, SRM Institute of Science and Technology, Kattankulathur on 15th September 2023.
9. Dr. Felix Enigo V. S.,ASP/CSE attended Synopsis meeting of the scholar T.Saminathan at SRMIST, Department of ECE, TP912 – ECE Conference room on 27/9/23, 2.00pm.

## CSI Chennai Chapter

Dr.A.Chamundeswari, Prof attended Student Branch Councilor's Meet organized by CSI Chennai chapter, on Saturday, 9th September 2023 .

### Jury Member

Dr. Priyadharsini R,ASP/CSE served as Jury on 24/09/2023 in the final evaluation round for HCL Jigsaw Version 4.0 - National level problem solving event for school students.

### PC Member

Dr. R. Kanchana ASP/CSE served as a PC member in Sep 2023 and reviewed three research papers submitted to IEEE International Conference On Teaching, Assessment And Learning For Engineering (TALE 2023)

## International Forum of Information Technology in Tamil (INFITT)

Dr. Kalyanasundaram visited the department of CSE on 14th September 2022 to have a discussion on "Prospects in Tamil Computing". Dr. Kalyanasundaram was a professor at Swiss Federal Institute of Technology. He is now serving as an overseas visiting professor at Anna University and VIT. He is leading Project Madurai, and he is an active member of the International Forum of Information Technology in Tamil (INFITT) since 2000. Dr. T. T. Mirnalinee, Professor and Head/CSE, Dr. D. Thenmozhi, ASP/CSE, Dr. B. Bharathi ASP/CSE, Dr. V. S. Felix Enigo ASP/CSE and Dr. M. Saritha AP/CSE participated in the discussion.

### ACM-W

Dr. S. Rajalakshmi AP/CSE evaluated the project proposals in the first round submitted for AthenaHacks - Hackathon conducted by ACM-W India, Coimbatore ACM Chapter and PSG College of Technology on October 3, 2023.

# INDUSTRY COLLABORATION

## Valeo

1. Dr. R. Kanchana AP/CSE and Dr. T. T. Mirnalinee, Prof. & Head, interacted with Dr. Prabhakar Narella of Valeo, Chennai regarding the faculty visit to Valeo, Students visit to Valeo, consultancy project problems on 16th Aug 2023.
2. Dr. Saraswathi S,ASP/CSE, Dr. H. Shahul Hamead, AP/CSE visited Valeo office on 29-08-2023 for discussion with Mr. Jayanta on problem statements

## CDAC, Kolkata

1. Dr. T. T. Mirnalinee, Prof. & Head, Dr. B. Prabavathy, ASP/CSE, Dr. R. Kanchana, ASP/CSE, Dr. S. Saraswathi, ASP/CSE had a meeting with Mr. Sangam Kumar Chaturveti, CDAC, Kolkata for possible research collaboration on 17th Aug 2023. The research capabilities of the department of CSE was presented by Dr. T. T. Mirnalinee, HoD, CSE. He gave an introduction on Cybersecurity, demonstrated the security commands in Kali Linux, created test beds with various security attacks and showed how a report can be generated with the Common Vulnerability Scoring System (CVSS) during the Workshop titled Cybersecurity with Live Demonstration on Security Attacks held on 17-08-2023 .
2. Dr. T. T. Mirnalinee, Professor and Head/CSE and Dr. R. Kanchana ASP/CSE interacted with Mr. Asok Banyopadhyay, Mr. Bernali Pal, Mr. Sangam Kumar Chaturvedi, CDAC Kolkata on 20th Sep 2023 regarding the collaborative project proposals. The research capabilities of the department of CSE were presented to them by Dr. T. T. Mirnalinee, HoD, CSE.
3. Dr. R. Kanchana ASP/CSE organized a meeting with CDAC team comprising of Mr. Asok Banyopadhyay and Mr. Sangam Kumar Chaturvedi, CDAC Kolkata for the demonstration of the research work by our faculty members on 13th October 2023.

## Cadmaxx Solutions Pvt Ltd

Dr. T. T. Mirnalinee Prof. & Head and Dr. R. Kanchana ASP/CSE, had an interaction with Mr. Prateek Jain, Business Development Manager, Cadmaxx Solutions Pvt Ltd , an INTEL and IBM partner regarding setting up of intel UNNATI lab.

## Senquire Analytics

Dr. T. T. Mirnalinee Prof&Head/CSE and Dr. R. Kanchana ASP/CSE had a meeting with Vinayak Prabhu, Academia team Senquire Analytics on 13th Oct 2023, regarding the proposal to set up and or upgrade AI activities in the department.

## Caterpillar

1. First online meeting was organized on 17-08-2023 with Mr. Mahendra Kumar Angamuthu Ganesan and Mr. Aravind B, Caterpillar to formulate the problem statement on depth estimation for autonomous vehicles. Dr.T.T.Mirnalinee, Dr.J. Bhuvana, Dr.K.R. Sarath Chandran attended the meeting along with the III year CSE students Aathish Sivasubrahmanian, Harish Kumar M V and Hemasree Senthil .
2. Dr. Chitra Babu, Prof/CSE along with Dr. D. Thenmozhi and 3 students attended the follow-up discussion on the project on "Design and Development of a Chatbot" with the Caterpillar technical team on the 5th September 2023.
3. Dr. Chitra Babu, Prof/CSE along with Dr. S. Rajalakshmi and 3 students had a discussion on the "Digital Twins" project with the Caterpillar technical team on the 13th September 2023.
4. Dr. Chitra Babu, Prof/CSE along with Dr. S.M. Dhannya and 4 students had a meeting for the "Hybrid Seat Allocation" project with the Caterpillar technical person Saleem Malikh on the 25th September 2023.

## Tata Elxsi, Chennai

Dr. R. Kanchana ASP/CSE and Dr. T. T. Mirnalinee, Professor & Head/CSE interacted with Mr. Venkatakrisnan, Head of Production, Tata Elxsi, Chennai and his team regarding industry participation in offering a course on AR&VR on 8th Sep 2023. Dr. Angel Deborah and Dr. K.R. Sarathchandran AP/CSE also joined in the discussion.

## Regenboog India Foundation

1. Dr. T. T. Mirnalinee, Professor and Head and Dr. R. Kanchana ASP/CSE interacted with Ms. Pradhiksha, Technical head, Regenboog India Foundation and Mr. Madhan Mohan, Founder regarding their initiatives for rural well being and possible collaboration in two projects on 5th Sep 2023.
2. Dr. R. Kanchana ASP/CSE and Dr. T. T. Mirnalinee Prof&Head/CSE interacted (online) with Mr. Shiva Yedla, Producer – VxR, TATA ELXSI, Chennai on 6th Oct 2023 as well as 30th Oct 2023 regarding the topics, budget and logistics of AR&VR workshop planned in the last week of Nov 2023.
3. Dr. R. Kanchana visited Regenboog India Foundation, Thiruvannamalai on 28th Oct 2023 and Mr. Madhan Kumar, founder showed their facilities such as mobile clinic, mobile library and school. There was a discussion on the use cases and functionalities of the ongoing collaborative projects.



## Cognizant Technology Solutions

1. Dr. R. Kanchana ASP/CSE coordinated with Cognizant Technology Solutions for industry participation in curriculum. Mr. T.S. Ramanujam Principal Architect gave lectures on UX design in 4 sessions on 31st Oct 2023 along with demos as a part of the elective course on User Experience Design for the final year students of UG. Dr. A. Chamundeswari co-organized the sessions.
2. Dr. R. Kanchana ASP/CSE submitted the Analysis and Design document for the project on Building multi tenant considerations into a web application to Cognizant team under DN-Reverence Faculty Enrichment program, on 12th Oct 2023

## Chettinad Hospital And Research Institute

Dr. T. T. Mirnalinee Prof&Head/CSE and Dr. R. Kanchana ASP/CSE met Dr. Ahmed Basha, Chettinad on 19th Oct 2023 regarding the procedure for EC approval and data validation for healthcare related projects.

## SMA Global Competence Center

SMA Solar Technology AG, is a prominent German cosmopolitan inverter company, leading the way in Solar PV Inverters, Energy Storage, and Power Electronics. SMA was delighted to reveal the triumphant grand opening of its Global Competence Center -SMA” Sapience” in Bengaluru, Karnataka. The celebration was held at the prestigious Hilton Hotel, Manyata Business Park, Bangalore on the 18th of October 2023. I was invited by the SMA Solar technology management and sponsored with air tickets to attend this prestigious event. Ms. Barbara Gregor, CFO of SMA Solar, Global Competence Center expressed her pleasure about inaugurating the Global Competence Center – SMA” Sapience” at Bengaluru, India. Distinguished guests and dignitaries graced the momentous occasion, including top executives and esteemed dignitaries Amita Bagga, Head of SMA Sapience, Bengaluru, India, Mr. Friedrich Birgelen, Deputy Consul General – German Consulate General Bangalore, Hariram Prabhakaran Head of Industry Solutions – Large Scale SMA Solar Technology AG, Kai Ludolph – Head of Project Engineering Services at SMA Solar Technology AG was present. Additionally, the event hosted Dr. Jai Asundi, Executive Director, Center for Study of Science, Technology and Policy, Bangalore, and Mr. Idris Mohammed, Climate Change Advisor from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). A panel discussion on the transition to solar power consumption was held. Panelists from the government, research, business, and academic sectors shared their thoughts on the subject. I have interacted with the panelists and expressed my view that automation of solar infrastructure management is a cutting-edge research area which has scope to involve classic algorithms to enhance its performance.

**Dr. Shahul Hamead H, AP/CSE**

# PUBLICATIONS

## Book Publication

1. Vishal Venkataramani, Ramdhanush Venkatakrishnan, Dr. Chamundeswari A., published a book/chapter titled "AI, IoT, and Blockchain Breakthroughs in E-Governance" in "IGI Publication", Vol:-, Pages:36-48.

