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SMRITI

DEPARTMENT OF COMPUTER
SCIENCE AND ENGINEERING



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HOD'S DESK



I hope all of you are doing fine amidst this raging second wave of the Covid-19 pandemic. I am happy to communicate with you all at least through this newsletter. I definitely miss face to face interactions with students and colleagues.

Under these difficult and uncertain circumstances, our faculty members admirably rose to the challenge in terms

of handling theory classes through Microsoft Teams, handling lab sessions through repl.it IDE and MeshCentral remote logging tool, trying to provide the best possible learning experience to our students. I appreciate all the faculty members for taking additional care of students with their fragile mental status. I appreciate all faculty members for actively organizing useful workshops on various emerging technologies. It is good to see lots of speakers from various geographic locations giving the talks in these workshops. Pandemic-driven virtual format for all the events has essentially eliminated all spatial boundaries.

Congratulations to Manisha on successfully defending her doctoral thesis. I wish her a fruitful academic and research career.

I appreciate Vallidevi, Suresh, Kanchana and Saraswathy for organizing this year's edition of the International Conference on Computational Intelligence in Data Science (ICCIDS). I commend the efforts of all faculty members in reviewing the papers and in the various aspects of organizing the conference.

I appreciate Sarathchandran for jointly organizing with all the student Chapters and Coding Club, a series of talks by the final year students in providing a heads-up on the various aptitude/coding rounds, building impressive profiles/resumes, facing interviews etc. Such experience-sharing talks offering expert tips to the students who are going to face placement interview shortly, really were invaluable.

I appreciate the third-year student Chaithanya who has won a prize along with a EEE alumnus in Sweden-India Mobility Hackathon award. Congratulations to the third-year student Madhumitha who has won along with a III-year EEE student Sudiksha, the "Hack-

The-Planet" challenge in the GreenTech International Hackathon 2021 organised by Vandebbron, a green energy company in Netherlands.

I thank our alumnus Sowmya for offering a value-added-course to our III year students on a happening topic of "Deep Learning for NLP". She had completed her Ph.D from IIT Madras and is currently working as a Research intern at the L3S Research Centre, Leibniz University, Hannover, Germany.

The famous legendary painter Michelangelo said at the age of 87 "Ancoro imparo". This Italian phrase means "Yet, I am learning". It is very important for all of us to keep learning new things and such a constant quest for knowledge will lift our spirits in a positive way.

Dr. Chitra Babu

HoD/CSE

FACULTY ACTIVITIES

1. **Dr. Chitra Babu** served as Session Chair for the two keynote talks of the ACM-W Workshop on women in Computer science research co-located with the ACM India Annual event on 10th Feb 2021.
2. **Dr. Chitra Babu** has been invited to serve as Program committee member for the ACM India Annual COMPUTE Conference 2021.
3. **Dr. Chitra Babu** attended the ACM COMPUTE conference Steering committee meeting on 16th March between 6 and 7 PM.
4. **Dr. Chitra Babu** as Chair of ACM India iSIGCSE convened a meeting with the office-bearers on 10th March between 2 and 3 PM to discuss the activities that need to be organized as part of the iSIGCSE chapter.
5. **Dr. Chitra Babu** attended ACM India Internal engagement committee meeting on 27th March at 11 AM to increase the ACM and ACM-W student chapter activities.
6. **Dr. Chitra Babu** attended the ACM India Summer School committee meeting on 18th March between 9:30 - 10:30 PM.
7. **Dr. T.T. Mirnalinee** attended the BOS meeting at K. S. Rangasamy College of Technology.
8. **Dr. T.T. Mirnalinee** served as board of study member for Sri Manakula Vinayagar Engineering College.
9. **Dr. T.T. Mirnalinee** served as a Doctoral Committee member at SRMIST.
10. **Dr. T.T. Mirnalinee** served as DC member at Anna University for Shiny Irene D,

Scholar of Dr. T. Sethukarasi Mam. titled," An Efficient and Precise Medical Decision Support System using Machine Learning Techniques" on 29.03.2021.

11. **Dr. T.T. Mirnalinee** served as Programme Advisory committee member of RMK College of Engineering.
12. **Dr. D. Thenmozhi** is serving as Program committee member for the Workshops on Speech and Language Technologies for Dravidian Languages and Language Technology for Equality, Diversity, Inclusion as part of the 2021 Conference of the European Chapter of the Association for Computational Linguistics in 2021 will be held in Kiev, Ukraine.
13. **Dr. K.Vallidevi** acted as the Doctoral Committee member for the confirmation meeting conducted for a research scholar at SRM University.
14. **Dr. D.Venkatavara Prasad** attended Virtual DC meeting of Mr.A.Vijaybharath at SRM University, Chennai on 3-2-202.
15. **Dr. T.T. Mirnalinee** Convened confirmation DC meeting for the Candidate Ms. D. KaviPriya.
16. **Dr. R. Kanchana and Dr. K. Lekshmi** organized a guest lecture on Dream Big Cloud Computing - Azure by Mr. Sekhar Muthaluru, WhiteBlue Cloud Services Chennai for BE(CSE) III Year Students, Research Scholars and Faculty members on 10th Feb 2021.
17. **Dr. R. Kanchana** met Dr. Preethi Pant JS, MoHFW, Nirman Bhawan, New Delhi regarding her BIRAC funded research project on 25th and 26th Feb 2021.
18. **Dr. R. Kanchana** was requested to submit a set of questions with PIs and KIs to AICTE, in continuation of 3 DAY AICTE EXAMINATION REFORMS ONLINE WORKSHOP Organized by AICTE and KLE Technological University, Hubballi on 15th to 18th January 2021. The questions were submitted.
19. **Dr. D. Thenmozhi** served as subject Expert for online courses at Sri Venkateswara College of Engineering, Sriperumputhur on 29th March 2020.
20. **Dr. G. Raghuraman** attended the confirmation DC Meeting of a Scholar of Dr. K. Ashok kumar, from Sathyabama Institute of Science and Technology on 25.03.2020.
21. **Dr. T.T. Mirnalinee, Dr. A.Chamundeswari, Dr. B. Prabavathy**, have served as Session Chair for Third International Conference ICCIDS 2021 held in Dept. of CSE, SSNCE
22. **Dr. G. Raghuraman** conducted the Doctoral Committee meeting for suggesting the panel of experts for Oral Examination of my Research Scholar (Full-time), Ms. Ambika M was conducted on 03.03.2021.
23. **Dr. R. Kanchana along with Prof. S. Selvakumar, Director, IIITU** presented the demo and progress of the BIRAC funded project to the Technical Advisory Committee, Project Monitoring Committee and BIRAC program unit on 11-3-2021.

24. **Dr. R. Kanchana along with Dr. B.Bharathi** reviewed the contents of the BE(CSE) syllabus under R2021 as subject experts during 11-29 March 2021.
25. **Dr. S.V. Jansi Rani** served as Session chair in ARAM conference, SSNCE.
26. **Dr. Chitra Babu** served as General Chair for the International Conference on Computational Intelligence in Data Science (ICCIDS) 2021 organized during 18-20 March 2021.
27. **Dr. Chitra Babu** convened the 3rd BoS meeting on 31st March between 9:30 - 11:30 AM to consider and approve the R 2021 B.E(CSE) curriculum and syllabi.
28. **Dr. Chitra Babu** presented the research activities of the CSE department to Dr. Sriman Kumar Bhattacharyya, VC of SNU, Chennai. A few student projects were demonstrated to him and the lab facilities were showcased.
29. **Dr. Chitra Babu** attended ACM India Annual Event that was virtually hosted by P .S. G. College of Technology on 13th Feb 2021.
30. **Dr. Chitra Babu** attended the annual ACM-W Council meeting on 5th Feb 2021.
31. **Dr. T.T. Mirnalinee** India Faculty Summit 2021, held on April 22, 2021.
32. **Dr. V. Balasubramanian** attended World Intellectual Property Day 2021 held on April 26, 2021.
33. **Dr. S. Saraswathi**, attended, 2 DC meetings at MGR university.
34. **Dr. Saraswathi S** acted as a session chair for the conference ICBSII 2021 on March 27, 2021, by BME, SSNCE.
35. **Dr. Chitra Babu** convened a meeting on 27th April with the office bearers of ACM India iSIGCSE to discuss a possible set of events that can be planned in the coming months.
36. **Dr. Chitra Babu** attended ACM India Summer schools committee meetings both on 14th and on 21st April to discuss the logistics and arrangements for the 5 upcoming summer schools.
37. **Dr. Chitra Babu** attended the ACM india internal engagement committee meeting on 17th April which discussed the challenges faced by the various professional chapters and possible solutions.
38. **Dr. Chitra Babu** attended the synopsis meeting of the faculty member Ms. M. Saritha on 15th April afternoon.
39. The department of CSE had applied for an online FDP under the Anna University's Centre for Faculty Development with Coordinators as **Dr. P. Mirunalini and Dr. A. Beulah** on the V semester subject "Theory of Computation" and it has been approved with full financial assistance from AU.

40. **Dr. Chitra Babu and Dr. R. S. Milton** attended the SCIPe meeting along with other members of SCIPe on 12th April 6:30 - 8:00 PM.
41. **Dr. Chitra Babu, Dr. R.S. Milton, Dr. T.T. Mirnalinee and Dr. R. Kanchana** attended a meeting with their counterparts in EEE, ECE and IT department via Teams regarding R 2021 - subjects in the Honors specialization AI & ML on 27th April 9:30 - 10:30 AM.

