VOLUME: 9
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SMRITI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SNEAK PEEK

HOD'S DESK

It has been almost a year and half since we all got transported to this virtual world. All the students being reduced to small squares that are part of the grids in Zoom or Microsoft Teams, is rather difficult to handle. I sincerely wish and hope we all soon will be getting back to physical mode of classes and the college will get its vibrant atmosphere with all our lovely students back in the campus.

Amidst all the current challenges, I also have a good reason to be happy. ACM India has come up with an Expert Teacher Program which essentially matches an experienced faculty member from one of the eminent institutions to a other institutes to teach a core course partially to improve the Teaching quality in terms of pedagogy and assessment. In its maiden launch, our fifth semester core course, "Introduction to Cryptographic Techniques" has been assigned Prof. R. Ramanujam from the Institute of Mathematical Sciences. It is an amazing opportunity for our students to learn the subject in depth from such an excellent teacher and also for our faculty members to interact with him to raise their knowledge level.

I appreciate Mirunalini and Beulah for successfully organizing the Anna university sponsored Faculty Development Training Program on "Theory of Computation". It received very good feedback from all the faculty who attended the program. I also appreciate Kanchana, Valli and Lokeswari for organizing the workshop on analyzing streaming data with hands-on sessions for our students. I thank our alumnus Sasikumar who has been continuously supporting us in offering this workshop every year. I commend Sujaudeen, Sarath and Madheswari for organizing several sessions that are useful for the students in terms of their placement, higher studies and career planning.

Hearty congratulations to Mirunalini for getting her patent sanctioned. I sincerely wish that there will be a lot more of this from all of our faculty.

During this summer, our department faculty members offered internship projects to students from other colleges. This seems to have received a very good response from several colleges.

The placement season has started with a bang for our students. Congratulations to Vrishin

Vigneshwar who has received a coveted job offer from Motorq as well as Venkataraman and Avinash Kartik who have received the prestigious job offers from Google. My hearty wishes to the third-year students who have received internships from these companies. I also congratulate students who have been placed in Citi Bank and Virtusa.

My appreciations to ACM and ACM-W faculty mentors, office-bearers and volunteers for organizing lots of useful programs for the students. Keep up the spirit and aim for getting the best Chapter award from ACM India.

I appreciate all the faculty members for constantly reinventing themselves by employing innovative ways to keep the students engaged in this online mode of handling classes and lab sessions. I request the students to be more responsive and interactive to make the best out of the current scenario.

Together, let us strive to achieve significant new milestones.

Dr. Chitra Babu
HoD/CSE

FACULTY ACTIVITIES

1. **Dr. D. Thenmozhi**, joined the associate editor team for ACM-TALLIP (Transactions on Asian and Low-Resource Language Information Processing) journal.
2. **Dr. K. R. Sarath Chandran**, set one question paper for Anna University, Chennai
3. **Dr. T.T. Mirnalinee**, served as BOS member AMET university.
4. **Dr. V. Balasubramanian**, attended academic Council Meeting on 24.5.21 & 25.5.21
5. **Dr. V. Balasubramanian**, attended Virtual Summer Internship for II & III year students initiative with Leankloud Solutions.
6. CSE SAR was successfully uploaded by **Dr. Venkatavara Prasad, Dr. J. Bhuvana, Dr. D. Thenmozhi , and Dr. R. Priyadharsini,** in NBA portal on May 7, 2021. It was reviewed by **Dr. Chitra Babu, Head CSE and Dr. T. T. Mirnalinee.**
7. **Dr. R. Kanchana** received extension for her BIRAC funded project till 30th Sep 2021.
8. **Dr. Kavitha S and Sheerin Sitara N (Scholar),** Participated in ImageCLEF 2021 - Visual Question Answering (VQA) challenge and achieved 10th position.
9. **Dr. B. Prabavathy and Dr. K. Lekshmi**, participated in SnakeCLEF 2021: an image-based snake identification task and secured the sixth position in the leaderboard In the team name of SSN-LifeClef2021.

10. **Dr. P. Mirunalini** participated in LifeClef 2021 - SnakeCLEF 2021: an image-based snake identification task.
11. **Dr. D. Thenmozhi** presented the progress of DST funded project in Group Monitoring Workshop of EMEQ Engineering Sciences on 28th July 2021.
12. **Dr. D.Venkatavara Prasad,** Attended 5th virtual Board of Studies meeting of the Department of Computer Science and Business Systems at Rajalakshmi Engineering College on 23-6-2021.
13. **Ms. S. Angel Deborah**, acted as the Mentor and Evaluator during round 1 of Toycathon 2021 organized by organized by Ministry of Education's Innovation Cell with support from All India Council for Technical Education, Ministry of Women and Child Development, Ministry of Commerce and Industry, Ministry of MSME, Ministry of Textiles and Ministry of Information and Broadcasting during 22-23June 2021. She also acted as an Evaluator in power judging round for Toycathon 2021 Grand Finale on 24th June 2021.
14. **Dr. R. Kanchana** attended the Launch & Orientation of Young Warrior Movement for AICTE affiliated institutions on 12th Jul 2021 initiated by YuWaah and UNICEF.
15. **Dr. J. Bhuvana** served as evaluator for Toycathon-2021 Grand Finale on 22, 23 June 2021.
16. **Dr. J.Bhuvana** served as external examiner for final year B. Tech SWE, project viva voce on 31-05-2021.
17. **Dr. S.V. Jansi Rani,** acted as Judge for power judging round 3 and Evaluator for round 1 and 2 in Toycathon 2021 conducted by Ministry of Education's Innovation Cell and AICTE June 22 -23, 2021.
18. **Dr. T.T. Mirnalinee**, served as an Examiner for M.Tech Viva voce of IST Department of Anna University, Chennai.
19. **Dr. T.T. Mirnalinee,** served as examiner for BTech viva voce in the Department of IST, Anna University.
20. **Dr. G. Raghuraman** invited as External Examiner for the Viva – voce Examination for Project Work Dissertation II (MM5411) of M. Tech IT (Specialization in Multimedia) on 11.06.2021.
21. **Dr. G. Raghuraman,** attended the Comprehensive DC Meeting of Mr. T. Venugopal, Research scholar of Dr. Radhika, Sathyabama Institute of Science and Technology, Chennai on 29.06.2021 at 11.00 A.M.
22. **Dr. V.S. Felix Enigo,** attended AICTE-NEAT online interaction with Chief

Coordinating Officer regarding training program proposed by Tableau in association with NEAT Cell.

23. Panel Discussion on Data Science (ML&DL) Applications in Computer Vision, Cyber Security, Natural Language Processing, Speech Processing. Panel Moderator: **Dr.R.S.Milton, Panel Members: Dr.T.T.Mirnalinee, Dr.A.Chamundeswari, Dr.D.Thenmozhi, Dr.B.Bharathi .** The event is organized for SSN-Research Internship students of CSE department. Totally 18 CSE Intern students participated the event which is organized by Mr. B.Senthil Kumar, AP/CSE Internship coordinator.
24. **Dr. Chitra Babu** attended the ACM India Internal engagement committee meeting on 5th June 2021, to discuss the activities of various ACM SIG professional chapters in India.
25. **Dr. T.T. Mirnalinee and Dr. R. Kanchana** represented the CSE department to present an overview about the department and interact with the applicants of ME(CSE) programme as a part of virtual Open day on 23rd July 2021.
26. **Dr. R. Kanchana along with Dr. T.T. Mirnalinee, Dr. Sarathchandran, Dr. Jansi Rani and Ms. Lakshmipriya** prepared the video presentation for the applicants seeking admission for BE(CSE) on 3rd Jul 2021.
27. **Dr. D.Venkatavara Prasad** attended Ph.D On-line Viva-Voce Examination of Ms.V. Kavitha, Sathyabama Institute of Science and Technology.
28. **Dr. S. Saraswathi**, ASP/CSE attended the Synopsis meeting of Mrs. Nirmala.V, on 15/07/2021 at 10.00 A.M through online".
29. **Dr. D.Venkatavara Prasad** attended 13th meeting(virtual) of Board of Studies in CSE, Sri Vidyaniketan Engineering College,Tirupati.
30. **Dr. R. Kanchana** was requested to be the examiner for the NPTEL course on DBMS for the students of IIIT Una (HP) on 12th Jul 2021. She set the question paper and corrected the answer sheet.
31. **Dr. V. Balasubramanian** appointed as Doctoral Committee member @ VIT Vellore for a PhD Candidate and attended First DC Meeting for a candidate at VIT Vellore 30.7.2021.
32. **Dr. Chitra Babu** has been appointed as the syllabus subcommittee member on 2nd July 2021 for designing the curriculum for B.E(CSE), B.Tech(IT) and B.E(Computer and Communications Engineering) for the affiliated non-autonomus colleges for R 2021 under the discipline of Information and Communication Engineering.
33. **Dr. G. Raghuraman** attended the Doctoral Committee Meeting of Ms. Manjupriya, Research scholar of Dr. Anny Leema, Vellore Institute of Technology (VIT), Vellore.
34. **Dr. Chitra Babu** as ACM-W council member, attended the inauguration of the one week

summer school organized by ACM-W India and Micron on "IoT and Embedded Systems" for women students alone, on 7th July 2021.

35. **Dr. Chitra Babu** as Chair of ACM iSIGCSE Chapter, convened a meeting on 21st July 2021to discuss the format of the "Teaching Video Challenge" that has been floated for CSE and IT faculty members all over India.
36. **Dr. Chitra Babu** chaired a session by the speaker Sowrin Sarcar of Micron Systems in the one week summer school that was organized exclusively for women students, on 9th July 2021.
37. **Dr. Chitra Babu** attended the quarterly SCIPE meeting on 12th July 2021 to discuss the best practices in pedagogy and assessment by the faculty members of each department.
38. **Dr. Chitra Babu**, **Dr. T. T. Mirnalinee** served in one of the interview panels for selecting the students for SNU admission on 23rd July 2021.
39. **Dr. T. T. Mirnalinee** attended the workshop titled Building an Innovation/Product Fit to Market" held on 15.07.2021 under SSN-IIC.
40. **Dr. Chitra Babu**, **Dr. T. T. Mirnalinee** served in one of the interview panels for selecting the students for SSN admission on 30th July 2021.
41. **Dr. Chitra Babu** attended the VIII result passing board meeting on 15th July 2021.
42. **Dr. Chitra Babu** attended the IX result passing board meeting on 29th July 2021.
43. **Dr. T. T. Mirnalinee** served as a DC member for the Synopsis meeting of Mr. Raamakirtinan S , VIT Chennai.

R-2021 ACADEMIC COUNCIL MEETING

Dr. Chitra Babu attended the Academic council meeting on 24th and 25th May 2021. She presented the R-2021 curriculum/syllabi to the academic council members on 25th May 2021. She made a convincing case for the B.E(CSE) II semester course "Fundamentals and Practice of Software Development" to be offered as a Project based course. The academic council approved that the end semester assessment for this course can be done entirely based on team projects.

This course was designed by the department's curriculum committee comprising **Dr. Chitra Babu, Dr. R.S. Milton, Dr. T.T. Mirnalinee and Dr. R. Kanchana** based on extensive discussions with **Prof. Ganesh Samudr**a(who was earlier with the National University of Singapore). This course adopted the philosophy behind the I year "Engineering

Fundamentals and Practices(EFP) course that is being offered in NUS.

The academic council also appreciated the structure and formulation of courses under the Elective streams and Honors specialization(Artificial Intelligence and Machine Learning).

WORKSHOPS ORGANIZED

1. ACM-W SSN student chapter along with ACM-W SRM student chapter organized a coding competition "KLOC.EXE the CODEATHON!" using HackerRank on May 1,2021
2. Institution's Innovation Council (IIC) in association with ACM Student chapters of SSN, organized an interactive webinar on Typesense, an open-source, typo tolerant search engine on May 27, 2021 - 10:00 AM to 11:00 AM.
3. **Dr. R. Kanchana,** coordinated the event on "7th International day of Yoga Celebrations" for the faculty members and students on 21st June 2021. It was organized by Dr. Balaji, Director of Physical Education under Shiv Nadar University
4. **Dr. P. Mirunalini and Dr. A. Beulah** organized a Six-day online FDTP on "CS8501-Theory of Computation" co-sponsored by Center for Faculty Development, Anna University, Chennai held during 21-26 June 2021.
5. **Dr. R. Kanchana** coordinated a 3-day workshop on "Yoga for Respiratory Health and Immunity" for the first year NSS students of SSNCE organized by Dr. P. Kaythry, NSS Coordinator as a part of NSS activity, SSNCE during 11th-13th June 2021. 80 students participated and got benefitted.
6. **Dr. R. Kanchana** coordinated a 10-day workshop on "Yoga for health and Immunity" for the first year NSO students of SSNCE organized by **Dr. P. Balaji, Director of Physical Education** as a part of NSO activity, SSNCE during 1- 15 Jul 2021. 180 students participated and got benefitted. Shri. Gnanaprakash, Trained Hath yoga teacher from Isha Foundation, Coimbatore handled the sessions and around 160-180 students got benefitted.

ONLINE KNOWLEDGE BASE....

Ms. S. Manisha, Successfully completed a course on "Foundations: Data, data, everywhere" from Coursera.

