

DEPARTMENT OF INFORMATION TECHNOLOGY

Presents

The Half Yearly Newsletter



IdentITy

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June 2019

As we walked through the open doors into one of Asia's most beautiful campuses, our hearts beat with excitement, enthusiasm and expectations!

In here, some of us are newbies, some are eager sophomores, some of us are mature pre-final years, and some are at the climax of their college life!

In these four precious years, we dwindle in our own spheres, yet mingle amidst our fellow peers and make memories!



We learn to shape our destinies and grow to develop our personalities!

Yet the most important lesson learnt for the open arena ahead would be "Never be afraid to stamp your own Identity!"

HAPPY READING!

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ADVENTURES OF TEAM HACK 'O' HOLICS AT SIH 2019

It was on 28th February when our team departed for the competition from Central Railway Station. The aura around us seemed to be a strangely beautiful one. It was raining when we woke up, with things seeming to be quite poetic. Carrying a huge load of responsibility, our hearts were made light through the blessings of all our parents and faculty. There was literally no expectation as then from our team as we were the only 2nd years to qualify for the finals from the Department. We were seen as a laughing stock till then by everyone. All these factors didn't affect us even 0.1% as we were very confident about what we were doing and didn't really bother about the result.

Now, comes our 14-hour long train journey. The entire team decided not to discuss anything about the hackathon and just enjoy the travel. But, strangely we were instructed by our mentors to start working for it. Reluctant initially, we managed to work for a couple of hours efficiently. We tried to season the serious work with silly laughter and jokes. The next day we reached at around 9 A.M and departed to NIT Surathkal- our nodal centre.

The D-day arrived. We were given a formal introductory session by Mr.Prakash Javdekar, MHRD through video conferencing. Following that was the event which began at 8 A.M. Our problem statement was to provide a software solution for Washroom Management for a Hospital. Our mentors started working on the list of all possible ways our project could be asked to modify. We divided the work amongst us and developed on the work that we already had done for the past 14 days by bunking classes and curses. We were prepared that the judges might even ask us to entirely change the approach of our

solution.

The first round of review was disastrous as the judges took no interest in what even we uttered. However, they suggested how they exactly wanted it to be formulated. Thanks to the 14 days of pre work. It was just cut copy paste and some minor modifications we had to do although it seemed to be a major revamp. Judges got impressed by our progress shown at the 2nd review.

We were served by really great snacks and beverages at regular intervals. Although it might sound great, we saw that as a great tactic to make us sleep. The judges gave us some extra things to work on and also asked us to make a working dashboard which was a difficult task. All these were given at 1:00 A.M. For the first time we worked tirelessly to counter the sleeping dosage. Now came the exciting errors part. We divided the work into 3 teams and all of us worked simultaneously.

Due to our inexperience, we solely were dependent on Mr. Ram and Mr. Sai Vignesh, our great mentors. They were patient enough to correct our mistakes and also gave us great suggestions. They were so dedicated that they did not even eat the whole day and never went for even a short nap whilst we took break in turns.

The 3rd review was at 12:00 P.M. and the judges were quite impressed by our progress that we made each stage. After the 3rd review, we were warned by the organizers that we did not allow one person to speak at a time with the judges and hence this irritated them a lot.

We now began to just set things up for the final demonstration and were just testing our model. All we did was to make sure that our best was given at the final demo.

At 3 P.M we had the demo, and surprisingly we were bombarded with awkward questions by a new judge, whom we think must have had very little briefing about us. It was the sheer brilliance of one of us to tackle them politely and went forward. Also, it was the first time we faced an error in the working model. We were afraid that the

application would crash, but once again it needs to be mentioned that one member amongst us used all his similar experience from the past and tackled it beautifully.

Finally, the judge asked us a question which was rebounded back as a wrong question to ask in our frame of context. This instantaneous reply made the judges to explicitly express their happiness and satisfaction towards our product and presentation.

The event got over at 4 P.M. The two *thalaivis* (Akshaya and Anitha) kept worrying and tortured the other teammates about the result, whilst Keshav and Devanathan dozed off without a worry; how they were 24x7. Abhinav was exhausted after the continuous work he had working alone on multi-language support. Mayank Singh and Ram(mentor) maintained a good rapport with them and Mr.Ram was so impressed by Mayank's technical skills that he promised to offer him an intern in his office. Sai Vignesh the saviour who was expected to lie flat and doze off, was busy with his office work. A perfect definition of a geek, ain't he?

We took all our luggages and went to the auditorium where the prize distribution ceremony was held at 8 P.M. We informed the authorities that if they knew the result beforehand, it would of great help if they tell us as we had to catch our trains at 10 P.M. Such a Mylapore behaviour you know. They refused to tell us. The pressure grew up every minute. The girls of our team developed high BP and also induced it to the others. The problem statement was announced. And so were our team as the winners. Like crackpots, none of us reacted, stood standstill and did nothing.

Maybe it was because we achieved it. Maybe it was because we couldn't believe it has happened. Maybe it was just void in our heads. None of us actually remember the incident exactly; on how things proceeded.

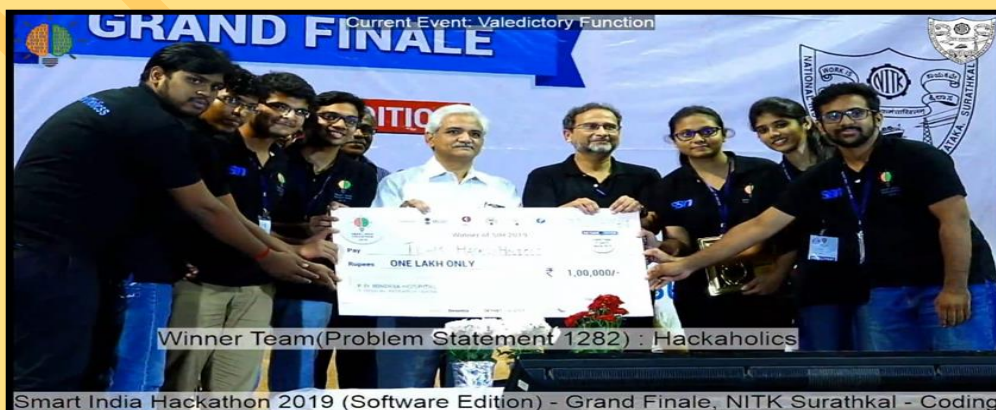
We then went to the stage got our prizes and straightaway escaped the function to start for our departure.

Skipping onto the Chennai Central where we were graciously

welcomed not by our parents nor the overzealous auto drivers, but by our dear friend, Aashik Joel, who got 10 dozen of *Mallipoo* and welcomed us with that like a newly-wed couple.

That's when we realized how much fame and pride we had bought to our college. These we believe would be one of the most exciting journeys that we had so far in our lives.

- N G Devanathan, Second Year.