WORKSHOPS ORGANIZED

1. **Dr. A. Beulah, Ms. Angel Deborah S, and Ms. S. Rajalakshmi** organized an online workshop titled "Working with Microsoft Azure" on 27th February 2021.
2. **Dr. N. Sujaudeen, Dr. D. Venkatavara Prasad, Dr. A. Chamundeswari, Dr. K. R. Sarath Chandran, & Dr. K. Madheswari** organized the One day Alumni Series Talk held on 13/03/2021 Via Online platform for SSN students under the banner of "ACM, IEEE, CSI, IEI & ACM-W Student Chapters".
3. **Dr. K. R. Sarath Chandran, Dr. D. Venkatavara Prasad, Dr. A. Chamundeswari, Dr. Balasubramian, Dr. N. Sujaudeen, & Dr. K. Madheswari** organized three different placement talk series 2021 under the banner of IEI, ACM, IEEE, CSI, ACM-W, and Codechef Student Chapters".
4. SSN ACM and ACM W Student Chapter organized "CODENOVICE - Python Coding Competition for First Years" on March 6th 2021.
5. **Dr. S. V. Jansi Rani and Mr. H. Shahul Hamead** organized two day national workshop on "An Insight into Mathematical Modelling in Information and Communication Engineering" 26 & 27 MARCH 2021.
6. **Dr. S. Saraswathy, Dr.K. Valli devi, Dr. J. Suresh and Dr. R. Kanchana** organized the IFIP Event - 4th International Conference on Computational Intelligence in Data Science on March 18-20, 2021.
7. **Dr. K. Madheswari Dr. K. Lekshmi, Dr. R. Priyadharsini and Dr. S. Manisha** organized "one-day online workshop on Data Science: Trends and Challenges" on March 27, 2021.
8. **Dr. Chitra Babu** hosted the ACM India Education webinar for college faculty members by Dr. R. Ramanujam, Professor, IMSc on the topic "Why learn Theory of Computation?" on 11th March 2021 at 5:30 PM. It was attended by 80 Faculty members nation-wide.
9. On the behalf of IEEE/ACM/ACM-W/CSI/IET Student chapter, **Dr. D. Venkatavara Prasad, Dr. A. Chamundeswari, Dr.K.Madheswari , Dr. N.Sujaudeen, Dr.K.R. Sarath Chandran,** Organized one day workshop titled, "ACCESS GRANTED " - Second cyber security" on 25th March 2021.
10. **Dr. N.Sujaudeen** organized a Six Weeks Full Stack Product Development Programme which was started on 10 April, 2021.

EXTERNAL INTERACTIONS

1. **Dr. Chitra Babu and Dr. T.T. Mirnalinee** had a discussion on 24th with Caterpillar technical team regarding potential problem statements for collaboration.
2. **Dr. Chitra Babu along with Dr. R.S. Milton Dr. T. T. Mirnalinee and Dr. R. Kanchana** had a meeting with **Prof. Ganesh Samudra** on 24th March between 6:30 and 8:30 PM regarding the structure, content and assessment of the courses that followed EFP style on each year during the first 3 years.
3. **Dr. Chitra Babu** discussed a set of five potential problem statements for collaboration with the Caterpillar technical team headed by Ms. Jahnvi Chennupati, Engineering Supervisor on 7th April.

EXTERNAL RECOGNITIONS

Dr. Chitra Babu and Dr. R. Kanchana have been elevated to the IEEE Senior Member Grade.



PROJECT PROPOSAL SUBMITTED

Dr. J. Bhuvana submitted a project proposal titled, "Computational framework for Wildlife Monitoring and Management" for a budget of about Rs.28,46,800 to DST CRG with **Dr. J. Bhuvana** as PI and **Dr. T. T. Mirnalinee** as Co PI.



WEBINARS ATTENDED / ORGANIZED

1. **Dr. Chitra Babu**, attended the ACM India Education webinar given by Dr. Neeran Karnik of Tarana Wireless, Pune on the topic of "Cloud-Native Computing" on 27th March at 5:30 PM.
2. **Dr. Saraswathi S, Ms. S. Manisha** attended the National webinar on "Scene Understanding using Deep Learning" held on April 10, 2021."
3. **Ms. S. Angel Deborah** attended an interactive webinar with Prof. Armando Fox, University of California, Berkeley on the topic "Undergraduate Software Engineering Course: A Contemporary Perspective" arranged by ACM India iSIGCSE Chapter on 12th April 2021.
4. **Dr. V. Balasubramanian** attended a webinar titled "Webinar- From your Ph.D./ Masters Thesis to a start-up" held on 23 April 2021.
5. **Dr. Chitra Babu** attended a webinar discussion on "Why mathematics" organized by ThinQ(Thinking, Inquiry and Questioning) on 17th April. The panelists were Dr. R. Ramanujam, IMSc and Co-founders of ThinQ - Mr. K.P. Mohanan and Mr. Madhav Kaushish.
6. **Dr. Chitra Babu** attended "The Mathematical Artist of Play: A tribute to Conway" by Prof. R. Ramanujam, IMSc as a part of "A Tribute to Conway: A Lecture Series on the memory of Prof. Conway - Day 2" on 17th April 5 - 6:30 PM
7. **Dr. Chitra Babu** attended a webinar on 21st April 9 - 10 PM organized by SimpliLearn on the topic "Strategies for VUCA World: Expert Tips to Make Change a Driver for Professional Growth" by Mr. Sri Krishnan, Digital Innovation Consultant and former Senior Vice President at Robert Bosch Engineering.

WORKSHOPS ATTENDED

1. **Dr. T.T. Mirnalinee** attended a two day Workshop on Assistive Technology.
2. **Ms. M. Saritha** participated and successfully completed the AICTE Training And Learning (ATAL) Academy Online FDP on "Cyber Security" held from Feb 8, 2021 to Feb 12, 2021 organized by Coimbatore Institute of Technology.
3. **Dr. K. Madheswari and Dr. D. Thenmozhi** attended two days Training Program on "ISO 9001:2015 Internal Auditor Training Program on 24 -25 February 2021.
4. **Dr. Y. V. Lokeswari** has participated in a "one-day online workshop on Data Science: Trends and Challenges" organized by Department of Computer Science and Engineering on March 27, 2021.
5. **Dr. N. Sujaudeen** attended AWS Public Sector Summit Online held during April 15-16, 2021.

INVITED LECTURES

Dr. T. T. Mirnalinee delivered a lecture in the five days workshop on Artificial Intelligence and Machine Learning for Data Analysis at NIT, Trichy held during 15-19 February 2021.



Dr. S. Manisha delivered a talk in the TEQIP III Sponsored FDP on “Exploring Research Problems using Machine Learning” held at Department of Computer Science and Engineering, Coimbatore Institute of Technology, Coimbatore during 15th to 17th March, 2021, on the topic "Machine Learning for Computer Vision" through online on 17th March 2021.

Dr. J. Bhuvana delivered a talk on 'Keras Fundamentals for Deep Learning' on 27-02-2021, in National webinar organized by PG and Research Department of Master of Computer Applications (M.C.A), D.G. Vaishnav College, Chennai.



Dr. R. Kanchana delivered a talk on “Document Preparation using Latex” in the Research Documentation - LATEX workshop held online on 6th March 2021. It was organized by the Department of CSE under the banner of CSI and IEEE student chapters.

Dr. A. Chamundeswari delivered a lecture on " Demonstration on mininet platform" in IEEE / ACM / ACM-W / CSI / IET Student Chapter, "ACCESS GRANTED - Second Cyber security" workshop on March 25,2021.





Dr. R. Priyadharsini, delivered a talk on “SQL for Data Science” in a “Two weeks International Workshop On Data Science” at the department of Information technology, Easwari Engineering College, Chennai on 26/4/21

Dr. D. Thenmozhi delivered a keynote talk virtually on "Data Science in Healthcare" in the third International Conference on Information Systems and Software Engineering on 24.4.2021 hosted by Meenakshi Sundararajan Engineering College, Chennai.



Dr.S.V.Jansi Rani delivered a keynote address on “Artificial Intelligence: It’s not the future, It’s Now” for the International Conference on Information Systems and Software Engineering at Meenakshi Sundaarajan Engineering College on 23/04/2021 .

ACM INDIA iSIGCSE WEBINAR

Dr. Chitra Babu, as Chair of ACM India iSIGCSE chapter, organized a webinar on the topic "Undergraduate by Prof. Armondo Fox, University of California, Berkeley Software Engineering Course: A contemporary perspective" on 12th April 2021. The slides and the recording of the webinar are available in <https://isigcse.acm.org/events>

Dr. Armondo Fox
Professor,
Electrical engineering and Computer Sciences
University of California, Berkeley

INTERACTIVE WEBINAR
On
Undergraduate Software Engineering Course
A Contemporary Perspective

📅 12 April 2021
🕒 8:30 PM IST (8 AM PST)

REGISTER HERE!

In case of queries: Dr. Chitra Babu, Chair, ACM iSIGCSE Chapter
94440 46101

PAPER REVIEWS

1. **Dr. A.Chamundeswari, Dr. S. Kavitha, Dr.D. Thenmozhi Dr. J. Bhuvana** reviewed research papers for ICCIDS 2021 organized by Dept. of CSE, SSNCE.
2. **Dr. D. Thenmozhi** reviewed a paper for the journal "Egyptian Informatics Journal".
3. **Dr. D. Thenmozhi** reviewed papers for the 2021 Conference of the European Chapter of the Association for Computational Linguistics.
4. **Dr. D. Thenmozhi** reviewed papers for The International Workshop on Speech and Language Technologies for Dravidian Languages.
5. **Dr. D.Venkatavara Prasad** reviewed a paper for International Journal of Environmental Analytical Chemistry.
6. **Dr. D.Venkatavara Prasad** reviewed a paper for International Journal of Environmental Analytical Chemistry.
7. **Dr.K Madheswari, Dr. K. R. Sarath Chandran,** reviewed a paper for International Conference WiSPNET2021 organized by Department of ECE, SSN CE.
8. **Ms. S.Angel Deborah** reviewed a paper for the 15th International Workshop on Semantic Evaluation(SemEval 2021).
9. **Ms. S. Rajalakshmi** reviewed a research paper for SemEval 2021.
10. **Dr. R. Kanchana** served as a reviewer for the IEEE Transactions on Services Computing and reviewed a research article.
11. **Dr. A. Beulah** reviewed a paper for the journal Circuits, Systems & Signal Processing (CSSP).
12. **Dr. D. Thenmozhi, Dr. S. Saraswathy, Dr. S. Kavitha, Dr. A. Beulah, Ms. S. Angel Deborah** reviewed research papers for ICCSP 2021 organized by IT Department, SSNCE.
13. **Ms. S. Angel Deborah** reviewed five papers for the 9th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2021) organized by National Institute of Technology Mizoram, India.

