VOLUME: 8
ISSUE: 1

SMRITI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SNEAK PEEK

HOD'S DESK

It has been little more than a year since we obtained the autonomous status. This semester is the first full-fledged semester under autonomy with most of the subjects being offered by our department. It provided an idea of what is working right and what needs refinement.

This year also, we successfully organized the workshop on Computational Thinking for the first year undergraduate CSE students with fun-filled activities. I thank Prof. Venkatesh Raman of IMSc for coming down to SSN and delivering a very nice talk with lots of lively examples. I also thank Sarath, Bala, Jansi, Valli and all the student volunteers for helping in organizing the various events of this workshop effectively.

I appreciate Kanchana, Valli and Lokeswari for organizing the workshop on Streaming Big Data Analytics for the second successive year. I appreciate our postgraduate alumnus Sasikumar for conducting effective hands-on sessions in this workshop. I also appreciate Angel, Sarath, Raji and Lakshmipriya for organizing the workshop on Embedded Software Development with our alumni Seshan and Thyagesh as resource persons.

Personally, I felt very satisfied by being able to get two top notch security experts from Cisco systems to come down to SSN and conduct a highly engaging 2-day hands-on workshop on Cyber security which was named as “Dark Knights of the Internet”. I thank Mr. Kaarthik and Mr. Shyam for sparing their valuable time in imparting this specialized knowledge to our students. I also thank Bala and all student volunteers for their help in organizing this event.

I commend the ACE office-bearers as well as the faculty coordinators Sujaudeen and Raghuraman for successfully organizing the events of the annual technical symposium Invente.

I appreciate the office-bearers of ACM and ACM-W student chapters for organizing three events during the semester. Prof. Meena Mahajan’s ACM Eminent Speaker talk was very well appreciated and spurred lots of discussions at the end of the talk. Thanks to Madheswari and Sujaudeen’s efforts towards ACM membership drive, more than two-thirds

of our department faculty members are ACM professional members now. I hope to have a more vibrant ecosystem that supports lots of key initiatives of ACM India.

I congratulate all the students who have bagged prestigious placement and internship offers. I also congratulate the four Anna University Rank holders from the 2019 graduated batch. We are all very proud that our III year students Mohanasundar, Kandavel, Kanishq, Nitin Nikamanth & Nimish Santosh for winning the first prize in the highly competitive Facebook's Hackathon Community Challenge.

Recently, when I was invited for an exclusive round table discussion with Google Research, I happened to hear very positive comments about our alumnus Prashant Mahesh and it is indeed very heartening to see how our alumni are bringing laurels to the institute and the department. Let us all together strive to keep the SSN flag flying high!

Dr. Chitra Babu
HoD/CSE

FACULTY ACTIVITIES

1. **Dr. J. Suresh** went as External Examiner for public viva voce of Ms. Naga Malleswari at SRM Institute of Science and Technology on 10 September 2019.
2. **Dr. Chitra Babu** was invited to participate in the Google for India event and the research round table organized by Google Research at New Delhi on 19 September 2019.
3. **Dr. Chitra Babu** attended the 5th Higher Education Conference organized by the Business World along with the department of higher education, Tamilnadu at Hotel Hyatt Regency, Mount Road, Chennai on 6 September 2019.
4. **Dr. R. Kanchana** conducted the first DC meeting to decide the course work for her full time research scholar Ms. Josephine Udayabala Gnanaraj on 14th Aug 2019.
5. **Dr. R. Kanchana** was part of the organizing team for the "Youth and Truth" programme by Sadhguru from Isha Foundation, Coimbatore on 28th Aug 2019.
6. **Dr. D. Venkata vara prasad** attended DC comprehensive meeting for Ms.Kamatchi Sankar at Bharath University on 6 August 2019.
7. **Dr. J. Suresh** convened the DC meeting for his research scholar V. Narmadha to confirm her registration on 10th August 2019.
8. **Dr. J. Bhuvana** served as external question paper scrutiny member for SRM Institute of Science & Technology , Kattankulathur, Chennai on 13 October 2019 .

TALKS DELIVERED

1. **Dr. B. Bharathi**, delivered a talk on "Data structures", at S. A. Engineering College, Thiruverkadu, Chennai on 22 August 2019.

2. **Dr. J. Suresh** conducted a one day hands-on session on "Data Analytics using R Programming" in Five Days National Workshop on "Big Data Analytics Tools (NWBAT2019)" at SRM Institute of Science and Technology on 20th August 2019.

EXTERNAL INTERACTION

1. **Dr. D. Thenmozhi, Dr. V. S. Felix, Srinethe, Sruthi** participated in a sign-off meeting of Caterpillar for the project titled "Parameter Standardization" on 12 September 2019.

2. **Kalaivani Kumaran, Tejas Sivan, Venkataramanan Venkateswaran of final year CSE (Batch 2016-2020) along with Dr.Mirnalinee T T and J. Bhuvana** gave the demo of phase 1 of the project for Caterpillar on 'Generating Machine Productivity data using Video Analytics' from 4.30 to 5.30 PM through Microsoft Teams Meeting on 15 October 2019.

EXTERNAL RECOGNITION

Dr. Chitra Babu has been nominated as Secretary for the iSIGCSE(ACM India's Special Interest Group on Computer Science Education).

PAPERS REVIEWED

1. **Dr. Y. V. Lokeswari** reviewed the following two papers

   1. Steganalysis of minor embedded JPEG image in Transform and Spatial Domain system using SVM-PSO.

   2. Using Computational Intelligence for Smart Device Operation Monitoring.

   3. Potential Threats and Security Challenges in IOT.

   submitted for an IEEE conference "International Conference on Computational Intelligence and Knowledge Economy ICCIKE 2019".

2. **Mr. V. Balasubramanian** reviewed the following paper "Cloud data integrity verification scheme for associated tags" for the Elsevier Journal Computers & Security.

3. **Ms. S. Angel Deborah** reviewed the paper titled "Evaluating the Performance of Machine learning Algorithms for Proactive Fault Tolerance for Large Scale Scientific Workflow Applications in Cloud Computing " for ICCIKE 2019.

4. **Dr. J. Suresh** reviewed a paper "The Balanced Loss Curriculum Learning", for IEEE Access journal.

5. **Ms. A. Beulah** reviewed a paper titled "A Systematic Review on Model-based Software Security Testing" for ICCIKE 2019.

6. **Dr. D. Thenmozhi** reviewed the following papers for Tamil Internet Conference TIC 2019.

   1. Use of Quizziz Game platform in Teaching and learning of Tamil Language

   2. UNL DECONVERSION FOR SENTENCE REALIZATION IN TAMIL

   3. Handwritten Tamil OCR by Using the Statistical and Structural Theory.

   4. Pattupuzhu Valarppu Vivasaayikalin Varumaanathai Perukka Tamil Vazhi Inaiyathala Seyalmurai Katral Thokuppu

7. **Dr. D. Thenmozhi** reviewed a paper titled "Towards the Development of Artificial Intelligence-based Systems: Human-Centered Functional Requirements and Open Problems" for International Conference on Computational Intelligence and Knowledge Economy ICCIKE 2019.

8. **Dr. K. Madheswari** reviewed the following papers for Multimedia tools and Applications journal

   1) Color Image Encryption Method Based on Tangent Delay Ellipse Reflecting Cavity Map System (TD-ERCS) and DNA Coding

   2)specific attention-aware network for clothing-invariant gait recognition

   3)A new design of cryptosystem based on S-box and chaotic permutation

4)Deep Feature Learning with Mixed Distance Maximization for Person Re-identification

9. **Dr. P.Mirunalini** reviewed a paper titled "Integrating Multiple Features for Tracking Vehicles in Satellite Videos" for IEEE Geoscience and Remote Sensing Letters.
10. **Mr. V. Balasubramanian** reviewed the following paper "An Integrity Verification Scheme of Cloud Storage for Internet-of-Things Mobile Terminal Devices" for the Elsevier Journal Computers & Security
11. Dr. S. V. Jansi Rani reviewed the paper titled, "BBR-ACD: BBR with Advanced Congestion Detection", for IEEE Access.
12. Mr. B. Senthil Kumar reviewed the following papers titled:
    a. Automatic Robotic Crop Disease Detection and Pesticide Dispenser using Machine Learning for publication in the special issue "Design and Analysis of Artificial Intelligent Systems using Machine Learning, IoT and Nature-inspired Computing Systems"
    b. Service requests classification based on text mining techniques for publication in EAI Transactions on Energy Web.