“I WANTED TO CRACK A CIRCUIT JOKE, BUT CAN'T THINK OF ONE CURRENTLY.”

INTERNATIONAL CONFERENCE ON COMPUTER, COMMUNICATION, AND SIGNAL PROCESSING

The 3rd edition of the International Conference on Computer, Communication, and Signal Processing (ICCCSP) was organised by Dr. R. Srinivasan, Prof, Dr. S. Chithra, ASP, Mr. A. SandanaKaruppan, AP, Ms. N.Radha, AP and Mr. V. Arulkumar, AP, on 12th and 13th March, 2019. The session talks were given by the following experts:

- Dr. Khalid Elgazzar, Professor, University of Ontario, Canada
- Dr. Ihsan Lami, Professor, University of Buckingham, UK
- Dr. Raja Kumar Murugesan, Professor, Taylor's University, Malaysia
- Dr. Rohit Sinha, Professor and Head, IIT Guwahati

There were 25 paper presentations, of which selected papers are to be published in "International Journal of Computer Networks and Communications" (ISSN: 0974-9122 Online): 0975-2293 (Print) as Special Issue (Scopus Indexed).

Dr. K.R. Uthayan, ASP, IT, Dr. I. Joe Louis Paul, ASP, IT and Ms. J. K. Josephine Julina, AP, IT coordinated the poster presentation session as the part of ICCSP 2019. It provided a forum for the students whose projects got approved under Students Internal Funded Projects Scheme to showcase their innovative ideas. A total number of 28 students' posters have been presented during the poster

session.

Dr. R. Srinivasan, Prof, IT, Mr. Nagendran Neelamegam, Sr. Service Delivery Manager, TCS, Chennai and Ms. Ramya Raman, ProjectManager, Door Shoba Nigam Limited, Chennai (2004-2008 Batch Alumni of IT Department) were the distinguished members of the judging jury. The following students' posters won the Best Poster Awards:

1. The poster titled "Drowsiness and fatigue detection for bikers using helmet", presented by P. Renvitha and M. Oviyaa, III Year IT mentored by Ms. R. Swathika, AP, IT, Dr. S. Sasirekha, ASP, IT and Dr. I. Joe Louis Paul ASP, IT won the First Prize and received the cash amount of Rs. 2,500/-.
2. The poster titled "Smart Pen" presented by K. Sujith and Pagadala Sreenivas, II Year IT mentored by Dr. I. Joe Louis Paul, ASP, IT and Dr. S. Sasirekha, ASP, IT also won the First Prize and received the cash amount of Rs. 2,500/-.
3. The poster titled "iPARK - Innovation in parking " presented by Sai Kaushik .K, B. Sanjana and Sanjana, II Year IT and mentored by Dr. I. Joe Louis Paul ASP, IT and Dr. S. Sasirekha ASP, IT won the Second Prize and received the cash amount of Rs. 1,000/-.





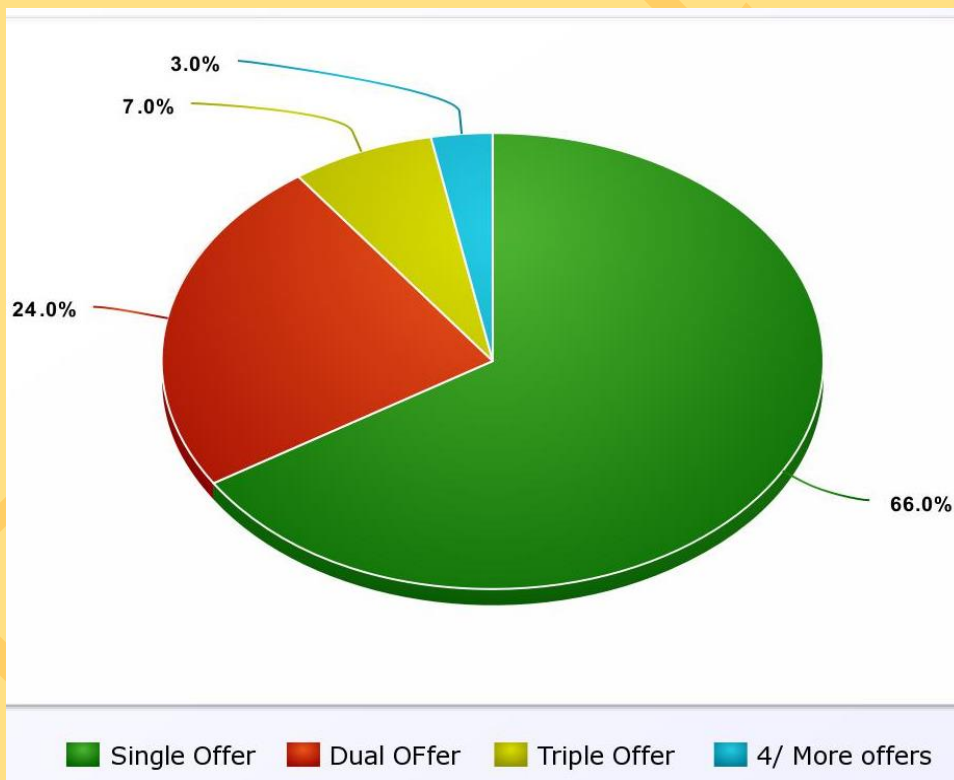
HOW MANY PROGRAMMERS DOES IT TAKE TO CHANGE A LIGHT BULB? NONE, THAT'S A HARDWARE PROBLEM.

PLACEMENT REPORT

With every passing year, the IT department has set high milestones with regard to placements. This year was no different with the students in fact receiving multiple offers. Students got placed in distinguished companies like Pay Pal, Google, City Bank and Goldman Sachs. The following is the track record of the students who realised their 'Super Dreams'.

NAME	COMPANY	PACKAGE
Murugappan S	Google	59 Lakhs
Rahul R	Microsoft	29 Lakhs
Vignesh. M. S	PayPal	27 Lakhs
Prashanthi B	PayPal	27 Lakhs
Dheeptha Anand	Goldman Sachs	22 Lakhs
Harini Priya. K	Mr. Cooper	12 Lakhs
Hemang Shah	McKinsey	10.5 Lakhs
Kesavarthini .I	Sapient	10 Lakhs
Niteesh Prabhu. S	Sapient	10 Lakhs
Rino Vetha Moses	Citibank	13 Lakhs
Balakrishnan S	Amazon	28 Lakhs

The batch of 2019 maintained a remarkable placement record with 144 offers. Almost 93% of the eligible students were placed maintaining an impressive placement record. The average salary of the placed students was about 5.4 Lakhs.