## Journal Publications

1. Dr. R. Kanchana, N.G. Bhuvanewari Amma, Ashwin S. Gupta, S. Selvakumar., CLNet: A Contactless Fingerprint Spoof Detection using Deep Neural Networks with a Transfer Learning Approach, MULTIMEDIA TOOLS AND APPLICATIONS, Vol:82, issue:21, Clarivate, IF:SCI 3.6, Quartile:Q1, DOI:<https://doi.org/10.1007/s11042-023-16511-6>, ISSN:1573-7721.
2. Dr. S. V. Jansi Rani, Iacovos Ioannou, Prabagarane Nagaradjane , Christophoros Christophorou, Vasos Vassiliou, Harshita Yarramsetti, Sai Shridhar, L Mukund Balaji, Andreas Pitsillides, A Novel Deep Hierarchical Machine Learning Approach for Identification of Known and Unknown Multiple Security Attacks in a D2D Communications Network, IEEE Access , Vol:-, issue:-, Clarivate, IF:3.476, Quartile:Q1, DOI:10.1109/ACCESS.2023.3308036, ISSN:2169-3536.
3. Dr. Shahul Hamead H, Dr.T.T.Mirnalinee, Ms. D. Kavipriya, Selective wakeup for parallel forward engines under variable load towards energy conservation in IP routers, Wiley's Concurrency and Computation: Practice and Experience, Clarivate, IF:2.0, Quartile:Q3, DOI:DOI:10.1002/cpe.7881, ISSN:1532-0634.
4. Kavitha Srinivasan, Venkatesh D, Comparative Analysis of Ensemble Learning Techniques with SMOTE for Medical Dataset, Indian Journal of Natural Sciences, Vol:14, issue:79, Clarivate, ISSN: 0976 – 0997.
5. Dr. Rajalakshmi S., Dr. Milton R.S., Dr. Mirnalinee T. T, Factoring textual reviews into user preferences in multi-criteria based content boosted hybrid filtering (MCCBHF) recommendation system, AI Communications, Vol:36, issue:3, Clarivate, IF:0.8, Quartile:Q3, DOI:10.3233/AIC-220122, ISSN:0921-7126.
6. Dr. Bharathi B., Saranya.S G.Sneha Shrinithi Radhakrishnan Shrisathvika V.A, Question Quality Assessment in Online Diagnostic Examinations, Indian Journal of Natural Sciences, Vol:14, issue:80, Clarivate, ISSN:0976 – 0997.
7. Sukeerthi Mandyam, Shanmuga Priya M.G., Shalini S, Kavitha S, A Correlation analysis and visualization of climate change using post-disaster heterogeneous datasets, Global NEST Journal,

## Conference Presentations / Publications

1. Sheerin Sitara Noor Mohamed and Kavitha Srinivasan, "SSNSheerinKavitha at SemEval-2023 Task 7: Semantic Rule Based Label Prediction Using TF-IDF and BM25 Techniques", In Proceedings of the 17th International Workshop on Semantic Evaluation (SemEval-2023), pp. 950–957, Toronto, Canada. Association for Computational Linguistics, July 2023 <http://dx.doi.org/10.18653/v1/2023.semeval-1.131>.
2. Dr. Beulah A., along with Harshavardhan Parandaman and Logesh Dinakaran, published a paper titled "Java code obfuscator to prevent reverse engineering of android application" in AIP conference proceedings, vol. 2790, no. 1. AIP Publishing, August 2023.
3. Rajalakshmi Sivanaiah, Nishaanth Ramanathan, Angel Deborah S, and Mirnalinee Thanka Nadar Thanagathai, published a paper titled "TechSSN at SemEval-2023 Task 12: Monolingual Sentiment Classification in Hausa Tweets." In Proceedings of the The 17th International Workshop on Semantic Evaluation (SemEval-2023), pages 1190–1194, as a part of The 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023), July 9-14, 2023, Toronto, Canada. Association for Computational Linguistics., July 2023.
4. Dhanya Krishnan, Divya Srinivasan and Kavitha Srinivasan, "SSNdhanyadivyakavitha at MEDIQA-Sum 2023: Medical Dialogue Summarization using Linear Support Vector classification Technique", Working Notes of CLEF 2023 - Conference and Labs of the Evaluation Forum, Thessaloniki, Greece, September 18–21, 2023 <https://www.dei.unipd.it/~faggioli/temp/CLEF2023-proceedings/paper-127.pdf>.
5. Sheerin Sitara Noor Mohamed and Kavitha Srinivasan, "SSN MLRG at ImageCLEFmedical Caption 2023: Automatic Concept Detection and Caption Prediction using ConceptNet and Vision Transformer", Working Notes of CLEF 2023 - Conference and Labs of the Evaluation Forum, Thessaloniki, Greece, September 18–21, 2023 <https://www.dei.unipd.it/~faggioli/temp/CLEF2023-proceedings/paper-133.pdf>.
6. Sheerin Sitara Noor Mohamed and Kavitha Srinivasan, "SSN MLRG at MEDIQA-SUM 2023: Automatic Text Summarization using Support Vector Machine and RoBERTa", Working Notes of CLEF 2023 - Conference and Labs of the Evaluation Forum, Thessaloniki, Greece, September 18–21, 2023 <https://www.dei.unipd.it/~faggioli/temp/CLEF2023-proceedings/paper-134.pdf>
7. Sheerin Sitara Noor Mohamed and Kavitha Srinivasan, " SSN MLRG at MEDVQA-GI 2023: Visual Question Generation and Answering using Transformer based Pre-trained Models", Working Notes of CLEF 2023 - Conference and Labs of the Evaluation Forum, Thessaloniki, Greece September 18–21, 2023 <https://www.dei.unipd.it/~faggioli/temp/CLEF2023-proceedings/paper-135.pdf>

8. Dhivya Subburam, Shriram M Sathya Narayanan, Bhavana Anand, Kavitha Srinivasan and Mohanavalli Subramaniam, "DMK-SSN at ImageCLEF 2023 Medical: Controlling the Quality of Synthetic Medical Images Created via GANs using Machine Learning and Image Hashing Techniques", Working Notes of CLEF 2023 - Conference and Labs of the Evaluation Forum, Thessaloniki, Greece September 18–21, 2023 <https://www.dei.unipd.it/~faggioli/temp/CLEF2023-proceedings/paper-141.pdf>
9. Ms. Lakshmi Priya S, presented a paper titled Hyperparameter Optimization using Budget Constrained BOHB for Traffic Forecasting co-authored with Dr. Suresh Jaganthan, Associate Professor, CSE in a 3-day 2nd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2023) organized by BITS Pilani, K K Birla Goa campus and co-organized by National Forensic Sciences University during September 21-23, 2023.
10. Dr. Shahul Hameed H, and Pooja Premnath, presented their research titled "Batch Network Slicing for OTT Services in a Demand-Aware SDN Environment" at NetMob 2023 conference held at Universidad Carlos III de Madrid, Spain. This conference was jointly organized by IMDEA Networks Research Institute, Madrid on October 04-06, 2023. Dr. S. M. Dhannya, AP/CSE, Y. V. Ojus and Sanjai Balajee, III year students have also co-authored the paper. Pooja Premnath has received a grant of 500 Euros from the organizing team sponsored by the Spanish Ministry of Economic Affairs and Digital transformation.
11. Varsha Balaji, Aishwarya Kannan, Aishwarya Balaji and Bharathi Bhagavath Singh, "NLP\_SSN\_CSE at HOPE2023@IberLEF : Multilingual Hope Speech Detection using Machine Learning Algorithms", IberLEF 2023, September 2023, Jaén, Spain, CEUR workshop proceedings, Vol. 3496, pp.1-9, URL: <https://ceur-ws.org/Vol-3496/hope-paper5.pdf>, (Available online: 5-10-2023)
12. Ms. Lakshmi Priya S, published a paper titled "Effects of Exogenous factors and Bayesian-Bandit Hyperparameter optimization in Traffic Forecast Analysis" in Two day International Conference (Virtual mode) on Trends in Sustainable Computing and Machine Intelligence (ICTSM 2023) organized by Stamford International University, Thailand during October 5-6, 2023.

## SCHOLAR INFORMATIONS

1. Dr. Kavitha S.,ASP/CSE conducted the confirmation DC meeting for her Full time research scholar Ms.Dhivya Bharkavi, on 17.08.2023
2. Dr. Jansi Rani S. V.,AP/CSE conducted the first DC Meeting for her full-time research scholar, Ms. R.Subha Shini on 14.08.2023.
3. Dr. Bharathi B.,ASP/CSE conducted the confirmation DC meeting for her full-time research scholar Ms. S. Saranya on 18-08-2023
4. Dr. J. Suresh, ASP/CSE conducted the Synopsis approval Meeting for his full time research scholar, Ms. V. Karthika on 28.08.2023.
5. Dr. Mirnalinee T T,Prof/CSE convened the first Dc meeting for the full time scholar, Ms. Shamla on 07/09/23.
6. Dr. Chamundeswari A., Prof/CSE organized DC meeting for her part-time research scholar, Mr.Nandakumar on 22-08-23
7. Dr. Bharathi B., ASP/CSE attended a synopsis meeting for Sherin Eliyas, part-time research scholar at Hindustan University on 04-03-2023.
8. Dr. Bharathi B., ASP/CSE attended a DC meeting for the scholar Ms. Nalini Poornima S, at Dr. M. G. R Educational and Research Institute University, Chennai on 14-10-2023.

## INVITED LECTURES - INSIDE SSN

1. Dr. Sarath Chandran K. R.,AP/CSE acted as resource person for the 7th edition of "Two Days Workshop on Embedded Software Development" conducted by the Department of Computer Science and Engineering from 19 to 20 September 2023.
2. Dr. J. Bhuvana delivered a talk on Deep Learning for Image Classification on 28.09.2023. This talk was a part of 6 series lectures arranged under the SSN-IEEE PELS Student chapter by the Department of EEE, SSNCE.

## FUNDED PROJECTS APPLIED

1. Project Title: Development of AI-based smart, lab assist device for the visually impaired Tamil medium higher secondary school students, PI: Dr. T. T. Mirnalinee, Professor & Head, Dr. B. Bharathi, ASP/CSE and Dr. J. Bhuvana, ASP/CSE, Total budget: Rs 403500 for 2 years, Funding agency: Tamilnadu State Council for Science and Technology for funding
2. Project Title: HomeGuard: Building a Comprehensive Dataset and a Theft Detection prototype in Home Surveillance Systems PI: Dr. V. Masilamani, Associate Professor and HOD, Department of Computer Science and Engineering, Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram CO-PI: Dr. J. Bhuvana, Associate Professor, CSE Funding Agency: IIIT-H Data IHub Foundation, Total Budget: Rs.17,94,638 Duration: 1 year
3. Dr.S.Angel Deborah, AP/CSE Dr.S.Rajalakshmi AP/CSE and Dr. T.T. Mirnalinee, Prof. & Head applied a project titled "மனநலக்கணிப்பான் (MananalaKanippan) : Deep Learning based Stress Detection System" for possible funding of Rs. 4,98,000/- from Tamil Nadu State Council for Science and Technology (TNSCST) under Science and Technology Project Scheme 2023 on 17th August 2023.
4. Project Title: Cost-Effective Mass Screening Tool for Early Detection of Glaucoma Eye Disease PI: Dr. B. Prabavathy ASP/CSE Co-PI: Dr. M. Saritha AP/CSE Total Budget: 5 Lakh Funding Agency: TNSCST
5. Project Title: “EyanthiraManithan” for Visually Impaired and Elderly, PI: Dr. K. R. Sarath Chandran, AP/CSE Co-PI: Dr. S. Angel Deborah, AP/CSE, Dr. T. T. Mirnalinee, Prof and Head/CSE, Total Budget (INR): 4,88,450, Funding Agency: TNSCST
6. Project Title: VeggieBot – அறுவடை இயந்திரம்: A Cost Effective Computationally Intelligent Robot for Multi-crop Harvesting, PI: Dr. R. Priyadharsini/ASP/CSE, Co PI: A. Beulah, AP/CSE Total Budget: 3.83 Lakhs, Funding Agency: TNSCST
7. Project Title: An automatic tool for estimation and assessment of flood severity using deep learning techniques from social media posts , PI: Dr. P. Mirunalini/ASP/CSE, Co PI: R. Priyadharsini/ASP/CSE, Total Budget: 4.60 Lakhs, Funding Agency: TNSCST
8. Project Title: மின்கலகண்காணி- Remaining Useful Lifetime prediction of EV batteries, PI: Dr. M. Anbuselvi/ ASP/ECE, Co PI: Dr. P. Mirunalini/ ASP/CSE, Total Budget: 4.88, Funding Agency: TNSCST
9. Project Title: "AalumaiArivaan"-Human Personality Profiling system for campus-based environment,PI: Dr.N.Sujaudeen/AP/CSE; Co-PI: Mrs.S.Lakshmi Priya/AP/CSE, Total Budget (INR): 4,65,000. Funding Agency: TNSCST.