WEBINARS ATTENDED/ ORGANIZED

1. **Dr. J. Bhuvana, Dr. V. Balasubramanian,** attended ACM India Education Webinar on "Steganographic Exfiltration and Obfuscation", on 29 May by Shyam Sundar Ramaswami, Senior Research Scientist with Cisco's Security Business Group.
2. **Dr. V. Balasubramanian,** ASP/CSE attended a webinar on Space Robotics conducted by IIC 3.0 (Institution's Innovation Council) SSNCE, IEEE ComSoc Student Chapter.
3. **Dr. J. Bhuvana, Ms.S.Rajalakshmi,** attended a webinar conducted by Institution's Innovation Council (IIC) in association with ACM Student chapters of SSN titled "Typesense, a lightning-fast, typo tolerant open-source search engine" by Jason Bosco and Kishore Nallan, Co-founders at Typesense Search, Alumni of CSE Dept./SSNCE on May 27, 2021.
4. **Ms. S. Rajalakshmi,** attended an orientation session on, "Introduction to Intellectual Property Rights (IPR), Types and Examples" organized by SSN-IIC on 19th May 2021.
5. **Dr. R. Kanchana** attended ACM India Education Webinar Series talk on "Competency Based Education: A Personal Perspective", by Abhiram Ranade, Past President of ACM India Council on 8 May 2021.
6. **Dr. R. Kanchana** attended International Webinar on "Evolutionary Learning and its Engineering Applications" on 21st May 2021. The speaker was Dr. Amir H. Gandomi Professor of Data Science and an ARC DECRA Fellow Faculty of Engineering & Information Technology, University of Technology Sydney, Australia. It is organized by GSSS Institute of Engineering and Technology for Women, Mysuru IEEE Student Branch in association with IEEE Bangalore Section and IEEE Mysore Sub Section.
7. **Dr. R. Kanchana,** attended the Webinar on Education, Research and Innovation: The changing roles of a twenty-first century university held on 28th May 2021, by Prof V Ramgopal Rao, Director, IIT Delhi. It was organized by Professional Activities Committee (PACE) of IEEE India Council.
8. **Dr. K. R. Sarath Chandran,** has participated in Xilinx webinar on Overview of Vitis Workflows for Zync Ultrascale+ MPSoC held on 17th May 2021 in association with Coreel Technologies and Xilinx.
9. **Dr. R. Kanchana, Dr. V. Balasubramanian,** attended a webinar titled Extra Mural Lecture Series on Nature and You - Coexistence on 26.6.21 at 11.30 AM.

10. **Dr. T.T. Mirnalinee, Dr. V. Balasubramanian, Ms. S. Rajalakshmi , Ms. S. Lakshmi Priya** attended a webinar titled Measuring and Enhancing Employability of Graduates of Engineering and Management Programmes" with Professor Prem Vrat, AICTE Distinguished Chair Professor on 17.06.2021.
11. **Dr. V. Balasubramanian,** attended a webinar titled "Prototype Validation - Converting Prototype into a Startup" 16th June 2021 (Wednesday): 11.00 am.
12. **Dr. R. Kanchana, Dr. G. Raghuraman, Dr. V. Balasubramanian, Ms. S. Rajalakshmi, Ms. S. Lakshmi Priya, Ms.S.Angel Deborah** attended a webinar titled Assessing research productivity and quality through citation analysis by Professor Prem Vrat, AICTE Distinguished Chair Professor on 10.6.21.
13. **Dr. R. Kanchana** attended a webinar on Climate Change Risk Management & The Education Sector hosted by IRM India Affiliate on 11th June 2021.
14. **Dr. R. Kanchana, Dr. G. Raghuraman** attended the Expert talk on "Quality Enhancement in Higher Educational Institutions" by Dr. Prashant R. Nair, Vice-Chairman, Internal Quality Assurance Cell (IQAC), Associate Professor, Dept. of CSE, Amrita Vishwa Vidyapeetham, Coimbatore on 18th June 2021. It was organized by IQAC –SSNCE.
15. **Dr. R. Kanchana** attended IEEE R10 Webinar Series - "IEEE R10TALK" on "Professional Ethics and Getting Ahead" by Terence Tan, Program Coordinator for Computing programmes at Curtin University, Malaysia on 26th June 2021.
16. **Ms.S.Angel Deborah** participated in the webinar on "Opportunities for students and faculties: early stage entrepreneurs " organized by Institution's Innovation Council of Sri Sivasubramaniya Nadar College of Engineering on 11th June 2021.
17. **Dr. K. R. Sarath Chandran** attended a webinar on "Performance Profiling on Arm Embedded Systems" organized by Doulos on 25/06/2021.
18. **Dr. V. Balasubramanian, Dr. K. R. Sarath Chandran** attended a webinar on "L&T EduTech's Engineers' Forum - Ensemble" organized by L&T on 25/06/2021.
19. **Dr. K. R. Sarath Chandran** attended a webinar on "Accelerating Deep Learning Models on Xilinx VCK5000" organized by Xilinx on 23/06/2021.
20. **Dr. K. Madheswari, Ms. S. Rajalakshmi,** attended a Panel Discussion: Data Science (ML&DL) Applications in Computer Vision, Cyber Security, NLP and Speech Processing

Time: Jun 30, 2021.

21. **Dr. R. Kanchana, Dr. K Vallidevi & Dr. Y. V. Lokeswari** organized a three days webinar on "Stream Data Ingestion and Processing" during 8, 9, 10 July 2021 through Google Meet virtual platform.
22. **Dr. Chitra Babu** hosted a National Webinar organized by the ACM India Council jointly with ACM iSIGCSE Chapter on "Data Science and Astrology: Is there any difference?" by Prof. Jayant Haritsa, IISc, on 17th July 2021. **Dr. R. Kanchana**, **Dr. G. Raghuraman and Dr. V. Balasubramanian, Dr. K.Madheswari** and **Dr. N. Sujaudeen** attended the same.
23. **Dr. R. Kanchana** attended the Online Interactive Lecture Series by Professor Prem Vrat, AICTE Distinguished Chair Professor on 23.07.2021. The Topic was NEP2020: Overview and Implementation Strategy.
24. **Dr. Chitra Babu** as Chair of the ACM India iSIGCSE Chapter, organized and hosted a National Webinar on "Teaching a course on IoT for Undergraduate Students" by Prof. Nigamanth Sridhar of Cleveland State University and Prof. Nick Barendt of Case Western Reserve University, on 23rd July 2021. **Dr. G. Raghuraman, Dr. S. Saraswathi, Dr. V. Balasubramanian** attended the event.
25. **Dr. T. T. Mirnalinee, Dr. B. Bharathi**, **Dr. V. Balasubramanian**, **Ms. S. Rajalakshmi** attended a Webinar on, "Migrating from Papers to Patents" on 21st July 2021, SSN College of Engineering.
26. **Dr. V. Balasubramanian,** attended a webinar 2020 TURING LECTURE: Abstractions, Their Algorithms, and Their Compilers.
27. **Dr. R. Kanchana** along with Dr. Thiagrarajan YRC Coordinator, SSNCE organized a webinar on "Equip yourself for the COVID 19 Era" for the YRC volunteers on 21st July 2021. The session was handled by Shri. Rajesh and Smt. Narmadha from Isha Foundation, Coimbatore. Around 80 students participated and got benefitted.
28. **Dr. K. R. Sarath Chandran, Dr. N. Sujaudeen and Dr. Madheswari K.** organized a webinar titled "Think Different" for CSE lateral entry and rural students delivered by Mr. Mohanasundar and Mr. Babu Aravind (LE students of 2021 batch) on 31-07-2021 under the student chapters of IEI, ACM and ACM-W.

INDUSTRY COLLABORATION

1. **Dr. Chitra Babu, interacted along with Dr. K. Vallidevi and 3 students** regarding a collaborative project on extracting relevant metrics from the Azure DevOps instances on 6th July 2021
2. **Dr. Chitra Babu and Dr. V.S. Felix Enigo** interacted with Caterpillar technical team on 8th July 2021 regarding a collaborative project on " A Mobile app to download File archives in the background" .
3. **Dr. Chitra Babu** interacted with Caterpillar technical team along with **Dr. B. Prabavathy and students** on 12th July 2021 regarding a collaborative project on " Generating a Web Application based on FIGMA Specification".
4. **Dr. Chitra Babu, Ms. S. Rajalakshmi, Ms. S. Angel Deborah and students** interacted with Caterpillar technical team on 19th July 2021 regarding a collaborative project on " Scalable Full Text Search in Mobile SQLite".
5. **Dr. Chitra Babu** had a discussion with Daimler R&D team regarding potential collaboration on 21st July 2021.

WORKSHOPS / FDPs ATTENDED

1. **Dr. T.T. Mirnalinee, Dr. S. Saraswathi, and Dr. K. R. Sarath Chandran,** has participated in the Faculty Development Programme on “Creative and Innovative Teaching Strategies for the New Normal” organized by the Institution’s Innovation Council of Sri Sivasubramaniya Nadar College of Engineering during May 24-31,2021.
2. **Dr. D.Venkatavara Prasad,** completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on " Data Science for Healthcare" from 2021-6-21 to 2021-6-25 at Vivekanandha College of Engineering for Women.
3. **Dr. V. Balasubramanian,** completed an ATAL FDP on Cybersecurity for Internet of Things by IIITDM Jabalpur during 21.6.21 to 25.6.21.
4. **Dr. V.S.Felix Enigo, Dr. R. Priyadharsini and Dr. Betina Antony J** attended One-week online Anna University Sponsored FDTP on "Theory of Computation" Conducted by Department of CSE, SSNCE from 21.06.2021-26.06.2021.
5. **Dr. R. Priyadharsini,** attended AICTE Training And Learning (ATAL) Academy FDP on "Innovation in Telemedicine in Rural India enabled by advancements in Artificial

Intelligence, Medical Devices and Internet of Things" from 2021-06-15 to 2021-06-19 at R.M.K. Engineering College.

6. **Dr. S. Manisha,** attended AICTE Training And Learning (ATAL) Academy Online Elementary FDP on " Data Science" from June 7 to June 11 2021 at Punjab Engineering College.
7. **Dr. V. Balasubramanian**, attended ATAL FDP On Cyber Security for IoT from 21st to 25th June Organised by IIITDM Jabalpur.
8. **Dr. Suresh Jaganathan**, attended One-week online AICTE Sponsored ATAL Faculty Development Programme (FDP) on "Quantum Computing" Conducted by Birla Institute of Technology, Mesra from 21.06.2021-25.06.2021.
9. **Dr. R. Kanchana** attended a five-day ATAL FDP on Data Science organized by IIIT Una (HP) during 1-5 Jul 2021.
10. **Dr. R. Priyadharsini** attended a workshop on "Building an Innovation/Product Fit for Market" conducted by IIC, SSN College of Engineering, on July 15, 2021.
11. **Dr. Betina Antony J,** attended 5-day Online FDP on "Industry 4.0: Applications of Deep Learning and Artificial Intelligence in Computer Vision", Organized by the Department of Information Technology, St. Joseph's Institute of Technology on from 20-07-2021 to 24-07-2021.
12. **Dr. Betina Antony J,** ATAL FDP Part 1: Introductory Data Science and Deep Learning organized by Indian Institute of Information Technology - Allahabad from 16-07-2021 to 20-07-2021.

EXTERNAL RECOGNITION

Ms. M. Saritha, AP, Department of CSE received Certificate of Appreciation for guiding Rohinidevi S V, Saadhana L, Sanjana K, IV Year Students, Department of CSE to participate in the 5th National Level IEEE Project Competition-2021 organized by IEEE Student Branch, GSSS Institute of Engineering & Technology for Women, Mysuru in association with IEEE.

INVITED LECTURES

Dr. T.T. Mirnalinee delivered a lecture on Open source tools for Data Analytics at the FDP. She also acted as a resource person for CFD - Anna University sponsored FDTP on Machine Learning Techniques.

Dr. R. S. Milton, delivered a talk on "Bayes Theorem, Concept Learning, Maximum Likelihood" in Sairam Engineering College on 9-6-2021 in FDTP (Anna University) on Machine Learning Techniques.

Dr. S. Kavitha, Dr. V. Balasubramanian and Dr. A. Beulah gave talks on different topics at Six-day online FDTP on "CS8501-Theory of Computation" sponsored by Center for Faculty Development, Anna University, Chennai organized by department of CSE, SSNCE held during 21 June - 26 June 2021.

Dr. Betina Antony J, delivered a talk in a one day workshop on 'Deep Learning for Data Analytics' organized by RMK College of Engineering and Technology, Puduvoyal, Thiruvallur held on 29-06-2021.

"Dr. B. Bharathi, delivered a talk on "Speech processing using machine learning" 3 Day Webinar series on "Machine Learning for Signal Processing Applications" under the aegis of IEEE Signal Processing - Society (SP-S) Madras chapter at Kumaraguru College of Technology, Coimbatore, 22-24, July 2021.

"

Dr. N. Sujaudeen delivered a talk in the Six-day online Faculty Development Training Programme on "Big Data Analytics (CS8091)" sponsored by Center for Faculty Development, Anna University, Chennai from 7th June 2021 - 12th June 2021.

Dr. K. R. Sarath Chandran delivered a talk on "Conducting programming labs on virtual mode - An interactive experience" during the Faculty Development Programme on "Creative and Innovative Teaching Strategies for the New Normal" organized by the Institution's Innovation Council of Sri Sivasubramaniya Nadar College of Engineering during May 24-31,2021.

Dr. K. Madheswari, delivered a research talk on "Optimization algorithms in image fusion" during 01.06.2021 in Online FDP on "Recent Trends in Computing" organized by Research and Development cell of Indra Ganesan College of Engineering , Trichy.

Dr. R. Priyadharsini, delivered a talk on "Sentiment Analysis using Machine Learning" at the Seven day International level FDP on Artificial Intelligence and Machine Learning organised by PPG College of Arts and Science, Coimbatore on 29/06/2021.

She also delivered a talk on "Predictive Analytics - Transforming data into future insights" at the Dept of CSE, R.M.K. College of Engineering and technology,on 28/7/2021.

Dr. B. Prabavathy, delivered a Lecture on "Big Data Analysis: Technologies and Concepts" in FDP on Skill sets requirements and research opportunities in Industry Revolution.

She also gave a technical talk on "Big data Analytics" during 01.06.2021 in Online FDP on "Recent Trends in Computing" organized by Research and Development cell of Indra Ganesan College of Engineering , Trichy .

Dr. D. Thenmozhi delivered a talk on "How to use Latex with Overleaf" for Tamil NLP research group on 3rd July 2021.

SANCTIONED PATENT

The patent titled "A Process for grape leaf disease identification using machine learning techniques" granted for eight years from 23 March 2021. The inventors are **Dr. Dwivedi, Vatsala; Dr. S. M., Jaisakthi; S., Ramani and Dr.P, Mirunalini**.

SUBMITTED PATENTS

1. Dr. S. Kavitha, submitted FER for the patent 2454/CHE/2015 on 18.06.2021.

2. **Dr. D. Thenmozhi and S. Kayalvizhi** filed a patent titled "An Automated Tool for Detection Depression from Social Media Text" through C Intelligence on 26th July 2021 (Reference no: 202141033519)

EXTERNAL FUNDED PROJECT APPLIED

Dr. D. Thenmozhi, Dr. B. Bharathi and Dr. Sathiyaraj T (SKACAS) applied a project titled "A tool for detecting dangerous speech, conflict, and violence from multi-modal data of social media in code-mixed Dravidian languages" to Facebook for 1 year with a budget of 49960 dollars.