VIVID 2019

CTS Sponsored 4th Edition of National Level Project Competition VIVID 2019 was convened by Dr. T. Nagarajan, Prof & Head, IT and coordinated by our faculty members Dr. S. Sasirekha, ASP, IT, Dr. I. Joe Louis Paul, ASP, IT, and Ms. R. Swathika, AP, IT for the students of B.E/B.Tech/M.E/M.Tech of IT/CSE and ECE from various Institutions to explore, enhance and exhibit their talent.

About VIVID

The department of Information Technology has been organizing the annual national level project competition for undergraduate and postgraduate engineering students since 2016 called VIVID.

The main objective of this project competition is “Realize Your Creative Thoughts” which is mainly to encourage students to apply their knowledge, skill, passion and creativity to technology solutions that can make a difference to the world today.

This year, we received a total of 137 project submissions from all over the country. Out of which 82 projects had been shortlisted for the finals after scrutiny. Around 50 teams of 150 students from various engineering colleges presented their projects with a demonstration. VIVID 2019 provided an excellent opportunity for the students of different institutions across the country to explore, enhance, and exhibit their talent.

In the last four years, VIVID attracted significant number of delegates across the country and started emerging into a reputable event of such kind.

Event Tracks:

The event was conducted on three tracks:

- **Track I (Image/Video/Speech/AI/Machine Learning/Bio Informatics)** at IT Seminar Hall
- **Track II (Web/Android/Data Analytics)** at IT Conference Hall
- **Track III (IoT & Networking)** at IT PG Lab.

Around 50 teams (approximately 150 students) from various engineering colleges were called for oral presentations cum demo to explain about their projects.

Panel Members:

- Dr. R. Srinivasan, Prof, IT, Mr. R. Parani Raja, Lead Engineer, Xvela and Mr. N. Lakshmanan (2009 Batch Alumni of IT Department), Consultant, Verizon Strategy and Analytics acted as the panel of Judges for Track-I.
- Dr. A. Shahina, Prof, IT, Mr. V. Balaji, Engineering Manager, Cyence India Private Limited and Mr. Siddharth Kumar (2011 Batch Alumni of IT Department), Director/Architect, Zilker Technology LLC (A Start-up Company) acted as the panel of Judges for Track-II.
- Dr. N. Bhalaji, ASP, IT, Ms. Shruthi S Bhatt, Consultant, Sirius Computer Solutions and Mr. H. Karthick (2010 Batch Alumni of IT Department), Software Engineer, Cisco Systems (India) Pvt. Ltd. acted as the panel of Judges for Track-III.

Chief Guest:

- **Mr. Srinivasan Mangadu, Senior Director, Cognizant, was the chief guest for the valedictory function and distributed the cash awards to prize winners.**

Winners Details:

- **First Prize** - The project titled "Health Hero- Medicine App", presented by Eric Joseph from Amrita Vishwa Vidyapeetham, Coimbatore (Cash award of Rs. 30, 000/-).
- **Second Prize** - The project titled "VISION", presented by Iyer Saikrishnan S and Piyali Pal from BMS Institute of Technology and Management, Bengaluru (Cash award of Rs. 15, 500/-).
- **Third Prize** - The project titled "Road's Eye", presented by Ajay Kaarthic J and Kishore S from Sri Venkateswara College of Engineering, Chennai (Cash award of Rs. 5, 000/-).





Q. WHY DID THE STUDENT GET UPSET WHEN HIS TEACHER CALLED HIM AVERAGE?

NATIONAL SEMINAR ON CYBER SECURITY

A 2-day National Seminar on Cyber Security was organised on 14th and 15th March, 2019 by Dr. S. Chithra, ASP, Dr. N. Bhalaji, ASP and Dr. S. Karthika, ASP of the Department of Information Technology. The seminar had special focus on **IoT Security, Blockchain Technology, and OSINT**. Dr. Ponnurangam Kumaraguru, Associate Professor, IIITD, delivered an exclusive talk on privacy and security in social media. The introductory session on Blockchain Technology was presented by faculty Dr. N. Bhalaji and the insight on advanced Hyperledger fabric was elaborated by Mr. Umashankar Somasekar, Head of Development & Competency, Rapidqube. The discussion on Open Source Intelligence was handled by faculty Dr. S. Karthika. The industry perspective of cyber security was delivered to audience by experts from Infoziant lab. The event had an active participation by 30+ faculty members and students from different institutions like Sri Sai Ram Engineering College, SRM Institute of Science and Technology, R.M.K Engineering College, R.M.D Engineering College, Saveetha School of Engineering and University College of Engineering, Tindivanam



HACK & TACKLE 1.0

The Department of Information Technology and the IEEE Student Branch together organised and conducted a 24-hour hackathon, Hack and Tackle 1.0, at SSN College of Engineering, sponsored by Mr. Cooper. The Hackathon was an inter-college and intra-college grand event, which saw staggering participation from throughout the state. The event happened on 31st Jan - 1st Feb 2019 in the college premises in the Career Development Cell, with accommodation provided at the International Hostel for the participants. The faculty in charge of the event were Dr. T. Sree Sharmila, ASP, IT, Dr. V. Thanikachalam, ASP, IT and Ms. J. K. Josephine Julina, AP, IT. The Inaugural started at 3:30 P.M on Thursday, in the presence of the Principal, Chief Guests and the Jury members. The event was inaugurated by Ms. Julia Barnes and Muthuraja Natarajan from Mr. Cooper, and Dr. R. Srinivasan, Professor, IT, SSNCE. The entire 24 hours was divided into 4 sessions of 6 hours each. The Jury Members included various eminent software professionals from Infosys, HCL, Amazon and Qube Cinema. These included but not limited to Mr. Saravanan K, Lead Consultant, Infosys, Mr. Bavanandan B, HCL, Mr. Vijay Rohin P, Monash University, Australia, and Mr. Balaji Krishnan, Amazon.