10. Project Title: "NedunchalaiNirvagan" - Traffic flow management by analysing heterogenous data during disasters PI : Mrs.S.Lakshmi Priya, AP/CSE Co-PI: Dr.N.Sujaudeen, AP/CSE Budget (INR): 4,65,000. Funding Agency: TNSCST - STPS 2023 Scheme
11. Dr. Suresh Jaganathan as the PI and Dr. V. Balasubramanian & Dr. D. Venkatavara Prasad as the Co-PI(s) submitted a project proposal titled, "SWaM: A framework for Smart Water Management using Blockchain and IoT" to DST-WTC 2023, with a project cost of Rs. 23.67 Lakhs.
12. Dr. Jansi Rani S. V.,AsP/CSE along with Dr. Satheesh Kumar Gopal, AsP/CSE, Dr.P.Vijayalakshmi, Prof & Head, ECE, has submitted a project proposal on "Intelligent agents to engage and rehabilitate geriatric and the physically challenged through chess game and personalized HRI" under TIDE on 29/09/2023.
13. Nishaanth R and Shrijith M R under the guidance of Dr. S. Rajalakshmi AP/CSE submitted the project proposal titled " Multi-Modal Book Accessibility System for Visually Impaired Individuals" for the student project proposal (2023-24) in Tamil Nadu State Council for Science and Technology with the budget Rs10930.
14. Varsha S, Lekha Chenguttuvan of IV Year CSE, Priyadharshini Ramesh of III year CSE and Darshan Hariharan of II year CSE submitted a project titled " VR Exposure Therapy to Combat Phobias" under the guidance of Dr. Angel Deborah S. AP/CSE Budget : Rs. 35,000/-
15. Abhishek Reddy Lingareddy, Akshatha Anbalagan, Niranjana A, Shreedevi Seluka Balaji of II year CSE submitted a project titled " Smart Braille Transcriber" under the guidance of Dr. Angel Deborah S. AP/CSE Budget : Rs. 21,220/-
16. Dharunika S, Hemalatha R, Vishnu Praba A J, Vijay Srinivas S of II year CSE submitted a project titled " Detection of Dust on High-rise Building Glass Walls and Visualization using Quadcopter" under the guidance of Dr. Angel Deborah S. AP/CSE Budget : Rs. 27,000/-
17. Varun S. Roshan of IV Year CSE, Harsh Pratap Singh, Charan Balakrishnan, Dhinesh Ram K of II year CSE submitted a project titled " Red Weevil Detection using Sound Detection" under the guidance of Dr. Angel Deborah S. AP/CSE Budget : Rs. 23,000/-
18. Ranjit Kumar G of II Year CSE and Dilfina D of II year IT submitted a project titled " AI- Enabled Smart Irrigation System for Precision Farming and Water Resource Management" under the guidance of Dr. Angel Deborah S. AP/CSE. Budget: Rs. 30,000/-

## PAPERS REVIEWED

1. Dr. Angel Deborah S,AP/CSE, reviewed a paper for Transactions on Asian and Low-Resource Language Information Processing on 19th August 2023.
2. Dr. Angel Deborah S,AP/CSE reviewed two papers for Second International Conference on Speech and Language Technologies for Low-Resource Languages(SPELLL 2023) to be held during 6-8 December 2023.
3. Dr. Angel Deborah S,AP/CSE reviewed three papers for Third Workshop on Language Technology for Equality, Diversity and Inclusion(LT-EDI 2023) to be conducted as part of RANLP 2023 at Varna, Bulgaria on 7 - 8 September 2023.
4. Dr. Angel Deborah S,AP/CSE reviewed three papers for Third Workshop on Speech and Language Technologies for Dravidian Languages(DravidianLangTech 2023) to be conducted as part of RANLP 2023 at Varna, Bulgaria on 7 - 8 September 2023.
5. Dr. Bharathi B., ASP/CSE reviewed papers for the DravidianLangTech 2023 workshop.
6. Dr. Bharathi B.,ASP/CSE invited as program committee member for 25th International Conference on Speech and Computer SPECOM-2023. She reviewed the papers for the conference.
7. Dr. Bharathi B.,ASP/ CSE reviewed a paper for Circuits, Systems & Signal Processing (CSSP) journal.
8. Dr. Rajalakshmi S.,AP/CSE reviewed 3 papers on August 5, 2023 for Third International Workshop on Language Technology for Equality, Diversity and Inclusion (LT-EDI-2023) conducted as a part of 14th International Conference Recent Advances in Natural Language Processing , Varna, Bulgaria on 7-8 September 2023.(RANLP 2023)
9. Dr. Rajalakshmi S.,AP/CSE reviewed 3 papers on August 5, 2023 for Third International Workshop on Speech and Language Technologies for Dravidian Languages conducted as a part of 14th International Conference Recent Advances in Natural Language Processing , Varna, Bulgaria on 7-8 September 2023.(RANLP 2023)
10. Dr. Rajalakshmi S.,AP/CSE re reviewed one paper for Transactions on Asian and Low-Resource Language Information Processing. (TALLIP) Journal on August 7, 2023.
11. Dr. Chamundeswari A., Professor/CSE reviewed a paper for the journal titled, Computers & Security.
12. Dr. Rajalakshmi S.,AP/CSE reviewed one paper for the Intelligent Data Analysis journal on September 23, 2023.
13. Dr. Beulah A., AP/CSE reviewed a paper for The Visual Computer (TVCJ) on September 29, 2023.



14. Dr. Angel Deborah S,AP/CSE, reviewed a paper for Environmental Science and Pollution Research, Springer on 1st October 2023.
15. Dr. Angel Deborah S,AP/CSE reviewed two papers for Forum for Information Retrieval Evaluation 2023 to be held in Goa Business School, Goa University, Panjim during 15th-18th December 2023.
16. Dr. Saraswathi S,ASP/CSE Reviewed a paper for the journal Wireless Personal Communications on 16-10-2023
17. Dr. Angel Deborah S,AP/CSE reviewed a paper for Natural Language Engineering, Cambridge University Press on 24th October 2023.
18. Dr. S. Rajalakshmi AP/CSE reviewed 3 papers on 29-10-23 for second edition of the IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation – IATMSI-2024, that will be held during 14-16 March 2024 conducted by Department of Electrical and Electronics Engineering at ABV-IIITM Gwalior, Madhya Pradesh, India, in collaboration with the IEEE MP Section.
19. Dr. S. Rajalakshmi AP/CSE reviewed 3 papers on 5-10-23 for Fire 2023, 15th meeting of Forum for Information Retrieval Evaluation 2023 that will be held at Goa Business School, Goa University, Panjim, India
20. Dr. S. Rajalakshmi AP/CSE reviewed 4 papers on 12-10-2023 for SPELLL 2023, the second edition of the International conference on Speech & Language Technology for Low-resource Languages (SPELLL) that will be held at Kongu Engineering College, Tamil nadu during December 06-08, 2023
21. Dr. Felix Enigo V. S., ASP/CSE, Reviewed a paper for Wireless Personal Communications, Springer.

## EVENTS ORGANIZED

1. Dr. R. Kanchana ASP/CSE and Dr. B. Prabavathy ASP/CSE trained the faculty members of the department of CSE on 7th Sep 2023, regarding the active learning elements that need to be incorporated in each lecture to make it disruptive and the usage of software tool, Slide for creating active learning elements.
2. Dr. B. Prabavathy, organized placement training sessions with coding club members for III-year ECE and EEE students on 15.09.2023, 22.09.2023 and 29.09.2023.
3. Dr. R. Kanchana ASP/CSE and Dr. R. Priyadharshini ASP/CSE organized a guest lecture on Automotive Software Product Review on 13th Oct 2023 for the third year UG students. The speaker was Dr. Muruganantham A, Early Career Program, Visteon Corporation, Chennai.
4. Dr. R. Kanchana ASP/CSE organized a talk of 4 sessions on Agile development and DevOps as a part of industry participation in curriculum, on 30th Oct 2023 to supplement the courses on Software Engineering (III year UG) and Advanced Software Engineering (I Year PG). The resource person was Mr. Dinesh V. Thankaraj, Senior Software Manager, Caterpillar, Chennai. Dr. A. Chamundeswari Prof/CSE and Dr. Y. V. Lokeswari ASP/CSE co-organized the sessions.

### Linux System Administration

A one day workshop on “Linux System Administration” was conducted exclusively for Lab assistants on 28.10.2023 at Software Engineering Lab. The sessions were handled by Dr. R. S. Milton, Consultant, TechCadenza. The aim of the workshop to equip participants with essential skills and knowledge to effectively manage and administer Linux operating systems. The workshop adopted a comprehensive approach, combining theoretical sessions with practical demonstrations and interactive exercises. The session started with basic linux commands followed by Debain OS and Ubuntu server installation. In the afternoon session LDAP tool server configuration and operation were explained. The event served as a platform for knowledge and skill enhancement thereby reinforcing the commitment to promoting technological proficiency in the field of system administration.

### Cybersecurity with Live Demonstration on Security Attacks

A workshop on Cybersecurity with Live Demonstration on Security Attacks was conducted on August 17, 2023. The focus of this workshop is to provide good exposure to the students the cybersecurity threats, the latest industrial opportunities, certification courses, and live demonstrations of security attacks. This will help the students nurture and develop their skills in cybersecurity.

This workshop was coordinated by Dr. B. Prabavathy and Dr. S. Saraswathi. The entire session of this workshop was handled by Mr. Sangam Kumar Chaturvedi, Principal Technical Officer, CDAC, Kolkata. The session started with various cyber security threats and real-time examples. The speaker elaborates on various opportunities for security professionals in various industries. Furthermore, live

demonstrations for system scanning, vulnerability analysis, penetration testing, password cracking, and hacking using Kali Linux with the use of Windows and Linux virtual machines.



The workshop was a complete success, and most of the participants expressed their desire to continue this kind of workshop on emerging technologies in the future. We thank our HoD and SSN Management for their support in conducting such workshops for the benefit of the students.

**Dr. B. Prabavathy and Dr. S. Saraswathi**

**ASP/CSE**

## **Outreach Programme on Machine Learning**

Machine learning continues to shape the forefront of technological advancement, and to equip diploma students with valuable skills in this domain, a comprehensive workshop titled Hands-On Outreach Programme on Machine Learning was successfully conducted from August 24, 25, 28, and 29, 2023. The workshop aimed to offer students a profound understanding of essential machine learning packages and models, fostering their knowledge and expertise in this dynamic field. A heartfelt acknowledgement goes to the head of department, Dr. T. T. Mrinalinee who supported and encouraged this socially essential initiative

Coordinated by Dr. B. Prabavathy and Dr. M. Saritha, the workshop encapsulated a diverse range of topics within the realm of machine learning. The central focus was on immersing participants in the practical application of key machine learning packages such as Pandas, Numpy and Matplotlib, along with the in-depth exploration of fundamental machine learning models including Linear Regression, K-Means, and KNN Classifier. By delving into these concepts, students were empowered to develop a solid foundation in machine learning techniques.