FACULTY PUBLICATIONS / PAPER PRESENTATION

1. **Dr. S.V. Jansi RaniKarthikeyan Chinnusamy, Kailash Kumar, Villalba-Condori Klinge & Suryakanth Mohankumar** published a paper titled Improvement of Transmission Control Protocol for High Bandwidth Applications in Wireless Personal Communications, 2021, 10.1007/s11277-021-08074-2.
2. **Ms. Angel Deborah, Dr.T.T. Mirnalinee and Dr.R.S.Milton**, published a paper titled "Emotion Analysis on Text Using Multiple Kernel Gaussian" in NEURAL PROCESSING LETTERS, Springer Volume (Issue No): '1-17, 2021, <https://doi.org/10.1007/s11063-021-10436-7>.
3. **Dr. R. Priyadharsini, Dr. S. V. Sivapriya**, presented a paper titled "Rainfall Induced Landslide Prediction using Neural Network based Approach" in International Conference on Applied Mathematics & Civil Structures (ICAMCS-2021) during 12th and 13th February 2021 by Virtual Mode organized by the Department of Mathematics and Civil engineering, SSN College of Engineering.
4. **Dr. J. Suresh**, participated and did poster presentation on-behalf of his full-time scholar **Ms.V Karthika** on 11.02.2021 (Virtually) in 15th Academic Research and Careers for Students Symposium (ARCS 2021) organized by ACM.
5. **Mr. Sudharshan R , Mr. Vikraman S , Dr. R. Priyadharsini, Dr. S. Manisha, and Dr. A. Beulah**, presented a paper titled "DESIGN OF AN ADAPTIVE MULTI TERRAIN CONVERTIBLE QUADRUPED" in National Virtual Conference on Automation, Robotics, Artificial Intelligence and Mechatronics (ARAM 21 Organised by Department of Mechanical Engineering, SSN College of Engineering on March 19th 2021).
6. **Kayalvizhi S, Dr. D. Thenmozhi, Dr. Chandrabose Aravindan**, published a paper titled "Best Matching Algorithm to Identify and Rank the Relevant Statutes" in CEUR(Scopus indexed) proceedings, Volume 2826, pages 31-34 which was presented in an International conference FIRE 2020 during Dec 20-22, 2020.
7. **A. Kalaivani, Dr. D. Thenmozhi** published a paper titled "SSN_NLP_MLRG@HASOC-FIRE2020: Multilingual Hate Speech and Offensive Content Detection in Indo-European Languages using ALBERT" in CEUR(Scopus indexed) proceedings, Volume 2826, pages 188-194 which was presented in an International conference FIRE 2020 during Dec 20-22, 2020.
8. **A. Kalavani, Dr. D. Thenmozhi** published a paper titled "SSN_NLP_MLRG@Dravidian-CodeMix-FIRE2020: Sentiment Code-Mixed Text Classification in Tamil and Malayalam using ULMFiT" in CEUR(Scopus indexed) proceedings, Volume 2826, pages 528-534 which was presented in an International conference FIRE 2020 during Dec 20-22, 2020.

9. **Dr. D. Thenmozhi, Arunima S, Amlan Sengupta, and Avantika Balaji** published a paper titled "SSN_NLP@FIRE2020 : Automatic Extraction of Causal Relations Using Deep Learning and Machine Translation Approaches" in CEUR (Scopus indexed) proceedings, Volume 2826, Pages 751-755 which was presented in an International conference FIRE 2020 during Dec 16-20, 2020.
10. **Yamini L, Dr. Priyadharsini R and Dr. Beulah A,** presented a paper titled "Identification of Sick Cells in Erythrocytes Images using Shape Descriptors" in IConIC 2K21 (4th International Conference On Intelligent Computing) organised by Panimalar College of Engineering, March 26, 2021.
11. **Dr. Kavitha S, Priyadarshini J R, Varun Suresh and Nithya Rathna A.,** presented a paper titled as "Pixel based Adversarial Attacks on Convolutional Neural Network Models", in ICCIDS 2021 conducted by Dept. of CSE, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam - 603110.
12. **Varshinee M M, S.V.Jansi Rani** presented a paper titled "INTERNET OF THINGS BASED WATER MONITORING" in the national conference on " Automation, Robotics, Artificial Intelligence and Mechatronics " on 19.03.2021.
13. **Bharathi. N. Gopalsamy, S. V. Jansi Rani** presented a paper titled "AUTOMATION OF SCRATCH DETECTION IN MACHINES" in the national conference on " Automation, Robotics, Artificial Intelligence and Mechatronics " on 19.03.2021.
14. **M. Sriram, S. V. Jansi Rani** presented a paper titled "SMART ALERT SYSTEM FOR WOMEN SAFETY USING SOCIAL NETWORK ANALYSIS" in the national conference on " Automation, Robotics, Artificial Intelligence and Mechatronics " on 19.03.2021.
15. **Dr. S. Saraswathi, Ssneha Balasubramanian, Talapala Sneha, Vinushiya B,** published a paper titled "Air Pollution Monitoring and Prediction using IOT and Machine Learning" in International Journal of Computer Science and Information Technologies, 12(2), 2021.
16. **Arunima S, Akshay R, Avantika Balaji, Thenmozhi D, Senthil Kumar B** published a paper titled "ssn diBERTsity@LT-EDI-EACL2021:Hope Speech Detection on multilingual YouTube comments via transformer based approach" in Proceedings of the First Workshop on Language Technology for Equality, Diversity and Inclusion, pages 92-97 April 19, 2021. published by Association for Computational Linguistics
17. **Mr. B. Senthil Kumar** presented the paper "An overview of fairness in data: Illuminating the bias in data pipeline" virtually in The First Workshop on Language Technology for Equality, Diversity and Inclusion - 2021 held along with EACL-2021, Apr-19, 2021.

ROLE OF HEALTHCARE & INDUSTRY 4.0 IN THE POST PANDEMIC ERA

Inculcating in-depth knowledge about all fields has always been one of SSN's mottos. Honoring the same, the Computer Science and Engineering department, along with the student chapters of the department hosted the Alumni Series Talk on the 13th of March 2021. Hosted virtually, the event brought in some truly brilliant speakers.

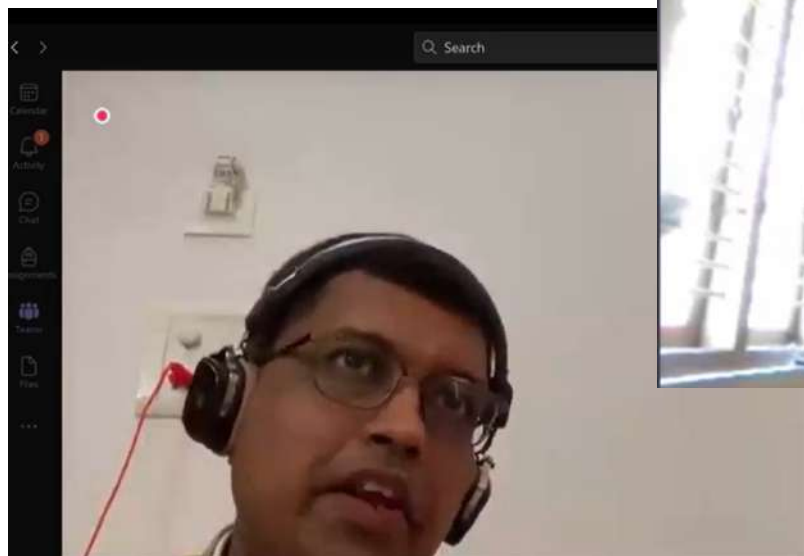
The first speaker of the day was Mr. Karthik Ramesh, VP – Strategy and Transformation, EMIDS and a proud alumnus of SSN (Batch of 2002). He gave a talk on Role of Healthcare & Industry 4.0 in the Post Pandemic Era.

He started by clearly establishing certain basics, like the difference between Industry 4.0 and Healthcare 4.0. This was followed by him explaining how the systems and the Internet have evolved from mainframes to what they are today.

One of his main talking points was the management aspects of Healthcare 4.0 and terminologies like VUCA (Volatility, Uncertainty, Complexity and Ambiguity), its demands and effects. He explained how the current pandemic has touched every aspect of VUCA and how we can manage it, both from an industry as well as business perspective. He had an interactive session about the complexity aspects of the pandemic and how it all boils down to how quickly a solution is introduced; i.e. a vaccine. He then talked about how healthcare professionals should involve Healthcare 4.0 and integrate it

Many students, including myself, interacted with him a lot and gained exposure to new stuff, like DevPost.com and organizations that are currently pursuing automation in healthcare and IoT areas. He concluded his session on a positive note- a necessity of testing times such as these.

The second speaker of the day was Mr. Sasikumar Venkatesh – Senior Software Engineer, Walmart Labs, and an SSN alumnus (Batch of 2016). He delivered a talk on Storage and Processing of Streaming Data and its Applications. He started by defining what is streaming data on a large scale and why it needs to be stored and processed. He presented us certain videos of what exactly they do at Walmart Labs.



Mr. Karthik Ramesh

Alumnus - 2002

Then he started with the motivation for stream processing and how Big Data comes into play and solves the problems of Volume and variety. He broke down the broad system into parts and explained several of the components involved in it, namely, SQL, Warehouse and Event Hub components.

Mr. Sasikumar then gave us a comprehensive run-through of the flow of processes involved, right from importing the files, capturing data and streaming the event to extraction and export to database. He also introduced the audience to various methods like event at a time, micro batch and batch processing. The audience were also introduced to event hubs and softwares like Apache Kafka, StreamSets and Spark Streaming. The students and faculty had some doubts in the concepts covered during his demonstration, to which the speaker responded patiently and clearly.