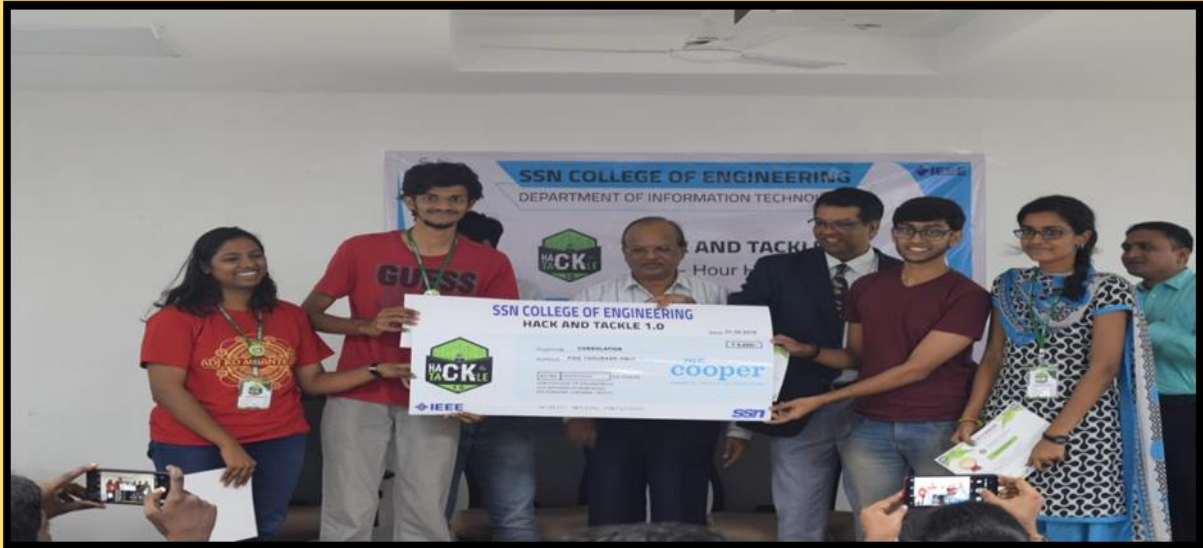
The winners were

- I Prize - Team Black Dragons, Sri Venkateswara College of Engineering
- II Prize - Team TechNoLogic, Sri Sairam Engineering College
- III Prize - Team Suicide Squad, Sri Venkateswara College of Engineering
- Consolation I - Access Denied, Rajalakshmi Engineering College

Q. WHY IS THE OBTUSE TRIANGLE ALWAYS SO FRUSTRATED?

- Consolation II - Little Big, Sri Sivasubramaniya Nadar College of Engineering

- Akshara Kannan, 3rd Year.



A. BECAUSE IT IS NEVER RIGHT.

SMAC 2019

A One-Day Workshop on “Emerging Trends and Future Technologies for Social, Mobile, Analytics and Cloud - SMAC 2019” was convened by Dr. T. Nagarajan, Prof & Head, IT and coordinated by Dr. S. Sasirekha, ASP, IT, Dr. I. Joe Louis Paul, ASP, IT and Ms. R. Swathika, AP, IT. Around 76 participants from different engineering colleges have participated in this workshop on February 8th.

Delegates:

- Mr. Ajay V Deshpande, CTO, Co-Founder, Rakya Technologies Pvt. Ltd, Bangalore.
- Mr. Ramesh Krishnamurthy, Senior Director, Cognizant - Heads Delivery for Manufacturing, Logistics, Energy and Utility Engagements in UK Region.
- Dr. I. Joe Louis Paul, Associate Professor, Department of IT, SSNCE.
- Mr. Suchindran Muthu, Senior Architect – Modernization, Infosys.
- Dr. S. Sasirekha, Associate Professor, Department of IT, SSNCE



A. THEY MUST BE PLOTTING SOMETHING.

SSN HIGH SCHOOL AWARENESS PROGRAM INITIATIVE - SHAPE

A first-of-its-kind Internship program was held in the premises this semester, from April 29th to May 11th. This Internship was for higher secondary students, to engage and ease them into the research style-learning suited for undergraduate engineering program. This program was aimed to give *shape* to their rather amorphous ideas about their field of study, or just kindle the fire in their hearts towards a different style of study. Dr. T. Nagarajan, Prof & Head, IT, was one of the Coordinators of the SSN SHAPE internship program. The following faculty members were also part of the team involved in interacting with the participants.

- Department co-ordinator: Dr. N. Bhalaji
- Project Mentors: Dr. T. Nagarajan, Dr. R. Srinivasan, Dr. S. Karthika, Dr. S. Mohanavalli and Dr. S. Sasirekha



INSTINCTS 2019

Instincts, the much-coveted cultural fest, happened from March 7th to March 9th this year. The theme was “Relive the 90’s”. The cultural was kick-started by the inaugural which had G. V. Prakash and Raiza Wilson. The crowd went into a frenzy when the chief guests revealed they had chosen Instincts as the occasion to reveal the title of their film project “Kadhalika Neramillai”.

There were many other events held that day from Kollywood Quiz, to Celebrity Variety Show which had everyone laughing their hearts out.

The day ended on all time high with a live performance by Thaikudam Bridge. They performed some of their famous numbers like ‘Fish Rock’, as well as the evergreen Ilayaraja hits. The crowd sang along and swayed to the mind-blowing performance, by the Kerala - based band. Govind Vasanth left everyone in tears with the rendition of his hit number ‘Kadhale Kadhale’ from 96.

The second day began with the much awaited ‘Reels of Fire’, which undoubtedly blew the audience away with creative talents of the short-film makers. This was followed by a wide variety of events like the IPL bidding, Western Solo Music and Mono-acting. The day ended with the Choreo Night, in which various teams danced their hearts (and legs) out. The performances were scintillating and left the audience spellbound.

The third and the final day had the finals of the Pattimandram, a fiery forum, with passionate debaters. The students were deeply involved with events like Face Painting and Adzap.

The DJ night finally arrived and everyone was seen grooving to the songs played. The three day carnival ended with the customary Lantern Fest.

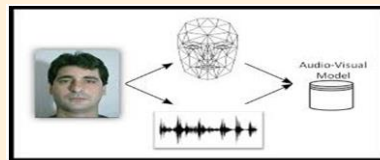


FACULTY - INTERNAL FUNDED PROJECTS

Audio-Visual Speech Recognition System for Tamil CV Units

MS. N. Radha (PI) & Dr. A. Shahina (Co-PI)

- Budget : Rs. 2.5 L
- Duration: 3 years



SSN - Indoor Navigation System (SSN-INS)

Dr. S.Sasirekha (PI) & Ms.Swathika (Co-PI), Dr. I. Joe Louis Paul (Co-PI)

- Budget: Rs. 3.0 L
- Duration: 2 years



Building a robust speaker recognition system using deep neural networks

Ms. S. Uma Maheswari (PI) &

Dr. A.Shahina (Co-PI)

- Budget: Rs. 3.0 L
- Duration: 2 years

We thank the SSN Management for providing unprecedented financial aid amounting to Rs.8.5 L for the faculty to realize their ideas.