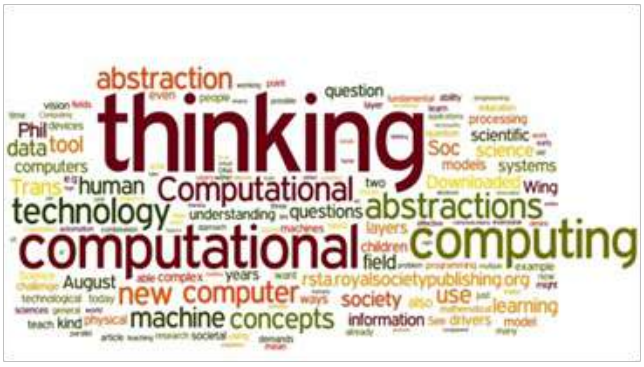
FACULTY PUBLICATIONS / PAPER PRESENTATION

1. M**r. B. Senthil Kumar** presented the paper titled "Tamil Paraphrase Detection using Long-Short Term Memory Networks" at Tamil Internet Conference-2019 (TIC2019) organized by INFITT, Tamil Virtual Academy at CEG Campus, Anna University on 21 September 2019.
2. **B. Senthil Kumar, D. Thenmozhi, C. Aravindan, S. Kayalvizhi** published paper titled "Tamil Paraphrase Detection using Long-Short Term Memory Networks", in the Proceedings of Tamil Internet Conference-2019 (TIC2019), ISSN 2313-4887
3. **Chamundeswari Arumugam, and Srinivasan Vaidyanathan** published a chapter titled, "Agile Team Measurement to Review the Performance in Global Software Development", in IGI book series, "Crowdsourcing and Probabilistic Decision-Making in Software Engineering: Emerging Research and Opportunities", Aug 2019.
4. **Dr. V. S. Felix Enigo** has presented a paper titled "An Automated System for Crime Investigation using Conventional and Machine Learning Approach in Springer Conference ICIDCA-2019 held at RVS College of Engineering and Technology, Coimbatore, 17-18 October 2019.
5. The paper titled, "Smart wildlife vehicle collision detection system" authored by **Vignesh Hariharan K, Santhosh J, Santhosh S, Sree Hari R, Sri Krishna M, Angel Deborah S,**

Rajalakshmi S and Beulah A was presented in the First International Conference on Recent Trends in "Clean Technologies for Sustainable Environment (CTSE-2019) held during September 26-27, 2019 organized by the Department of Chemical Engineering, SSN College of Engineering.

6. The paper titled, "Neural network based forest surveillance system" authored by **Ujjwel Balwal, Varshini Balaji, Sivakami K, Srinivasa arun, Yeragudupati, Angel Deborah S, Rajalakshmi S and Saritha M** was presented in First International Conference on Recent Trends in "Clean Technologies for Sustainable Environment (CTSE-2019) held during September 26-27, 2019 organized by the Department of Chemical Engineering, SSN College of Engineering.
7. The paper titled, "Fossil fuel emission prediction system using machine learning techniques" authored by **Angel Deborah S, Rajalakshmi S, S Milton Rajendram, Mirnalinee T T and Ujjwel Balwal** was presented in First International Conference on Recent Trends in "Clean Technologies for Sustainable Environment (CTSE-2019) held during September 26-27, 2019 organized by the Department of Chemical Engineering, SSN College of Engineering.
8. The paper titled, "Weather prediction and forecasting system using ensemble techniques" authored by **S.Rajalakshmi, Angel Deborah S, S Milton Rajendram, Mirnalinee T T, M.S. Pranathy and S. Ranjana** was presented in First International Conference on Recent Trends in "Clean Technologies for Sustainable Environment (CTSE-2019) held during September 26-27, 2019 organized by the Department of Chemical Engineering, SSN College of Engineering.
9. **D. Thenmozhi, P. Mirunalini, S. M. Jaisakthi, Srivatsan Vasudevan, Veeramani Kannan V, Sagubar Sadiq S** published a paper titled "MoneyBall - Data Mining on Cricket Dataset", IEEE-Second International Conference on Computational Intelligence in Data Science (ICCIDS-2019)
10. **S. M. Jaisakthi, P. Mirunalini, D. Thenmozhi, Vatsala** published a paper titled "Grape Leaf Disease Identification using Machine Learning Techniques", IEEE-Second International Conference on Computational Intelligence in Data Science (ICCIDS-2019)
11. **P.Mirunalini** presented a paper titled" presented a paper titled “Segmentation of Coronary Arteries from CTA axial slices using Deep Learning techniques” in IEEE Region 10 conference TENCON 2019 held during 17th -20th October 2019 at Kochi, Kerala.

WORKSHOP ON COMPUTATIONAL THINKING



A two-day Workshop on "Computational Thinking" for the first year Computer Science students of 2019-2023 batch was organized on the 23rd and 24th August, 2019 by Dr. Chitra Babu, HOD, CSE along with Dr. S. V. Jansi Rani, Dr. K. Vallidevi, Mr. V. Balasubramanian and Mr. K. R. Sarath Chandran.

The first day of the workshop began with an enthusiastic talk by Dr. Venkatesh Raman, Professor, Institute of Mathematical Sciences (IMSc). He provided insights on computational thinking and how it is important for solving a problem. He had also given many examples to demonstrate the thought process of computational thinking.

The second day started with the talk by final year students Harsha, Sundar, Edison, Hariny and Kalaivani. Their talk was focused on giving a bird's eye view on each and every activity of the department which is involved in building their career. They talked on academic growth, placements, club activities, innovation cell, internal funded projects, paper presentation, higher studies, internships and Hackathons. The first year students were very much excited after listening to them.

The first year students were divided into two batches and the various events were conducted in the CSE Seminar hall and in the CSE labs. Group of students from III year CSE had volunteered in organizing all the events. Three events were conducted in CSE Seminar hall. It includes Find the Battleship, Home Coming and Learning from experience.

In Find the Battleship game, students are divided into groups and were battling with one on one team to win. They are encouraged to find the logic behind the game. Some of them figured out it correctly as searching technique. At the end of the event, Dr. Chitra Babu, HOD, CSE discussed about the various strategies in it.

Prof. Milton along with Dr. T. T. Mirnalinee, Ms. S. Rajalakshmi and Ms. M. Saritha have conducted the next event called "Learning from Experience". Currency grouping and bounding box problem were given to the group of students. The team made the students to find out the various possibilities step by step in solving the problem. Finally, Dr. Milton elaborated on the concept of clustering and classification in machine learning and how to learn from the experience. He has also shown the demo of the machine learning algorithms used for solving these problems in python.

In the third event Home Coming, students were separated into groups of 3, made 5 groups to sit in a circle. Color cards are used as a drum card to reach their respective homes. Students enjoyed this activity. The team who reaches their home with minimum time will be the winner of the event. At last, Dr. Chitra Babu explained the concept of distributed computing, the concept behind the game.

In the CSE Laboratories, three events were organized. In the event called Lines and Loops, Students were divided into groups. A pattern will be given to the group except the leader. Leader has to draw the pattern based on the instruction given by other team members. Finally, the concept of stepwise algorithmic way of solving a problem was highlighted.

Various puzzles were given and students had enthusiastically solved the puzzles. Using Thunkable, the students had developed a mobile app. Few problems were taught first, and then they were given a specific task to design.

This workshop was an eye opener for first year students to stimulate computational thinking in them. This workshop also revealed how the real world problems can be viewed and articulated using computational thinking.

Dr. S. V. Jansi Rani
Associate Professor
CSE

COMPUTE, COMPUTE, COMPUTE - HOW HARD CAN IT GET

The ACM and ACM-W student chapters of SSNCE jointly hosted the ACM India Eminent Speaker programme on 11th September at the ECE Seminar Hall. The two-hour talk titled "Compute, Compute, Compute - How hard can it get?" was given by the esteemed Professor Meena Mahajan from the Institute of Mathematical Sciences, CIT Campus, Chennai. Over 200 participants from different colleges and streams came together to witness the interesting talk on computation.

Beginning with a brief welcome address by the ACM-W chair, Nandhinee P R, the talk started off with an introduction to the term "Computing". Simple and concise, Professor Mahajan drove across several concepts of computation and its importance using simple and real-world examples. More importantly, the issue of combinatorial explosion was beautifully illustrated using the Tiling Problem. Subsequently, she delved into the much debated problems of all time - The Halting Problem. Using its logic, Professor Mahajan proved why there cannot be a program that can check the correctness of another program. Using certain transformations, it can be reduced to The Halting Program i.e. to write a program which will find if some other program will halt or not. The whole concept was beautifully explained using several visual aids.