The workshop spanned four enriching days of interactive sessions. Commencing on Day 1, the participants were welcomed and introduced to the fundamental concepts of machine learning and its various types by Dr. B. Prabavathy, Associate Professor. The participants were then actively involved in hands-on activities, where they got to explore and use essential packages like Pandas and Matplotlib by Dharshini M, Gayathri V, Harshida S.P and Nila S, III year CSE Students. This practical exposure enabled them to grasp the nuances of these tools effectively.

The second day began with Dr. Prabavathy providing a comprehensive overview of KNN Classifier. Through a combination of lectures, practical demonstrations, and interactive discussions, participants gained a deep understanding of this classification algorithm. Additionally, the day's schedule featured hands-on sessions that spanned a variety of subjects, ranging from implementing random forest to intricately scrutinizing the precision of classification algorithms. Notably enlightening was the segment dedicated to evaluating the performance of support vector classifiers, vividly portrayed through an illustrative bar graph, thereby accentuating the interactive and practical nature of the workshop.



Day 3 of the workshop focused on K-means clustering, led by Dr. M. Saritha, Assistant Professor. Through hands-on exercises and practical examples, participants delved into the algorithm's



principles and applications. She explained the core concepts and mathematical foundations, enabling participants to grasp how data points are grouped based on similarity. By bridging theory and practice, she also ensured participants not only understood K-means clustering but also gained confidence in its implementation. This hands-on experience equipped them to tackle data-driven challenges with a practical approach, enhancing their proficiency in the realm of machine learning and data analysis.

Day 4 was dedicated to the concept of linear regression by Aathish S, Alamelu K and Mohith A, III Year CSE students, a cornerstone of machine learning. The day commenced with a comprehensive theoretical overview, laying a robust foundation for what was to follow. Theoretical insights seamlessly transitioned into the realm of applied learning, as participants immersed themselves in the practical implementation of the linear regression algorithm. This hands-on experience involved working with diverse datasets, enabling attendees to witness firsthand the power and versatility of this foundational technique. This was succeeded by an engaging quiz that comprehensively covered the subjects discussed over the preceding three days, providing participants with a chance to reinforce their knowledge.

Harish M V, Olirva M, and Karthik V of III Year B.E. CSE and Harshavardhan V, Balaji V and Balaji S of II Year M.E. CSE have provided personalized attention to each participant, ensuring comprehensive understanding of delivered concepts.



The workshop garnered resounding success, as evidenced by the active participation and enthusiasm displayed by attendees. Many participants expressed a strong desire for the continuation of similar workshops focusing on emerging technologies.

In conclusion, the "Hands-On Outreach Programme on Machine Learning" proved to be an educational triumph, equipping students with practical skills and theoretical knowledge in the realm of machine learning. As technology continues to evolve, such initiatives stand as crucial stepping stones for aspiring learners to remain at the cutting edge of innovation.

**Dr. B. Prabavathy and Dr. M. Saritha**

## Faculty Training Program on Novel Methods and Tools for Problem Solving and Programming

The Faculty Training Programme on Novel Methods and Tools for Problem Solving and Programming was organized by Dr. R. Kanchana on 9<sup>th</sup> Sep 2023 in physical mode. Prof. Viraj Kumar, IISC Bangalore handled the sessions. The workshop targets the faculty members and research scholars of the CSE department. There were a total of 33 participants. The FTP covered the following topics.

- Introduction to problem-solving with Generative AI
- Creating alternatives to traditional code-writing problems in Python
- Hands-on



Prof. Viraj introduced copilot and several activities to show how to generate the code automatically by giving suitable comments. He also suggested several methods like code comprehension, task comprehension, refute questions, low detail code, etc and tools like codecheck, python tutor, hypothesis library, etc.



The training program motivated the faculty members to adapt novel methods and tools while teaching programming and problem solving to the students.

**Dr. R. Kanchana**

ASP/CSE

## Smart India Hackathon 2023 - Internal

SSN hosted the Internal Hackathon at institutional level on 23rd September 2023 and selected the top 100 teams to submit the ideas for next level of selection to SIH 2023 Grand Finale of World's Biggest Open Innovation Model.

146 teams participated on that day (105 teams in software and 31 in Hardware Category) and 100 teams were shortlisted. The teams attempted 86 Problem statements given by SIH. Under the guidance of Dr. T.T. Mirnalinee, Professor & Head/CSE, the SPoC of SSN-SIH2023, the department SPoC's Dr. V. Balasubramanian ASP/CSE, Dr. S.M. Dhannya AP/CSE and Dr. Lokeswari Y.V ASP/CSE organised the internal SIH selection by coordinating along with other department SPoCs.



Dr. R. Kanchana ASP/CSE, Dr. Thenmozhi D. ASP/CSE, Dr. Saraswathi S. ASP/CSE, Dr. Mirunalini P. ASP/CSE and Dr. Shahul Hameadh H. AP/CSE acted as the Faculty Jury Members to evaluate the projects. Many of our alumni students extended their support by being part of the jury panel. The names of the alumni students are listed below:

### External Jury Members:

| Sl. No. | Name of the External Jury      | Designation & Organisation   |
|---------|--------------------------------|--|
| 1.      | Dr. K. B. Sundharakumar        | Assistant Professor,<br>Shiv Nadar University, Chennai   |
| 2.      | Mr. S. Sai Vignesh             | M2P Fintech, Chennai   |
| 3.      | Mr. S. Ramkumar                | Development Project Lead,<br>Codoid Innovations Private Limited, Chennai   |
| 4.      | Ms. N. Natchammai              | Senior Product Engineer,<br>Temenos, Chennai   |
| 5       | Mr. Daniel C.V                 | Lead Engineer, Tejas Networks  |
| 6       | Dr. KIRAN A S                  | Scientist, National Institute of Ocean<br>Technology   |
| 7       | Mrs. Vaishnavi Vignesh<br>Raja | Director - Equad Engg. Services, Chennai   |
| 8       | Mr. Sudharshan                 | Software Engineer, Navis   |
| 9       | Mr. Pratyush                   | Software Engineer, Navis   |
| 10      | Mr. S. Praveen                 | Senior Executive Engineer, MRF, Chennai  |
| 11      | Mr. Vishal Mohan               | Analysis Engineer-FEA, Flender Drives Pvt Ltd  |
| 12      | Ms. Jevitha S                  | Senior Regulatory Specialist, HCL, Chennai   |
| 13      | Mrs. A. Monishia               | Assistant Engineer, Tamilnadu medical<br>services corporation, Chengalpet Medical<br>College and Hospital & A.A.M Cancer Hospital. |
| 14      | Mr. A. Aripasath               | Software Developer, EmbedUR Systems  |
| 15      | Mr. Logesh Dinakaran           | Software Engineer, Swell Commerce  |
| 16      | Mr. Dakshinamoorthy K          | Solution Consultant,<br>Sahaj AI software Solutions  |
| 17      | Mr. Arunkumar R S              | Senior SoC Design Engineer, Qualcomm<br>Bangalore Design Centre  |
| 18      | Mr. M. PREM KARTHIK            | Manager, Product Development, QMAX ION<br>Pvt Ltd  |
| 19      | Mr. Jitendra Sharma            | Engineering Manager, CondéNast   |
| 20      | Mr. Soundar Palanisamy         | Senior Regulatory Analyst, Senior Quality<br>Engineer, HCL, Chennai  |

We sincerely appreciate the time and effort taken by the internal and external jury members to complete the selection process.



## One day workshop on Doing Data Science with Julia

Dr. Chitra Babu and Dr. V. Balasubramanian conducted a one Day Workshop on “Doing Data Science with Julia” for our students on 29.9.2023. Julia is an open source dynamically-typed language which has been designed for providing high performance. It is very suitable for building Data Science applications. Julia has been downloaded over 45 million times and the Julia community has registered over 9500 Julia packages for community use. These include various mathematical libraries, data manipulation tools, and packages for general purpose computing. In addition to these, you can easily use libraries from Python, R, C/C++. FORTRAN and Java.

The objective of this Workshop is to introduce the main features that make Julia an attractive language for Data Science. The workshop comprises hands-on demonstrations by expert from CMI. The workshop was attended by 32 participants. It includes Students of our department from II and III year.

Resource Persons: Dr. Sourish Das, CMI and Ms.Kanika, Sai University



## Empowering Beginners: A Two-Day Embedded Software Development

The Department of Computer Science and Engineering at SSN College recently organized a two-day workshop on embedded software development, led by Dr. K. R. Sarath Chandran and organized by Dr. K. R. Sarath Chandran, Dr. S. Angel Deborah, Dr. S. Rajalakshmi, Ms. S. Lakshmi Priya. This event took place on the 19th and 20th of September and left a lasting impact on all attendees, especially beginners like me.

As a novice in the world of embedded software development, I was unsure of what to expect from the workshop. However, I was pleasantly surprised by the thoughtfulness of the entire workshop team. The pace of the workshop was tailored perfectly to cater to beginners, ensuring that no one felt rushed or overwhelmed. The workshop coordinator played a pivotal role in making certain that everyone was keeping up with the flow and concepts presented.

One of the standout features of the workshop was the emphasis on practical learning. Attendees were given ample time to experiment with various components, fostering a deeper understanding of the subject matter. This hands-on approach allowed us to apply the theoretical knowledge gained during the sessions.

Another noteworthy aspect of the workshop was the group dynamic. Participants were divided into groups of three, which facilitated collaborative learning. Working alongside fellow enthusiasts, we were encouraged to share our thoughts, clarify doubts, and learn from each other's experiences. This collaborative spirit not only enriched the learning environment but also made the entire experience more enjoyable.

The workshop, while foundational in nature, managed to ignite a spark of interest in embedded software development. Dr. Sarath Chandran Sir and his team succeeded in making complex topics accessible and engaging for beginners. The practical exercises, group discussions, and real-world applications of embedded software development left a lasting impression.

The culmination of the workshop on the second day was particularly exciting. Participants were given a creative challenge, an opportunity to apply what we had learned. Armed with the necessary components and our newfound knowledge, we were tasked with building models that showcased our creativity and understanding of the workshop. This challenge encouraged us to think outside the box, and each team eagerly explored new ideas, pushing the boundaries of what we had learned.

In conclusion, from the first day to the last, the two-day embedded software development workshop organized by the Department of Computer Science and Engineering at SSN College was a significant learning experience for beginners like me. Dr. K. R. Sarath Chandran and his team skillfully nurtured our curiosity and instilled in us a newfound appreciation for embedded software development. Though I am a beginner, this workshop made me understand a lot and kindled my interest in coding for hardware. With a focus on hands-on learning, collaboration, and a stimulating final challenge, the workshop not only provided us with knowledge but also ignited our passion for this exciting field. I look forward to further opportunities to delve deeper into embedded software development and build on the foundation laid during this workshop.