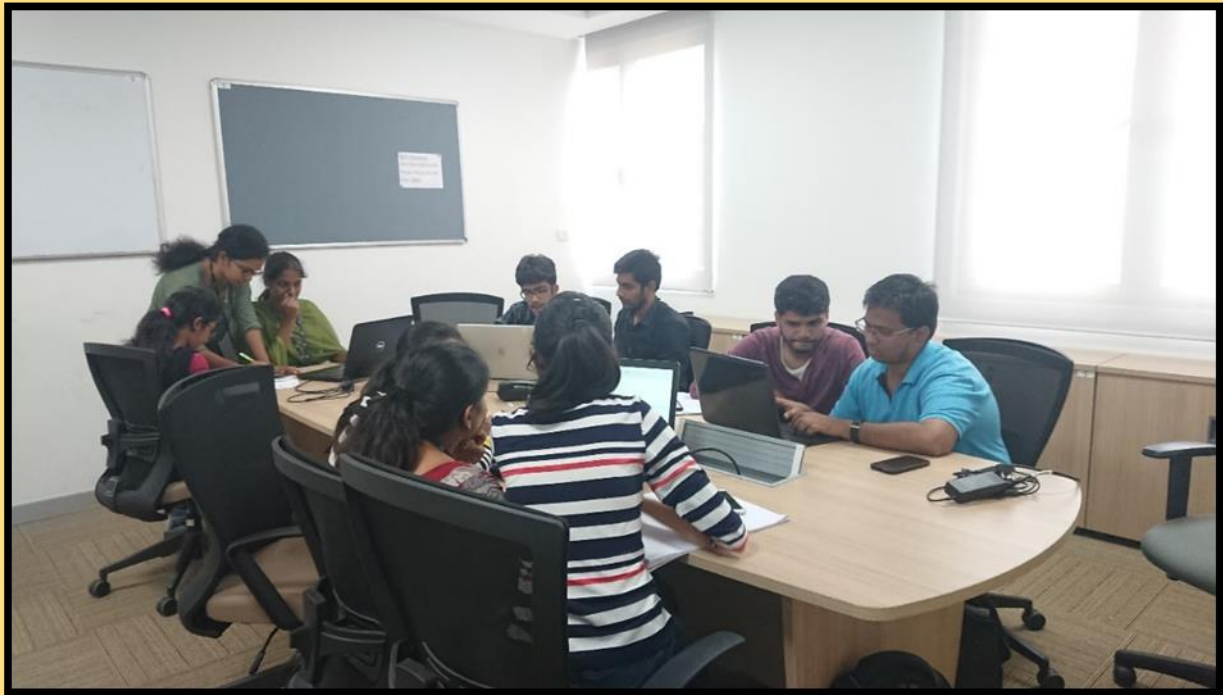
INTRA DEPARTMENT ACTIVITIES

PROCEDURE 2019

ProCoDe organized **ProCoDe Cup 2019** - Intra department coding competition in which 33 teams participated enthusiastically among which 19 teams were from 3rd year, 9 teams were from 2nd year and 5 teams were from 1st year. The winners from each year received a cash of Rs. 1,200/- as first prize, Rs. 900/- as second prize and Rs. 600/- as third prize. The teams were evaluated based on the problems they solved and the time penalty. There was a total of five problems. All the winning third year teams solved three problems. In third year, jio1056 emerged winners with zero penalty followed by the team vandha_rajavathan_varuvom and viratians. The winners of the second year coders!(101) were the only team that solved four problems. They were followed by terfoxes and Code Masters who had both solved 3 problems each. The first years were not far to be left behind. The teams constvar and Adithya solved two problems and emerged first and second respectively. Harrison came third having solved one problem.



Q. WHY WAS THE EQUAL SIGN SO HUMBLE?



A. BECAUSE HE KNEW HE WASN'T GREATER THAN OR LESS THAN ANYONE ELSE.

PLACEMENT INSIGHT TALK

A Placement Insight talk was conducted on the 19th January 2019 in the Department of Information Technology. It was organised to throw light upon the placement process.

The talk was a thoughtful initiative of the Procode to help the students of the second and third year prepare for the campus recruitment. It began as an interactive session in which the 2nd and 3rd year students cleared their doubts regarding the procedure. The seniors then opened up about the on campus and off campus opportunities available to the students.

The on-campus jobs are classified into three categories - Normal, Dream and Super Dream based on their annual pay packages. Based on their recruitment, the students are made to sit for further companies. The process consists of an aptitude test round followed by a coding round and technical and HR interviews. They shared insights on the medium of various materials to focus on for preparation. Harini Priya and M S Vignesh presented various tips for this process.

The off-campus jobs consist of various coding challenges on an online medium - Kickstart and GetSetGo. These challenges spans about a set of 6 to 8 months. These were the mode of medium for getting into companies like Google, Uber etc. Murugappan and Rahul Ramji handled this session.

The 2nd year students were provided ample awareness on the various subjects they needed to focus on. They spoke about the wide range of the internship opportunities available. They furnished various valuable factors to be included on the resume. They elaborated on ideas about various internship windows open. Pointers regarding the different key things that contribute to us utilising our time better were also spoken about.

Q. WHAT DO YOU CALL A NUMBER THAT CAN'T STAY IN ONE PLACE?

They explained a lot about projecting ourselves and different tactics that will be useful in any walk of life. These were valuable takeaways from this session. The session came to an end with a note of thanks. Overall, the session was extremely informative and was really helpful in realising what, where and how to work upon in improving ourselves as individuals ready to take on the world.

- K. Srividhyasaradha, III Year

FACULTY CORNER



FELICITATION

Dr. T. Shanmugapriya, ASP, IT, successfully defended her Ph.D thesis titled "Privacy Preservation in Online Social Networks". On behalf of our department, we congratulate the faculty and wish her more laurels in her career!

Congratulations



Her researched is based on a Privacy - Preserving Interceptor (PPI) capable of offering customized privacy preservation to the user matching their privacy and utility needs. The PPI identifies the dichotomy faced by the user in making their sharing decision and shares the same with the user. The PPI provides a customized recommendation to the user in choosing the TPA, models the user's sharing behaviour to offer varying levels of privacy and perturbs the data sent to the TPA. Hence, the PPI manages to enhance the privacy of the user by identifying and revoking the unnecessary permission granted to TPAs, thwarting any new unwanted TPA installation, and by applying perturbation techniques to share the required attributes.



Research Scholars - Ph. Ds Awarded

- Ms. G. Anushiya Rachel, Research Scholar of Dr. T. Nagarajan, Prof & Head, IT, successfully defended her Ph. D thesis titled "A Robust Phase-Difference-Based Approach to Estimation of Glottal Closure Instances and its Applications" on April 5th.
- Dr. T. Sree Sharmila, ASP, IT has successfully convened her part time research scholar Ms. R. Priyadharsini's viva-voce examination for the thesis titled, "Development of image enhancement techniques for object detection in underwater acoustic images" on March 1st.

REVIEWS

- Dr. P. Vasuki, ASP, IT reviewed a manuscript submitted to the Journal of Experimental & Theoretical Artificial Intelligence on May 30th.

PRESENTATIONS

- The following papers have been presented in the National Conference on Mathematical Analysis and Computing (NCMAC 2018) organized by Department of Mathematics, SSN College of Engineering on December 13th - 14th, 2018:
 - Poornima S, Kavitha S, Mohanavalli S, Sripriya N, "Detection and Classification of Diseases in Plants Using Image Processing and Machine Learning Techniques".
 - Dr. I. Joe Louis Paul, Associate Professor, Department of IT, SSNCE.
Mr. Suchindran Muthu, Seniorurya K, "Recognition of Handwritten Text using Long Short Term Memory (LSTM) Recurrent Neural Network (RNN)".
- Dr. E. M. Malathy, ASP, IT presented the following paper at International Conference on Science, Technology, Engineering and management (ICSTEM'19) organised by Kalaingar

Karunanidhi Institute of Technology, Coimbatore on September 13 – 14th, 2018.