TECHNICAL PAPER REVIEWS

1. **Dr. R. Kanchana** reviewed a for 5th International Conference on Computer, Communication and Signal Processing (ICCCSP 2021) organized by the department of IT, SSNCE.
2. **Dr. J. Suresh,** reviewed an International Journal Paper for IEEE Access
3. **Dr. A. Beulah,** Reviewed a paper for Circuits, systems and signal processing, Springer.
4. **Dr. D. Thenmozhi,** reviewed a for the International journal of Information Science.

5. **Mr. B. Senthil Kumar,** reviewed the paper for the International Journal of Intelligent Computing and Cybernetics. Scopus Indexed journal
6. **Dr. D.Venkatavara Prasad,** Reviewed a paper for International Journal of Environmental Analytical Chemistry
7. **Ms. S. Angel Deborah** reviewed a paper for the ACM Transactions on Asian and Low-Resource Language Information Processing" on 25th June 2021.
8. **Dr. P. Mirunalini,** reviewed a paper for Microscopy Research and Technique.
9. **Dr. D. Thenmozhi** reviewed a paper for IETE Technical Review on 27th July 2021.
10. "Dr. B. Bharathi, ASP, reviewed a paper for the Transactions on Asian and Low-Resource Language Information Processing.
11. **Dr. S. Kavitha** reviewed two papers for COMPUTE 2021 - International Conference of ACM India.
12. **Ms. S. Rajalakshmi** reviewed 4 papers for IEEE Madras Section International Conference (IEEE MASCON 2021) and 1 paper for ACM Compute 2021 International Conference of ACM India.

EXTERNAL INTERACTION

1. ACM India has come up with an "Expert Teaching Program" for the tier II colleges that are highly motivated to improve the quality of pedagogy and assessment. In its pilot launch this year, only 7 colleges have been chosen for this program across India. SSN College of Engineering is one among them.

Dr. Chitra Babu interacted with ACM India and facilitated bringing this program to the Department of Computer Science and engineering at our college. Prof. R. Ramanujam, who has recently retired from the Institute of Mathematical Sciences(IMSc) teaching some of the important topics in the undergraduate core course "Introduction to Cryptographic Techniques" , which is being offered in their V semester.

2. **Dr. Chitra Babu and Dr. V. Balasubramanian**, Interacted with Mr. Vasanth, Leankloud for Internship (2022 & 2023 batch) and Placement (2021 Batch).

FACULTY PUBLICATIONS / PAPER PRESENTATIONS

1. **Pranathy M S, Ranjana S, Reenu Rita P S, Rajalakshmi S, Angel Deborah S** presented a paper titled "Internet of Things enabled Smart Dustbins using Capacitated Vehicle Routing" in the 5th International Conference on Computer, Communication and Signal Processing (ICCCSP - 2021), conducted by Department of Information Technology, SSN College of Engineering on May 24 & 25, 2021.
2. **Talapala Sneha, Ssneha Balasubramanian, Vaishali R, Jay Vishaal J, A.Beulah and S Angel Deborah** presented a paper titled "Home Security System for the Hearing Impaired" in ICCCSP 2021 conducted by Dept. of IT, Sri Sivasubramaniya Nadar College of Engineering, held during 24-25 May 2021.
3. **A. Beulah, Sharmila, T.S. and Pramod, V.K.** published a paper titled "Degenerative disc disease diagnosis from lumbar MR images using hybrid features", The Visual Computer, online first 2021.
4. **Krijeshan Gowthaman, Nachiappan N N, Raghul Periyaswamy, A. Beulah and R Priyadharshini,** presented a paper titled "Detection of Electronic Devices in real images using Deep Learning Techniques" in ICCCSP 2021 conducted by Dept. of IT, Sri Sivasubramaniya Nadar College of Engineering, held during 24-25 May 2021.
5. **Mohanram P.B., Karthik Viswanath S., Mohamed Musaraf P.M., Karthikeyan R., Sarath Chandran K.R and Angel Deborah S** presented a paper entitled "IoT based Smart Waste Management Reporting and Monitoring System" in the 5th International Conference on Computer, Communication and Signal Processing (ICCCSP – 2021) organized by Department of Information Technology of Sri Sivasubramaniya Nadar College of Engineering during 24-25 May 2021.
6. **S.Angel Deborah, K.R.Sarath Chandran Praveen Kumar V, Aravind P, Nachammai Pooja Devi S, Prathyush S,** presented a paper titled "Driver Assistance System using Raspberry Pi and Haar Cascade Classifier" in the fifth International Conference on Intelligent Computing and Control Systems organized by Vaigai College of engineering, Madurai, India during 6-8,May 2021.
7. **K.Madheswari, Deepika Sivasankaran, Sai Seena P, Rajesh R,** published a paper titled , "Sketch Based Image Retrieval using Deep Learning Based Machine Learning" published in 'International Journal of Engineering and Advanced Technology (IJEAT)', ISSN: 2249-8958 (Online), Volume-10 Issue-5, June 2021, Page No. 79-86.
8. **S. V. Jansi Rani** presented a paper titled," Face mask detection using SSDNET and lightweight CNN" in the International Conference on IOT based control networks and

intelligent systems ICICNIS 2021 on 28.06.2021.

9. **Karthik.D, P.Mirunalini, R. Priyadharsini, T.T.Mirnalinee** presented a paper titled "An efficient contour Detection Approach for Extracting Rim from Wheel Images" @ 9th international conference on Recent Trends in computing (ICRTC - 2021) Organized by SRM Institute of Science and Technology, Delhi.
10. **Srinithyee S K , Srivarsha E, R. Priyadharsini, A. Beulah**," Optimized Image Edge Detection Approach using Fractional Order Calculus" 6th International Conference on Communication and Electronics Systems (ICCES 2021) Thu, 8 Jul, 2021 – Sat, 10 Jul, 2021, PPG Institute of Technology, Department of ECE, IEEE conference.
11. **Bhat, Ajay and S, Avinash Raja and John, Christina Eunice and K, Kaladharshini and Menon, Karthika and S, Saraswathi and K, Madheswari and Y.V., Lokeswari**, Omilia - The Sign Language Converter (May 25, 2021). Available at SSRN: https://ssrn.com/abstract=3852893 or http://dx.doi.org/10.2139/ssrn.3852893.

PHD DEGREE COMPLETION

Ms. M. Ambika has successfully defended her thesis in viva-vove held on 22.04.2021 under the guidance of **Dr. G. Raghuraman.** The examiners were Dr.A. Kandasamy from NIT, Surathkal and Dr. M. Ramakrishnan from School of computing, Madurai Kamaraj University. She was awarded the Ph.D degree.

NBA ACCREDITATION - EXTENSION

NBA has extended the accreditation of M.E(CSE) program for an additional year till June 2022. Earlier it was accredited for 5 years from July 2016-June 2021.

MoU WITH STAYFLEXI

Dr. Venkata Vara Prasad has brought in an MoU opportunity with a US based company Stayflexi. They develop Modern Operating System for Hotels and Vacation Rentals. Their site reads as "Stayflexi automates every aspect of your property management and upsells your unsold rooms and amenities". They are willing to support internships and placements.

"CREATIVE AND INNOVATIVE TEACHING STRATEGIES FOR THE NEW NORMAL" ORGANIZED BY SSN – INSTITUTE INNOVATION COUNCIL (IIC3.0)

Dr. S. Saraswathi attend Virtual Faculty Development Program on "Creative and Innovative Teaching Strategies for The New Normal" organized by SSN – Institute Innovation Council (IIC3.0) during May 24-31, 2021.

We know that education plays a crucial role in building a nation and it is facing a tremendous change due to the present situation. The educators and students need to adapt to the sudden shift from the classroom to a virtual environment, which is really challenging. The FDP was really suitable and informative for the present online teaching. It instigated the innovative methods that can be implemented by faculties for conducting knowledge-based attractive and informative online classes.

The FDP exposed new teaching and learning methods. The speakers were from different departments. They discussed the issues faced in their department during the online mode of education. They presented how the online tools and apps can be effectively used for conducting virtual lab and online classes. New software for the online quiz, game-based teaching and presentation strategies for interactive teaching were introduced. Following these strategies will create interest and inquisitiveness in students.

ONLINE FDP ON "DATA SCIENCE"

AICTE Training and Learning (ATAL) Academy online FDP on "Data Science" was organized by Punjab Engineering College (PEC), from 7th June to 11th June 2021. There were a total of 14 sessions and were interesting. They provided useful insights on data science and managing data. Each lecture was followed by Hands-on sessions on Machine Learning, Deep learning, optimization. The sessions focused on usage of Python language for data science, useful Python libraries for handling data, and data visualization, several optimization techniques, file handling and data pre-processing using benchmark datasets, regression techniques and unsupervised learning techniques, video analytics, and datascience on social networks. The case studies mainly focused on IoT and Blockchain with Data Science. The sessions were followed by a test on the concepts covered in the FDP, on the last day. On the whole, the FDP was extremely beneficial and very informative.

Dr. S. Manisha
Assistant Professor

KLOC.EXE THE CODEATHON

SSN ACM-W Student Chapter and SRM ACM-W Student Chapter joined together to organize a KLOC.EXE the Codeathon. The competition aimed at testing the programming skills of students at an intermediate level and was a great way to realise their standing in competitive programming.The competition was open to all departments. The competition was held on Hacker rank platform on 1st May 2021 from 10.00 AM to 11.30 AM. The participation from the student community was overwhelming and the winners took handsome cash prizes. The winner of the competition, Arhan Choudhury from SRM was awarded Rs. 1200, runner up - Vinayak Mathur from SRM was awarded Rs. 900 and the second runnerup - Asis Baweja from SRM was awarded Rs. 700. The participants were also provided with a participation certificate.

Dr. Madheswari K.
Asso. Prof./ CSE

FDP ON "INNOVATION IN TELEMEDICINE IN RURAL INDIA ENABLED BY ADVANCEMENTS IN ARTIFICIAL INTELLIGENCE, MEDICAL DEVICES AND INTERNET OF THINGS"

A Five days Faculty Development Program on "Innovation in Telemedicine in Rural India enabled by advancements in Artificial Intelligence, Medical Devices and Internet of Things" was conducted on June 15 – 19, 2021, Sponsored by AICTE Training and Learning Academy (ATAL) and AICTE. organized by R.M.K. Engineering College, Chennai.

The FDP enriched the knowledge on Telemedicine enabled by advancements and innovations in AI, medical devices and IoT among trans-disciplinary engineering professionals. A technology-based solution for Telemedicine in home telehealth with the advantage of simple connectivity, easy device management and reduced risk for an individual and the diagnosis and prediction using AI was described clearly. FDP highlighted the successful implementations and activities going on the major hospitals in Telemedicine. They covered the current trends in Artificial Intelligence and how it contributes to automatic detection of diseases like eye diseases, cancer and others.

Experts from eminent institutions handled the sessions. Few of the experts include Dr. Karthik Srinivasan, Aravind Eye Hospital, Madurai, Mr. Dileep Mangsuli, Executive Director at Siemens Healthineers, Bangalore, Dr. San Murugesan, Adjunct Professor, Western Sydney University, Australia, Dr. Celestine Iwendi, Sweden. A total of 15 sessions were conducted and on the last day a test for conducted. The FDP provided an insight to innovation in telemedicine.

Dr. R. Priyadharsini
Asso. Prof./ CSE

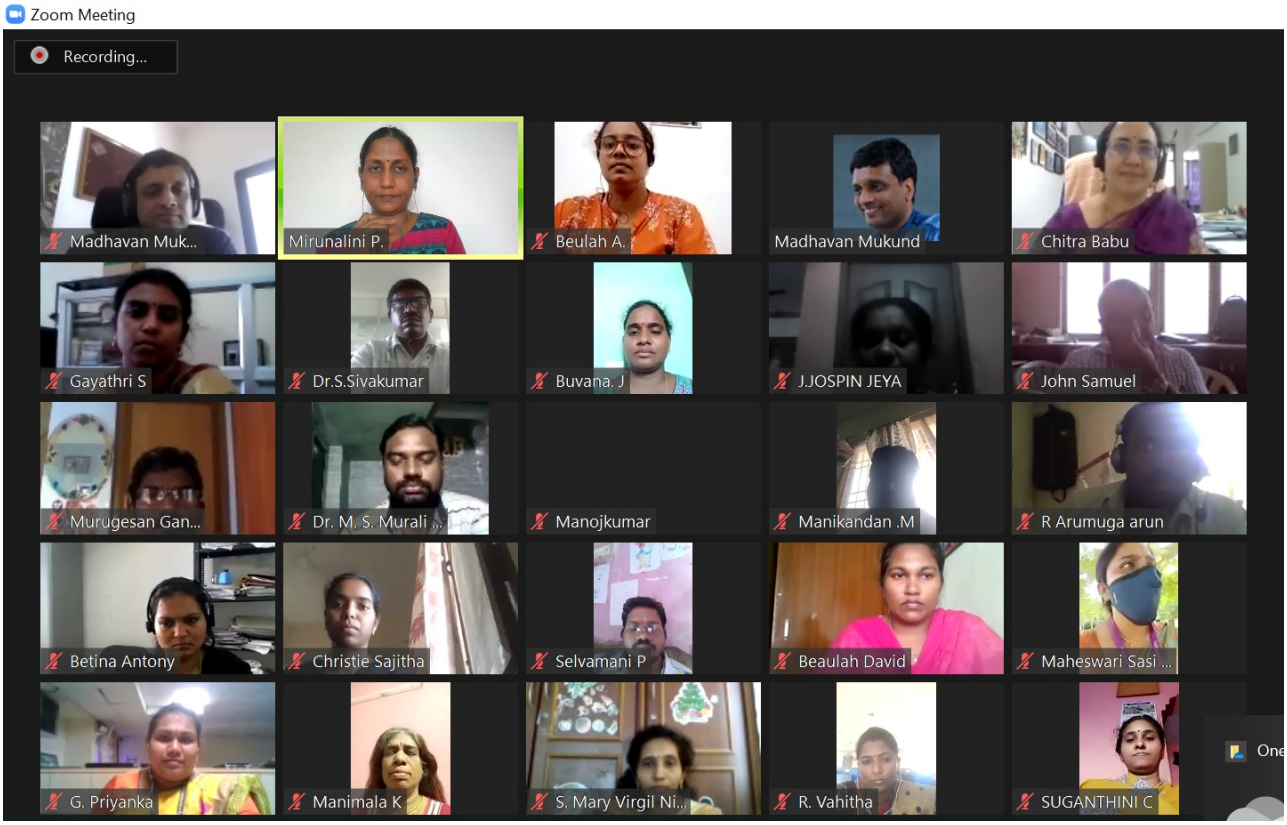
SIX DAY ONLINE FACULTY DEVELOPMENT TRAINING PROGRAMME ON CS8501 – THEORY OF COMPUTATION

The Department of Computer Science and Engineering, SSN College of Engineering along with co-sponsorship by Anna University conducted a Six-day Online Faculty Development and Training Programme (FDTP) on 'Theory of Computation' from 21st June to 26th June, 2021.