**S KOWSHIKA**  
**2<sup>nd</sup> year,**  
**Computer Science and Engineering**

## Innovation Day

SSN CE and SSN ifound organized Innovation Day on September 6, 2023. Industry experts from TCS, Infosys, FinTech, Zoho Corporation, ACI Automation private limited, HCL Tech, Cognizant, Workato, NielsenIQ, Chargebee, Samsung Ecommerce Division, Valeo and Hexaware technologies visited our project exhibition at CDC hall and department. On behalf of CSE department, 9 students' projects and 7 faculty projects are showcased to industry experts.

The team of students Vijai Aravindh R, Sathvika VS, Vaishnavi S and Yashasvee, of 3rd Year CSE guided by Dr.S.Rajalakshmi, AP/CSE won the third prize among the 40 projects displayed across all the departments in the college for their project titled " VOXTRANSLATE - Equal Access to Education and Opportunities".

The following industry experts evaluated the projects and gave suggestions for the improvement.

1. Dr. R. Narayanan, TCS Research and Innovation Labs, Tata Consultancy Services Limited
2. Mr. Kesavan Varatharajan, Entrepreneur, Formerly with Paypal, FinTech
3. Mr. P. Kalaiselvan, Founder and Director, ACI Automation private limited
4. Mr. V R Sreenarayan, Director – Programs Management, HCL Tech
5. Mr. Premnath Rajendranath, Program Manager, Cognizant
6. Mr. G. Godwin, Senior Project Manager, Infosys
7. Mr. G Hari Shankar, Member Leadership Staff, ZLabs – NLP, Zoho Corporation
8. Mr. Vishakan, Software Development Engineer, Workato, Chennai
9. Mr. B Vignesh, Software Engineer, NielsenIQ
10. Mr. Sreyas, Software Engineer, Chargebee, Chennai
11. Mr. Sriram, Software Development Engineer, Samsung Ecommerce Division, Chennai



The list of showcased projects are as follows:

**Students Projects:**

| S.No | Name and Year of the Student(s)   | Project Guide(s)  | Title of the Project   |
|------|---|---|--|
| 1    | Vignesh Balaji S<br>Varsha Yeshwanth<br>IV Year CSE                           | Dr. V. Balasubramanian<br>ASP / CSE   | Smart Control - A Seamless Teaching Experience   |
| 2    | A. Bhavana<br>A. Sadhana<br>Apurva Narayan<br>III CSE                         | Dr. J. Suresh<br>ASP / CSE  | DigiWe: Automated Interactive Guidance in Mobile Phone Usage                             |
| 3    | Vijai Aravindh R<br>Yashasvee<br>Sathvika VS<br>Vaishnavi S<br>III CSE        | Dr.S.Rajalakshmi<br>AP / CSE  | VOXTRANSLATE - Equal access to education and opportunities                               |
| 4    | Alamelu Kannan<br>Aathish Sivasubrahmanian<br>Jahnvi Murali<br>III CSE        | Dr.V.Balasubramanian<br>ASP / CSE   | FinFit – Democratizing Financial Literacy  |
| 5    | V. Sanjhay (CSE),<br>R. S. Sairam (Mechanical),<br>V. Tejas (CSE)<br>III Year | Dr. K. R. Sarath Chandran,<br>Dr. N. Sujaudeen,<br>Ms. S. Lakshmi Priya<br>AP / CSE                     | QR-Code Based Smart Trolley System For Shopping Malls                                    |
| 6    | Shravan Sreeram<br>M Parthiban<br>A Sadhana<br>Y.V Ojus<br>III CSE            | Dr.S.Angel Deborah<br>AP / CSE  | ARXperience - One-Stop Platform for Experiential Learning                                |
| 7    | Pooja Premnath- III CSE<br>Aman Singh- III ECE                                | Dr. R. Sundareswaran,<br>Dr. M. Shanmugapriya-<br>ASP / Mathematics<br>Dr. Jansi Rani S.V- ASP /<br>CSE | Identification of Acquisition Nodes in Electrical Grid Networks using Heatmap Centrality |
| 8    | Samyuktaa Sivakumar<br>Pranav Moorthi<br>S Shwetha<br>II CSE                  | Dr. J. Bhuvana<br>ASP / CSE   | Identifying and Tracing Outflow of Acid Mine Drainage Through Satellite Image Processing |

|   |   |                              |  |
|---|---|------------------------------|--|
| 9 | E. Nivetha<br>IV Year ECE<br>Jeevesh Krishna Arigala<br>A. R. Fathima Naushin<br>S. Vikash Anand<br>IV Year CSE | Dr. R. Kanchana<br>ASP / CSE | Smart Armband For Fall<br>Detection in Elderly |
|---|---|------------------------------|--|

### Faculty Projects for Innovation Day

- Dr. R. Kanchana ASP / CSE
  - NAGARIK ROG PRATIRAKSHAK : Unified Smart Immunization Coverage Monitoring and Analysis (NRP UniSICMA)
- Dr. V.S. Felix Enigo ASP / CSE
  - Artificial Intelligence (AI) based “Screening Tool” to predict future Osteoporotic Hip Fracture Risk in Post-menopausal Women and Elderly population using X-ray Image
- Dr. Thenmozhi D ASP / CSE and Ms. Kayalvizhi, Research Scholar
  - An Automated Tool for Detecting Signs of Depression from Social Media Text
- Dr. B. Bharathi ASP / CSE
  - Development of anti-spoofing method for Automatic Speaker Verification System
- Dr. J. Suresh ASP / CSE , Dr. V. Venkatavara Prasad Prof / CSE
  - Designing a lightweight consensus mechanism in block-chain for IoT based Asset Management.
- Dr. B. Prabhavathy ASP / CSE & Dr. M. Saritha AP / CSE
  - Cost-effective AI Mass Screening Tool for Early Detection of Glaucoma Eye Disease
- Dr. R. Priyadharsini ASP / CSE, Dr. A. Beulah AP / CSE
  - Development of a Computationally Intelligent System for Catastrophic Environment Monitoring





### Message from the Winning Team

Our team, consisting of Vijai Aravindh R, Yashasvee, Vaishnavi S, and Sathvika V.S, from the 3rd year of the Computer Science and Engineering (CSE) at SSN College of Engineering, Chennai, had the honor of presenting our project , VOXTRANSLATE, at Innovation Day. Our project is a comprehensive video translation solution, primarily designed for Indian languages. It offers features such as seamless subtitles, precise audio-video synchronization, augmented reality for enhanced engagement, and advanced search and clipping functions for efficient content access.

Our journey began with a rigorous internal selection process within the CSE department well before in the month of August. After passing this initial phase, our project underwent thorough scrutiny by industry experts, marking a significant milestone on the innovation day with a peer competence from 40 projects across all the departments. Subsequently, we were chosen to participate in the grand finale, alongside seven other top teams from various departments within our college.

During the finale, our project received comprehensive evaluations from distinguished figures in both industry and academia. Their valuable insights and feedback greatly enriched our work. As the competition concluded, we were delighted to learn that our project had secured the third prize.

At the core of our project is the goal of providing a holistic video translation solution, with a primary focus on Indian languages. Innovation Day 2023, organized by our college, provided an ideal platform for us to showcase our work to a wider audience and experts in the field.

We would like to express our heartfelt gratitude to our mentor, Dr. Rajalakshmi. S, for her guidance and invaluable insights throughout the implementation of this idea. We extend our thanks to our Head of Department, Dr. Mirnalinee T. T, and the entire department for granting us this opportunity to bring our project to fruition.



## EVENTS ATTENDED

1. Dr.Dhannya. S. M, AP/CSE, attended a webinar on "Why Graph Databases Belong in Your Enterprise Stack", conducted by Neo4j on 17.08.2023.
2. Dr. Rajalakshmi S.,AP/CSE attended the 5 day AICTE-TLB Faculty Development Program on "Data Analytics & Cloud Computing using Microsoft Azure", conducted as a part of the Next Gen Employability Program, AICTE Training and Learning Bureau (AICTE-TLB), in collaboration with Edunet Foundation & EY GDS from September 11 to 15, 2023
3. Dr. V. Balasubramanian ASP/CSE attended the first meeting of Institution Innovation Council (IIC 6.0) – Q1 held on 11.10.2023 at 2 pm at the conference hall of Admin block.
4. Dr. Shahul Hamead H, AP/CSE has been invited to attend the symposium and Inaugural of SMA Solar Technology's new Global Convention Center at Bangalore on 18/10/2023 at Hotel Hilton, Manyata Business Park, Bangalore
5. Dr. R. Kanchana, ASP/CSE and Dr. S. Sasirekha ASP/IT were nominated to participate in the immersive session on “How to write enterprise ready good and secure code” on 4th Oct from 9:30 a.m. to 6:30 p.m as a part of DN-Reverence Faculty Enrichment program organized by Cognizant Technology Solutions, Sholinganallur, Chennai. Post the workshop, SSNCE was assigned the problem of “Building multi tenant considerations into a web application”.

### NetMob 2023

NetMob is a prestigious conference that has been conducted since 2010 at premier institutes like MIT and Oxford University. This year the NetMob conference was conducted at the Puerta de Toledo campus of Universidad Carlos III de Madrid, Spain. This conference was hosted by IMDEA Networks Institute, Madrid. The theme of the conference was intended for the analysis of mobile phone datasets in urban, societal, networking, and industrial problems. Research Professor. Marco Fiore, IMDEA Networks Research Institute was the general chair of the conference. The steering committee is constituted of Research Professors from MIT and Oxford University. Researchers who have registered for the conference were given access to an exclusive dataset owned by Orange Telecom systems. This dataset details the usage of a variety of social apps for different time slots across the day from several locations in France for 77 days. I and Pooja Premnath, a student from the present third year of CSE attended this conference and presented our research titled “Batch Network Slicing for OTT Services in a Demand-Aware SDN Environment”. Dr.S.M.Dhannya, Y.V.Ojus, and Sanjai Balajee (third-year students) have also co-authored this research.



From Left to Right: Dr. H. Shahul Hamead, Dr.Marco Fiore, the General Chair of NetMob

Pooja has been granted a grant of 500 Euros which was sponsored by the Spanish Ministry of Economic Affairs and Digital Transformation through PRTR and the European Union-NextGenerationEU, designed to promote telecommunications studies in Spain. Pooja was the only student to receive grants from the Undergraduate level and from Indian origin. Our team is the only team selected from the Indian academia to attend this conference. We had an opportunity to meet fellow researchers from premier institutes like ETH Zurich, Cambridge University, Harvard University, MIT, and Oxford University. I had an opportunity to meet researchers who aligned with my research interests. I had a discussion with my Professor. Marco Mamei, Unimore, Italy, and Sergi Alcala Marin, Research scholar, IMDEA Networks Institute have been working on network slicing problems for the SDN paradigm.