E.M. MALATHY, DILIPAN M, SAURAV SANTHOSH, "Network Evaluation for Performance Analysis Model with MADM - Nelder Mead Optimization".

- Dr. N. Bhalaji, ASP, IT, presented following papers in International conference (ICICCT'2019) held at BVRIT, Hyderabad, to be published in springer series in Reliability Engineering (indexed in scopus) on January 5th:
 - "Blockchain Based Approach for Privacy Preservation in Healthcare IoT".
 - "A Trust Based Mechanism to Combat Black Hole Attack in RPL Protocol".
- The following papers were presented by the final year students in SSN Undergraduate Researchers day on February 19th:
 - S. Swarnalatha, R. S. Shrikanth, I. Kesavarthini, presented a paper titled "Mobile Application for Out-Pass Generation" co-authored by Dr. S. Poornima,
 - S. Nitheesh Prabu, Abhishek Pal, S. Sundar Ram, presented a paper titled "Impact of Tweet Features and Machine-Learning Classifiers for Twitter Spam" co-authored by Dr. S. Karthika
 - Jeyaaishwarya presented a paper titled "Automatic Gender recognition using ANFIS", co-authored by Ms. N. Radha
 - V. Nikitha presented a paper titled "Embodied Conversational Agent-based Control Interfaces for Home Automation System", co-authored by Ms. N. Radha.
 - S. Neharika presented a paper titled "Text to Speech Conversion of Documents using Concatenative Speech Synthesis", co-authored by Ms. N. Radha.
- Dr. I. Joe Louis Paul, Dr. S. Sasirekha and Dr. S. Mohanavalli presented a paper titled "Smart Eye for Visually Impaired-An aid to help the blind people" in the Second International Conference on Computational Intelligence in Data Science (ICCIDS 2019) organized by Department of CSE, SSNCE on February 22nd.

- Pruthvi M, Dr. S. Karthika and Dr. N. Bhalaji presented a paper titled “A Novel framework for Slot College” in the Second International Conference on Computational Intelligence in Data Science (ICCIDS 2019) organized by Department of CSE, SSNCE on February 22nd.
- Dr. S. Poornima, Dr. N. SriPriya, S. Swarnalatha and Kesavarthini presented a paper titled “Med-Recommend System for Predictive Analysis of Hospitals and Doctors” in the Second International Conference on Computational Intelligence in Data Science (ICCIDS 2019) organized by Department of CSE, SSNCE on February 22nd.
- Ms. L.K. Pavithra, Dr. T. Sree Sharmila presented the paper titled, "Dominant color cluster and uniform local binary pattern based image retrieval" in the international conference on Advances in electrical and computer technologies 2019 (ICAECT) held at the hotel Aloft, Coimbatore on April 27th.
- Ms. R. Geetha, Dr. S. Karthika, Dr. S. Mohanavalli presented the paper titled, “Tweet Classification Using Deep Learning Approach to Predict Sensitive Personal Data” in the international conference on Advances in electrical and computer technologies 2019 (ICAECT) held at the hotel Aloft, Coimbatore on April 27th.
- Dr. S. Karthika and Dr. S. Mohanavalli, ASP, IT presented their completed project titled "Behavior Analysis of Privacy Leaks on Twitter" in the progress review meeting under Faculty IFP scheme for faculty on May 13th.
- Ms. J. K. Josephine Julina, AP, IT presented the paper titled "Facial Emotion Recognition in Videos using HOG and LBP", co-authored by Dr. T. Sree Sharmila ASP, IT in 4th IEEE International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT - 2019), organized by the Department of Electronics & Communication Engineering, Sri Venkateshwara College of Engineering (SVCE), Bengaluru, Karnataka on May 17th.

PUBLICATIONS

- R. Priyadharsini, T. Sree Sharmila, “Acoustic image de-noising using various spatial filtering techniques”, International Journal of Information Technology, Springer, <https://doi.org/10.1007/s41870-018-0272-3>, (published online), Jan 2019.
- L. K.Pavithra, T. Sree Sharmila, “An efficient seed points selection approach in dominant color descriptors (DCD)”, Cluster Computing, Springer, DOI 10.1007/s10586-019-02907-3, Jan 2019. [IF: 1.60].
- Ms. L.K. Pavithra, T. Sree Sharmila published the paper titled "An improved seed point selection-based unsupervised color clustering for content-based image retrieval application" in The Computer Journal. [IF: 0.787] on March 27th.
- Poornima, S., S. Kavitha, S. Mohanavalli, and N. Sripriya published the paper titled "Detection and classification of diseases in plants using image processing and machine learning techniques." In AIP Conference Proceedings, vol. 2095, AIP Publishing on April 10th.
- Poornima S, Kavitha S, Sheerin Sitara N, Balaprasanna A S published the paper titled "Hybrid Fusion based Learning Model for Biometric Authentication" in Caribbean Journal of Science, Vol. 53 on April 11th.
- M. Tejasvi, A.Nayeemulla Khan, A.Shahina, “Perfecting Counterfeit Banknote Detection - A Classification Strategy”, published the paper titled International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-6, April 2019.
- J.V. Thomas Abraham, A. Shahina, A. Nayeemulla Khan, published the paper titled “Enhancing Noisy Speech using WEMD”, International Journal of Recent Technology and Engineering, April 2019.

- Dr. S. Mohanavalli, ASP, IT published a paper titled, Optimized bi-level classifier for brain tumor type and grade discrimination using evolutionary fuzzy computing in the Turkish Journal of Electrical Engineering & Computer Sciences, Vol. 27. No. 3, pp 1703-1708, 2019 (IF:0.697) on May 21st.

GUEST LECTURES DELIVERED

- Dr. S. Chithra, ASP, IT, contributed a session lecture for "National Seminar on role of AI and IoT for Health care" sponsored by Tamilnadu State Council for Science and Technology organised by St. Joseph college of Engineering, Chennai on February 5th.
- Dr. N. Bhalaji delivered a talk in "Introduction to Blockchain technologies" in the Recent Trends in Advanced Computing Techniques and Models", (RTACTM - 2019), held at Guindy campus, University of Madras on March 11th.
- Dr. S. Poornima, ASP, IT delivered a talk on "Role of Image Processing in Biometrics" in a 3 day Technical Awareness Workshop on Cloud, Computing, Cyber security and Image Processing, conducted at Sathyabama Institute of Science and Technology, Chennai on March 27th.
- Dr. N. Bhalaji, ASP, IT gave a session talk on "Block Chain Technology", in the 5 days FDP on "Cloud Security & Block Chain Technology", organized by Sairam Engineering College, Chennai on April 22nd.
- Dr. S. Chithra, ASP, IT gave a session talk in the "Six day Faculty Development Program on Computer Networks" organized by Jeppiaar Engineering College, Chennai on April 24th.