To sum it up, both the talks helped students to understand the industrial flavour of concepts we learn at college. It would be really helpful once we step into an industry, corporate or business. We look forward to more such interesting talks from reputed industry experts in the future as well!



Mr. Sasikumar Venkatesh

Alumnus - 2016

Sreyas Venkataramanan

III yr - CSE-C

PLACEMENT TALK SERIES FOR PRE-FINAL YEAR STUDENTS

Talk series on placement and training is being organized for pre-final year CSE students by CSE Student chapters of IEL, IEEE, CSI, ACM, ACM-W and MaxFlow (Codechef). The faculty coordinators are Dr. D. Venkata Vara Prasad, Dr. A. Chamundeswari, Dr. K. Madheswari, Dr. V. Balasubramanian, Dr. K. R. Sarath Chandran and Dr. N. Sujaudeen. Four talks have been conducted so far in which I got to listen and learn from my seniors about their placement preparation methods and their placement process. Each talk was extremely useful and covered various aspects and stages of the placement process in depth which will definitely help us in landing in our dream jobs.

The first talk was “Converting an Internship to PPO” (26/03/21). Through this talk I learnt the best practices which have to be followed during internships. The speakers shared their intern interview experience and intern projects. This talk has motivated me to do my internship in a professional and systematic manner. The second talk was “Profile Building” (29/03/21) which provided great insights on how to make the best first impression during interviews. It also focussed on what has to be done to build a good profile and how it has to be done. The third talk was on “Cracking coding and design interviews” (31/03/21) which covered the hiring process in stages. Extremely useful coding practice materials were also shared. The fourth talk was “Crossing the first barrier: aptitude and coding” (02/04/2021). The best preparation strategies were elaborated in this talk. Company-specific preparation was also emphasised in this talk.



All the talks were extremely useful and informative. They were well-planned and well-organized. These talks helped us in opting efficient preparation methods and strategies for our placements.

I am thankful and grateful to all the speakers, namely Vignesh Suresh, Rohit Midha, Shraddhaa Mohan (Talk 1), Praveen Kumar R, Jyothishmathi C. V. (Talk 2), Dinesh S., Jayaraman N. R. (Talk 3), Bharathan G. and Amogh Gupta (Talk 4), who took their valuable time and effort to give the talk. I thank Dr. K. R. Sarath Chandran as well as other organizers and our department for organizing such useful talks.

Lakshmi Priya B, III Year

AN INSIGHT INTO MATHEMATICAL MODELLING IN INFORMATION AND COMMUNICATION ENGINEERING (MMICE)

We have conducted a two day national workshop on “An insight into mathematical modelling in Information and Communication Engineering(MMICE)” during March 26 & 27, 2021 jointly organised by Department of CSE and Mathematics. The resource persons are Dr. Venkatesh V, CMI, Chennai, Dr. Lavanya Selvaganesh, IIT(Bhu), Dr. Venkatesh K. A, Myanmar Institute of Technology, Myanmar, Dr. S. Sheerazuddin, NIT Calicut, Mr. Shahul Hamead, SSNCE and Dr.Meenakshi Paramasivan, Univ of Trier, Germany.

Nearly 60+ participants all over india both from engineering and humanities background attended the workshop. Most of them were faculty members. Participants had given very good feedback. All the sessions were very informative and had given insight into mathematical modelling.



Dr. Chitra Babu



Dr. Lavanya Selvaganesh



Dr. Venkatesh Vinayagarao



Dr. K. A. Venkatesh

We would like to thank SSN Management, the Principal, Dr. Chitra Babu (HOD-CSE) and Dr. P. Venugopal (HOD-Maths) for having given their full support to organize the event successfully.

Conveners of MMICE

Dr.S.V.Jansi Rani, Dr.R.Sundareswaran, Mr.Shahul Hamead

SSNCE

FDP ON CYBER SECURITY

AICTE Training And Learning (ATAL) Academy online FDP on “Cyber Security” was organized by Coimbatore Institute of Technology (CIT) from Feb 8, 2021 to Feb 12, 2021. The sessions were interesting and provided an insight into cyber systems, block chain technologies, hacking tools and different types of malware. The FDP started with the guidance on career development and we gained ideas on how a team should work towards a goal. A team can be successful if it is a group of "Many Hands and One Mind". The different types of cyber threat and cyber attack were discussed. It was also elaborated how a secure software development life cycle (SSDLC) would help in protecting the organization from such threats and attacks. The absolute need of cyber forensics was explained, where preserving the evidences is considered to be more challenging in the field of cyber forensics. A brief introduction about the cyber physical systems in IoT (Internet of Things) applications were discussed. Low latency and high accuracy are the main factors to be considered in the next generation cyber physical systems. The security and privacy issues in modern health care systems were also elaborated.

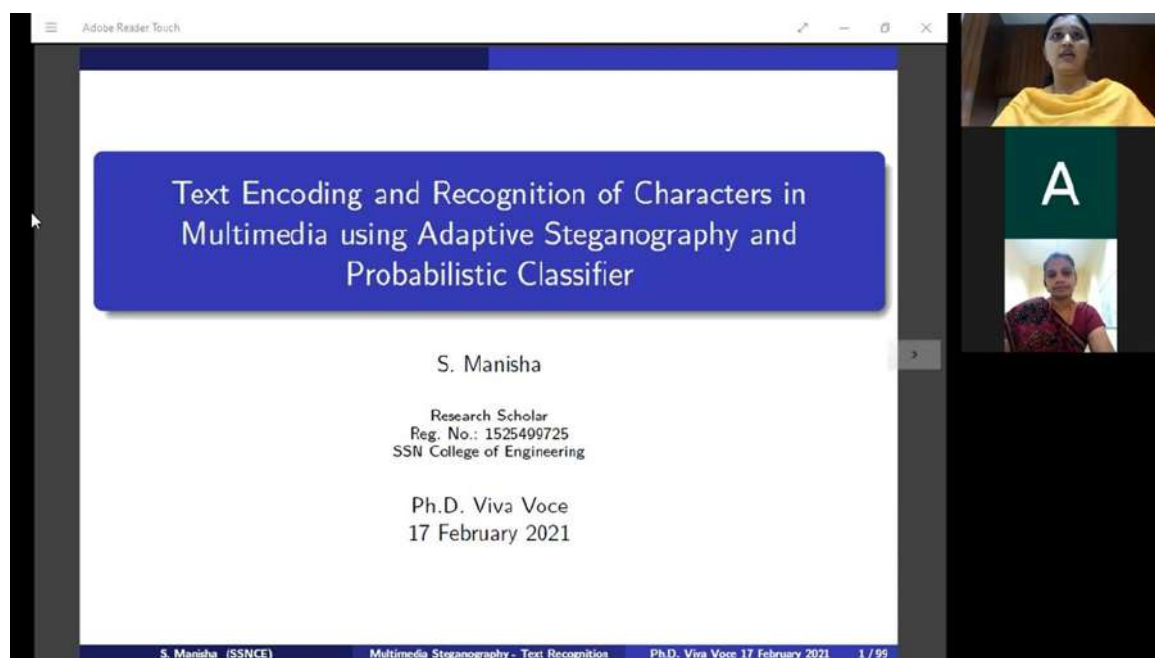
There were a few sessions in the FDP that provided sophisticated knowledge about the different hacking and protection tools that are freely available. The session on how machine learning, blockchain and IoT make a perfect fit was very interesting. The major challenges and vulnerabilities present in cyber security were discussed from a networking perspective. A brief introduction about MQTT, a standard messaging protocol for the IoT, which is ideal for connecting remote devices with a small code and minimal network bandwidth was useful and its demonstration with a case study was helpful. The FDP ended with the human values and standard operating procedures to be followed in the viewpoint of cyber security. The practical applications of IoT and the requirement of cyber security in IoT were deliberated. The need of block chain technology in FinTech application (Banking & Insurance) and its working were highly elucidated. The FDP went well with the experts invited from prestigious organizations and the talks by the Entrepreneurs added more value to the FDP. On the whole, the FDP was extremely beneficial and informative.

M. Saritha
Assistant Professor

REALIZATION OF A DREAM

I successfully defended my thesis on “Text Encoding and Recognition of Characters in Multimedia using Adaptive Steganography and Probabilistic Classifier” under the guidance of Dr. T. Sree Sharmila, Associate Professor, Department of IT, SSN College of Engineering. The public Viva Voce Examination was held on 17.02.2021 in the IT Seminar Hall and via Zoom.

My Oral Board Members were Dr V N Manjunath Aradhya, Professor & Head Department of Computer, JSS Science and Technology University, Mysuru (Indian Examiner) and Dr. Sheeba Rani, Associate Professor, Department of Avionics, Indian Institute Space Science and Technology, Trivandrum, Kerala (Subject Expert).



My thanks and gratitude to my Supervisor Dr. T. Sree Sharmila for her constant motivation, guidance, and encouragement. My sincere thanks to all my DC members for their continuous support and valuable suggestions throughout the duration of the research.

My heartfelt thanks to Dr. Chitra Babu (HOD/CSE) for her words of advice and encouragement. I thank our Principal and the SSN Management for providing the required environment to complete my research work. I also thank my colleagues and family members for supporting me in realizing this dream of mine.

Ms. S. Manisha
AP/CSE

TRAINING IN CYBERCRIME ESSENTIALS FOR TAMILNADU SUBINSPECTORS OF POLICE

The Department of Computer Science and Engineering had organized a six day Intensive Training Programme on the Basics of Cyber Crime Investigation for the Sub-Inspectors of Police, Cyber Crime Wing, Tamil Nadu. 183 Sub Inspectors underwent this training in three batches: between 25th-29th January 2020; 3rd-8th, February 2020 and 24th-29th February 2020. These sub-inspectors are currently serving in Cyber crime wing across the State. This has been featured in "The Hindu" on Feb 10, 2021.