Overall, it has been a wonderful experience to witness the research works on data-centric networking across the globe. The abstract of our research can be read from the following link. [https://netmob.org/book\\_of\\_abstract/book\\_of\\_abstract.pdf](https://netmob.org/book_of_abstract/book_of_abstract.pdf)

## OTHER ACTIVITIES

1. Dr. R. Kanchana, ASP/CSE, counseled the applicants of ME(CSE) program from 18th Aug to 26th Aug 2023 and motivated them to pay the fees at the earliest.
2. Dr. R. Kanchana, ASP/CSE, and Dr. J. Suresh, ASP/CSE, prepared the presentation and updated curriculum for 5-year integrated MTech (CSE) and honors courses list for BE(CSE) for the academic council meeting held on 23rd Aug 2023. Dr. R. Priyadarshini and Dr. S. V. Jansi Rani helped in the presentation work.
3. Dr.Dhannya S M, ASP/CSE conducted project viva-voce for two students of the Modern Application Development-I course of the IITM BS Degree program, one each on 30/08/2023 and 31/08/2023.
4. Dr. R. Kanchana, ASP/CSE and Dr. B. Prabavathy, ASP/CSE participated in the meeting on Active Learning Project on 28th Aug 2023. Prof. Raj Reddy and other RAC members were present.
5. Dr.Prabavathy presented a session of the course on Data Structures with active learning elements and got feedback from the committee members.
6. Dr. Rajalakshmi S.,AP/CSE acted as a question paper setter for a subject in the end semester examinations Nov / Dec 2023 of Mepco Schlenk Engineering College (Autonomous), Sivakasi on August 20, 2023.
7. Dr. R. Kanchana ASP/CSE scrutinized the K4/K5/K6 level assignments and their assessment plans of all the years of UG program and coordinated the meeting with Prof. Ganesh Samudra who reviewed all the assessments on 8th Sep 2023. The concerned faculty members presented their assessments and received suggestions from Prof. Ganesh Samudra. Further, the effectiveness of the EFP course offered in the last semester was also presented.



8. Dr. Chitra Babu Prof/CSE, Dr. R. Kanchana ASP/CSE, Dr. Thenmozhi D, ASP/CSE, Dr. B. Bharathi ASP/CSE ,Dr. Felix Enigo V. S.,ASP/CSE and Dr. S. Rajalakshmi AP/CSE groomed the batches from the department of CSE who enrolled to participate in Software India Hackathon (SIH 2023) on 15th Sep 2023
9. Dr. R. Kanchana ASP/CSE served as a Jury to evaluate the teams who wished to participate in SIH 2023 in an Internal Hackathon on 23rd Sep 2023.
10. Dr.S.Rajalakshmi AP/CSE acted as a question paper setter for a subject in the end semester examinations Nov / Dec 2023 of Velammal Engineering College on September 17, 2023.

## **MOU BETWEEN SSN AND ICAR-CENTRAL INSTITUTE FOR BRACKISH AQUACULTURE(CIBA)**

Dr. S. V. Jansi Rani along with Dr. T. T. Mirnalinee has initiated a collaboration with ICAR-CIBA. An MoU was signed between ICAR-Central Institute for Brackish Aquaculture(CIBA) and Sri Sivasubramaniya Nadar College of Engineering on 06.09.2023. This collaboration is for a joint project on "Application of Information Communication Technology in Fisheries".

## TEACHER'S DAY CELEBRATION

Dr. Thenmozhi D,ASP/CSE organized a Sing a Song event as part of teachers day cultural on 25th August 2023.

Dr. Thenmozhi D,ASP/CSE organized the Anthyakshari event as part of teachers day cultural on 29th August 2023.

### Best Faculty Awards

Dr. D. Thenmozhi and Dr. B. Bharathi received the First and Second Prizes respectively for the Best Faculty CSE (AY 2021 - 2022).



## ME(CSE) ORIENTATION - 2023-2025 BATCH

The orientation for ME(CSE) I year students was organized on the reopening day of 4<sup>th</sup> September 2023. 15 students have joined this batch. The faculty members handling classes for ME I year students attended the session and addressed the students. General guidelines (Infrastructure, Labs, discipline, attendance, Internships, NPTEL, Value added courses, IFP) was given by Dr. T.T. Mirnalinee, Prof. and HoD. The OBE was elaborated to students by Dr. Chitra Babu, Prof./CSE. The Curriculum and Assessment was delivered by Dr. R. Kanchana, Assoc. Prof./CSE. Dr. S. Kavitha, Assoc. Prof./CSE talked about various research groups in the department. Dr. N. Sujadeen, AP/CSE introduced Coding Club, Professional societies in the department. The presentation was collated by the class teacher Dr. R. Priyadharsini. The session was coordinated by Dr. R. Kanchana.

# INVENTE 2023

We are thrilled to report that InvenTe'23, hosted by SSN College of Engineering, was a resounding success. This time the department of CSE played the key role in organizing the event. The following student members were selected to be the office bearers of Association of Computer Engineers (ACE) to organize the event.

- **President:** Nandakishor V
- **Vice President:** Sarath Donepudi
- **Secretary:** Mrithula KL
- **Treasurer:** Dhanya Srinivasan
- **Joint Secretary:** Jayannthan P T
- **Joint Treasurer:** Padma Pooja C

The two-day national symposium, which took place on the 6th and 7th of October, brought together students from all over the country to celebrate their technical prowess and innovative spirit.

This year, the Department of Computer Science and Engineering organized a series of exciting events that revolved around the theme, "2077: A Glimpse into the Future." These events served as a backdrop to inspire participants to envision and create the future of technology. The various events showcased not only the participants' current skills but also their potential to shape the technological landscape of tomorrow.

## Event Lineup:

### Hacker's Asylum:

INVENTE'23 kicked off with the riveting "Hacker's Asylum," a cybersecurity challenge designed to test participants' knowledge and composure under pressure. The first round, a Cybersecurity Quiz featuring 34 questions, allowed participants to reference any source, including Google and ChatGPT. The competition intensified in Round 2 with the Capture The Flag (CTF) Event, where 15 teams engaged in challenges within a virtual machine (VM) environment. Congratulations to the winners: Dhiraj Kumar D from Veltech Multitech Engineering College secured the 1st place and a prize of Rs. 7000, followed by Harish S (SKP Engineering College) and Prem Sai N (VIT Vellore) in 2nd place, each receiving Rs. 3500, and Abhisek R and Raghul PS (Sastra Deemed University) claiming the 3rd spot, with Rs. 1500 each.

**Codolympics:**

The adrenaline-pumping "Codolympics" was a coding extravaganza focused on Data Structures and Algorithms. The preliminary round, a Digital Challenge, saw 60 teams showcasing their knowledge, problem-solving, and coding skills. The top 13 teams then engaged in a thrilling on-campus battle held in the Graphics Lab. Murugan emerged victorious, securing the 1st place and Rs. 6000, followed by Ajith Ashok in 2nd place with Rs. 4000, and Abhijith Ajith claiming the 3rd spot with Rs. 2000.

**Paper Presentation:**

The "Paper Presentation" event provided a platform for students to present their projects and research. The preliminary round, held online, received close to 50 submissions, with the top 10 teams advancing to the finals. Judged on innovation, fluency, novelty, and presentation, Meenakshi Sundararajan Engineering College clinched the 1st place, while RMK College of Engineering secured the runners-up position.

**Code in the Dark:**

"Code in the Dark" brought a unique challenge, testing participants' front-end development skills under blindfolded conditions. With tasks emphasizing HTML and CSS, participants tackled two challenges with screen peeks and lifelines. Monica G from Tagore Engineering College claimed the 1st place, followed by Tanush from Velammal Engineering College in 2nd place, and Divya Dharshan from Sri Venkateswara College of Engineering in 3rd place.

**Relay in Reverse:**

This event combined quiz and coding challenges, with the top 10 teams from the quiz progressing to the coding challenges. The winners were determined based on scores in coding challenges, showcasing their wit and coding prowess.

**Data Whiz:**

"Data Whiz" attracted 22 teams, with participants demonstrating their data analysis and visualization skills. The first round, Exploratory Data Analysis (EDA), involved teams conducting analysis on assigned datasets, followed by a quiz. The winning teams translating insights into visually appealing dashboards were Jam Fist securing the 1st place, Analysis in 2nd place, and Rendezvous claiming the 3rd spot.

**Code with Comali:**

The blend of competitive programming and web development, "Code with Comali," featured participants coding algorithmic questions individually and collaborating in pairs for CSS design. While the specifics of the prize pool were not mentioned, participants engaged in a challenging and rewarding competition.

**'UnI':**

"UnI," a design challenge held in the CSE department's Java Technology lab, tasked participants with reimagining the UI of their favorite websites. PSNA CET dominated the event, securing the 1st and 3rd places, with MSEC claiming the runner-up position.

**Mock Job Drive:**

The non-technical "Mock Job Drive" provided participants with insights into job placement processes. The comprehensive test covering aptitude and coding was followed by interviews with technical and HR-oriented questions. While specific winners were not mentioned, participants gained valuable experience and exposure to the job placement environment.

**Planetary Escape:**

The adventurous "Planetary Escape" featured two rounds. The first, "The Race Against Time and Tasks," required teams to complete creative tasks in 45 minutes, with the top teams advancing based on task completion. The second round, "A Cryptic Quest and an Unmasking," saw the top two teams unraveling cryptic clues in a cosmic "Among Us" adaptation, ultimately leading to one triumphant team.

**Participation Details:**

Approximately 60 participants showcased their talents in Hacker's Asylum. 60 teams participated in the Codolympics Prelims. Close to 50 submissions for Paper Presentation Prelims. 30 participants eagerly showcased their front-end development skills in Code in the Dark. About 50 teams participated in Relay in Reverse. Data Whiz featured 22 teams composed of 53 participants. Around 25 enthusiastic teams participated in Code with Comali. 'UnI' had about 20 enthusiastic participants. Mock Job Drive had 25 enthusiastic participants. Planetary Escape had various randomly selected teams of five.

INVENTE'23 was a testament to the exceptional talents and innovations within the participating students. The dedication of participants, the hard work of the organizing team, and the support of sponsors, including Stayflexi, collectively contributed to the success of this edition. Congratulations to all the winners, and a heartfelt thank you to everyone involved in making INVENTE'23 a memorable journey. Stay connected for more exciting events and innovations from the CSE department.





# STUDENT ACHIEVEMENTS

## CO-CURRICULAR ACTIVITIES

### ByteCraft Hackathon

S Rohit Ram of 3rd year CSE had participated in the bytcraft hackathon organized by IIIT Nagpur at national level on 13-10-2023 and secured the first Prize.

### Kumaraguru Livestock Hackathon

Dr. S. Angel Deborah mentored Raghul Yadhav K, Swathika D, Rahul B of Third year CSE along with Desigan, third year BVSc & AH of Madras Veterinary College who bagged the Second runner up place of RS.25000/- in Kumaraguru Livestock Hackathon held during 28th September 2023- 1st October 2023.



### HackinHub

Dr. S. Angel Deborah mentored Raghul Yadhav K, Ragul B, Swathika D and Rajasekar S of Third year CSE who bagged the Second place of RS.5000/- in Sairam Institute of Technology HackinHub held during 13th October 2023- 14th October 2023.

## hackXGPT

hackXGPT, the HackMIT 2023 puzzle CTF held from 4 .7.2023 to 7.8.2023 organized by Massachusetts Institute of Technology at international level.

1. Aathish Sivasubrahmanian of III year CSE participated and secured 18th place as well as guaranteed admission to HackMIT 2023.
2. Alamelu Kannan of III year CSE participated and secured 32nd place as well as guaranteed admission to HackMIT 2023.