PROGRAMS ORGANISED

- Dr. T. Sree Sharmila, ASP, IT organized IEEE Student Professional Awareness Conference 2019 at SSN College of Engineering under the banner of SSN IEEE Student Branch on January 5th.

- Dr. T. Sree Sharmila ASP, IT, Dr. V. Thanikachalam ASP, IT and Ms. J. K. Josephine Julina AP, IT, organized a 24 Hour Hackathon Event "Hack & Tackle 1.0" on January 31st. A total of 34 teams consisting of 152 student participants from various disciplines participated. The sessions were handled by 27 expert members from various industries namely Mr. Cooper, Amazon, QUBE Cinema, Infosys, HCL, CTS and Thoughtworks.
- Ms. Swathika.R, AP, IT & Mr. A. SandanaKaruppan, AP, IT organized guest Leture on "Oracle Database - Insights" by Mr. Sadasivam K, Technical Lead - Oracle DBA at Wipro Technologies, Chennai for II year IT students on February 20th.
- Ms. Swathika.R, AP, IT & Mr. A. SandanaKaruppan, AP, IT organized guest Leture on " Cyber-Physical Systems and IoT: The Road to Industry 4.0" by Dr Thinagaran Perumal, Senior Lecturer, Department of Computer Science, Faculty of Computer Science and Information Technology, Universiti Putra Malaysi, Chennai for III year IT students on February 21st.
- Dr. A. Shahina, Professor, Dept. IT, delivered a 2 hour guest lecture at VIT, Chennai, on the topic "Shallow and Deep Neural Networks and their applications" on 22nd of March, 2019.

PROGRAMS ATTENDED

- Dr. T. Sree Sharmila, ASP, IT, participated in IEEE Student Branch Officers' Meet organized by IEEE Madras Section at NIT Campus, Thiruchirapalli on December 22nd.
- Ms. S. Vidhusha AP, IT attended the brain connectivity workshop and brain computer interface conference BRAIN CONN 2018 at Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum, Kerala on December 28th.

- Mr. R. Vinob Chander, AP, IT participated and represented SSNCE for InfyTQ 2019 @ Infosys Campus, Mysuru on February 14th.
- Mr. V. Sivamurugan, ASP, IT, Dr. N. Sripriya ASP, IT and Dr. S. Poornima ASP, IT attended a pre-conference workshop on Machine learning and Deep learning (ICCIDS 2019) conducted by Department of CSE at SSN CE on February 21st.
- Ms. S. Vidhusha, AP, IT was one of the expert judges in the Students' Forum on Technology Management & Ethics, organised by the Department of ECE, SSNCE on February 27th.
- Dr. K. R. Uthayan, ASP, IT and Mr. R. Vinob Chander, AP, IT attended a Two Days Workshop on DevOps Tool - Hands on Training at Sri Ramakrishna Engineering College, Coimbatore on March 8th.
- Mr. V. Arul Kumar, AP, IT attended Five Days FDP on "Cloud Security & Block Chain Technology" organized by IT Dept, Sairam Engineering College, Chennai on April 26th.

INDUSTRY INTERACTION

- Dr. N. Bhalaji, ASP, IT, Dr.S. Karthika, ASP, IT, and Dr.S.Chithra, ASP, IT, participated in an industry interaction with Mr. Muthuprakash (CTO) and Mr. Prasanna (Solution architect) of Rapidqube in the areas of Blockchain technologies and decided to work in theme of SMART CAMPUS on January 17th.

படித்ததில் பிடித்தது!

அம்மாவின் பொய்கள்
பெண்ணுடன் சினேகம் கொண்டால்
காதறுந்து போகும் என்றாய்
தவறுகள் செய்தால் சாமி
கண்களைக் குத்தும் என்றாய்
தின்பதற் கேதும் கேட்டால்
வயிற்றுக்குக் கெடுதல் என்றாய்
ஒருமுறை தவிட்டுக்காக
வாங்கினேன் உன்னை என்றாய்
எத்தனைப் பொய்கள் முன்பு
என்னிடம் சொன்னாய் அம்மா
அத்தனைப் பொய்கள் முன்பு
சொன்ன நீ எதனாலின்று
பொய்களை நிறுத்திக் கொண்டாய்
தவறு மேல் தவறு செய்யும்
ஆற்றல் போய் விட்டதென்றா?

எனக்கினி பொய்கள் தேவை
இல்லையென் றெண்ணினாயா?
அல்லது வயதானோர்க்குத்
தகுந்ததாய்ப் பொய்கள் சொல்லும்
பொறுப்பினி அரசாங்கத்தைச்
சார்ந்ததாய்க் கருதினாயா?
தாய்ப்பாலை நிறுத்தல் போலத்
தாய்ப் பொய்யை நிறுத்தலாமா
உன்பிள்ளை உன்னை விட்டால்
வேறெங்கு பெறுவான் பொய்கள்?



Dr. P. Vasuki, ASP, IT
ஞானக்கூத்தன்

கர்வம்

உறங்கவைக்கும் வகுப்பறைகள்
ஊக்குவிக்கும் ஆசிரியர்கள்
உயிர்கொடுக்கும் நண்பர்கள், போன்ற
உன்னதமான உறவுகளை
உணர்த்திய எம்
உவமையற்ற கல்லூரியே
உன்னை நினைத்து
கர்வம் கொள்கிரேன்
மனதில் தயக்கத்துடன் தொடங்கி
கண்ணில் கலக்கத்துடன் முடிந்த
என் கல்லூரி வாழ்க்கைக்கு சமர்ப்பணம்

- தர்ஷினி

STUDENT ARTICLES

GOOGLE INTERVIEW EXPERIENCE

Google usually identifies potential candidates to interview through Kickstart.

Kick Start is a global online coding competition, consisting of three-hour rounds of a variety of algorithmic challenges designed by Google engineers. Participants can compete in one or all online rounds held throughout the year, and will have the opportunity to develop and grow their programming abilities while getting a glimpse into the technical skills needed for a career at Google (top participants may be invited to interview at Google).

[Taken from the official site]

Out of the 8 kickstart contests, 5 got over before August and I was interning at GS - Bengaluru during that time, so I had to back off from some contests and my performance was not satisfactory in the rest of the contests in which I participated. Then came a round in September and I was in high hopes of performing well, but again I didn't do well. Fortunately, Google was focussing on students from colleges which was not included in their campus hiring list. I was well off in that list and got a call for an interview. My interview was scheduled on 13th of November which coincides with my birthday and the gap between two semester exams. So, I was both fortunate and unfortunate there.