<https://www.thehindu.com/news/cities/chennai/engineers-in-uniform-ropped-in-to-crack-cybercrime-cases/article33796737.ece>



The screenshot shows the top portion of a news article on The Hindu website. The header includes the newspaper's name, social media icons, and a navigation menu. The article is categorized under 'CHENNAI' and 'CITIES'. The title is 'Engineers in uniform roped in to crack cybercrime cases' by S. Vijay Kumar. The byline indicates the article was published in Chennai on February 10, 2021, at 01:49 IST, and was updated at 08:52 IST.

They will be deployed across State; cyber forensic tools to be procured from C-DAC

Cybercrime investigations are set to scale new heights in Tamil Nadu with the State police identifying as many as 185 young sub-inspectors, mostly graduates in Electronics and Communications Engineering, and hundreds of graduate police constables for deployment in cybercrime police stations in all cities/districts.

The sub-inspectors, currently serving in districts across the State, volunteered to join the **core team that was trained in advanced investigation skills in cyber offences as part of an initiative carried out in association with IIT-M and SSN College**. They would be posted to the 46 cybercrime police stations notified by the State government on Monday.

ISO 9001:2015 INTERNAL AUDITOR TRAINING PROGRAM

Dr. D Thenmozhi and Dr. K. Madheswari attended a two days training program on "ISO 9001:2015 Internal Auditor Training Program". This program was conducted in online mode on 24th and 25th Feb2021 from 8.15 am to 4.00 pm on both the days through Microsoft Teams Platform. This program was conducted by TUV NORD Training Academy India Pvt Ltd. The trainer Mr.Bhaskar conducted the program interactively in a tireless manner. Training material was provided ahead of time for the pre training preparation. Several small quizzes were conducted during the training. Finally, the training ended with an exam.

CODE-NOVICE

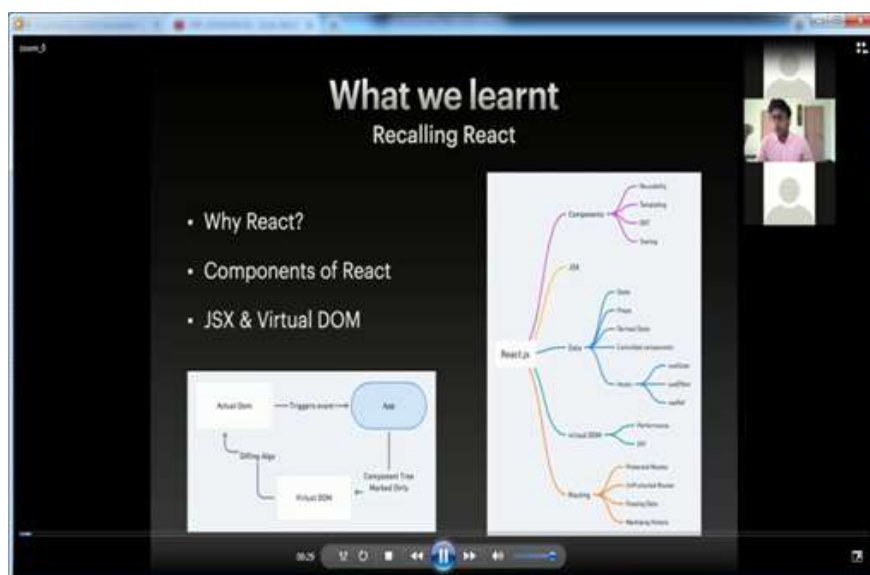
SSN ACM-W student chapter organised "CODE-NOVICE" a coding competition for Python enthusiasts, exclusively for the first-year students at SSN on 6th March 2021. The competition tested programming skills at a beginner level and promised to be a great way to start a journey in competitive coding.

The competition commenced at 6pm on 6th March and lasted 60 minutes. The participation from the student community was overwhelming and the winners took home handsome cash prizes. Matthew Jonathan G the Winner of Code-Novice was awarded Rs 1000/- and VIGNESH BALAJI S the Runner Up was awarded Rs 500/- as cash prizes from Dr Chitra Babu Head of Department Computer Science and Engineering, SSNCE.

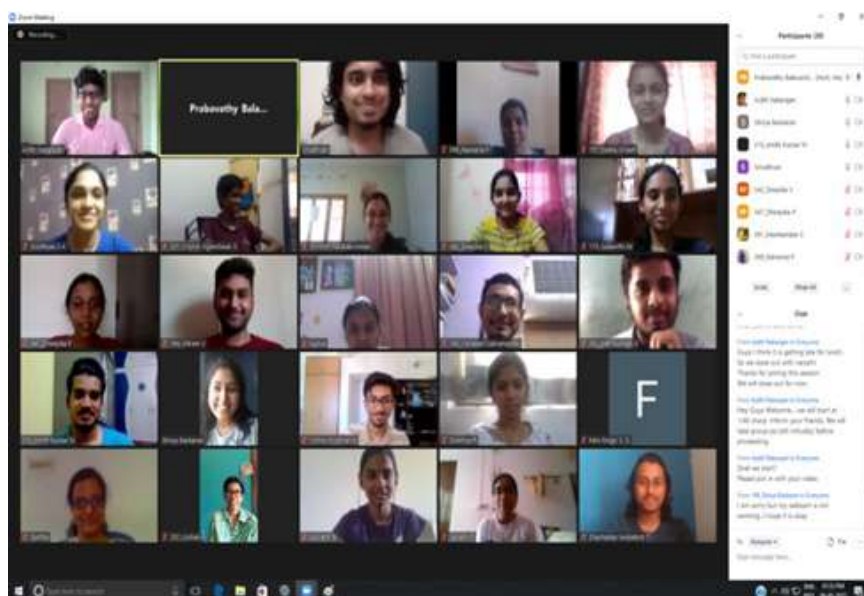


VIRTUAL WORKSHOP ON INDUSTRY ESSENTIALS & DEMYSTIFYING REACT

A virtual workshop on "Industry Essentials & Demystifying React" was organized by Dr. B. Prabavathy, Dr. V. S. Felix Enigo and Ms. M. Saritha during 5 - 6 March, 2021. The workshop aimed at aspiring frontend engineers and budding software developers. The main focus of the workshop was imparting the basics of React.js by taking a deep dive into JavaScript and building interesting frontend applications. The workshop also added a keynote for the striving professionals to kick-start their career by working at startups. The two-day workshop was completely engaged by our enthusiastic alumnus, Mr. Arjith Natarajan, Lead Software Engineer at Butlr Health - A Mental Wellness Company.



The first day started with the keynote address, delivered by our HoD, Dr. Chitra Babu. She gave a brief overview of the workshop which was followed by the speaker introduction by Dr. B. Prabavathy. The first session "Zeros & Ones for SDEs" insisted the most important part of the industrial essentials, the technical and soft skills that are needed for a job seeker to be successfully hired in any software industry. The next session covered the basics of modern JavaScript ES6 which included the terminologies used. Afternoon session started with the introduction to React and deep dive into the Components of React which are vital to build any React application, and was delivered in a hands-on fashion.



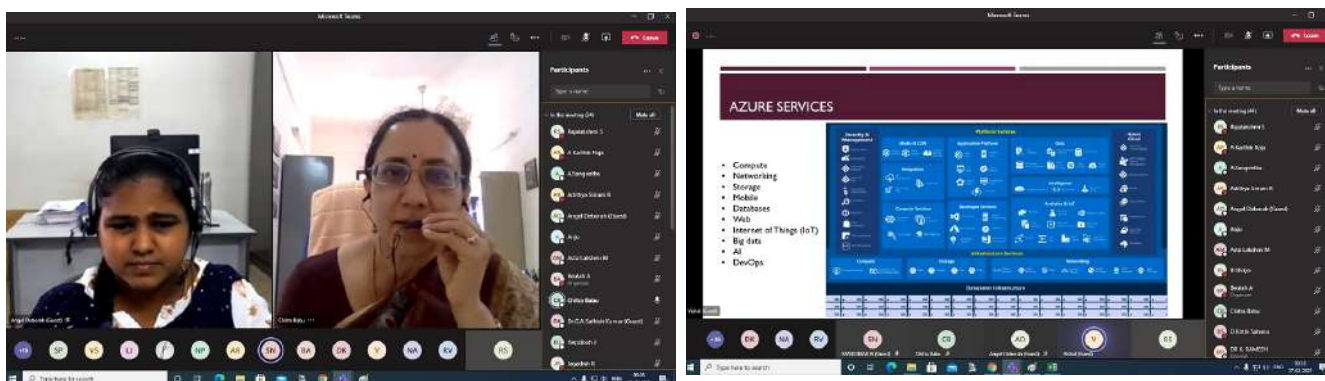
On the second day we had a session on Version control system, GIT which is one of the industrial essentials that allows source code management. It enables to track changes in the files that are being used and worked by multiple people in a project. The subsequent session covered the important concepts in React such as React Hooks and constructing cells and rows, with a hands-on application. The last session of the workshop ended with the important aspect of how to make the first move in a startup. The speaker shared his experiences of working in a startup and briefed the participants, the advantage of working in the startup. Ms. M. Saritha initiated the feedback session and it was found that all the participants were fully satisfied with the workshop and they demanded to organize such kind of workshops in the future too. Finally, the workshop ended with the vote of thanks delivered by Dr. V. S. Felix Enigo. We express our heartfelt thanks to our department staff, student volunteers and the management for their support in organizing the workshop.

Dr. B. Prabavathy
Dr. V. S. Felix Enigo
Ms. M. Saritha

WORKSHOP ON "WORKING WITH MICROSOFT AZURE"

The Department of Computer Science and Engineering organized a workshop titled "Working with Microsoft Azure" on 27th February 2021. The workshop was organised by Dr. A. Beulah, Ms. S. Angel Deborah and Ms. S. Rajalakshmi. The workshop had three sessions and witnessed around 60 participants from different institution across the state.