Following the Halting problem, Professor Mahajan addressed one of the most important millenial questions regarding computation - " Is P = NP? ". She made the audience relate to the problem by elaborating on the tangible effects of it on the world as we know it. Amongst those, the security implications were discussed at length. She cited the works of various researchers and scholars to point out the advantages and disadvantages of P and NP. At this point, she digressed to explain in brief about the impact of oncoming areas of research in Machine Learning on computation.

At the end of the talk, she stressed the importance of computational complexity in designing algorithms effectively. The talk concluded with a QA session where many enthusiastic students raised their queries to Professor Mahajan regarding Game Playing Agents powered by AI, to which she answered patiently.

After the QA session, Professor Mahajan was presented with a memento by the Head of the CSE Department, Dr. Chitra Babu to commemorate the occasion. On a final note, I would like to thank the CSE department for providing the ACM and ACM-W student chapters with an opportunity to organize such an amazing event. It's with great amount of certainty I am saying that we would be more than willing to host more such talks in the future. Thank you.

Dyaneswaran Sivasankaran

Final Yr CSE

GOOGLE FOR INDIA

I was invited to attend the Google for India event and the exclusive research roundtable discussion that was hosted by Google at New Delhi on 19th September. In the morning, it was inaugurated by the honorable minister of Communications, Electronics and Information Technology, Mr. Ravishankar Prasad. He talked about the significance of safe and secure communication and ensuring privacy in the digital age. He also appealed to Google in making a subset of 100, 000 self-sustaining digital villages as model villages. Later, Google leadership announced the launch of a new research lab facility in Bangalore focusing on Artificial Intelligence(AI) and also announced Dr. Manish Gupta who is an ACM Fellow, ex-Director of IBM Research, India, as the Director for that lab. Google announced a slew of new products and services such as Google Lens, Google Bolo app that helps children in learning to read in multiple languages, Google Pay for digital payments, Google assistant, facilitating getting assistance through vodafone calls even with 2G phone sand Spot. More information can be found from the following news coverage at India Today https://www.indiatoday.in/technology/features/story/9-things-that-google-announced-at-its-google-for-india-event-1601420-2019-09-20

In the afternoon, Google leadership held a roundtable discussion with just 25 people from

Jay Yagnik, Vice President and Google Fellow, Google Research and Dr. Manish Gupta head of the newly formed Google Research Lab, India

various academic institutes such all IITs, IISc, IIITs, CMI, Wadhwani Institute of AI and TCS Research. It was told that Google Research Lab, India will focus on solving problems of societal relevance in domains such as Healthcare, Agriculture and Education using AI. It will involve academia and other research labs which already exist in India. Possibilities of student internships and faculty sabbaticals were talked about. Google will also help in getting datasets, access to state-of-the-art infrastructure, bringing Google people in offering value-added courses. I felt it as a great privilege to be part of this exclusive discussion bringing SSN's name on Google Research India's Radar along with other elite institutes.

Dr. Chitra Babu

HOD/CSE

Dr. Chitra Babu during the Round Table discussion

Google for INDIA

5TH HIGHER EDUCATION CONFERENCE

I attended the 5th Higher Education Conference at Hotel Hyatt Regency, Chennai on 6th Sepeptember. This conference was organized by BusinessWorld with the theme "Education 4.0 powering Industry 4.0" with AICTE as supporting partner and Government of Tamilnadu as host partner. In the inaugural session, Shri. Manghat Ram Sharma, IAS, Principal Secretary, Department of Higher Education, Government of Tamilnadu and Prof. Anil Sahasrabudhe, Chairman, AICTE gave the keynote address. They all insisted that engineering education has to be multi-disciplinary in future and the students should be prepared for the jobs that may not exist today. I liked Prof. Anil Sahasrabudhe's saying that academic institutes should only be responsible to provide overall generic skillsets to students and industries have to train the students in their respective domain.

There was an Industry presentation from Adobe regarding "Future Skills: Creative, Digital & Careers". It emphasized on the skills that are being sought after by industry such as virtual/augmented reality, digital content design, UI/UX design, video editing and production.

There were four panel discussions. The first one was on "Draft National Education Policy: A Game Changer for Higher Education?". The vice-chancellors of SRM University, Sastra University, KREA University, Bharath Institute of Higher Education and Research and Saveetha University participated in the panel. The new education policy talks about eliminating the affiliation system and making every college autonomous. However, with freedom comes the responsibility and the institutes should be ready to receive the autonomy and be accountable for their own decisions. The second panel discussion focused on "Employability and Industry Requirements: Role of Academia and Industry Collaborations", where Deans and directors of prominent institutes discussed the various ways in which industry and institutes can collaborate to create industry-ready graduates. Everyone agreed that internship should be an integral part of the curriculum and there is a need for modernization in curriculum as well as total reform in assessment. Sabbatical for faculty to go and spend some time in industry was also discussed.

The third panel discussion was on "Southern India as a Hub for Higher Education: Challenges and Opportunities". Mohanty of Sona School of Management made an interesting observation that compliance is external while discipline is internal. Our president

Kala Madam talked about making education affordable with the CSR funds of industry.

The fourth panel discussion was on "Talent and Industry Immersions: Opportunities and Expectations". Again, an impressive array of vicechancellors of Madurai Kamaraj University, Manonmaniam Sundaranar University, Amrita University Participated in this. Dr. Kamal Bijlani of Amrita University talked about how in our country, most of the time, the kids were never told to find out what they like and what their strengths are. Using augmented reality for immersive learning experience was discussed.

The key takeaways of the day's sessions were the importance of teachers keeping abreast of changing trends in technologies, imparting quality education, significance of internships, industry and institute working synergistically in producing competent graduates.

Dr. Chitra Babu
HOD/CSE

ACM COMPUTE 2019

I attended the ACM India's Annual Conference COMPUTE 2019 which is focused on computing curriculum, pedagogy and assessment as well as research on computing education at Goa during 10-12 October. The first day of this conference was a common day with the CC 2020(Computer science Curriculum) team comprising faculty from U.S, China, Japan, New Zealand, Sweden and Peru. In this effort, they have been contemplating on designing the curriculum based on competencies(Knowledge, Skill and Disposition) instead of outcomes alone.

There were sessions on pedagogy/assessment of Introductory programming, Algorithms, Architecture, DBMS etc. by experienced teachers from IIT Bombay, IISc, IIT Guwahati and CMI. Prof. Sudarashan from IIT Bombay talked about a tool his group has developed for automated grading of SQL queries, XData. There was a panel discussion on "Autonomy as an enabler" in which I had been invited as a panelist. The other panelists were from PSG Tech, Somiah College of Engineering, Mumbai and from iNurture Education Solutions Pvt. Ltd. It was concluded that autonomy does provide increased freedom to design the curriculum and assessment, compared to being an affiliated college; however, it has to be used responsibly without abusing it. Autonomous institutes should guard themselves from making the students too close a fit for a particular industry, making them irrelevant to other industries. Non-autonomous institutes also can create good opportunities for their students to learn appropriate skills through various workshops, hackathons, internships and research/industry collaborations. If institutes are doing this, they will be ready to handle autonomy once it is given to them, in a productive and positive way.

There was also an industry panel discussion on "Industry expectations from fresh recruits". Mr. Kaarthik of Cisco insisted that the industry definitely will benefit if the fresh recruits are coming with sound fundamentals and strong problem-solving skills. He emphasized the importance of having a good GitHub profile. One of the other panelists, Mr. Pandurang Kamat of Persistent Systems, Pune, told that students with thorough understanding of concepts and programming skills can be trained in any required technology very quickly. Attitude, communication skills and working effectively in a team were also very much in the list of expectations.