## HerEmpower

The team “HerEmpower” comprises Swetha J and Sathvika V S (III year CSE) and Sushmithaa P (III Year IT) under the guidance of Dr. S Rajalakshmi presented the project titled “Women’s empowerment chatbots - EmpowerHer“ for the national level hackathon “AthenaHacks - Innovating with women in Technology” conducted by ACM-W India, Coimbatore ACM Chapter and PSG College of Technology. The team was selected for the second round and presented their work on 29.10.2023.

## PSG iTech HackFest

17 students of III Year CSE participated in PSG iTech HackFest 2023 at PSG Coimbatore during 24.8.2023 to 26.08.2023 at national level. Names: Aathish, Adithya, Alamelu, Deepak Kumar, Gayathri N, Jahnvi, Sanjai Balaji, Shravan Sreeram, Sathvika VS, Sadhana, Ojus, Vaishnavi S, Parthiban, Udanthika, Vajai Aravindh, Prahalad and Pranav.

## Clone Craft

1. Nitheesh Kumar N of IV year have participated in Clone Craft organized by IEEE CS at intra-college state level held at SSN College of Engineering, Chennai during 26.10.2023 and secured First Place.
2. Sanjjit S of III Year CSE was a part of the organizing committee, as an office bearer of the IEEE SSN Student Branch, for the IEEE Day celebrations held on 26/10/2023 organized by all the societies under the IEEE Student Branch of SSN College of Engineering, Chennai. The particular event Cline Craft organized by the IEEE Computer Society SSN was an intercollegiate event and saw participation from many students



## NetMob 2023

**-Pooja Premnath**

I recently had the privilege of attending NetMob 2023, a three-day event that took place at Universidad Carlos III de Madrid (UC3M), from October 4th to 6th, 2023, organized in collaboration with IMDEA Networks Institute. The conference, focused on data-centric mobility research, brought forward researchers from various domains- ranging from networks to machine learning to economics and urban planners. The conference was chaired by Professor Marco Fiore, Research Professor at IMDEA Networks Institute, and Professor Esteban Moro, Associate Professor at UC3M, and researcher at MIT's Media Lab.

One of the highlights of my experience at NetMob 2023 was the opportunity to present my research, titled "Batch Network Slicing for OTT Services in a Demand-Aware SDN Environment." Dr. Shahul Hamead and I were able to speak to many experts about the work we had carried out as part of the conference's Data Challenge.

Our work also enabled me to receive a Student Grant to attend NetMob 2023. This grant was sponsored by the Spanish Ministry of Economic Affairs and Digital Transformation through PRTR and the European Union-NextGenerationEU, designed to promote telecommunications studies in Spain. Out of the six recipients, I was particularly thrilled to be the sole undergraduate student to receive the grant.

The keynote talks by Luca Pappalardo, from the Institute of Information Science and Technologies (ISTI) at the Italian National Research Council (CNR) and Marta Gonzalez, from UC Berkeley, were nothing short of enlightening and thought-provoking. These sessions were a source of inspiration and provided attendees with valuable insights into the latest developments in the field of data-centric mobility research.

One of the most rewarding aspects of attending NetMob 2023 was the opportunity to network with fellow researchers, both from Spain and around the world. I was able to speak and connect with multiple students, researchers, and professors from universities around the world, including MIT, Columbia University, ETH Zurich, etc. The connections that I was able to make and the in-depth discussion of our research were undoubtedly invaluable.

In addition to the academic aspects of the conference, I also thoroughly enjoyed the overall experience and atmosphere. The event spanned three days, during which I had the chance to try out the local cuisine, as well as visit multiple historic sites and museums, adding a delightful dimension to my stay in Madrid.

In conclusion, NetMob 2023 was a transformative experience that not only allowed me to present my research to a diverse audience but also provided an opportunity to connect with researchers from around the world. The talks and posters shared at the event offered profound insights into the world of data-centric mobility research. I am truly grateful for the chance to attend and present our work, as

well as for the new connections and friendships that were forged during the event. NetMob 2023 was an event that I will fondly remember as a significant milestone in my academic journey.



Four of the student grant recipients- Claudio Ascione (PhD student at Sorbonne University, France, Lavinia Rossi Mori (PhD Student at Sapienze Università di Roma, Italy) and Wei Lai (PhD Student at Utrecht University, Netherlands)

## Generative AI for Startups Workshop

Date: October 13th, 2023 to October 20th, 2023

Hosted by: SSN Incubation Foundation

Attendees: Sanjai Balajee , VS Pranav

The Generative AI for Startups workshop, conducted by the SSN Incubation Foundation from October 13th to October 20th, 2023, was an enriching and transformative experience that provided us with valuable insights into the world of entrepreneurship and the potential of Generative AI.

### Workshop Highlights:

**Idea Inception and Validation:** The workshop commenced with a deep dive into the process of idea inception and validation. We learned how to leverage Generative AI tools like Bard and ChatGPT to refine and validate our startup concepts. This initial step set the foundation for the entire journey.

**Understanding Customer Segments:** With the assistance of AI, we gained a comprehensive understanding of our target customer segments and their pain points. This knowledge was instrumental in shaping our startup's value proposition and solutions.

**Creating Customer Personas:** The workshop guided us in crafting detailed customer personas, allowing us to tailor our products and services to meet the specific needs and preferences of our target audience. **Business Model Canvas:** We learned how to create a Business Model Canvas, which provided us with a structured framework to develop, iterate, and refine our business strategies. This exercise ensured that we had a clear roadmap for our startups.

**MVP Development:** The workshop's hands-on approach culminated in the development of a Minimum Viable Product (MVP) for our startup ideas. It was exciting to witness the rapid progress and see our concepts come to life.

**Invaluable Interactions:** One of the most significant aspects of this workshop was the opportunity to engage with a diverse group of individuals. The room was filled with startup mentors, founders of budding startups, and enthusiastic students. The atmosphere was encouraging and collaborative, creating an environment where knowledge sharing and networking were at the forefront. The interactions and connections made during the workshop were invaluable and provided a holistic view of the entrepreneurial landscape.

**Key Takeaways:** The workshop helped us differentiate between a software project and a market-ready product. We realized the potential of Generative AI in accelerating the journey from idea to MVP, and the experience and knowledge gained have equipped us with the confidence to venture further into the world of entrepreneurship using Generative AI.

In conclusion, the Generative AI for Startups workshop was a transformative experience that armed us with the necessary skills, insights, and networks to embark on our entrepreneurial journey. We are grateful to SSN Incubation Foundation for organizing this invaluable workshop and look forward to applying the knowledge we gained to drive our startup ideas to success.



## PLACEMENT OFFERS

| Full Name                  | Company              | Title                         |
|----------------------------|----------------------|-------------------------------|
| Abishek V.P                | Fidelity Investments | Intern PPO                    |
| Akshat Jain                |                      |                               |
| Laxman D                   |                      |                               |
| Nishaanth R                |                      |                               |
| Nitheesh Kumar N           |                      |                               |
| Sarika Esackimuthu         |                      |                               |
| Sowmya K                   |                      |                               |
| Sumon Kumar                |                      |                               |
| Aishwarya K                |                      |                               |
| Ajay Saravanan             |                      |                               |
| Aishwarya B                | NatWest              | Internship - PPO              |
| Geethapriya Thandavamurthi |                      |                               |
| Vaishnave Jp               |                      |                               |
| Adithi Shankar             | CITI Bank            | Software Developer            |
| Anunita K P                |                      |                               |
| Fathima Naushin A R        |                      |                               |
| Jayanathan P T             |                      |                               |
| Kishaanth S                |                      |                               |
| Krithika Swaminathan       |                      |                               |
| Mrithula KL                |                      |                               |
| Nitheesh Raaja R           |                      |                               |
| Pranith P                  |                      |                               |
| Ramdhanush Venkatakrishnan |                      |                               |
| Sabarivasan Velayutham     |                      |                               |
| Samhita Venkatesan         |                      |                               |
| Siddharth S                |                      |                               |
| Varsha Sivaramakrishnan    |                      |                               |
| Varsha Yeshwanth           |                      |                               |
| Shajith Hameed             | Rocketlane           | Software Development Engineer |
| Vignesh S.M                |                      |                               |
| Vishal .                   |                      |                               |
| Smrithi Mahalakshmi S      | Ashok Leyland        | Graduate Engineer Trainee     |

|                              |   |  |
|------------------------------|---|--|
| Kiran Raj K B                | Avalara Technologies                        | Software Engineer  |
| N Thejas                     |   |  |
| Harshavardhan Suresh         | Barclays                                    |  |
| Hrithin Ramji                |   |  |
| Danish Sharma                | BNY Mellon                                  |  |
| Nishaanth R                  |   |  |
| Vignesh Balaji S             |   |  |
| Aishwarya Krishnakumar       | CITI Bank                                   | Enterprise Operations and Technology, 2024 Full Time Analyst |
| Avanthika K                  |   |  |
| Bharathi Raja P              |   |  |
| Premkumaran S                |   |  |
| Sai Shashaank R              |   |  |
| Shri Keshavinee Ramachandran |   |  |
| Vikash Anand S               |   |  |
| Shruthi Dhanvanth            | Fidelity Investments                        | Intern PPO   |
| Gomathy Dhanya S             | KLA Tencor                                  | Pre-placement offer  |
| Matthew Jonathan G           | LatentView                                  | FTE  |
| Praveen R J                  |   |  |
| Dikshitha Vani V             | NatWest                                     | Software Engineer  |
| Maheshwari M R               |   |  |
| Shalini N                    |   |  |
| Subhashree M                 |   |  |
| Dejah Madhusankar            | SAGENT INDIA                                | SOFTWARE ENGINEER INTERN                                     |
| Matthew Jonathan G           |   |  |
| Rahul Rajagopalan            |   |  |
| Kavin Sivakumar              | Verizon Data Services India Private Limited | Developer  |
| Koushik Viswanath S          |   |  |
| Sanchit Sanjay Pawar         |   |  |
| Vaishnav Viju                |   |  |
| Shrijith M R                 | AstraZeneca                                 | Junior Engineer  |
| Achyuth Anand                | Comcast Corporation                         | Development Engineer/SDET Engineer/DevOps                    |
| Aravind Ramachandran         |   |  |
| Buvan Sankar                 |   |  |
| Dharshan S                   |   |  |
| Divya M                      |   |  |
| Jenishda Pushpa Mary S       |   |  |



|                            |   |  |
|----------------------------|---|--|
| Mohamed Uvais              |   |  |
| Rex Abraham Jacob          |   |  |
| Sanjay Rojar U             |   |  |
| Selva Gayathri Mohan       |   |  |
| Selvendran M V             |   |  |
| Shivcharan T               |   |  |
| Sowmya Ganesan             |   |  |
| Swetha J Rahul             |   |  |
| Dharunkumar Udayakumar     | D. E. Shaw India Pvt Ltd                | Member Technical - Software Development Engineer in Test |
| Attuluri Thandava Krishna  |   |  |
| Bhuvnesh Magotra           | Ford Business Solutions Pvt Ltd         | Information Technology                                   |
| Mohamed Ajwad              |   |  |
| Sharmila M                 |   |  |
| Devisri S R                |   |  |
| Lalith Kumar J             | L&T Technology Services                 | Associate Engineering                                    |
| Lingeswar S A              |   |  |
| Vishnu J                   |   |  |
| Deepak Sriram              | Tata Elxsi Limited                      | Engineer/Senior Engineer                                 |
| Ponvijay Murugesan         | Transunion Global Technology Center LLP | Analyst  |
| Sanjayan Mutharasan        |   |  |
| Shivcharan T               |   |  |
| Naveen Karthick Mahalingam | Trimble                                 | Software Developer                                       |
| Yogesh Munees E            |   |  |

# EXTRA - CURRICULAR ACTIVITIES

## Freshers Orientation

1. Sowmya G of 4th year CSE has participated in singing for the invocation of the SSNCE Freshers Orientation as part of the SSN Music Club, held at SSN College of Engineering on 25.08.2023 at state, intra college level.
2. Sowmya G, Supraja Sridhar, Shruthi Dhanvanth and Nandakishor of 4th year CSE have participated in the SSNCE Freshers Orientation for the SSN Music Club, Humour Us, LOP and ACE respectively held at SSN College of Engineering on 24.08.2023 at state, intra college level.
3. Nandakishor V of IV-year CSE was part of the fresher orientation as well as the rehearsal, He represented ACE as the association President.