Dr. Chitra Babu, Head of the Department and Convener of the workshop spoke the introductory words about the workshop during the first session. Following which Ms. S. Angel Deborah introduced the speaker Mr. Vishal Ramaswamy, Senior Data Analyst, Saint-Gobain Research, India to the participants. Mr. Vishal, Alumni student of our department spoke on introduction to Azure. He gave complete picture about the features of Azure along with handson. In particular he talked about Azure services, Azure resources, Azure logic app, Azure functions, Azure storage, Azure databricks and cost analysis.



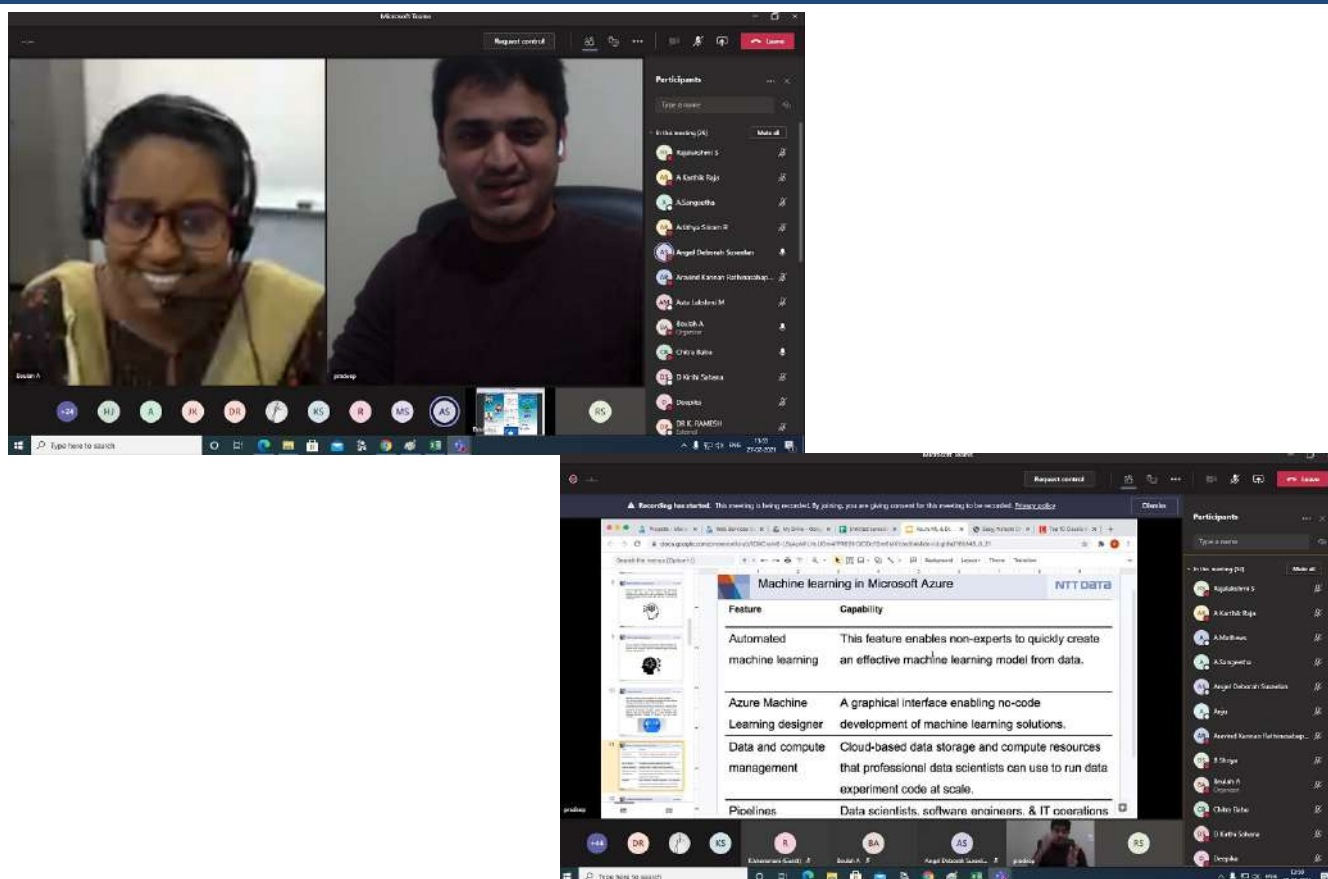
Mr. Vishal Ramaswamy



Mr. V. Riju John



Mr. Pradeep M



After the introductory session, Ms. S.Rajalakshmi introduced Mr. V. Riju John, Business Intelligence Specialist, NTT Data In., Charlotte, North Carolina, USA for the next session. Mr. V. Riju talked about intelligent decision making through modern data warehousing on Azure platforms. He discussed in detail about traditional data warehouse and modern data warehouse. He also demonstrated copying data from Blob to Azure SQL database. During the final session Dr. A. Beulah introduced the speaker, Mr. Pradeep M, .NET Tech Lead, NTT Data Inc., Charlotte, North Carolina, USA. Mr. Pradeep elaborated industry oriented Azure functionalities with ML and DL. The participants highly appreciated the workshop content and the speakers talk on Azure.

We would like to thank our management, Principal and Head of the Department for providing us the necessary support in organizing the workshop.

Dr. A. Beulah
Ms. S. Angel Deborah
Ms. S. Rajalakshmi
AP/CSE

VICE CHANCELLOR OF SNU - VISIT TO DEPARTMENT

Dr. S. K. Bhattacharyya, The Vice Chancellor of Shiv Nadar University, Chennai visited our department at 2:30 PM on 17th March, 2021. Our Head of the Department, Dr. Chitra Babu made a presentation about the department. Following the presentation, Dr. Bhattacharyya viewed the various projects demonstrated by our students, research scholars and faculty members.



ACCESS GRANTED - 2ND CYBER SECURITY WORKSHOP

ACCESS GRANTED- The second cyber security workshop was conducted by Arunesh Kumar, Christina Eunice John and Joshua A, 3rd year students from CSE 'A' under the guidance of Dr. A Chamundeswari. The full day workshop was held on 25th of March 2021. This semi-interactive workshop featured speakers who hold prominent roles in their respective fields and alumni from our college. The workshop had 21 enthusiastic participants.

The workshop was split into two sessions - The first session was kicked-off by Mrs. Subha Chandra, an engineering leader with 12 years of experience in Enterprise Software and worked in companies like HP, VMware, Juniper Networks and Rubrik. She skillfully broke down the concepts of SDN - Software Defined Network by quoting her personal experiences on working with it.

The screenshot shows a Zoom meeting interface. On the left, a slide titled "About me" features a photo of a woman and a list of bullet points detailing her career:

- Started career in 1992 working for square-D.
- Break 93, Masters 94-95.
- In Silicon Valley industry from 1996.
- Involved in SDN and precursors of SDN from 2008.
- Worked directly with Martin Casado and Teemu Koponen and Bruce Davie in VMware.
- Worked directly with APIC Cisco team.
- Worked directly on the QFX series from Juniper networks.
- Currently pursuing an idea in EdTech.

On the right, a slide titled "Healthcare Eco System In United States" displays a circular diagram with "Patient" at the center. The diagram is divided into four quadrants:

- Prescriber:** Patient Confidentiality, Privacy.
- Provider:** Patient Confidentiality, Privacy, Reputation, Business Continuity.
- Payer:** Customer confidentiality, Reputation, Trade secret, Disruption.
- Product Mfg:** Product quality, Patient safety, Intellectual Property, Trade secret, Data Integrity.

 The diagram also includes icons for "Data, Device, Platform, Network" and "Insurance, Care".

The second speaker for the day was Dr. A Chamundeswari. Ma'am has organized various noteworthy conferences, reviewed for various journals and actively guides research students. She enlightened the students on the importance of network analysis in protecting one's network and she conducted an interactive demo for various networking tools like Mininet, Wireshark, hping, iperf and gnuplot.

The first session ended with a mini-CTF hosted by the organizers to introduce the participants to concepts like steganography, source code inspection and ciphers.

The second session was started, bursting with charisma, by Mr Raj Padhmanabhan. He is the currently the vice president of Information Technology at Paratek Pharmaceuticals and has previous experience in fields that link IT and Healthcare. Mr Padhmanabhan explained the importance of security in the Healthcare industry and how integral it is to secure data from attacks. He also urged the participants to take responsibility as computer science engineers to shape the future of software integrity.

Our next speaker was Mr Balashankar Nagarajan, an alumni of SSN College of Engineering and Network Security engineer at Barracuda Networks. He also received a CCNA Global cyber ops internship and has CCNA routing and switching and CCNA cyber ops certificate from cisco. He has interned in SISA Information security and Tevel Cyber corps limited as a security analyst. Mr Nagarajan elucidated about the Man-in-the-middle attacks followed by the types of Spoofing. He demonstrated ARP spoofing which included steps such as reconnaissance of the sample network, launching the attack, translating the ARP traffic and exploring basic cybersecurity tools.

Our final speaker for the workshop was Mr Dakshinamoorthy, a current 4th year student in the CSE department of SSNCE who interned at Aujas Cybersecurity as an SOC analyst. Mr. Dakshinamoorthy demonstrated how keyloggers worked, how dangerous they are and how easy it was to make your own keyloggers. He dutifully did remind us that these should be used in a closed environment and only to reverse engineer how to prevent being attacked by said software.