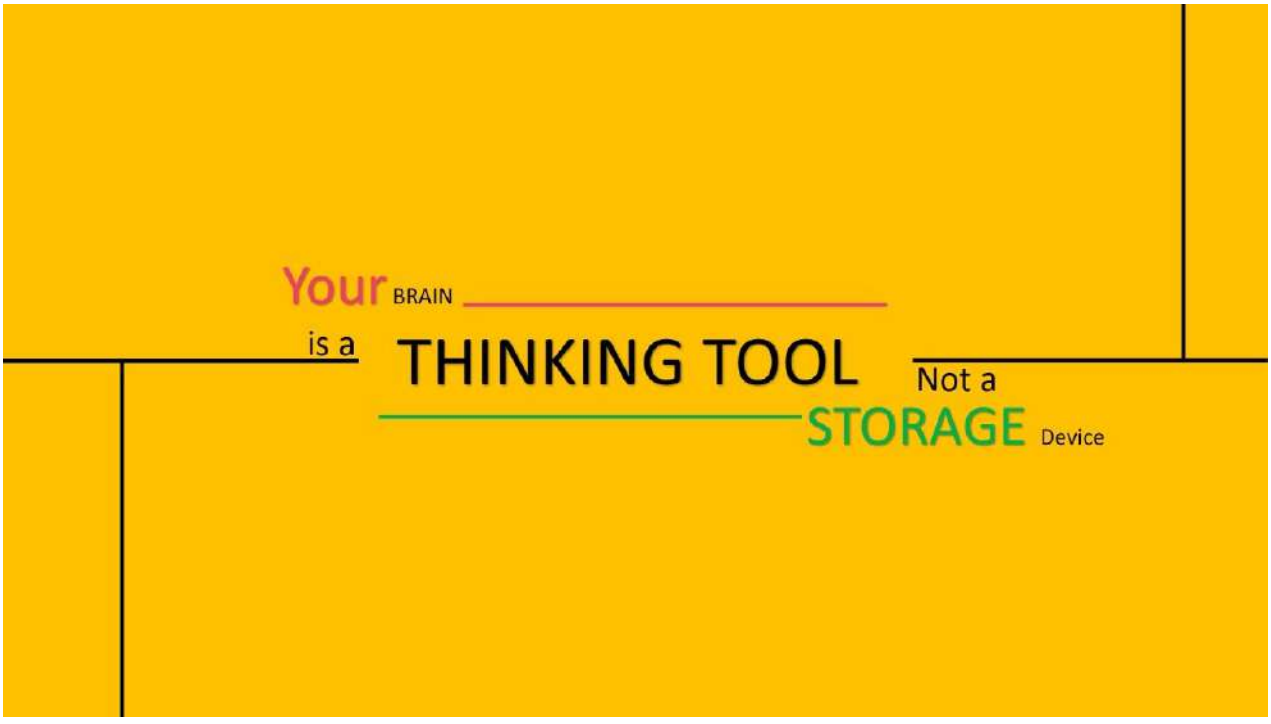
Apart from this, there was a session by Arjun Arul from CodeChef emphasizing the

importance of using online judges for evaluating the programming assignments of students. GitHub also conducted a session on how its platform could be used for software development and version management.

The entire program schedule is available at http://www.acm-compute.in/2019/

After some time, the videos of all the talks will be uploaded for everyone's benefit. Keep checking!

Dr. Chitra Babu
HOD/CSE



EMBEDDED SOFTWARE DEVELOPMENT WORKSHOP

The hands-on Embedded Software Development Workshop organized by the Computer Science Department on 1st and 2nd of August 2019 was a very knowledgeable experience for all of us who attended it. The session was enthusiastically conducted by our alumni Mr. R. Seshan, presently working at Qualcomm and Mr. D. Thiageshwaran, presently working at Lyceuminc.

Embedded Software Development is a branch of software Development where the output can be seen visually through light, audio, or sensors. I had an amazing experience as this type of programming we did was unique compared to the ones we usually did in class. The first activity, blinking of the LED lights as per the pattern mention, captured my attention and intrigued me about the working of the Arduino board. Later that day, we proceeded with many exciting activities like creating an audio output from a buzzer in a desired rhythm and controlling a motor.

On the second day, we learnt to create our own Wi-Fi hotspot and also use the IMU sensor (Orientation and motion sensor) to read the orientation of object and run a program accordingly. We concluded the workshop with stimulating projects for each team, where we had to work on programming a mini hand model that replicates our finger motions using servo motors and IMU sensors. The top three batches were awarded with arduino boards. This workshop introduced me to a new horizon of software development.

I found this Embedded Software Development Workshop very insightful and it provided me with a lot of knowledge over what is Embedded Software Development and the basics needed to continue learning in this realm of software development.

Vaishnavi M R, Shanmugapriya M G
II year

WORKSHOP ON STREAMING ANALYTICS ON BIG DATA

Three days workshop on Streaming Analytics on Big Data with Hands on was organized by **Dr. R. Kanchana, Dr. K Vallidevi and Dr. Y. V. Lokeswari** during 29 to 31 August 2019. The workshop targets the UG, PG students, research scholars of CSE and IT. But the participants from ECE department also showed interest and six students participated in the workshop. The guest invited for the workshop is Mr. SasiKumar Venkatesh, Software Engineer in Walmart, Bangalore. The workshop aimed at covering the following topics: Apache Hadoop, Apache Map Reduce (MR), Apache Spark, Spark Streaming, Spark SQL, Kakfa and Spark Streaming, Structured Streaming, Streaming Architectures- Kafka, Kappa and Lambda.

Further there was hands-on session for every topic. Participants formed batches and a case study was assigned to each batch. Participants worked on the case study by applying the concepts learnt in the workshop. Topics covered in workshop are as follows.

Day 1 (29-Aug-2019)

Parallel Programming models viz Hadoop Map Reduce and Spark was introduced. Applications of streaming analytics were discussed. Mr. Sasikumar explained about the difference between execution of any task on Hadoop Map Reduce and Spark. There was reduction in execution time when word count example was executed on Spark compared to Hadoop Map Reduce. Participants worked on case study at the end of the session.

Group photo of Participants with HoD/CSE, Guest Speakers and Organizers

Day 2 (30-Aug-2019)

On second day, Spark Streaming was introduced. Scala programming was introduced and word count example was explained with Spark Streaming. Spark SQL allows data to be stored and processed in a structured format. The case study was extended for performing analytics with SparkSQL. A Distributed Broker network with Kafka (A Publish / Subscribe System) was introduced with its architecture. Kafka was installed and Eclipse IDE was used to program and create the broker network, producer and consumers. This concept was implemented for the case study by the participants.

From L-R: Dr. Y. V. Lokeswari, Dr. K. Vallidevi, Dr. R. Kanchana, Mr. Sasikumar Venkatesh (Walmart Bangalore), Mr. Ashwin (Motorq Ltd, USA) – Guest Speaker and Dr. Chitra Babu

Day 3 (31-Aug-2019)

On third day, Spark Streaming was discussed in detail by comparing it with Apache Storm. Apache Storm is used for real time processing while Apache Spark could perform near real time processing. Streaming context was explained with word count example program, which was further extended for the case study by the participants. Finally, the architecture of Kappa and Lambda architectures were explained for stream data processing.

Hands on was conducted for the following topics: Programming with Apache Map Reduce (MR), Streaming Analytics using Spark, Spark SQL, Kakfa and Spark Streaming using Eclipse IDE. Participants worked on batches for different Case Studies At the end of the workshop, the participant batches were evaluated for the assigned case study and cash prizes were awarded. Cash prize was awarded as follows. Rs. 1000/ - for first prize, Rs. 500/- for second prize and Rs. 300/- for third prize.

Dr. R. Kanchana

Asso. Prof / CSE

WORKSHOP ON TRAINING YOUR OWN IMAGE CLASSIFIER

The Workshop was conducted on the 14th of August by the SSN ACM-W and ACM Student Chapters. The participants comprised of CSE students from 2nd and 3rd year. It was a one day workshop which consisted of a practical hands on experience in training an actual dataset to recognize cats and dogs.

Entering with just the thought of machine learning and CNN, we entered into a world of descriptions and detailed analysis was given by Nandhinee, 4th year, chair of ACM-W. A much better insight was provided into the arena of ML by first helping us distinguish between supervised learning and unsupervised learning and then delving deeper into neural network.

At this juncture, the concept of supervised learning materialised clearly. A learning in which we teach or train the machine using data which is well labeled that means some data is already tagged with the correct answer. After that, the machine is provided with a new set of examples(data) so that supervised learning algorithm analyses the training data(set of training examples) and produces a correct outcome from labeled data.

The concept of activation function was introduced along with the number of layers present in the respective architectures. The architectures include LENET, VGGNET and AlexNet.
After this theoretical session, the real fun started with the practical example which was given by each and every one training a LENET CNN model in Keras.

The CNN model was trained successfully and the session after lunch was spent in testing the model to distinguish cats and dogs. We also visualised the model we had trained using Tensorboard. Around 80% accuracy was achieved along with 100% satisfaction expressed by the participants.

Arunima S,
3rd year, CSE.