The six days programme comprised of four sessions per day and covered the different topics on 'CS8501 – Theory of Computation' under the 2017 regulation syllabus for colleges affiliated to Anna University. The Sessions were handled by eminent speakers from reputed institutions like IMSc, CMI, NIT, IIITDM and other institutions. The event co-ordinators, Dr. P. Mirunalini, Associate Professor and Dr. A. Beulah, Assistant Professor skilfully organised the complete event starting from communication to the participants to the on time handling of session and query management.

The first day started with a welcome address by Dr. Chitra Babu, HOD, Department of CSEwho briefed us about the achievements and activities of the department and acquainted the participants with the possible outcomes of the programme. The First day session was inaugurated by Dr. R. Ramanujam, Professor, Theoretical computer science at Institute of Mathematical Sciences, Chennai, who gave a clear perspective on "Why should we learn Theory of Computation?" (To teach the subject is not an acceptable reason). He further gave an introduction on "Deterministic Finite Automata (DFA)" and its formal proof. The Session was succeeded by Dr. James Immanuel, Assistant Professor, Department of Mathematics, SriSairam Institute of Technology, who explained the concepts behind "Non-deterministic Finite Automata (NFA)" and its behaviour with instantaneous (Epsilon) Transitions. Dr. V. Balasubramaniam, Associate Professor, Department of CSE, SSN CE concluded the day by "Solving Problems on DFA, NFA, Epsilon-NFA".

On the second day, the course moved to Regular Expressions (REs) where Dr. B. S. Charulatha, Professor, Department of CSE, Rajalakshmi Engineering College introduced the basic terminologies and methods of REs. While Dr. Janaki Meena, Professor, SCOPE, VIT University, Chennai compared the "Equivalence of FA and RE and Minimization of Automata", Dr.G. Suganya, Associate Professor, SCOPE, VIT University, Chennai emphasised on the "Closure Properties of REs". The day ended with a problem solving



session on "FA and Regular Expressions" by Dr. T. Sree Sharmila, Associate Professor, Department of IT, SSN CE.

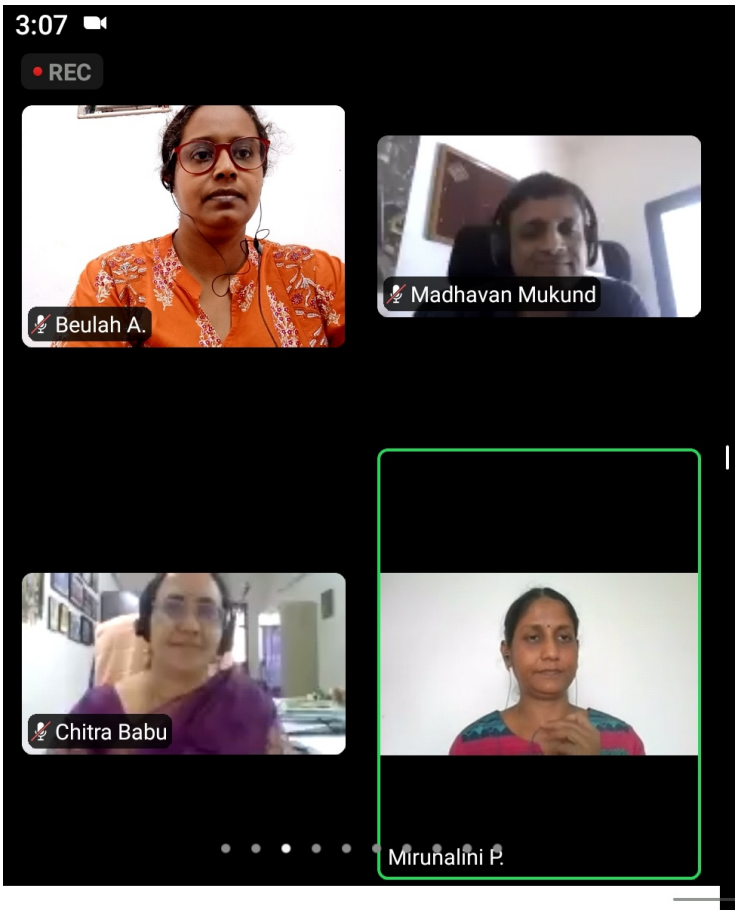
We moved on to Push Down Automata (PDA) on the third day where Dr. G. Suganya, started the session with introduction to "Context Free Grammer (CFG) – Parse Trees – Ambiguity in Grammars and Languages" as we know A language is context-free if and only if some pushdown automaton recognizes it. Dr. Sadagopan N, Assistant Professor & HOD, Dept of CSE, IIITDM – Kancheepuram introduced the "Definition, Languages and Construction of PDA" and highlighted the "Equivalence of PDA and CFG" along with the concepts of "Deterministic PDA". Dr. A. Beulah, Assistant Professor, Department of CSE, SSN CE handled the problem solving in "CFG, Parse Tree, PDA Construction".

The first session of the fourth day was dedicated to "Normal Forms for CFG" briefed both theoretically and mathematically by Dr. Durairaj Gnanaraj Thomas, Professor, Dept of Mathematics, Saveetha School of Engineering. We then moved on to "Pumping Lemma for Context Free Language (CFL), Closure Properties of CFL" which was briefed by Dr. T. M. Navamani, Associate Professor, Department of Computational Intelligence, SCOPE, VIT University, Vellore. The afternoon session introduced the concepts of "Turing Machines, Programming Techniques for TM" which was perfectly delivered by Dr. S. Sheerazuddin,

Associate Professor, Department of CSE, NIT, Calicut and problems on "TM Construction" was effortlessly handled by Dr. S. Kavitha , Associate professor, Department of CSE, SSNCE.

On the fifth day, the topic moved to "Non-Recursive Enumerable Language" which was handled by Dr. S. Sheerazuddin. The next two sessions were handled by Dr. Madhavan Mukund, Director, Chennai Mathematical Institute, Siruseri who briefed us about the factual details on "Undecidable Problems in RE and TM". He also gave an elaborate insight on "Class P and NP Problems". The day ended with a problem solving session by Dr.Sudha, Associate Professor, Dept of CSE, KCT on "Undecidable Problems".

The last day of the FDTP was dedicated to a more generic topic on "How do we go beyond Remember, Understand, Apply" for TOC by Dr.Viraj Kumar Research Professor, Dept of CSE, Dayananda Sagar University, Bengaluru, Karnataka. His morals and principles were practical and were very helpful in guiding the faculty in the right direction of handling the subject. The rest of the day was engaged with other activities like quiz, panel discussion, feedback and valedictory session. Overall the six days were systematically planned out to cover the syllabus as well as enlighten the participants with pedagogical methods of effectively transferring the knowledge to the students.



Dr. J. Betina Antony
AP / CSE

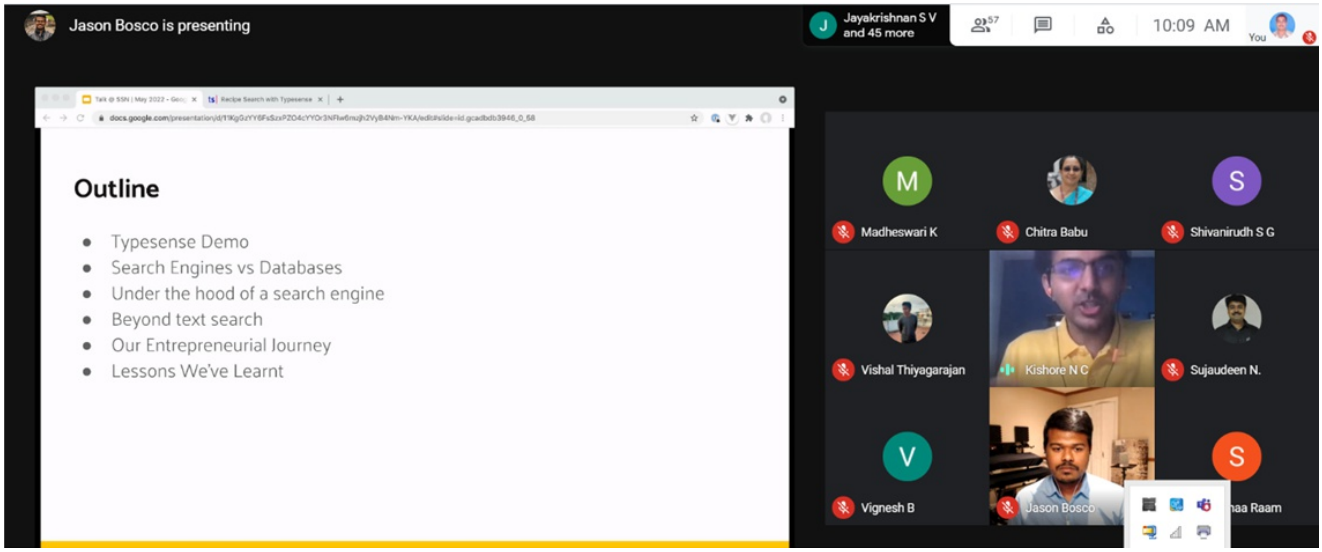
INTERACTIVE WEBINAR ON TYPESENSE: AN OPEN-SOURCE, TYPO TOLERANT SEARCH ENGINE

SSN IIC in association with ACM Student chapters of SSN, organized an interactive webinar titled "Typesense, an open-source, typo tolerant search engine" on 27.5.2021, during 10.00 AM to 11.00 AM. Mr. Jason Bosco, Co-Founder at Typesense Search, USA and Mr. Kishore NC, Co-Founder at Typesense Search, India handled the session.

The team behind this search engine aims to make great search technology accessible to everyone. They believe that existing search technology available to developers today either has a steep learning curve or is proprietary. Thus, challenging the norm, they have engineered a search experience that ensures both performance and ease-of-use. They were 75 Participants for the event.

URL: https://youtu.be/WciDK3iwaO8

Dr. Balasubramanian V.
Asso. Prof./ CSE



WORKSHOP ON STREAM DATA INGESTION AND PROCESSING

The 3-day workshop on Stream Data Ingestion and Processing (SDIP 2021) was organized by Dr. R. Kanchana, Dr. K Vallidevi and Dr. Y. V. Lokeswari during 08 July 2021 to 10 July 2021 on a virtual platform. The workshop targets the UG, PG students, research scholars of CSE/IT and Industry professionals. The guests invited for the workshop were Mr. Sasikumar Venkatesh, Senior Software Engineer, Walmart, Bangalore, Mr. Abhishek Shenoy, Senior Software Engineer, Walmart, Bangalore and Mr. Sriganesh Venkataraman, Senior Software Engineer, Walmart, Bangalore. There were totally 44 participants, all are college UG students from CSE & IT department.

The workshop aimed at covering the following topics: What is stream data, Generating data streams, Producing and consuming stream data, Case study: Consuming Twitter streams, Solving real world applications using stream data, and Demos and interactions. Participants are given use cases and projects to be completed in a week time. The proficiency certificate is provided for those who complete the project on or before deadline. The installation steps for Java JDK, Spark, Kafka were shared to all registered participants in order to complete installation before workshop. The handouts with step by step instructions for installation were also shared with all the participants thus making the demo sessions more interactive.

Day 1 (08-July-2021)

The workshop started with invocation followed by welcoming and introducing the speakers. The first session was about streaming data. Mr. Sasikumar briefed about the different data sources for extracting the data, architectures and data patterns. Following this generation of truck information through Stream Data and generating Real time streaming of vehicle data was demonstrated from Google Maps. In the afternoon session, the generation of truck information through stream data was extended to Publish / Subscribe system using consumer, producer and broker network.