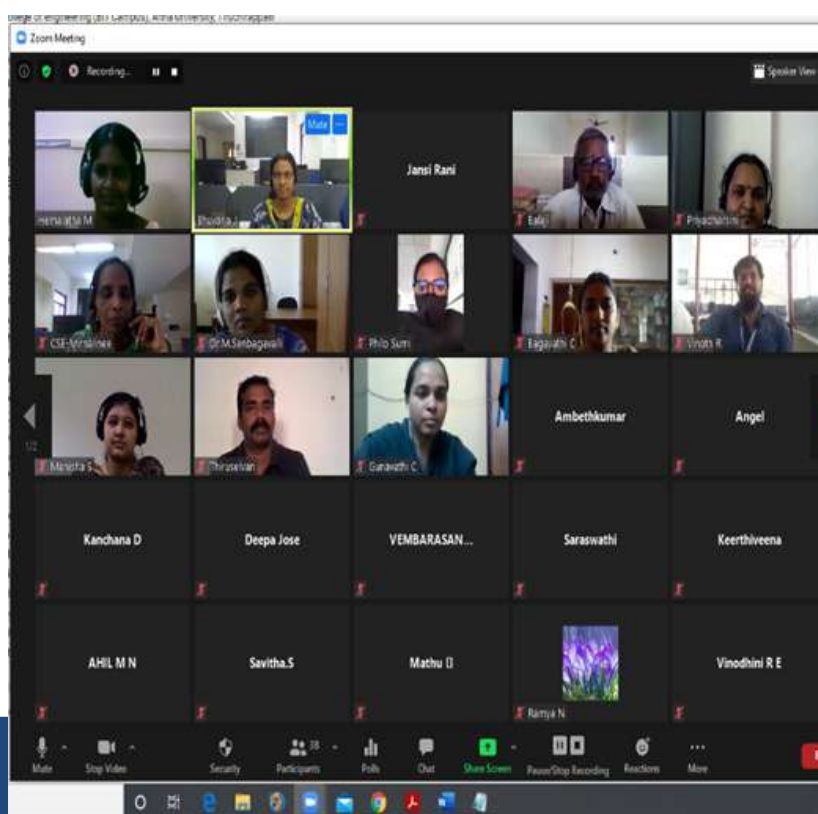
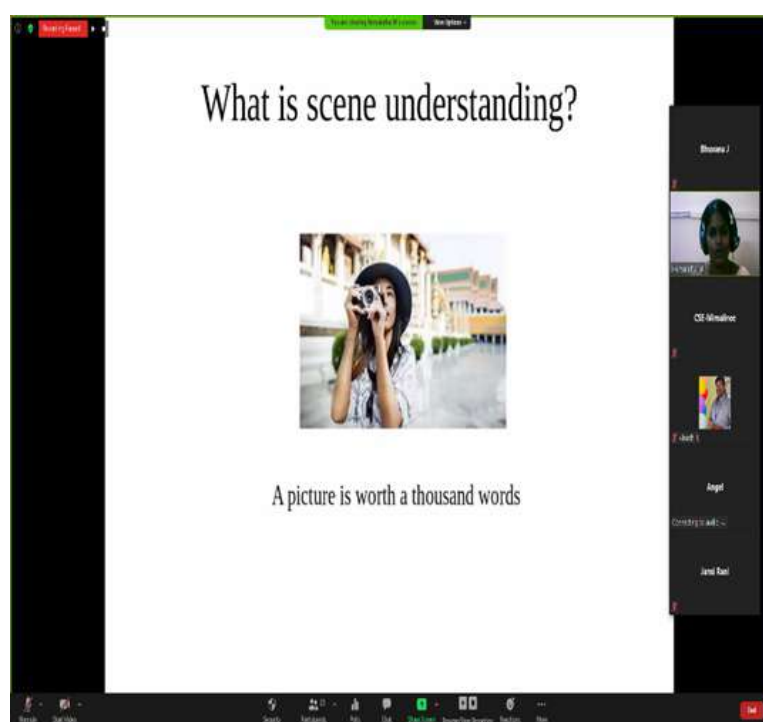
The workshop received strong positive feedback from the various participants.

Arunesh Kumar
Christina Eunice John
Joshua A

NATIONAL WEBINAR ON 'SCENE UNDERSTANDING USING DEEP LEARNING'

Department of CSE has conducted a 1-day National webinar on 'Scene Understanding using Deep Learning', on April 10, 2021, with Dr. Chitra Babu as Convener and coordinated by Dr. T. T. Mirnalinee Professor, CSE and Dr. J. Bhuvana, Associate Professor, CSE. The webinar received 122 registrations from all over India. 67 participants have attended the webinar. The participants include, faculty, research scholars and students of CSE, IT, ECE departments from various institutions. The first session is on Introduction to Machine Learning, handled by Dr. T. T. Mirnalinee, the second session was about the CNN for Image Classification with demonstration by Dr. J. Bhuvana. In the afternoon session, Ms. Hemalatha Assistant Professor, Department of Information Technology, Madras Institute of Technology, Anna University has handled about Video Captioning using Deep Learning with demonstration. All the three sessions were interactive and the webinar had received good feedback from the participants.

Dr. J. Bhuvana
Asso. Prof/ CSE



INTERNATIONAL CONFERENCE ON COMPUTING INTELLIGENCE AND DATA SCIENCE ICCIDS-2021

Department of CSE proudly hosted the Springer IFIP-AICT ICCIDS conference, 2021 during March 18-20. This was the first virtual conference of our department. The main objective of that conference was to help the researchers to connect the dots that mattered for them. The growth of data, both in structured and unstructured form presents challenges as well as opportunities for industries and academia over the next few years. With the explosive growth of data volumes, it is essential that real-time information that is of use to businesses must be extracted, in order to deliver better insights to decision-makers and to understand complex patterns in it.

God's greatest gift to human is, "intelligence". While Human Intelligence aims to adapt to new environments by utilizing a combination of different cognitive processes, Artificial Intelligence aims to build machines that can mimic human behavior and perform human-like actions. The human brain is analogous, but machines are digital. That is hard computing. On the other hand, Computational Intelligence is a new concept for advanced information processing. Computational Intelligence tools offer adaptive mechanisms that enable the understanding of data in complex and changing environments. Hence, learning Computational Intelligence in Data Science helps researchers to gain knowledge and skills in order to analyse, interpret, and visualize the huge volume of data which are complex in nature.

The building blocks of computational intelligence involve computational modelling, natural intelligent systems, multi-agent systems, hybrid intelligent systems etc. Data is the key ingredient for the development and enhancement of all intelligence based algorithms, and blockchain secures this data. Blockchain, IoT, and AI/CI can and should be applied jointly. One possible connection between these technologies could be that IoT collects and provides data, blockchain provides the infrastructure and sets up the rules of accessing those data, while the computational intelligence optimizes the processes and rules. The theme of the conference was to explore the Computational Intelligence and blockchain technology and how they could be used together.

A few topics of interest of that conference includes, Blockchain based AI and cloud

computing, social networking, crowdsourcing and crowdsensing, Deep learning in image processing, natural language processing and speech processing. ICCIDS-2021 conference provided an opportunity for the researchers to virtually meet and discuss the latest solutions, scientific results and methods in solving the fascinating problems in the fields of Big Data, Computational Intelligence and Block Chain Technology.

The conference programme included a pre conference workshop-session, along with prominent keynote talks and paper presentations. Mr. Sasikumar Venkatesh, Senior Software Engineer from Walmart Global Tech, Bengaluru, elaborated on the topic, How Deep Learning helps finding patterns in Time-Series data? – Exploring with Sparkling-Water (H2o.ai) during the pre-conference workshop on 18th March, 2021.

To enlighten the participants in this new era of Blockchain enabled AI, five keynote talks were arranged in which Dr Elizabeth Chang, Professor of Logistics and IT at the University of New South Wales, Canberra, Australia joined with us now to deliver her talk on the topic, “Enterprise Blockchain - Trust, Security and Privacy”. Dr. S.K. Bhattacharya, VC of SNU, Chennai joined us virtually during the inauguration of ICCIDS 2021. On 19th March, we had a keynote talk on the topic “Data Science for Social Good” by Prof. Ponnuram Kumaraguru, from IIIT Delhi. Followed by that we had another Keynote talk on the topic “Emerging Trends in Advanced Artificial Intelligence” by Mr. Vivek Singhal, Co-Founder & Chief Data Scientist, CellStrat, Bengaluru.

On 20th March being the third day of the conference, we had a keynote talk by Dr Garrick Hileman, Head of Research, Blockchain.com, from London. He shared his knowledge about “Cryptocurrency and Blockchain Technology: Past, Present and Future”. The next keynote talk was by Dr. R.K. Agrawal, Professor from Jawaharlal Nehru University, New Delhi on the topic, “Deep Learning Models for Medical Image Analysis”. Along with those 5 keynote talks, we also had paper presentation sessions in which 20 papers were discussed which paved the way to explore new ideas in the fields of blockchain, data science and computational intelligence. We were happy that ICCIDS’21 served as a forum to present the current works as well as to exchange research ideas in those fields.

Dr. K. Vallidevi

Dr. J. Suresh

Dr. S. Saraswathi

Dr. R. Kanchana



GREENTECH-VANDEBRON-2021

Climate change is one of the many pressing challenges our society is currently facing. Vandeboron, a Dutch based company, which is a greentech innovator and a leader in development of technologies that aid in transistion toward Renewable Energy, organised a three-day remote GreenTech hackathon for bringing out innovative solutions that can help tackle climate change in the future. The event was held during the 31st of March spanning over three days till the 2nd of April. My team consisting of my friend Sudiksha R from EEE department and myself participated in the event and won under Hack-The-Planet challenge.