THE DARK KNIGHTS OF THE INTERNET

Dark Knights of the Internet, a hands on Cyber Security Workshop was organized by the department of Computer Science and Engineering along with experts from CISCO Systems on 23rd and 24th of September, 2019. The two experts from CISCO were Kaarthik Sivakumar who is working as a Principal Engineer and Shyam Sundar Ramaswami who is working as a Security Research Lead. The two day workshop proved to be quite eventful and informative.

The first day was conducted by Mr. Kaarthik who introduced us to RSA key pairs which are used for secure data transmission and consist of an encryption key which is public and a private decryption key. We learnt how to transmit files using the RSA keys and how to verify whether it was a good or bad file. We learnt how to create a CSR certificate for both server and client. A more detailed input on the green lock test was given and we learnt how to look up services of different websites and verify their certificates. All these activities were

performed using openSSL. Overall, a lot of interest was sparked and spirits were running high at the end of the first day. The second day was conducted by Mr. Shyam who gave us an insight into the subtle art of malware detection. There was a log file from which we identified a suspicious URL and started looking deeper into its origins. We visited virus total to check the credibility of the site and investigated further into the threats it possessed. All this was done using linux commands. It was a very thrilling experience to identify the malware and prevent it from taking over and corrupting our systems or stealing personal information. We can safely say that these two days were productive by the minute and were thoroughly enjoyed.

Akshay Ramakrishnan A
III Yr CSE

IEEE REGION 10 CONFERENCE TENCON -2019

The 2019 IEEE Region 10 Conference TENCON -2019 was held during October 17-20, 2019 at Grand Hyatt Kochi Bolgatti, Kerala, India. TENCON is a premier international technical conference of IEEE Region 10. The Theme for TENCON 2019 is Technology, Knowledge, and Society. At TENCON, participants were given the platform to interact with professionals who wield advancing technology to overcome the different issues faced by the world.

The conference had several tracks as parallel sessions and several keynotes were presented by different delegates. I reached the conference venue on 20th October, 2019 and attended the key note talk on "Sustainability with Digital Transformation" given by Mr. Tony Thomas, CVP &CEO Nissan Motor Corporation. He explained how they are working towards the automation of car, how this technology will work for Indian roads and what the problems they are facing towards the transformation. The next talk on "Neural prostheses for Amputees and patients with spinal cord injuries" by Dr. John Mathews, gave details on the technology used for developing limbs.

I presented a paper titled "Segmentation of Coronary Arteries from CTA axial slices using Deep Learning techniques". The track, in which I presented, had papers related to image or speech analysis using deep learning.

Dr. P. Mirunalini
Associate Professor

TEACHERS' DAY CELEBRATION - A GLIMPSE

Dr. J. Suresh and Dr. D. Thenmozhi received the First and Second Prizes respectively for the Best Faculty CSE from Mr. R.B. Ramesh, Indian Chess Grandmaster for the academic year 2017 – 2018.

Dr. D. Thenmozhi and Dr. Chandrasekar(Physics) organized Anthakshari event as part of teachers day celebrations held on 10 August 2019. Dr. Chitra Babu was part of the team which won first prize in the "Anthakshari" event.

Dr. Chitra Babu and Dr. D. Thenmozhi participated in "Sing a Song" event. They both were part of the team which won first prize in the event "Quiz".

YOUTH AND TRUTH #UNPLUG WITH SADHGURU

"Youth AND Truth" is a movement led by Sadhguru of ISHA Foundation, Coimbatore to empower the youth of our country with the required clarity and perspective – so as to enable them to realize their full potential. Youth AND Truth is an investment in the future of the nation.

The students submitted their questions while registering for the event. Three student moderators, Tejas from CSE, Mohinish from Mech and Shruthi from EEE asked those questions to Sadhguru. The event happened from 11.00 am to 1.00 pm on 28.08.2019. Earlier, there was classical dance programme from Isha Samskriti and music concert by Sounds of Isha band.

Sadhguru also talked about Cauvery Calling which is a first of its kind campaign, setting the standard for how India's rivers – the country's lifelines – can be revitalized. It will initiate the revitalization of Cauvery river and transform the lives of 84 million people. The simplest way to make Cauvery flow again is to plant trees. Cauvery Calling will support farmers to plant 242 crore trees in Cauvery basin by adopting agroforestry. This will have the triple benefit of Improving soil health by replenishing organic content in the soil, Reviving the river and groundwater levels by increasing water retention in Cauvery basin by an estimated 40%, Augmenting farmer income through agroforestry, proven to multiply farmers' incomes 3-8 times in 5-7 years.

I was part of the organizing team for this event.

Dr. R. Kanchana

Asso. Prof/CSE

INTERNATIONAL CONFERENCE ON SOFTWARE DEFINED NETWORKING

The ICSDN 2019 has delivered keynote and talks from researchers and practitioners from academia, industry, research laboratories and government, along with panel sessions. The main objective of the two-day event is to boost the ongoing work in software-defined networking (SDN) and network functions virtualization (NFV) systems, especially in the context of enhancing research and development in the country.

The first-day event contains video conferencing session by Prof. Guru Parulkar, Open Networks Lab, Stanford University, USA which was followed by a discussion on SDN emerging dimensions. The panel discussion was conducted to debate on the technologies, skills, and career opportunities in SDN. A talk on "Mobile Edge Computing in Cellular Networks" was delivered by Dr. Antony Franklin, IIT Hyderabad which emphasized the effect of SDN in wireless paradigm. Other sessions outlined the secure integration of SDN with 5G and IoT.

The second-day event contains talks from various resource persons emphasizing the versatility of SDN. A panel discussion was arranged to debate on preparing the nation to face the paradigm shift due to the emergence of Software Defined Networking. At the end, it has been concluded that SDN is a fast-emerging paradigm and has the potential to revolutionize the upcoming generation of computer networks.

S. Suganya,
Research Assistant

LATERAL THINKING COMPETITION

Lateral Thinking Competition was conducted for a whole day (on 20.08.2019) in which many students from first and second year eagerly participated.Dr. A. Chamundeswari was in charge of organizing this competitionon behalf of the CSI Students chapter. The chief guest for this event was Mr. Bharathi Masilamani, Sigaram Technologies, Chennai.

This competition consisted of three rounds : Aptitude and Riddles, Brain Teasers and Mathematical puzzles, Competitive programming.

The first round was to warm up their thinking and logical skills. It contained general aptitude questions and logical riddles. This helped them to think logically and to proceed with passion.

Nearly fifty two teams participated where, the CSE - Seminar hall was jam packed. General aptitude questions were given in different varieties. Second round was to electrify their neurons and charge them. It was set on a medium-high scale of difficulty. It contained two parts in which the first part, brain teasers were fully related to mathematics. Second part contained math puzzles. Students got boosted up and eagerly waited for the result.

Final round was competitive programming. It was an online coding test conducted using the website "HackerRank". It contained three questions which were set on a medium scale of difficulty. The score is automatically calculated and partial marks were also awarded. All the levels were timed accordingly. The first round was conducted for an hour, second round was conducted for 2 hours and final round was conducted for 1 hour and 30 minutes.

Almost 15 teams made it to the final round and 3 teams won the competition. The students who got first and second place got internship opportunity in Admatics Solution. Chennai.

Mohanram P.B and Karthik Viswanath S

FACEBOOK DEVELOPER'S CIRCLE COMMUNITY CHALLENGE 2019 - WINNING FIRST PLACE IN INDIA

It was around August 2019 when myself and my friends (Kandavel, Nikamanth, S.kanishq Sunil and Nimish Santosh) attended our first Facebook Developer's Circle Build Day in Chennai. We are third-year computer science undergraduates, absolutely addicted to hackathons and building cool things that made a difference. I had a team of like-minded friends who were equally excited and enthusiastic about solving real-life problems and bringing those ideas to life. We never missed a hackathon and attended all of them, one after the other, regardless of the outcome.

We learnt something out of every project we built and have been developing since our second year of engineering. All in all, we gathered good experience as Full-Stack developers (MERN) for over a year and in the process, won 3 hackathons and lost 3 of them as well. We came to know about Facebook's Community Challenge Hackathon, which is conducted online globally every year, through our Developer's Circle Chennai Lead, Mr. Magesh who got us to participate in it. Being excited about our first International hackathon, we were ready to take part in and brainstorm for crazy ideas.

The competition has three phases: Submission phase, Regional winners announcement, Global winners (Grand finale).