Day 2 (09-July-2021)

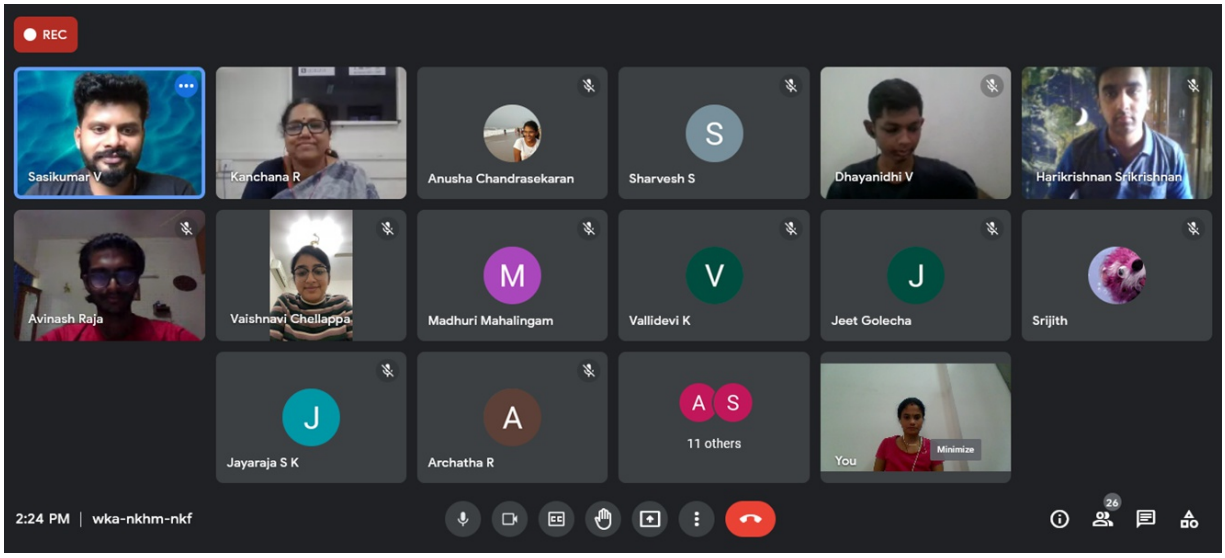
On second day Mr. Abhishek Shenoy introduced the event streaming and processing using Kafka. The real time processing of data using Kafka event streaming was explained in detail. A Distributed Broker network with Kafka (A Publish / Subscribe System) was introduced with its architecture. Mr. Sriganesh Venkataraman demonstrated how to set up the

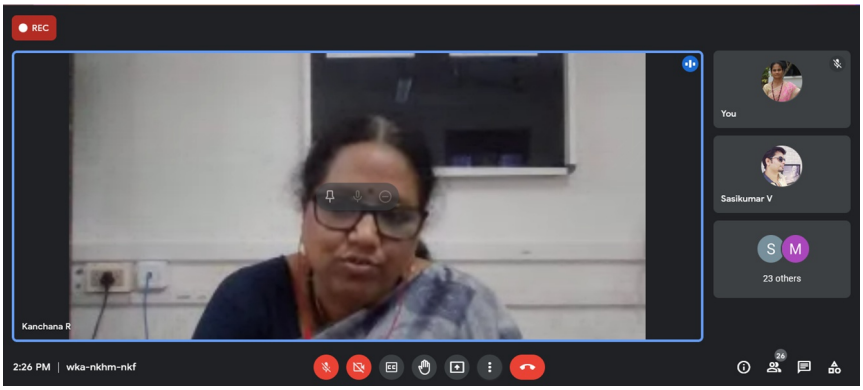
publish/subscribe system using Kafka with the components Producer, Consumer, Topic List, Zookeeper and Broker. Mr. Sriganesh took time to explain about partitioning of data for parallel read and write. The pipelines for executing the program in batch and non-batch modes was briefed.

Day 3 (10-July-2021)

Mr. Sasi Kumar briefed about Apache Spark for distributed processing, RDDs, Transformations and Actions. Further the basic SparkSQL and Dataframe operations were detailed. The Spark streaming was introduced along with DStream operations, Delivery Guarantee and Checkpointing. Finally the Spark Streaming was connected with Apache Kafka for processing of real time data collected from the Google Maps.

The participants were asked to work on the project by streaming the real time data using Spark and Kafka. The participants who submitted the project within the deadline are issued with proficiency certificate. 9 students have successfully implemented the project and uploaded the code in the github for evaluation.





SSN RESEARCH INTERNSHIP

SSN College of Engineering had initiated a research internship scheme for the students of other institutions on 7th June 2021. Totally, 296 students from 53 institutions had applied for the virtual internship. From CSE, 32 projects were proposed by our faculty members and 32 students from various institutions (includes IIIT-Dharwad,IIIT-Una, VIT, SRM, Siksha O Anusandhan-Bhubaneswar, Acropolis Inst.-Indore) are currently pursuing internships through virtual mode from June 17th 2021 onwards.

As a part of Internship, CSE department organized a Panel Discussion to the Interns so that it would benefit them to be aware of recent advancements in the emerging research areas such as Computer vision, NLP, etc., on 30th June 2021. The topic for the discussion was on "Data Science (ML&DL) Applications in Computer Vision, Cyber Security, Natural Language Processing, Speech Processing". The panel members were experts in their respective domains and shared their experiences and views on the impact of ML & DL in the specific domain and its future. At the end, there was a Question and Answer session. The panel was moderated by Dr. R. S. Milton, professor and the panel experts were Dr. T. T. Mirnalinee, Dr. A. Chamundeswari, Dr. D. Thenmozhi, and B. Bharathi.

On 23 July 2021, 7 interns had submitted their final reports and presented their work infront of the Review panel members. All the interns had expressed their gratitude towards SSN for offering this opportunity that has helped in enhancing their skill-sets for future development. Also, they thanked their faculty mentors for their wonderful support throughout their internship journey. The review was conducted by Dr. T. T. Mirnalinee, Dr . J. Suresh, Mr. B.Senthil Kumar and Mr. H. Shahul Hamead.

Mr. B.Senthil Kumar

AP/CSE

TEACHING IOT: PRACTICAL, INDUSTRY-RELEVANT, HANDS-ON, AND SYSTEMS-LEVEL APPROACHES

"Teaching IOT: Practical, Industry-Relevant, Hands-On, and Systems-Level Approaches", a free iSIGCSE ACM Chapter Webinar presented on Friday 23 July 2021 at 8:30-10:00 pm. The speakers were Nick Barendt, Executive Director, Institute for Smart, Secure and Connected Systems at Case Western Reserve University, and Nigamanth Sridhar, a Computer Science professor at Washkewicz College of Engineering, Cleveland State University. The webinar was hosted by Dr. Chitra Babu, HoD/CSE/SSNCE and Chair, ACM iSIGCSE Chapter.

The webinar was about developing a course on IOT. The focus of the course was to address the gap in undergraduate engineering education and prepare students for creating and maintaining Internet-of-Things (IoT) products and services. Building IoT products require connecting different platforms, often with a variety of technologies and programming languages, into a system. Both the variety of platforms and the "systems" nature of IoT often makes it hard to approach. The speakers shared their experiences in building the course and offering the course. They discussed Course Prerequisites, Pedagogy and Methods, Courseware preparation, Content delivery, Course Syllabus, Project Assignments, Support, Course Sample and grading. They suggest minimizing prerequisites to encourage students with different backgrounds to participate.

The course is to be delivered using a combination of Lectures and hands-on Project Assignments. They mentioned the course design to be in two parts; Constructing the IoT System as part 1 and Instrumenting, extending and evolving the IoT System - Properties, Behaviours, and Concerns of Systems as part2. They recommended that the classes should demonstrate evolutionary, incremental product/system design, and allow students to gain an understanding of how complicated products/systems can be evolved from simple cores. Also, the students should understand the individual technology subsystems, and how those subsystems connect into a complete system. The classes should emphasize the value of weekly "show-and-tell" demonstrations of new, working functionality with hands-on, industry-relevant experience. The classes should provide students with authentic experiences with real-world software systems, a variety of languages, protocols, etc.

They favoured a number of tools to help organize and support the class Git, Trello, Slack, Google Documents. They recommended the grading system with 4 sections: Written Communication (15%), Presentation (15%), Demonstration (20%), and Problem Solving (50%). From their course offering they shared their lessons learned and put forward the principle requirement for such courses are the continuous updating of the course content over technological growth. These changes require reviewing, revising, updating, and testing essentially all aspects of the course each time it is offered. The webinar was very informative and touched all points that a course designer should consider while designing an IOT course.

Event URL: https://isigcse.acm.org/events

Dr. S. Saraswathi,
Associate Professor,
Dept. of CSE

COMPETENCY BASED EDUCATION - A PERSONAL PERSPECTIVE

ACM India had organized an Education Webinar on 8th May by Prof. Abhiram Ranade, IIT Bombay. It was hosted by our Head of the Department, Dr. Chitra Babu, who is a member of the ACM India Education Committee.

In competency-based learning as per the recently-released ACM/IEEE-CS Computing Curricula 2020 (CC2020) framework, learning is viewed as the development of the competency to perform a specific task using appropriate knowledge, skill and disposition. Outcome Based Education (OBE) addresses knowledge delivery and acquisition of skills. However, many students do not know why they need to learn new tasks and do not have confidence and enthusiasm as they are worried about jobs. Task and disposition are related to psychology and attitude or emotional aspects of the students that helps in accomplishing the task. The reason for not developing interest in learning a new task or concept is the lack of knowledge about the big picture where this task is applied or useful. Prof. Ranade emphasized that the teachers can always present the bigger pictures to motivate the students to learn new tasks. Also, the teachers need to impart the qualities of disposition like passion, confidence, intuition, perspective, and ethical behaviour in students. The teachers must develop love for the subject or the profession itself to inculcate the same in the learning process of the students. The talk focused on competency based course design and teaching strategies by taking three example courses such as Introductory programming, Data Structures and Design and analysis of algorithms.

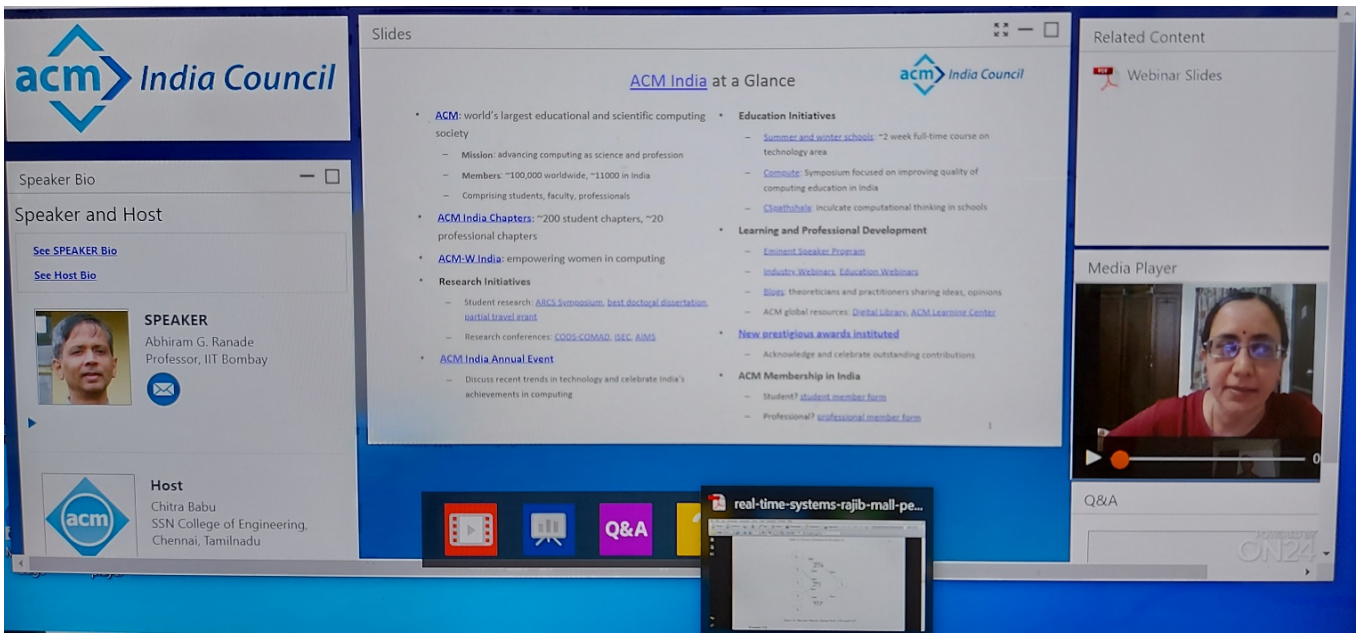
The competency-based course can be designed to have tasks and current practices along with knowledge, interesting modern ideas so that the students feel satisfied and become job ready. In the first lecture of the course itself, the teacher can convey the challenges and the importance of the course in the present industry context to make the students feel excited to learn the course further. In addition, teachers can give demos, predeveloped libraries and provide realistic problems. The teacher can make the students to apply their skills to similar problems and gradually increase the unknown element to make the students gain confidence for job situations.

With reference to an introductory programming course, the objective is neither to make the students learn a programming language nor design new algorithms for a given task. Rather they need to know how to solve the problem by hand and identify the ways in which the problem can be solved using the programming constructs. Students can be motivated to use built in data structures rather than building the code from scratch. In the course on algorithm analysis and design, the students need to be motivated to design optimal or fast algorithms. A poetic meter example was discussed to demonstrate how an idea can be adapted for newer problems.

In a summary note, the speaker insisted the importance of the first lecture wherein the teachers explain the objective of the course again and again to improve the disposition of the students. The teachers need to ensure that the course is designed with the right synergy between task, knowledge, and skill. Excitement and enthusiasm form the foundation of disposition but are not easy to inculcate. However, if the teacher is committed to create a thirst for learning more, they will develop interest and enthusiasm to learn.

The talk was followed by interesting questions and answers session. The talk by Prof. Abhiram Ranade was indeed an interesting one and motivated the budding faculty members to structure their courses.

Dr. R. Kanchana
Asso. Prof. / CSE



HCL JIGSAW 2021

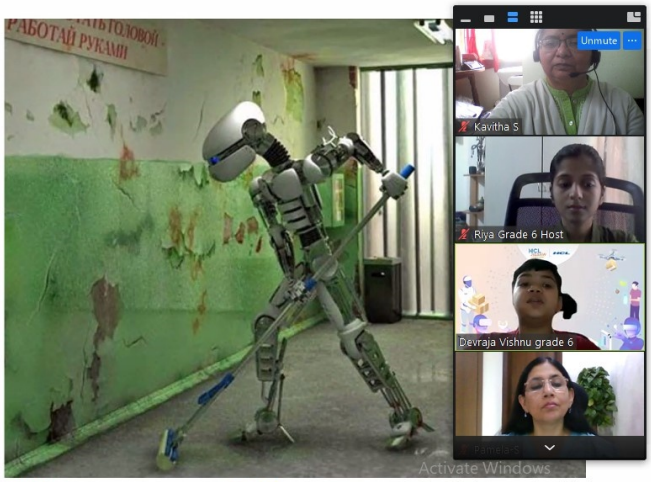
HCL Jigsaw is a new pioneering program initiated to build a culture of problem solving in the country starting at the school level. This is India's Premier Critical Reasoning Platform for students in Grades 6 to 9. The first season of HCL Jigsaw, received the registrations from ~6900 students from 1900+ schools across India. The qualifier round had been conducted between July 8 –13, 2021. A total of 990 students across the four grades from VI to IX were qualified. The finale was scheduled for two days (31st July and 01st August). In the finale, on 31st July, from the first challenge of "Virtual Mystery" round, 36 students were selected by the HCL team (9 students in each grade). The competition theme for each grade is unique: Grade 6 - Future of Shopping, Grade 7 - Designing Smart Cities, Grade 8 - Healthcare and Grade 9 - Electrical vehicles. We are glad that we both were part of the finale in Jury Evaluation team for the final presentation on 01st August 2021 for grade 6 and grade 7 respectively.