## Table Tennis Tournament

1. Sathvika. V. S of 3 rd year CSE has participated in the Table Tennis tournament organized by Kongu Engineering college at State level during 10.9.2023 to 11.9.2023 and secured First Place.
2. Sathvika. V. S of 3 rd year CSE-B has participated in the table tennis tournament organized by ANNA UNIVERSITY at the zona (state) level held at Anand Institute of Higher Technology during 10.10.23 and also has won the FIRST prize.
3. Sathvika. V. S of 3 rd year CSE-B has participated in the table tennis tournament organized by ANNA UNIVERSITY at the Inter zonal level held at Abdul Hakeem College of Engineering,vellore during 19.10.23 and also has won the FIRST prize.

## GigaHertz

Hrithin (4th year), Sowmya (4th year) and Lavanya (2nd year) of CSE - as a team 120 Db - participated and won first prize in Acoustics, 2nd prize in Tarangini and 3rd prize in GigaHertz in Festember '23, conducted by NIT Trichy, held at NIT Trichy from 6.10.23 to 8.10.23 held at National, Inter College Level.

## Basketball Tournament

Aditya Jyosyula of 2nd year CSE has participated in the SNU Independence Day Cup(Basketball) during 13-09-2023 to 15-09-2023 organized by Shiv Nadar University Chennai at intercollege (State) level and secured second prize.

## YRC Activities

Sham and Sridhar K of III year CSE, have attended an awareness talk on account of World Mental Health Day conducted by YRC society on 10.10. 2023 from 9:00am to 12:30 at SSN college intra college state level.

## Quizzes

V TEJAS and V YASHASVEE of 3rd year CSE, have participated in InQube 2023 a Business Quiz, held during 12th to 16th October 2023, organized by Shiv Nadar Institute of Eminence Noida, at a national level, held at SNU Noida NCR and selected till quarter finals.

## Dance

Samyuktaa Sivakumar, Priyadharshini Thandavamurthi, J M Sunil Sairaj of 2nd year CSE have attended dance practice at choreographers studio in Velachery on 4th October 2023 organized by N2K( college dance team) at college level in Chennai.

## Cricket Tournament

R.Deepak Kumar of 3rd year CSE has participated in Cricket tournament organized by Loyola College of Engineering at State level held at Loyola College of Engineering, Chennai during 10.10.2023 to 12.10.2023.

## SSN-SNUC MUN

1. Ms Udanthika, Ms Srilakshmi, Ms Swetha , Mr. Sanjjit, and Ms Nandini Sree from 3rd year CSE B worked for the SSN SNUC MUN 2023 by being an integral part of the organizing committee at SSN College during 31.08.2023, 01.09.2023, 02.09.2023 and 03.09.2023.
2. Rohit Ram S of CSE department (3rd year) was part of the organizing committee for the SSN-SNUC MUN 2023 as the head of logistics during 29. 08 2023 to 01.09. 2023.
3. C B Ananya from III Year CSE A has attended the SSN-SNUC Model United Nations Conference organized by SSN College and SNU Chennai held at SSN CE during 01.09.2023 to 03.09.2023 and was awarded 'Honorable Mention'.

## Yuva Sangam

Shankari S R of 2nd year CSE has been selected to participate in the "Yuva Sangam (Phase-3-Exposure Visit of Youth to Various States of India)"-Visit to Rajasthan from 30 November 2023 to 09 December 2023.

YUVA SANGAM is an initiative by the Government of India to strengthen people-to-people connections, especially between the youth from various States. This initiative focuses on conducting exposure tours of the youth comprising mainly students studying in Institutions & some off-campus youth from one state to another state & vice versa.

## ALUMNI CORNER

### SSN Innovation Day

1. Mr. Harishankar G, Lead - NLP Research @ Zoho Corporation, CSE Alumni 2014, visited our campus on 6.9.23 and acted as a jury Member for SSN Innovation Day
2. Mr. Vishakan Subramanian, Software Development Engineer, Workato, CSE Alumni 2022, Visited the projects exhibited for SSN Innovation Day on 6.9.23.
3. Mr. Vignesh B, Software Developer, Nielsen IQ, CSE Alumni 2022, Visited the projects exhibited for SSN Innovation Day on 6.9.23.
4. Mr. Sreyas, Software Developer, Chargebee, CSE Alumni 2022, Visited the projects exhibited for SSN Innovation Day on 6.9.23.
5. Mr. Sriram, SDE, Samsung, CSE Alumni 2022, Visited the projects exhibited for SSN Innovation Day on 6.9.23.
6. Mr. Srivathsan, Software Engineer, Nielsen IQ, CSE Alumni 2022, Visited the projects exhibited for SSN Innovation Day on 6.9.23.

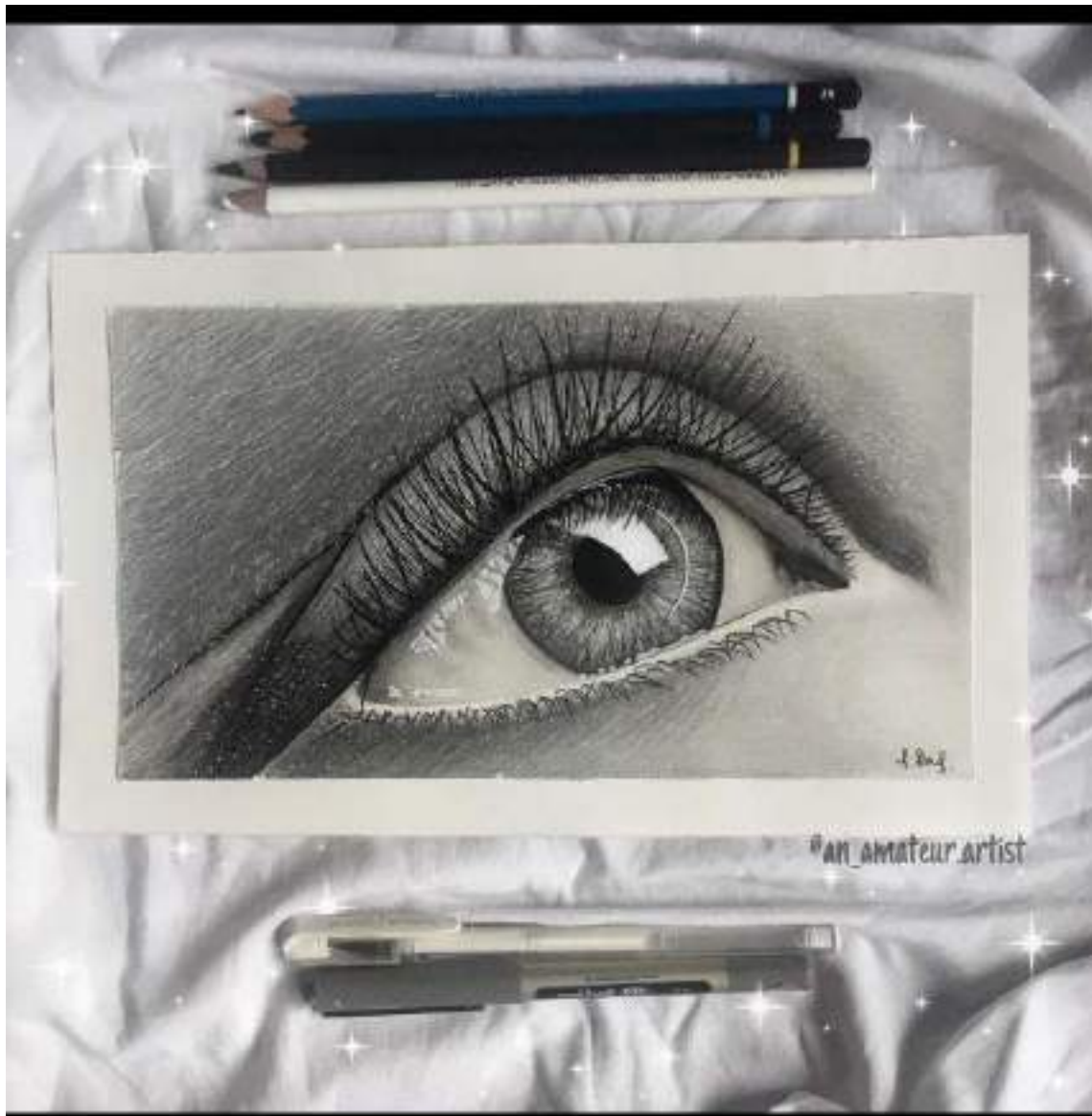
### Placement Drive

1. Mr. Logesh Dinakaran, Software Engineer, Swell Commerce, CSE Alumni 2019, visited our campus on 9.9.23 and interacted with our faculty and also participated in the Mock placement drive for 2025 Batch.
2. Mr. Daniel CV, Lead Engineer, Tejas Networks, PG CSE Alumni 2014, visited our campus on 19.9.23 and interacted with our faculty and for the placement drive for 2024 Batch.

## SIH 2023 Internal Hackathon

1. Mr. Prathysush, SDE, Navis, CSE Alumni 2022, visited our campus on 23.9.23 and interacted with our faculty and acted as a Jury Member for the SIH 2023 Internal Hackathon.
2. Mr. Sudarshan R, SDE, Navis, CSE Alumni 2022, visited our campus on 23.9.23 and interacted with our faculty and acted as a Jury Member for the SIH 2023 Internal Hackathon.
3. Mr. Dhaksinamoorthy, SDE, Sahaj, CSE Alumni 2021, visited our campus on 23.9.23 and interacted with our faculty and acted as a Jury Member for the SIH 2023 Internal Hackathon.

## ART CORNER



Shreyamanisha C Vinay, II year, CSE



# **EDITORIAL TEAM**

## **FACULTY EDITORS**

**Dr. T. T. Mirnalinee**

Professor & Head/CSE

**Dr. A. Beulah**

AP/CSE

**Dr. S. Angel Deborah**

AP/CSE

## **STUDENT EDITORS**

**Samah Syed**

**Shankari S R**

B.E. CSE II Year