The top 3 ideas along with the Best pre-existing solution award from every country qualify to compete in the global round for 25,000 USD. Along with other cash prizes

$5000 — Regional-First place
$3000 — Regional-Second place
$1500 — Regional-Third place

There are even bonuses and other cash prizes, so this is a great initiative by Facebook to help out the community by offering a pool of cash prizes at $165,000 every year to ambitious and talented developers!

The themes for the Facebook community challenge were HTML5 games, SparkAR and

React360. We decided on React360 as we were experienced React developers and Data Science enthusiasts.

React360 being a relatively new yet quite powerful platform! Unfortunately, it had very few developers, tutorials and even Stack Overflow and other sources could not offer much help. This set things up even more interesting for us, as we knew it was going to be challenging. We set out to build a platform where you can watch movies together with friends and strangers with a similar taste. It uses a recommendation system to achieve this. Additionally, you will be on a real-time group call with everyone in the watch party. You can also use voice commands to control the video player, all while ensuring performance and privacy. It was a pretty big project and required proper team collaboration. Though we had a month to complete all of this, we had a lot of pressure from our regular academic schedule too. This made it hard to concentrate on the work in hand.

Myself and S.kanishq Sunil(WebRTC team)
Myself and Nimish Santosh(Web sockets team)
Nimish Santosh and Kandavel (voice commands module)
Nikamanth and Kandavel(recommendation engine, React360)

All that's left is to integrate all these 'mini-projects' and get it working. After working on it for a month, we finally finished Virtual Galaxy. It was possible to accomplish this

humongous task only because of excellent teamwork. We got constant support and mentorship from our Dev Circle Lead, Magesh Sathasiva Pandyan who set up talks in relevant fields like VR and Data Science during build days.

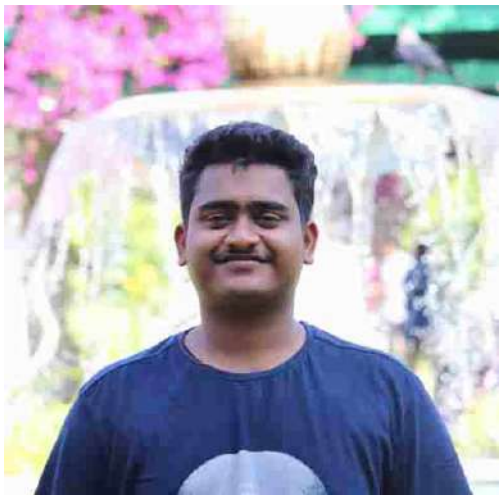
After all this hard work, we failed to submit the project on time……. It was heartbreaking. We had already finished testing the final product way before the stipulated time. All we had to do was to shoot the demo and upload it. But things did not go as planned. After getting the videos ready, we figured it was time to key in details for the submission page. What we did not anticipate was that there would be a lot of particulars to fill. Submission problems are pretty common, especially at the last moment. Unfortunately, we couldn't upload our youtube video links on time as we faced a lot of network traffic. We were devastated and unsure how to get out of the turmoil. We contacted Mr. Magesh and all possible POI. We put our videos everywhere in hopes of attaining support from others and contacted Facebook directly requesting them to reconsider our submission. Facebook's Developer Circle representative contacted us immediately and after speaking with us requested Devpost for a re-submission. Since we had already pushed our code and other resources before the given time frame we were cleared and our submission was evaluated by Devpost's judges. Hurray! We were thankful that our submission got through.

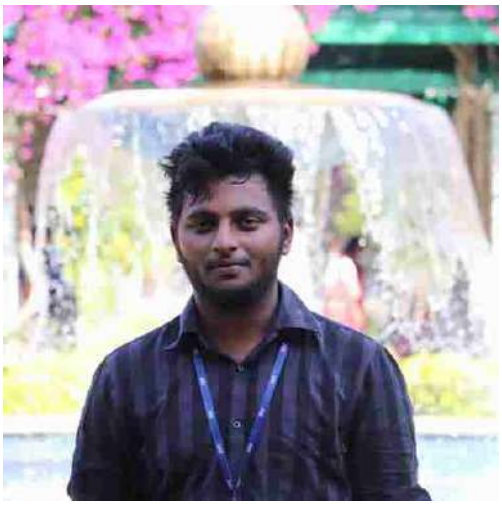
Results!

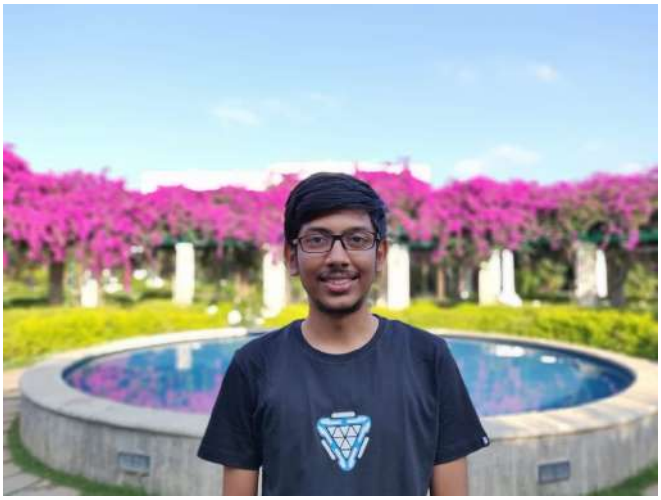
We eagerly waited until October 16 for the results. The live session had already ended, but we went through it keeping our fingers crossed. At first, we thought since India comes under Asia, we are included in the Asia pacific Category. We were torn to find out we did not even make it to the top 3. But as we continued through the video, the announcer, Jenifer Fong, said " from **India, first place goes to Virtual Galaxy**, second place …", we freaked out. We are qualified for the global round now and working hard to improve our project which has to be submitted before the 30th of October. We are planning to release all our intricate React360 hacks as npm libraries. This is to open source and help the React360 community. We also plan on publishing tutorials on how we built and integrated WebRTC, realtime web sockets (Socket.io), firebase with React360. I hope we win the global round as well!

Mohan Sundar
III Year CSE

TEAM VIRTUAL GALAXY







INVENTE 4.0

The two-day Techfest for the budding engineers to discover hidden interests and for enticing technophiles to showcase their talents with unbridled enthusiasm was here on 13th and 14th September this year. This was the place for tech-savvy, fun loving and puzzle solvers to flaunt their abilities. The Computer Science department had 8 technical and 2 non-technical events with a total prize money of about Rs.55K and a participation of about 530 candidates. The department deco team had the theme of Google Playstore and did a splendid job with their creative ideas.

Event: Codolympics

The flagship event of the Computer Science Department witnessed a participation of about 78 people. This team event had a pen and paper round which was a rolling event as the first round with 45 mins been given for each team. The second round and the third round happened on the second day which were online coding challenge rounds. Around 24 candidates were shortlisted from the first round. The top 3 teams were declared as winners. This event was sponsored by MotorQ. The top performers were given an opportunity to intern with MotorQ.

Event: Techathlon

Techathlon was an event which mainly focused on unleashing the technical knowledge of the CS techies out there. Automata, Networks, OS and 5 such domains were tested. Around 65 candidates participated out of which 22 were shortlisted for the second round. Top three were declared as winners.

Event: U 'n' I

A platform for the passionate UI designers to bring their designs to life was U 'n' I. This event tested the creative thinking and designing skills of the participants. A number of creative and exciting app scenarios were presented from which the participants chose one and designed the UI of the same. 18 participants enrolled out of which three were declared winners.

Event: Code Inverse

Code inverse was a team event with two events – the first was an MCQ round where in 123

candidates participated and 20 were shortlisted for a fun based coding round. The candidates applied inverse logics to produce the desired output as fast as they could and the top three were given the cash prize.

Event: Code Relay

Code relay was the event for people who have always been interested in debugging, version control and consistency in code. Three people in a team work on the same problem and relay with the team to win exciting prizes. The event witnessed a participation of 85 candidates out of which 24 were shortlisted and the top 3 teams were awarded with the prizes.

Event: Hackers Assylum

This was a team event for all the hackers out there. With a participation of about 48 candidates, the event geared up with a pen and paper round with questions related to linux, stegnography, networking and forensics. Around 12 were shortlisted for the next round which was a Capture the Flag(CTF) challenge wherein the candidates were given a multi stage digital puzzle to solve. The top 3 were declared as the winners.

Event: YesQueueLuck

YesQueueLuck was the perfect place for the query coding freaks. Pros in Database who participated in this event were tested with DBMS basics in the first pen-paper round. Round 2 focused on advanced query generation to produce the desired results. 76 candidates enrolled in this event. 25 were shortlisted for the second round and top three were given prizes.