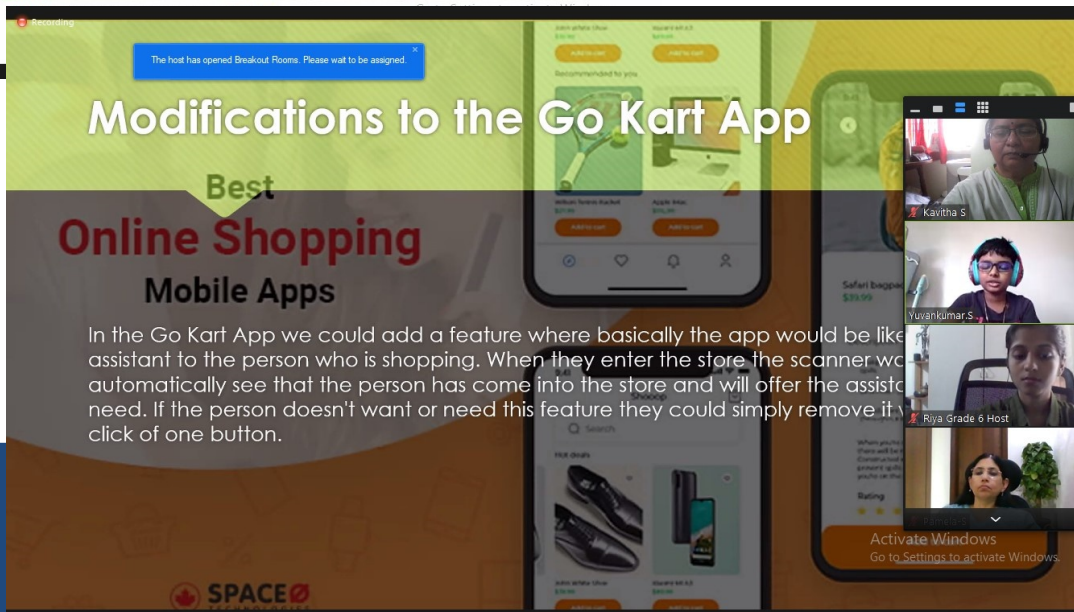
Dr. S. Kavitha, D. R. Priyadharsini

Asso. Prof / CSE

No 5

We can introduce more people like janitors and robots to make the shop look shiny s





DATA SCIENCE AND ASTROLOGY - IS THERE A DIFFERENCE?

ACM India along with iSIGCSE Chapter had organized a Webinar on the topic "Data Science and Astrology: Is There a Difference?" on July 17, 2021 by Prof. Dr. Jayant Haritsa, Department of Computational and Data Sciences, Indian institute of Science. He was humorous from the beginning by starting the session with the abuse made on the phrase Data science. He made a point that it should be a tool of last resort but not a substitute for the domain expertise. Positive impacts of Data science were shown with the examples like rate determination, failure detection and its applications in medical imaging. The fact that if the data is tortured long enough, it will confess to anything is one interesting observation made by him. Few works of that sort were discussed , one in specific that inferred that women will take less than 0 seconds to cover a 100 meter dash in year 2636. Another example where the data science failed, is SUTRA model in predicting the second wave of COVID-19 pandemic. He indicated that this would have been the best model if it had worked along with good epidemiologists. This session threw light on the fact that there are always "scientific-sounding solutions to hopelessly imprecise questions" posed on big data. The speaker concluded that, "Astrology might be more accurate", if you use Data Science inappropriately and cautioned the researchers to use it in the right way.

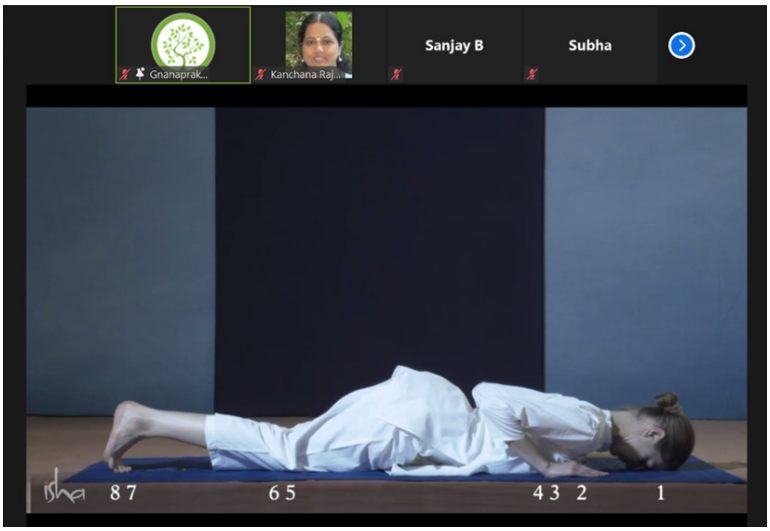
Dr. J. Bhuvana,
Asso. Prof / CSE

VIRTUAL WORKSHOPS AND WEBINAR ON ISHA YOGA

3-Day Workshop on Yoga for Respiratory Health and Immunity

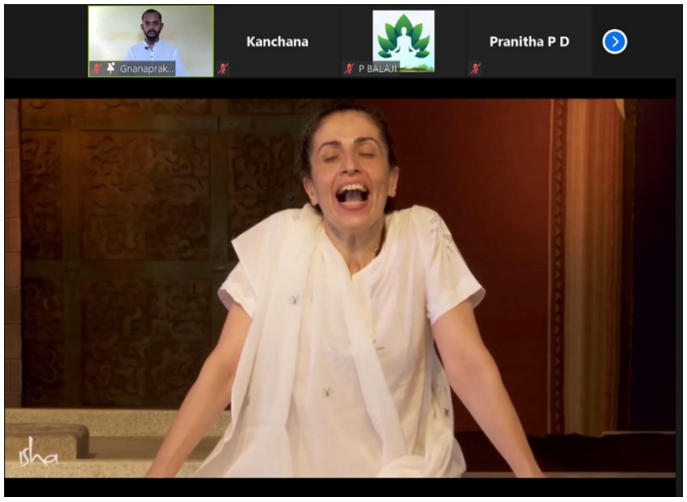
As a part of NSS activity, Dr. Kaythry, In-charge, NSS, SSNCE organized Yoga sessions for the NSS volunteers. Dr. R. Kanchana coordinated the 3-day workshop held during 10-12 June 2021 with a certified Isha Hatha Yoga practitioner Shri. Gnanaprakash. During this workshop, simple but powerful tools of UPA Yoga, Kriyas and Meditation offered by Sadhguru, Isha Foundation were taught. There were THREE sessions of 60 minutes on all the three days on topics, "Yoga for Health and Yoga for Immunity", "Yoga for Success and Yoga for Peace", "Yoga for Wellbeing and Isha Kriya Meditation".

The sessions had talks on yogic perspective on food and lifestyle. They were well received with an average of 80 students every day. The practices are incredibly supportive to the student community in this pandemic situation. It received excellent feedback from the students.



7th International day of Yoga celebrations – Webinar

Dr. P. Balaji, Physical Education Director, SSNCE organized the 7th International day of Yoga celebrations for the students and faculty members under the banner of Shiv Nadar University, Chennai on 21st June 2021. Dr. R. Kanchana coordinated the event with a certified Isha Hatha Yoga practitioner Shri. Gnanaprakash. During this webinar, simple but powerful tools such Simha Kriya and Nadi Suddhi for enhancing respiratory health and boosting immunity were taught.



10-day workshop on Isha Yoga

Upa Yoga activates the joints, muscles, and energy system. Based on a sophisticated understanding of the body's mechanics, Upa Yoga dispels inertia in the body's energy and brings ease to the whole system. These simple practices are designed to help anyone cut through the struggle and walk through life with ease. The benefits of these session include:

- Enhances vitality, focus, memory, and productivity
- Strengthens and stabilizes the spine
- Stabilizes the body, mind, and emotions
- Can relieve back pain, stress, anxiety, and tension
- Can relieve from chronic ailments and improves overall health
- Enhances teamwork and communication
- Imparts a lasting sense of joy, peace, and fulfillment

There were seven sessions on 10 days during 1-15 Jun 2021: 1st, 2nd, 5th, 6th, 7th,8th, 12th, 13th, 14th, and 15th. The sessions included health tips for this pandemic situation, talks by Sadhguru, and powerful meditations. Dr. P. Balaji, Physical Education Director, SSNCE organized this workshop as a part of NSO activity for the sports students. Dr. R. Kanchana coordinated with a certified Isha Hatha Yoga practitioner Shri. Gnanaprakash.The sessions were well received with an average of 180 students every day. It received excellent feedback from the students.

Dr. R. Kanchana
Asso. Prof. / CSE

SSN ACM STUDENT CHAPTER
CORE COMMITTEE 2021-22

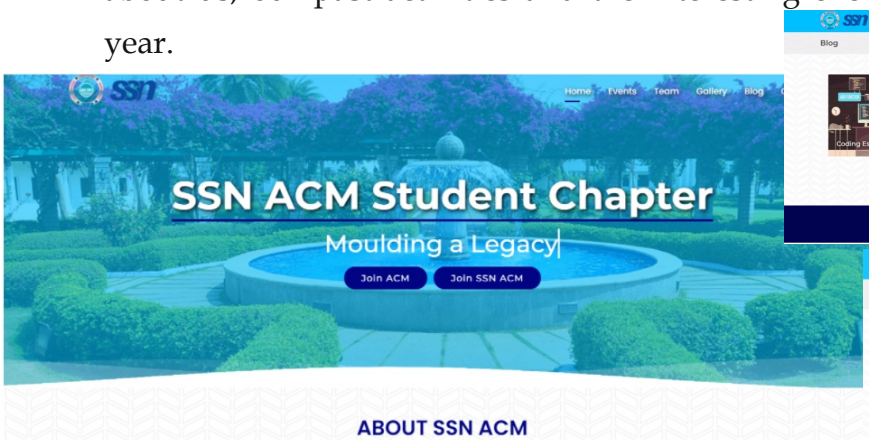
SSN-ACM's core committee comprises highly dedicated and ambitious students working towards a common goal- a world where computing solves tomorrow's problems. By setting goals in its agenda and meticulously achieving them, it constantly strives to outperform itself day after day. Its mission is to institute an ethos that fosters a deep-rooted interest in computing among the student community through an open exchange of information and by providing professional networking opportunities with distinguished subject experts. By providing a multitude of learning resources and professional wisdom through a series of online talks featuring eminent personalities from industry and academia, contests to nurture healthy competition and a carefully curated online library, it also aims to instil curiosity and promote learning among the budding fellows of computing field. Together, the committee aspires to make this student chapter the central hub for knowledge, giving people a platform to come together, teach and learn from one another.

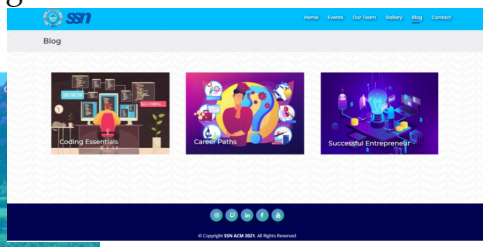
SSN ACM STUDENT CHAPTER WEBSITE RELAUNCH

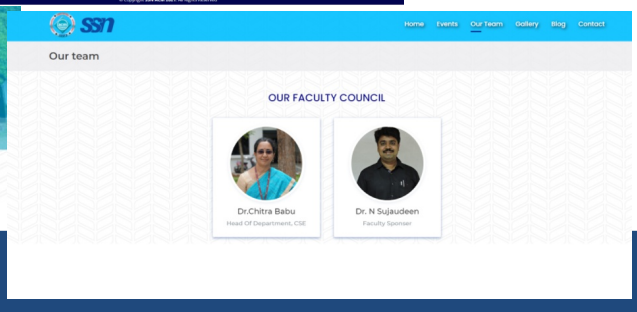
The ACM student chapter has been steadily working to nurture the student community with pragmatic know-how and to offer professional networking opportunities. With this goal in mind, we are thrilled to announce the launch of a brand new version of our website. From the concerted effort of our web development team, we endeavor to archive constructive resources and valuable insights from past events, provide up-to-date information on planned activities and provide an effective communication bridge between the student community and the ACM society of SSN. Join the ACM community to gain access to a carefully curated digital library featuring over 600,000 research articles and TechTalks, an online talk series featuring visionary researchers from industry and academia.

The new website also marks the onset of a more eventful and exhilarating year with a larger team of organizers, enthusiastic and motivated to serve you better. This year also marks the introduction of our community outreach team to help us do our part in leveraging technology to benefit the society that we live in. We also hope to foster stronger ties between the institute and our alumni to build a functional nexus of professional wisdom. With a dedicated technical committee in place, we have outlined many more technical events alongside expert talks and workshops. Our events team continuously strives to ideate innovative and worthwhile activities to facilitate experiential learning and exuberant professional discussions involving industry experts. We plan to strategically deliver these exhilarating opportunities with the active support of our industrious executive team in the most convenient and pragmatic manner possible. We hope to witness active student participation in our future events to help us succeed in this venture.

Head over to ssn.acm.org to connect with the computing society of SSN and get to know about us, our past activities and the interesting events we have in store for the upcoming year.







VIRTUAL WORKSHOP ON "ESSENTIALS FOR CODING INTERVIEWS"

On the evening of July 4th, the ACM Student Chapter at SSN conducted a virtual workshop on the essentials for coding interviews to spur up the preparation process for the placement season. Vrishin Vigneshwar, an ACM-ICPC finalist and the incoming SDE at Motorq, delivered a 2-hour interactive session highlighting the essential preparation steps to perform well in placements, with a detailed emphasis on crucial competitive programming topics. This chapter's first intra-college event of the academic year witnessed an overwhelming turnout of around 400 students with interactive Q&A throughout its duration.