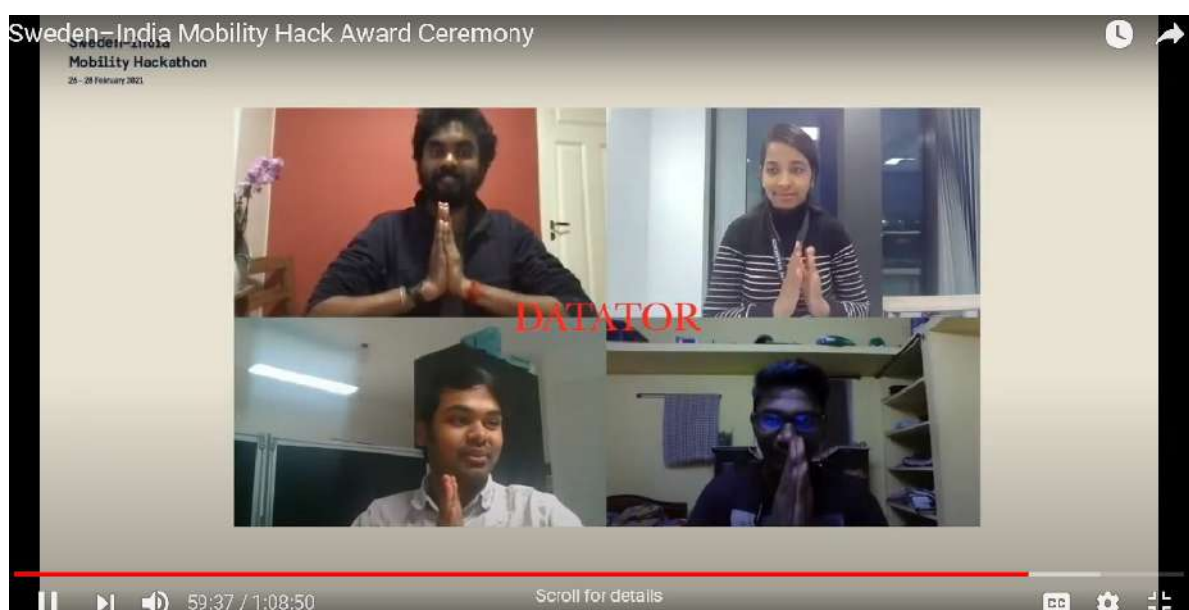
It was an enriching experience and we got the opportunity of interacting and brainstorming with people from across the globe. There were over 80 teams that participated in the hackathon after the preliminary selection stage. There were two rounds in the event, the first round being the one wherein we were evaluated based on the creativity level of the idea and its implementation feasibilty after which top six teams were chosen for the final face-off. The final round was a 5-minute pitch of our approach towards the problem statement, which we had to present before the panel of judges. Our idea of overcoming the proposed problem impressed the creator of the problem statement and we were lauded for our approach towards the problem. The winners for the challenges were chosen based on decision of the panel of judges, the creator of the problem statement and also based on public voting. We were awarded a cash prize of hundred dollars along with offer coupons and gift cards. We were cock a hoop after hearing the results and the thought that we were able to contribute something towards a Sustainable Future motivated us. Participation in the event gave us a lot of exposure and helped us realise the various issue that one comes across while actual implementation of the proposed solution concept. We realised that our passion towards contributing to a green future was the one that fuelled us to win and that teamwork combined with passion can make anything possible.



Madhumitha S
3rd year

SWEDEN-INDIA MOBILITY HACKATHON

We, Team Datator, comprised of myself Chaithanya A, Balaji Nagaraj Kumar- our alumni, Deepasundar Ponnuswamy and Jhyoshika Singaravadivelu are very excited to say that we are the winners of the Sweden-India Road Safety Hackathon – 2021 that was conducted online. There were no prizes awarded for the winners in the event, rather we are connected with companies to materialize our ideas. The hackathon had teams competing on different topics. We chose “Infrastructure for connected vehicles”. We are in constant touch with Ericsson and MobilityX Labs to move the idea forward. For now, we are discussing the architecture of our product, the business model and the development process.



Balaji Nagaraj Kumar
SSN Alumni



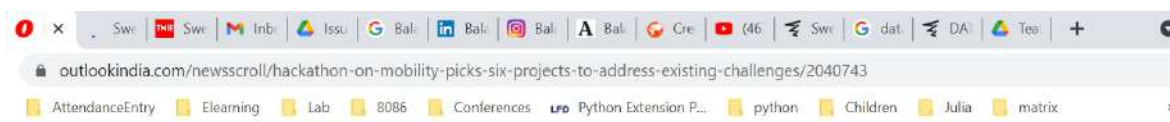
Chaithanya A
III yr CSE

Datator is the requirement of this information era. Its main focus is on privacy - the privacy of the data of the user in the car. It provides total control to the user on the data that's being shared from the car and hence the user can control the data that's being sent from the car. We provide the users with an interface in the car that constantly shows them what data is being sent from the car and what data is benign received by the car. If the user finds that some sensitive data is being sent to somebody, then the user can turn it off. When the user turns the toggle off for a particular data, the data will not be sent from the car anymore. Thus it gives the user the freedom to choose what data to share and what not to. This also makes it easier for the companies because now the data is being shared with the total consent of the user, so any questions about misusing data without the knowledge of the user becomes irrelevant.

We are very much excited in moving this idea forward along with big leading companies in the market. A small preview of the user interface:



The event has been narrated in several news articles. The news in outlook is given in the next page.



Outlook

THE NEWS SCROLL

04 MARCH 2021 Last Updated at 9:04 PM | SOURCE: PTI

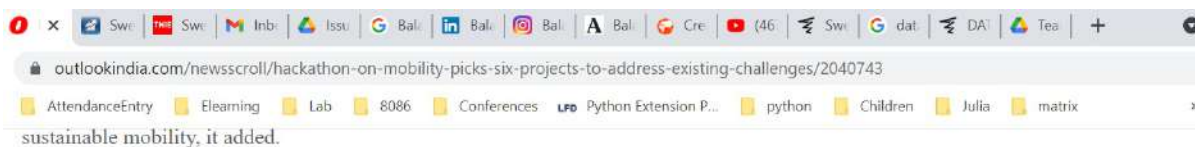
Hackathon on mobility picks six projects to address existing challenges



New Delhi, Mar 4 (PTI) A pedestrian road cross assist system, a super-fast modular charger and intelligent battery management system for electric vehicles and a Co2 calculator for smart vehicles are among the six winning solutions pitched during a Sweden-India digital hackathon on mobility, according to a statement from the organisers.

The virtual award ceremony of the February 26-28 "Sweden-India Mobility Hackathon: Changing the way we move!" took place on Wednesday. It was attended by Minister for Road Transport and Highways Nitin Gadkari among others.

Over 500 participants -- students, entrepreneurs, innovation enthusiasts, developers, designers, creative professionals, and mobility experts -- from across Sweden and India worked closely with more than 76 mentors to develop solutions to the future challenges of sustainable mobility, it added.



The awards, divided in six categories, were for pre-determined challenges such as "lethal accidents in traffic", "safe transport", "sustainable transport", "emissions from the traffic sector", "infrastructure for connected vehicles", and "sustainable logistics".

"It gives immense pleasure to send the message on the occasion of the event Sweden India Mobility Hackathon changing the way we move organised by the Swedish Institute. The mobility Hackathon is an innovative initiative which reflects how Sweden and India can continue to work together and collaborate not just at a government level but with a broad range of stakeholders," said Gadkari.

The event had a 48-member jury comprising experts under the specified challenge areas.

"The Accident Predictor" as a solution to safe transportation by collecting historic accident data from the authorities and alerting the drivers about accident-prone roads and the **Infrastructure for connected devices through DATATOR** which addresses the importance of data integrity are the other winning projects from the hackathon.

According to the organisers, the winning teams will get an opportunity to collaborate with major Swedish and Indian companies/institutes to further develop their ideas and implement the solutions.

A special bonus prize called "The Hackathon Spirit" was also given during the event, they added.

"I would like to thank the Swedish Institute, all our partners and the participants for making the Sweden-India Mobility Hackathon a resounding success! The Hack provides an opportunity for creative and innovative young people to take the lead and find solutions to one of greatest challenges of today and tomorrow," said Klas Molin, Ambassador of Sweden to India.

--Chaithanya A
III yr CSE

VALUE-ADDED COURSE ON DEEP LEARNING FOR NATURAL LANGUAGE PROCESSING

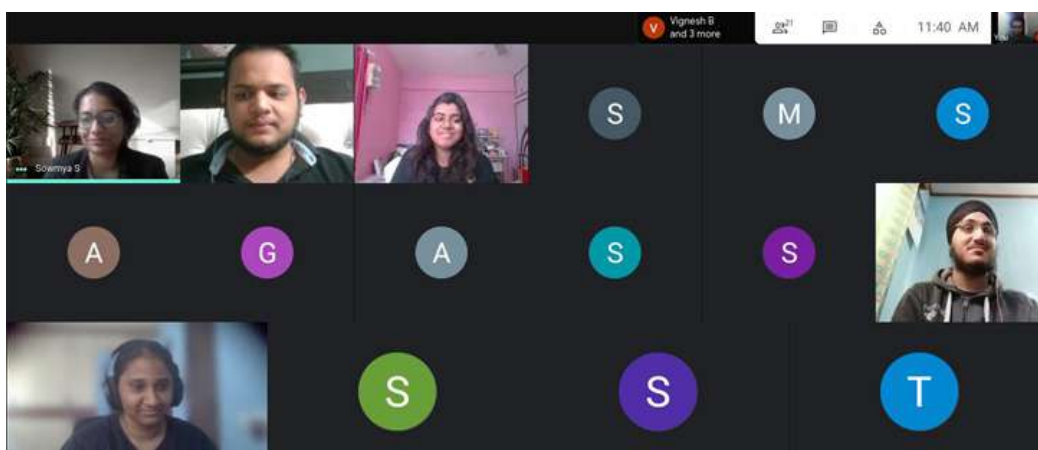
I had the benefit of attending the value-added course on Deep Learning for Natural Language Processing(DL for NLP) offered by our department and handled by Dr. Sowmya Sundaram, Research Intern at L3S Research Centre, Leibniz University Hannover, Germany. The course was conducted over multiple Saturdays from 6th March to 24th April 2021.

We learnt about the basics of deep learning, and how it could be effectively used for NLP. It was a very extensive course that took care of most aspects in the field, while giving concise and essential math that went behind the working of the models. The course gave us an overview of various approaches to represent input text for learning a model and how these approaches affect the end result. As part of the assessment, the course had a very intuitive set of question papers in MCQ format and a coding assignment, both of which required an in-depth understanding over and beyond what was being explicitly covered in the sessions.

The course was a very productive learning experience, and facilitated many of the attendees towards improving their knowledge in the fields of Deep Learning and Natural Language Processing. I would like to thank the department for arranging such useful value-added courses on emerging technical topics.

Shivanirudh S G

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