Event: Paper Presentation

Paper presentation had a panel of erudite jury to evaluate the research papers of the contestants from various domains like IoT, Machine Learning, Blue Eye Technology, Artificial Intelligence, Block chain, etc. It had two rounds with 40 participants. 10 were shortlisted for the second round and the best three were announced winners.

Event: Sci-Tech Quiz

The all-time-favorite Sci-Tech quiz had mind boggling questions about the past, present and future of the CS field for the quizzees. The first round was a written preliminary round which was followed by the finals. Around 30 students attended and the winners were declared.

Event: Meme Time

A fun non-technical event was the meme time event. This was for those who could make people laugh and think with their innovative and fun-filled memes. The event had a round to create memes with a template given and another to create a video meme. 12 candidates attended and the top 3 were selected as the winners.


INVENTE 4.0


INVENTE


Uber

INTERNATIONAL CONFERENCE ON RECENT TRENDS IN CLEAN TECHNOLOGIES FOR SUSTAINABLE ENVIRONMENT (CTSE – 2019)

We presented a paper titled "Remote Sensing Based Bore-well Monitoring System: A Case study on selected bore wells of Chennai Corporation" at the 1st International Conference on Recent Trends in Clean Technologies for Sustainable Environment (CTSE – 2019) held at the department of chemical engineering in our college on the 26th and 27th of September 2019 under the guidance of Dr. K. Vallidevi and Dr. K. Gopinath (Chemical Department). The work was inspired from the project done in Smart India Hackathon- 2018 and the same project got approved for internal funding from our college during 2017-18.

Attending the conference was an intellectually satisfying experience as it was the first time for both of us to present in front of PhD scholars, professors and researchers from various universities. The registration was held on 26th September followed by inspirational speach of chief guests. There were many panels allotted for the presentation and there were a set of two judges at each panel. The oral presentation was held on both the days and we got the opportunity to present on the second day (27th September). We were also presented with a certificate for our participation in the conference. Lunch, dinner and snacks were provided during both the days and a cultural event was also held on first day's evening.

We would like to thank our guides who helped us throughout the process. The experience motivated us to do more research on the same and exposed us to the latest research trends. On the whole, it was an amazing experience for both of us.

Soumya K
Priyanka V
IV Year CSE-B

THE UI/UX DESIGN CONTEST

ACM-W Student Chapter at SSN Organized the UI/UX Design Contest on 4th October 2019. The contest saw several participants from across all departments battling out till the end creating some amazing designs to the problem statement that was given to them.

The judges, Mr. Gunaneeti, Senior Interaction Designer, Techdew and Mr.Ramesh, Senior Manager, Project Operations, Techdew were highly pleased with the designs put out by participants. Arun K, from final year EEE, bagged the first place and an opportunity to do a paid internship with Techdew. Jeniffer, from CSE final year stood second in the contest.

We, from ACM-W team would like to thank Techdew, UI/UX Design Firm, for coordinating with us and sponsoring the winners and Department of Computer Science and Engineering for supporting us throughout the event.

Likhita Verma A,
II Year CSE,
Secretary, ACM-W Team

INTERNSHIP @ GOOGLE

Google. Did it instantly make you think the phrases, 'best company ever', 'world's best research centre', 'unbeatable algorithms' and 'data hub of the world'? But Google is much more than that. Life at Google is unimaginable!

It is a great privilege of ours to have interned at Google. We cannot be more thankful to our department for prompting us with timely opportunities to work at our dream company. Anish and Vishal went through 2 stringent rounds of telephonic interviews that focused on data structures and algorithms. Kalaivani got a returning internship offer after her 2018's STEP internship at Google office. All three of us were a part of the Google Apps team but were working with different dimensions of the G-Suite enterprise products. One of the best parts of working with Google, is that you own your project and would be given due recognition for the same. There will be mentors to support you but you will be the decider, executor and validator of your work. Anish worked to address scalability issues in users end. Vishal worked on improving the security alert system for G-suite admins. Kalaivani worked on identifying the security issues arising due to service accounts and delegating the same to G-suite admin. We were able to successfully complete our projects by taking aid of many internal tools and frameworks.

Other than the professional experience, we participated in a lot of activities. Google hosts annual Google Serve event, where it provides volunteering opportunities to all its employees. We made foldscopes for school students as a part of the event. Another notable

event was the Post-it Art competition where we made Squirtle vs Charmander which bagged us the first prize(The only all intern team!). We were also taken to an intern exclusive outing as well as team lunches. One of the most prominent events held during the internship period was the Tech Intern Connect where Google hosts interns of other organizations to come and spend a fun-filled day at any of the 4 Google offices. We were part of the core organizing team in Bangalore office. Furthermore, we participated in an internally hosted Google Capture the Flag contest where the Bangalore team solved one problem.

One major part of internship is getting a Pre Placement Offer(PPO) to continue working at Google after completion of degree. At Google, to get a PPO, all interns have to go through 2 rounds of onsite interviews. The full-time job interviews were much more intense compared to the internship interviews. The interviews were heavily focused on data structures and algorithms while testing our computational aptitude. Around the end of September, we got delightful news about our PPO.

Apart from being the best place to work at, Google encompasses some of the most amazing people in the world. The fame of a long-term success story of any company depends not only on the employees but also on the process and the mechanism that the company works on. Any budding entrepreneur needs to understand the importance of this process that governs the way a company works. Our interaction with employees having more than 10 years of diverse work experience tells us that having a good software infrastructure is crucial for improving the productivity and Google has the best.

CodeJam & Kickstart are the initial steps for getting into Google and we encourage everyone to attempt it. Having a clear and strong fundamentals in data structures and algorithms along with regular practice will surely help one to crack such interviews. Overall, the internship at Google was one of the best learning experiences, both professionally and personally. We would take this opportunity to thank all those who helped us frame an outline for our gleeful internship story!

Anish Badri,
Kalaivani Kumaran,
Vishal A.
Final Year CSE

INTERNSHIP AT UNIVERSITY OF OREGON

We got an opportunity to intern at University of Oregon during this summer from May-July. We worked under Professor Ramakrishnan Durairajan who was extremely nice and guided us really well whenever we got stuck or needed help. Apart from interacting with our mentor we also got to meet a lot of other people studying in the university. It was exciting to know about their projects and research interests.

Doing research was fun and very interesting as it involved lot of self exploration before arriving at a solution.There were times when we were frustrated and dejected because none of what we tried generated required outcomes initially but eventually it did. It made us realize and taught an important lesson that consistent, sincere efforts will always lead to expected results sooner or later. Though we knew the internship was going to help us academically, what came as a surprise was that it also helped us grow as a person. We learnt to do everything on our own. Overall it was a wonderful experience and it gave us a lot of exposure.

Yamini L and Shivaani K

IV Year

BECOMING A GOOGLER

This August I got an opportunity to apply for the Software Development Engineer position at Google. After the process of resume screening, I got shortlisted for the onsite interview which was held at the Google office in Gurgaon. Travel, accommodation and food were taken care by the company. Google provided various study materials for the interview after the shortlisting process. There were five rounds of interview, four of them were technical and one was non-technical (Googleyness and Leadership), every interview lasted for 60 to 90 minutes. The interviewers were very helpful throughout the process. During each technical round I was asked one or two questions centered around some Data structure or Algorithm and each problem was expected to be solved as efficiently as possible in terms of both time and space, handling corner cases was also a major part of solving the problems. After the interview I was asked to send my transcripts and resume to the hiring committee for further processing. Overall, it was a very pleasant experience interviewing with Google.

Anand S

IV Year

INTERNSHIP AT ADMATIC SOLUTIONS

I was fortunate to intern at Admatic Technologies, a startup based on Computer Vision, Machine Learning and Robotics. I was part of a team that developed Deep Learning models to recognize complex handwritten math equations and perform operation on them. I had extended the application to Android platform using TFLite framework for OpenCV.

Since it was a startup, I got to work in multiple projects. I had developed a Computer Vision based interface for Node Creation in Elastic Search using MQTT. I also worked on creating, processing data and training Model for Custom Characters. I then worked on two of their products, Smart desk and Smart board, built an Animation-based user interactive game application that used Speech and Gesture Recognition.

The learning curve was steep and I got to learn and grow in different domains in a fast-paced environment. I had a wonderful team to work with and it was a great experience!