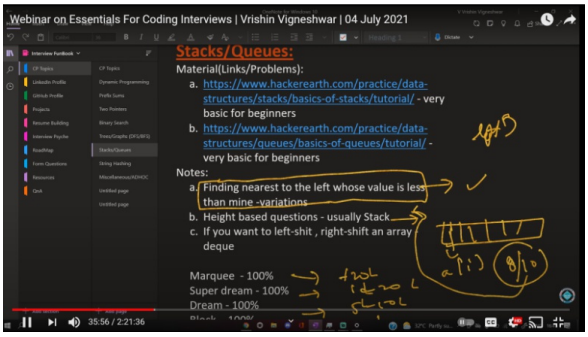
The first hour of the workshop pivoted around the competitive programming concepts that are frequently tested in programming interviews. The speaker attributed different levels of importance to each topic and categorized their relevance in technical rounds of different tiers of recruiters. Among the significant topics were dynamic programming, prefix sums, two-pointer problems, trees and graphs to underscore a few. The speaker shared his personal learning experience, links to online resources and empirical opinions concerning each topic to help the audience devise a more streamlined and time-effective preparation plan.

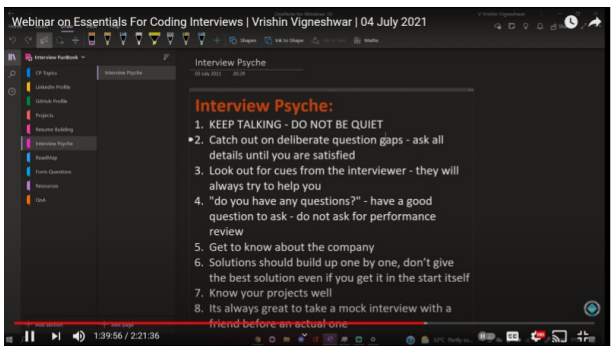
The latter part of the session stressed the gravity of and the parts involved in developing, putting together and publicizing a striking personal profile. The speaker urged the students to build a one-page resume, accentuating their most marketable skills and work, to regularly update their LinkedIn profiles with all their activities and accomplishments and maintain their software projects on sharable code repositories like Github, among other key steps. A few noteworthy projects with a good visual appeal and indicative of sound proficiency in the concerned tools and architectures will strengthen the profiles.

Finally, the speaker shared a few crucial pointers about "the interview psyche" and recommended that students take up mock interviews. He also laid out a detailed roadmap for students in each year of study, indicating what aspect of the preparation process they could focus on and how much depth and time they should attribute to each, given the amount of preparation time they have until the placements commence.

A consolidated e-document, outlining all the topics discussed during the session and links to topic-wise learning resources, personally curated by the speaker, were handed out to the participants post the workshop. The event received remarkably positive feedback from the participants, thanking the speaker and the organizers for an effective and time-pertinent workshop.

SSN ACM Student Chapter Editorial Team





WHAT DOES IT TAKE TO BE A SUCCESSFUL ENTREPRENEUR, HUMAN BEING, DEVELOPER?

On July 15th, the ACM Student Chapter of SSN invited Suresh Kumar G, the CEO of MacApStudio and Pepul to address the students. The speaker shared his journey in establishing MacAppStudio and pointed out the necessary qualities and expertise to build a startup. Followed by an extensive Q&A, this event was attended by an audience of over 200.

The speaker shared his truly inspiring personal journey of struggle, perseverance, and eventual success in the first hour. After engineering, he joined a high-rewarding job in the US. Later with hard work and determination, he and his friend won Intel's Worldwide Developer challenge and came first among 18000 Developers from top universities. Subsequently, they won many such awards and became the Youngest and First in Asia to be Intel BlackBelts.Both of them left the cushy jobs and started MacAppStudio in Chennai, they faced numerous hurdles and pitfalls and struggled for three years. Their faith in the path chosen and their value system transformed MacAppStudio into a Multi-Billion dollar company.

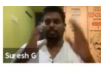
Their distinctive hiring without resume process is intended to break stereotypes about Developers. They rigorously train talented recruits and produce hardworking and highly skilled employees.

In the latter part, the speaker shared some nuggets of wisdom he follows using many relatable anecdotes. The most important one being the power of belief, if a person believes in themselves then anything can be accomplished. He motivated the audience to decide on a final objective and work towards that in small incremental goals. Ignore the naysayers and have good intentions and thoughts. Always be ready for failure and put it in perspective. Have big dreams, and consistently work hard. Do not compare yourself with others, have gratitude, and don't forget your origins. Contribute positively to society to give meaning to your life.

Finally, there was a comprehensive Q&A with over 25 questions. He explained in detail the vision of MacAppStudio to touch and improve the lives of billions of people. How his extracurricular work in design and animation helped his career. He encouraged every fresher to give innovative solutions to the problems in their company. Society in general advocates to "Play it Safe" because of a fear of failure, but if the entrepreneur is confident about taking risks and the idea behind the startup solves a relevant problem then success is assured. With regards to funding, the Bootstrap model is preferred by the speaker because the entrepreneur isn't answerable to anyone. This enabled them to create a people-first business model which rewards, recognition and respects the employees. A unique example of this is when they hired an employee based on his ability to tend to plants and trained him in project management to take care of people. When asked about the secret of their success he humbly replied pure intentions, support system, and hard work. He reiterated that being passionate about the work a person does will keep them motivated and avoid burnout.

The speaker's down-to-earth nature with practical inputs and relatable way of addressing the audience were thought-provoking and positively influenced them to dream bigger and work to achieve their ambitions. The event received overwhelmingly positive feedback.

SSN ACM Student Chapter Editorial Team



20. What are the major factors that introduce delays in product development and deployment? What aspects decrease time-value and are there any such incidents you faced when you started?

21. It is not easy to scale big without a like minded team backing you up. How to build a good startup team and ensure productivity and integrity ?

WHAT NEXT AFTER GRADUATION?

The ACM Student Chapter hosted a talk on the 11th of July to demystify career options after graduation and empower students to make an informed pursuit of their goals. Satish Palaniappan, Software Engineer at Microsoft and an alumnus of SSN, addressed the students with an outline of the various possibilities and his experiential wisdom. As a working professional in the US, his discussions hinged around career options in India and in the US which may, however, be coarsely generalized to other countries as well. The 2-hour long virtual session witnessed over 120 participants.

The talk started with a brief overview of Satish's journey from SSN to a master's at the John Hopkins University and the eventual realization of his dream to be a Machine Learning Engineer. It was through his first internship program at NIT, Karnataka that he realized his passion for Machine Learning. Intimidated by the extensive technical know-how of his peers, he repulsed his urge to give-up and worked persistently throughout the program to prove himself. Building an OCR engine for Indus Scripts that gathered media attention and his novel role as a software engineer at Qube Cinemas in developing ML systems to improve movie-watching experience were among his cherishable experiences as a beginner. Speaking emphatically, he urged students to seize every opportunity to work on their interests and to never fear failure.

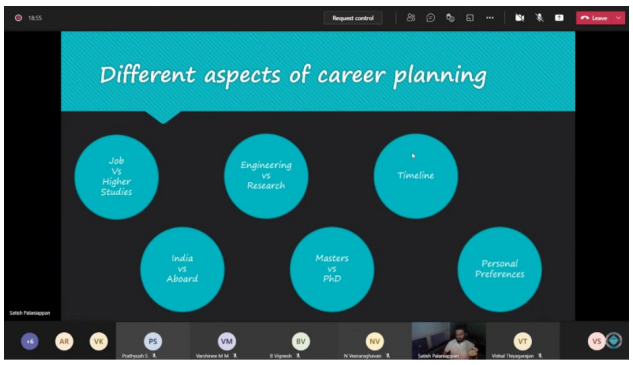
The speaker then laid out the typical career routes which could include pursuing a job in India and possibly transferring to one in the US later, a master's abroad right after graduation or working for a year or two before starting master's, to mention a few. He advised students to concretely realise their end goal and suitably work towards it.

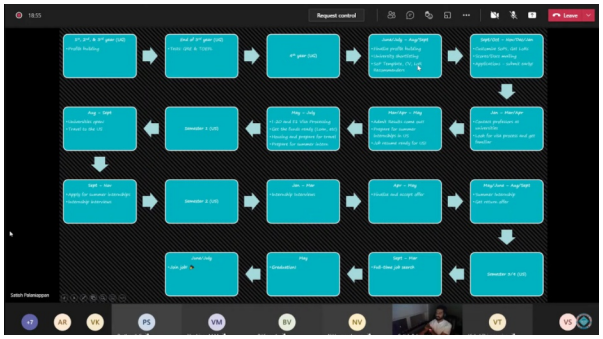
The talk further elaborated on working towards and putting together a remarkable personal profile, shortlisting potential US universities and applying to them. A good balance between test scores, experience and writing samples, according to the speaker, is crucial to being accepted. He then gave a comprehensive outline of what each aspect of the application entails. Notably, he emphasized on the importance of composing an effective Statement of Purpose which must ideally be personalized to suit each university and markedly demonstrate one's reason for choosing their school. Good projects and internships, exhibiting one's depth of research and hard work will register a positive impact on the experience aspect and the

application as a whole, he added.

In the latter parts of the talk, the speaker brought out marked differences in the job search process between India and the US. While every Indian institute boasts and asserts its fame and reputation through its campus placement statistics, on the flip side, this is practically an alien concept in US universities. While online application portals are the conventional method to apply to firms, landing job interviews through referrals and peer networking is remarkably more effective. Preparing and performing well in the interviews is the next most critical step and the speaker narrated his interview experience at Amazon and Microsoft whilst describing the typical assessment techniques. An eminent piece of advice in the context of job seeking, often highlighted by experts as did the speaker, is to prepare a fine, structured one-page resume and to be vocal during interviews.

The talk concluded with the speaker describing his present work-life balance and nature of work and addressing participant queries. The event received an overall positive feedback from the participants.



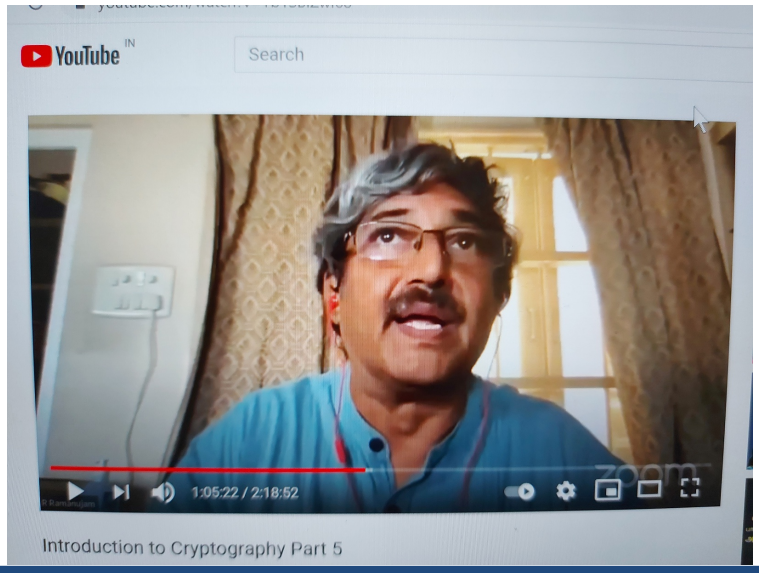


INTRODUCTION TO CRYPTOGRAPHIC TECHNIQUES ACM INDIA EXPERT TEACHER PROGRAM -JULY 2021 - FEEDBACK FROM STUDENTS

For the first time, our department has brought in a professor, from an eminent institute to come and provide us insights on one of our core subjects Cryptography. And I wholeheartedly thank our Head of the department for providing us with this opportunity to learn from one of the experts in this field. Dr. Ramanujam came in, and gave us a fresh perspective towards cryptography, rather than the old traditional way, with his unique style of teaching.

All the concepts were explained in a detailed manner with the help of real-life examples, that helped us reflect and understand the concepts in a better way than usual.
Even the complex concepts were broken down and explained beautifully in a very simple language avoiding the jargons, so that everyone in the room could soak in what he was trying to convey.

We were completely engrossed in the subject as everyone was keen to learn as to what goes on behind protecting our privacy and the sort of algorithms and techniques used to prevent hackers from tampering or extracting our data. Sir was kind enough to clear all our doubts and explain the concepts more than once if required. It was a wonderful opportunity presented to us, by our college to learn and interact with a vastly experienced and reputed professor. We loved being a part of it all. All in all, it was a great experience interacting and learning from a professor of Dr. Ramanujam's stature.



Jeet Golecha, III year CSE A section

We had sessions for three weeks on the fundamentals of Cryptography held by Prof. R. Ramanujam from IMSc. The session was aimed at providing a strong mathematical basis for Cryptography, an area which is not only captivating but also has implications in our increasingly data-driven world

The expert session encompassed core mathematical concepts supported by interesting puzzles. Professor Ramanujam's distinctive method of teaching helped clear the haze around this fascinating subject. During the classes, we delved deep into the underlying mathematics, which made us understand the intuition and logic behind various cryptographic techniques.

We were able to appreciate the intricate details behind the algorithms and techniques used to protect our data from external attacks. We are grateful for this opportunity provided by our department to interact and learn with a meritorious professor. With a new perspective to Cryptography, we look forward to what awaits us in this fascinating area in the near future!

Anirudh Anand, III year CSE A section

Our department provided us with a great opportunity by bringing Ramanujam Sir, an external expert to teach us on "Fundamentals of cryptography".

His classes revolved around a lot of illustrations, stories and real-life scenarios that introduced us to new concepts each day. This style of teaching made the classes a lot more interesting and easier to follow. We learnt a great deal on how ciphering works thereby he introduced us to the fundamental techniques of encrypting based on variations of Caesar cipher. We also got to deal with techniques like private and public keys and the 2-lock treasure box intro that was given prior to its introduction was new and played a major part in increasing our curiosity on this subject. Overall, I had a lot of fun and wish to decrypt more areas in the domain of cryptography.

Karthik Raja Anandan, III year CSE A section

For our 5th semester course 'Introduction to Cryptographic Techniques', our department provided a new experience to our batch by bringing in Dr. R. Ramanujam from IMSc, Chennai. Prof Ramanujam's classes were eye-openers into the world of encryption and data security. In fact, until now, I had not been aware of the intricate relationship data security had with probability theory. Sir's sessions are characterised by interactive discussions, concise powerpoints and blackboard explanations of examples. He always starts off with a recap that ties in very well with the forthcoming topic and closes the session by patiently clearing all doubts. His explanations for concepts such as the trapdoor principle of One way functions, to Shannon's Perfect secrecy theorem and the role computational power played behind it all, were riveting. Another aspect that has only served to enhance the classes is his eagerness to share knowledge and interact, sometimes laughing with students and sharing some quite interesting nuggets on the various people and principles that changed cryptographic techniques historically.
In a way, I'd say that sir's classes are serving as the key to decrypting the world of cryptography for us!

Krupa Elizabeth Thannickal, III year CSE A Section

Cryptography seemed to be a challenging subject for us students, but the learning experience was made a hundred fold easier by Professor R.Ramanujam from IMSc through his unique lecture series. The content was framed precisely and in detail to bring out the riveting facts and techniques widely used in cryptography. It has been a very enriching experience to learn under Sir, who has managed to inculcate in us a strong fascination towards the subject. The sessions were conducted with full enthusiasm and with lively interaction between Sir and us students. He ensures that all concepts are thoroughly understood with the aid of real-life scenarios and small games that helps emphasise the basics of cryptography. Sir has passionately and patiently taught us even the math involved from scratch, for the various cryptographic models. I thank our department for giving us this wonderful opportunity to learn and grow under Sir. I would also like to thank Sir for handling this subject in such depth and precision which has undoubtedly helped us improve our expertise in this subject.

Nunna Aarthi (195001002), III year CSE A Section

When I first got my timetable for the 5th semester, I was absolutely delighted to see that we were having a external professor for the subject Cryptography. Not only was I thrilled about the subject, but also that this professor was from the prestigious and highly eminent IMSc! I was eagerly waiting for the lectures since then. And beyond my expectations, the course so far has been very informative.

Firstly, we were taught about where and why this cryptography was being used. We were asked about the security of our public accounts like email and the "privacy policy" that we sign before creating a mail. It was fascinating to know how data security was essential in such platforms like gmail etc. We were taught about the history of cryptography, how it was actually in use since 400 BC using cyphers and how cyphers work. We were taught about the importance of randomness of cyphers, one way functions that are used in pseudorandom generators. Also, many principles like Kerckhoff's principle were taught and the idea of how cyphers must be made public to check its vulnerability was fascinating. We were taught about what perfect secrecy means through Shannon's secrecy. We were also introduced to number theory through one way functions.Throughout this course so far, I have learnt so much in depth about the basics of how encryption and decryption works. The quizzes conducted at the end of every class were very helpful to evaluate our understanding. I hope in the future that I gain much more knowledge about this course and to implement it in whatever domain I choose to work.

Megan Kirupa Roxanne.R, III year CSE A Section

The class that is being taken by Dr.R.Ramanujam for Introduction to cryptography is really helpful for us. We have only a few subjects where our teachers go by their flow and make us understand the concepts rather than going by the syllabus, and this class is definitely one of those and having Ramanujam sir is a real delight for all of us.
We don't feel tired when attending a 2hr class for the first time thanks to the elegant way of Dr.R.Ramanujam sir's teaching.

Venkatnarayan T R, III year CSE C Section

Ramanujam Sir's sessions are the most awaited ones every week, and I thank our department for providing this great opportunity. This course is all about encrypting and decrypting information using fascinating techniques, and I have always found it exciting. Now, I am even more engrossed in the subject because he maintains the right balance between mathematical references and practical implementations. I appreciate his ability to maintain the progression of a discussion throughout a class. He keeps it very engaging and thought-provoking by giving a question and asking us to ponder on the solution until anyone of us guess it right.His approach works perfectly for two reasons, firstly, the urge to receive an acceptance from an esteemed professor for something I think is the apt solution, and amusing to have a healthy competition with my fellow friends on who gets it first! Overall it is a great experience learning from him in exploring cryptography in-depth.

Meena Muthukumar ,III year CSE A Section

The class is very informative. Professor Ramanujam is very knowledgeable at this subject and his way of teaching is easy to understand.Looking forward to learn more about this course.

Swetha R ,III year CSE C Section

The classes were very informative. Professor Ramanujam is very encouraging and knowledgeable. This course is incredibly helpful and valuable. Looking forward to the upcoming classes.

Vaishnavi Chellappa ,III year CSE C Section

The sessions conducted by Dr Ramanujam are extremely informative and engaging. The teaching methods were clear and concise. Overall great experience.

Yashwanth M,III year CSE C Section

BITWISE CODING CONTEST

The ACM-W student chapter at SSN organized a Coding contest with the name 'BitWise' - you have to be a bit wise to choose your algorithms. The contest, which was held on 28th of July, was open to students from all years across all departments. The event was a grand success with over 260 applicants, 196 enthusiastic coders who joined us for one hour of intense coding.

The platform used to conduct our annual coding competition was HackerRank. The participants were given three questions, one each in easy, medium and hard levels making it encouraging for students from different years to participate in the event. The questions were set up with the help of Karun Anantharaman and Joseph Amirtharaj, students from CSE dept., SSN.

The first place was bagged by Avinash Kartik, 4th year CSE student at SSN. The second place was bagged by Venkataraman Nagarajan, also a 4th year CSE student at SSN.

Avinash Kartik
1st Place

Venkataraman Nagarajan
2nd Place

During the event, the members of ACM-W ensured the smooth happening of the event. We believe that this event would have encouraged students and been a learning experience to all the students!

WINNING MOMENTS

I am glad to share that I have won the “Winner Certificate” 5000/- Cash amount In Dare2 Compete Competitions "IPL Auction" Organized by " Dr. Vishwanath Karad MIT World Peace University (MIT-WPU), Pune" on may 15 2021.In this competition, the participants were tested on the Verbal and Non Verbal Resoning , Logical Reasoning and Programming Skills and Math Problems. The competitions takes place in three rounds. In the first round, I was asked to solve some basic Understanding of logical reasoning questions and Verbal reasoning questions as a qualifier round. In the Second round, I was asked to solve and attempt Programming skills questions (Objective Type Questions) and Some questions related to Computer Networks. I was selected in both the Qualifying rounds and I was qualified for the final round. In the final round, I was asked to attempt 40 questions in 30 minutes of allotted time. The competition was neck to neck and I was able to qualify all the rounds and win the “Winner Certificate”.

Sudharsan S

M.E(CSE)-1st Year

PLACEMENT DIARIES - (2021-22)

Full Time Offers

1)Venkataraman Nagarajan

2)Avinash Kartik

Internship Offers

1)Joseph Amirtharaj

2)Lokesh N N

3)B.Hariprasad

Full Time Offer

Vrishin Vigneshwar

Internship Offer

Karun Anantharaman

B Shriya

1) V.S.Aarthi

2) Kaladharshini

3) Lakshmipriya B

4) K Mahesh Bharadwaj

5) Vishakan Subramanian

MOTORQ

My interview experience with Motorq was very refreshing to say the very least. I had really cordial interviewers who made the interview process very smooth for me. There were 2 sets of interviews covering various domains like competitive programming, system design and projects, and a final interview with the CTO. I learnt a lot of key things during the whole process, the most important ones being, how important it is to talk out loud and to pay attention to every detail when the interviewer says something. To summarise, the interviewers not only evaluated me wonderfully and left me with a learning curve, but also gave me a wonderful insight onto what sort of a enthalling community and people I would be working with, and that in itself I feel is a testament to what sort of good culture and community the company fosters. Needless to say, I was really looking forward to working with the team as soon as possible

Vrishin Vigneshwar
4th Year, CSE

MOTORQ

GOOGLE

I am happy to announce that I got a full time offer at one of the biggest tech companies in the world, i.e GOOGLE! It was a surreal experience interviewing with a company that inspires millions to say the least. All the questions they asked in the interview were very intuitive and I had a fun time answering them. Being a competitive programmer and a master in CodeForces really helped me with the interview process. So if someone were to ask me what is the secret to getting placed at such a prestigious company, my answer would be perseverance. I practiced competitive programming day in and day out without ever giving up and this paid off during the interviews as I felt very comfortable answering the questions that I was asked. Moreover, all the interviewers were very friendly and made the whole process very easy and comfortable. Overall the experience was amazing and I also learned lots in the process, namely how to approach any problem given to you and also how to talk out loud during your thought process and work with others to solve the problem at hand. Needless to say, I really look forward to working with the company and inspiring more to start their coding journey!

Avinash Kartik,
4th year,
Dept. of CSE

I am Venkataraman Nagarajan, a final year student of the BE CSE Department. I am currently placed in Google as a Software engineer. Google has always been one of my dream companies and this huge step forward in my career has been made possible only because of the amazing exposure the department and the college provided for me. My experience and journey throughout my college life has been a major

Venkataraman Nagarajan,
4th year,
Dept. of CSE

support for getting placed in Google. I have always been a math-enthusiast because of which I got an opportunity to be a part of the Coding club.

My seniors constantly helped me throughout the journey in the Coding club. Through this, I was able to participate in a lot of competitions which improved my logical thinking & coding skills. A major turning point which made me confident about my programming skills is the various symposiums I attended at different colleges. The highlight of this time was getting qualified for ICPC - Kharagpur regionals. The exposure achieved through this was highly competitive and made me realise where I stand with respect to my learning process.

Regarding my interview process with Google, it was a phenomenal experience. Every question posed was interesting and had a hidden detail left to be uncovered by me. Being a problem-solving-enthusiast, it was exciting to uncover and arrive at a solution with the interviewer. The interviewers were very friendly and made me feel comfortable throughout the whole process. The overall experience was very good and memorable.

I am really thankful to my seniors - Hemnath (placed in Paypal), Vishal (placed in Google), Anish (placed in Google), Sundar (placed in Amazon), Anand (placed in Google), who made it possible for me to be a part of the coding club which helped me grow as a coding enthusiast. I also want to thank my mentors who helped me prepare throughout this journey. I am thankful to my contemporaries who honed my skills.

I have always been fascinated by the quote “Consistent action creates consistent results” and to see that very quote come true in my life was definitely a proud moment for me.

INTERNSHIP EXPERIENCE @LEANKLOUD

LeanKloud is my first actual internship. I've done an in-plant training and an online course cum internship before, but LeanKloud is my first proper internship. To be completely honest, the two months of being an intern at LeanKloud wasn't easy. Mainly because I was totally new to the IT world and wasn't adept at data science at that time. But I should say, the learning curve is so steep. I got to learn so much in such a short span of time. It also added a lot to my experience and thereby to my resume, that it played a pivotal role during placements. Overall, it was an interesting and educative experience. I would like to thank Bala sir, TTM ma'am and Chitra ma'am for providing me with this wonderful opportunity. I'd also like to thank Vasanth sir, Vijay sir, my mentor Jayan and all LeanKloudians for guiding me throughout the internship. I hope LeanKloud continues to provide the same opportunity for the upcoming batches.

Amith Kumar N
IV year

At LeanKloud I was tasked to create container images for their currently running zip format AWS Lambda functions. I had no idea about lambdas and how to containerize them. So I started with learning about docker, docker images and how to create container using docker. After creating a few containers and testing them I was able to built a container that could run all the lambdas that were in production i.e. a single container that could run all the functions. I ran into a few minor errors that I was able to solve. That container is currently deployed in production for testing. I also learned about CI/CD pipelines for deployment of lambdas in AWS and pull-requests pipelines for unit testing. The two months in LeanKloud as an intern were a great experience. The learning curve was steep and I got to learn so many things in such a short time. I would like to thank the CSE department for providing me with this opportunity. I'd also like to thank everyone at LeanKloud especially my mentor whom I bugged for every doubt that I had.

Avinash Gupta
IV year

This June I had the opportunity to work for LeanKloud Solutions as an SDE intern. I really enjoyed their unique hiring process where we were asked to solve an assignment and were given a week's time. And the interview was a very friendly and calm one. Even though it was a virtual internship due to the pandemic, I could not have asked for a more rewarding experience. It was my first internship working with a team and mentors, who were extremely supportive and experienced. My mentors were always ready to answer any doubts or problems I faced. The best part was that the timings were super flexible. I learnt about a lot of things related to cloud services, which I had never even heard of before. This internship also gave me a lot of real-world hands-on experience and helped me build great connections. To sum it up, I am grateful to have interned at this amazing company, with some amazing people.

Kiruthika J
IV year

LeanKloud was my first internship and my first work experience . The project that was assigned to me at LeanKloud taught me a lot in the cloud domain. I had no prior experience working in the cloud domain, but with the help of my mentors at LeanKloud, i was able to complete my project successfully. It added great value to my profile and my resume. I'm sure the experience i gained during my time as intern at LeanKloud, will help me a lot in the future. I'm really grateful for this opportunity to intern at LeanKloud and I would like to thank Balasubramanian sir, Mirnalinee ma'am and Chitra ma'am for giving me this opportunity. I'd also like to thank Vasanth sir, Vijay sir and my mentors at LeanKloud for helping me and guiding me during the internship.

Krishna Kumar K
IV year

I interned at a startup called Leankloud Solutions. I got this internship through college intern drive. The internship was very useful in improving my professional skill and got me ready for working with bigger companies. I basically worked as a Data Analyst. The company specialises in predicting usage of cloud resources for customers and recommends changes in the cloud architecture so as to save money. I was assigned a task to predict future changes in a time series using LSTMs. It was a great experience interning there and I learned a lot about ML and DL deployment in realtime systems. I wish to thank SSN and LeanKloud for providing me with such a wonderful intern experience.

Veeraraghavan N
IV year

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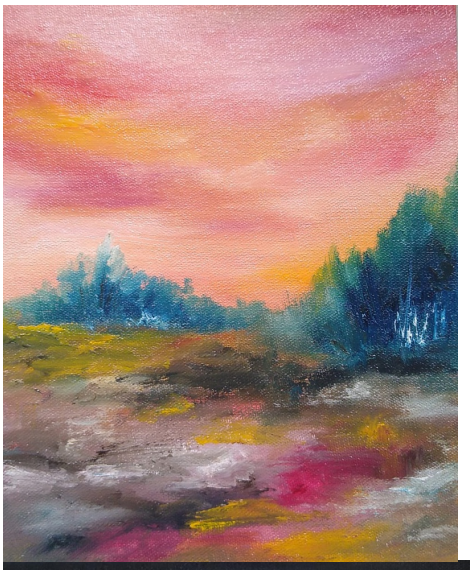

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