Nandhinee PR
IV Year

PLACEMENT SUCCESSES

Adithya Viswanathan
Kavithasri A
Vibhuti Kushwaha

Ajith Mani V
Sarah Mathew

Ajith Mani V
Janani B

Vivek Y
Shivaani K

Geetika B
Prashant Kumar Dixit

Akhilesh M
Sarah Mathew

Shivaani K
Nandita Gopal

Antony Mevin Fernando
Yamini L

Venkataramanan V
Vishal A

Dinesh V B

Eshwar Krishnan S

Mourina M

PLACEMENT SUCCESSES

Logesh B

Poojeshwaran V

Marimuthu S (Digital)

Anirudh Senoy K
Janani B
Vaibhav Nigam
Sowmya K
Sandhiya A
Rohit K.R
Yeshwanthraa K
Preethi M
Poornema AJ

Anish Badri (PPO)
Anand S
Kalaivani Kumaran (PPO)
Vishal A (PPO)

Chandra Mouli R
Gurkaran Singh Thukral
Harikumar M
Kevin Shelton
Omprakash
Priyanka V
Rakesh M
Rebecca Sharon
Nitish G

Logesh D

Aditya Prebhu
Desika V
Kheerthana R
Monisha C
Swetha K

Monisha C

PLACEMENT SUCCESSES

TATA CONSULTANCY SERVICES
Experience certainty.

Aditya Prebhu
Ashwin P S
Dasararaju Mahesh
Dharani
Geetika B
Mohamed Shajith
Poornema A J
Praveen V
Snigdha Viswanathan
Venkataramanan V
Vibhuti Kushwaha
Sagar D
Pazhaniarivarasu V

Infosys®

Dhulasi Priya S
Dhivyaa K
Kheerthana R
Mohamed Shajith
Monisha C
Nishanthi K
Sowmya T
Vivek Y
Roshni P
Praveen Raj

UNIVERSITY RANK HOLDERS

Kavya R
Rank - 5

Priscilla Andrew
Rank - 15

Tarun R
Rank - 20

Priyadarshini J
Rank - 26

OPTUM PLACEMENT EXPERIENCE

Optum was one of the super dream companies which visited our college in the month of October for which CSE and IT students were eligible.

First, we had to take up an online test which was conducted by Cocubes platform. The test contained 30 aptitude questions and 2 coding questions. It mainly tested our speed and analytical reasoning skills. A few days later, the results of those who had cleared the test was declared. Then, we attended the pre placement talk conducted in college where the Optum employees spoke about the various health care financial services which the company deals with and how they make use of the latest technologies to provide cost effective solutions. Then we got ready for the interviews. First, I had a technical interview where the interviewer asked me to explain about my projects in detail. He then asked questions related to sorting, Data structures and OOPS concepts.

The most interesting part about the interview was that he asked to implement real life applications. Like for example, I was asked to implement a vending machine and a cinema ticket booking system where I had to explain my thought flow and represent it on paper. Next, I had a HR round which was casual and interactive. After this round, they just explained about the work culture and the health care innovations that Optum does.

Finally, they announced the selected candidates and took pictures with us. Overall, it was a very rewarding experience.

Nandita Gopal
IV Year

IBM PLACEMENT EXPERIENCE

The interview process conducted by IBM was in four rounds and it was very interesting and fascinating. The first round was the Cognitive Ability Assessment test where they test your skills via games. The games were super fun; it didn't even feel like an interview going on. The underlying idea of games was to assess our ability to infer data and process that in a given time.

I cleared the first round and went for the second round. The second round was Learning Agility Assessment which was a Psychometric test. Psychometric tests are taken to measure a candidate's attitude, personality, and knowledge. There were 50 questions and we had to just agree or disagree with the situation given to a varying degree. Some questions were quite baffling and twisted like the same question was asked differently. Luckily, I passed that round too. The key was to be you and choose the answers what feel right for you. The third round was the English Assessment test where they asked vocabulary and checked our grammar consistency. Finally, the fourth round was coding where they asked two questions which were of array data structure and few C language MCQs.

After some time, they selected students for the final round and we were called for the HR interview. I was a bit nervous and I was the first one to get called, but I kept my calm and went into the panel room. The interviewee was a cool person, she made me feel comfortable and most of the questions asked were based on my resume. She asked about my projects, the approach of me in different situations. After this round, they announced the result and seven people were selected and I was one of them.

Vibhuti Kushwaha

IV Year

BARCLAYS PLACEMENT EXPERIENCE

Barclays plc is a British multinational investment bank and financial services company, headquartered in London, and is 123 years old. They came to our college to hire computer engineers for the role of "Barclays Analyst 3" (which is a technical role). I had come across the name of this company as they were the title sponsor of THE MOST watched football league in the world, i.e., the Premier league!

That got me interested and I ended up applying for a job at this company. At first, an online test was conducted that included around 20 questions, most of which were MCQs based on programming and data structures, and the rest few were coding questions. It wasn't a very difficult test, so I did it well and found myself in the list of names of people qualifying for the second round a few days later!

The next round was a technical interview, followed by an HR interview that also went surprisingly well. I remember being very nervous about the interview right until the moment I entered the same room as my interviewer for my turn. As soon as I entered, I found my nervousness fading away. The way the interviewer carried himself made him seem like a really friendly person and that calmed me down. He also made sure I gave my best by not letting me get nervous. I answered the few questions he asked me, while also chatting about our personal lives and realizing that we lived in the same area of the city! After the interview ended, I was immediately called for the HR interview where the interviewer tested my communication skills, at the end of which she gave me a positive feedback about my profile and mentioned that I wait for further notice from the company.

The same evening after all the students were interviewed, we got the list of names of people who they selected and I must say, that seeing my name in that list was one of the happiest moments I had had in a long time!

Vaibhav Nigam
IV Yr CSE

IBM @SSN

The "Big Blue" company IBM visited our campus for placement in August 2019. IBM came to recruit for Software Developers. The whole selection process was a good learning experience.

In Pre-Placement Talk, IBM gave insights about the company and the Software Developer role. The selection process involved a few rounds that had to be cleared to move to the subsequent rounds. The process happened for two days. On the first day, online tests were conducted for three rounds. The first round focused to test the cognitive ability for around 30 minutes. It consisted of a series of games for testing numerical, reasoning and problem-solving skills. The second round was the Learning Agility Test. It was basically a Psychometric Test consisting of 50 questions. The third round was a Coding round on the HackerRank platform. Performing well in the above three rounds boosted my confidence. The shortlists were announced the next day. After clearing all the rounds the last step was the interview. The interview lasted for around 45 mins. The interview panel asked both Technical and HR questions. Technical questions were about Programming, Data structures, and other concepts. They also asked scenario-based and project-relatedquestions.

Finally, when IBM HR informed that I was selected, I was very elated. I thank our CDC and our college for their training and support. I thank all my faculty members for helping me gain knowledge.

KAVITHASRI. A
IV YEAR CSE

PLACEMENT @ LATENT VIEW

LatentView is a dream company which is one of the fastest growing digital analytics firms in India. During the Pre-placement talk they explained how they served the fortune 500 companies.

During the placement process we had to go through 5 different stages to get through. Initially we had an online aptitude test that consisted of about 50 MCQ questions that were mostly aptitude based. Following that we had a group

discussion.

Then there were 2 rounds of technical interviews. The first technical round was tougher than the second. I answered the questions to the best of my knowledge.Then I was selected for the second technical round which had questions based on machine learning and data analytics which I was comfortable w.I had attended some interviews earlier which helped me get better each time.

The last round was an HR round where they asked general HR questions and in the end I was selected for LatentView.I thank all the faculty who helped me develop my coding skills and encouraged me to take extra certified courses . I thank SSN a lot for giving me a platform to show my skills.

Akhilesh M
CSE IV year

BEYOND MY WILDEST DREAMS

Hi all, I am Marimuthu S from CSE final year. I am a rural scholarship student of SSNCE. It gives me immense pleasure in sharing with you all that I got placed in TCS digital. The filtering process of TCS for hiring freshers had three rounds namely online test, technical interview and HR interview. First, there was an online test on IoN TCS platform. The online test had Aptitude, Verbal, Programming logic and Coding. After 10 days, TCS announced shortlisted students for face to face interview and also announced date for the same. I also got selected for the second round. Technical and HR Interview was conducted in TCS office. In technical interview, the interviewer asked questions from dbms, datastructures, image processing and basic array programs. Also questions were asked based on my Internal Funded Project. I answered all the questions confidently. After 7 days, they announced the namelist of the students who got the offers.It was indeed the happiest moment in my life!

Marimuthu S
IV year CSE

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