Coming on to the preparation part, I didn't prepare much as my past preparation was effective in getting offers from 3 great companies. I was a bit overconfident at that time, but after a few days, I felt that I

was underutilizing the semester prep time, so I ended up spending some time for brushing up few programming concepts.

Now comes the interview day.

Google planned to organize the process in 2 sessions (Forenoon and afternoon) where each session would have 2 rounds of interview (each 50 mins). Only the people who clear the bar in the morning session would be eligible for the second session and others were planned to be sent home after lunch. 6 people (including me) from across the country reported at the Google office in Bengaluru at 9 AM. We had a small talk amongst the interviewees where we inquired each other about their college, kickstart performance, etc.

The interviews started at around 9:30 AM. I was asked to design a new data-structure in my first round of interview and surprisingly I came up with the expected solution within 25 mins. So I spent the rest of the time asking about the interviewer's work profile in Google and her past experience. The second interviewer came to the room exactly at 10:20 AM and I had to end up my conversation with the first interviewer abruptly. Since the second interviewer was punctual, I thought her to be serious and was restraining my normal self. She popped up a question right after the introduction without wasting any time. The question required dynamic programming, but I started my explanation with a greedy algorithm. I found out my mistake while I was explaining my solution and fortunately, I was able to prove that this greedy algorithm works for most of the cases, there were only a handful of cases where this solution won't work. I pinpointed this issue and presented a solution which involved DP. She was impressed with the greedy solution as it was way faster than the DP solution and worked for many cases. I completed the round with 10 minutes left in the clock, so we were talking about the team she works for and her role in the team.

The HR-recruiter came at around 11:15 AM and accompanied me to the meeting room where the other interviewees were waiting. We started to discuss about the morning session's performance. We moved to have lunch at around 11:30 AM and were back to the same room by 12:10 PM. At 12:30 PM they announced the list of people who got shortlisted for the next session. Only 3 of us got that opportunity. The afternoon session was scheduled to start at 1 PM.

Next interviewer came 5 minutes earlier than the scheduled time, so the interview started early. The question that I received required a multitude of data structures and algorithms. I was running against the time as I had to explain a large number of concepts to get to the desired solution. Fortunately, I finished it on time.

The next and the final interviewer turned up on time. We had a small intro and suddenly he asked me about my biggest achievement. Without a second thought, I told him that my CodeForces master title was my biggest achievement to date. He had a smirk on his face and I was confused about the same.

Unfortunately, he was an ICPC world finalists but I had no idea about this till I reached home and opened up LinkedIn to look upon the profiles of the people whom I met in Google. He gave me a question which was extremely hard. I tried various approaches and nothing seemed to solve that problem. My intuition started to say that the given problem is an NP problem. I came up with an ML solution and presented the same. He was a bit confused and asked me the reason behind choosing ML to solve the problem. I informed him that the problem was NP and has no polynomial solution. He was shocked that I was able to correctly identify it and congratulated me for the same. That moment was priceless and I was very much satisfied with my performance.

The recruiter contacted me through phone on the 3rd of December and I was a bit nervous as it was the time to know the results and I still remember the first line of the conversation.

I was in seventh heaven after hearing this news. Looking forward to the new experience and endless possibilities !



Murugappan. S, Final Year.

MY JOURNEY INTO GOLDMAN SACHS

Towards the end of class X, when we were asked to choose our elective for classes XI and XII, I decided to choose Computer Science as I had always wanted to know what coding, the key behind tech giants, was all about.

I was lucky to have had 2 great Computer Science teachers in school. Right from laying down the fundamentals, to guiding us in writing an entire program, it was an interesting, eye-opening 2 years. The eagerness as we were given a coding problem, to the thrill of coding out the solution, to the final joy of seeing the right output on screen - it all seemed surreal.

The kinds of problems I enjoyed then were, to name a few, generating a given visual pattern, eg: Pascal's triangle, the various list operations implementations etc. All these gave me the clarity of wanting to pursue CSE/IT engineering.

Programming in college gave me the same sense of joy. PDS practical sessions in 1st year made me challenge myself more - for example, when we were asked to implement 3x3 matrix multiplication, I ventured to implement the same for nxn matrices. Even such small thrills made me enjoy all the practical sessions throughout my 4 years in college.

Such a competitive spirit, however, was still hungry for more. That's when I approached seniors who were passionate about coding and asked them how to improve and practise coding more. That's when websites like Codechef, Hackerrank and Codeforces were recommended.

The online contests on these websites along with the vast set of practice problems really helped me in my first 2 years of college. I am grateful to our PDS subject teachers who introduced us to more

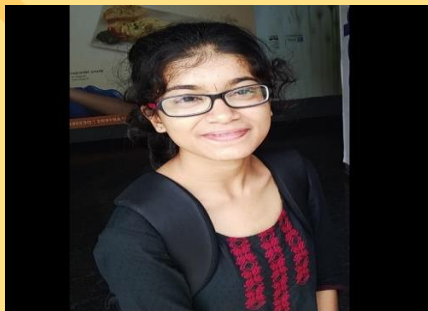
complex concepts such as trees and graphs. I am also grateful for the coding club sessions conducted by our seniors in both CSE and IT depts, where we were taught algorithms which are important in competitive coding.

The observation I made through these years was this: coding is a wonderful domain for those who are actually interested in learning it. It becomes a burden when we don't try to understand what the code does and instead mug up the code. There is absolutely no joy in by-hearting lines of code and this gives students a false opinion of the concept of coding itself. By - hearting the codes is also redundant as it will not help when we need to code solutions in companies later on in life.

Another observation that I made was that those who are actually passionate about coding feel insecure when others in their batch or even juniors outperform them. I continue to face this insecurity. My request to such people would be: never give up. Just because someone else is better than you, whatever be their age/ how sooner or later than you they started practising, does not mean that you stop practising or competing. Your talent and passion are a gift no matter what. Learn from those better than you and improve yourselves. After all, the ultimate competition is that with ourselves, we grow by being better than who we were yesterday.

The lessons, practice and knowledge I gained through these years were definitely helpful when I sat for college placements. I am now looking forward to the continuation of my journey in coding at Goldman Sachs.

Work towards your field of interest with passion and sincerity, and you will definitely achieve big. As the famous quote goes, "If you do what you love, you'll never work a day in your life"



Dheeptha Anand, Final Year

A HOLIDAY IN BENARES

'A holiday in Benares!' Well, it does sound apparently silly, considering the sweltering heat! To be frank, spending a whole precious week of my summer vacation on a 'pilgrimage tour' with my grandparents wasn't exactly my idea of fun too!

So, an outwardly smiling but sulky Jananie set off aboard the Ganga - Kaveri Express to Allahabad, a 36 hour journey from Chennai, touching 5 states along the way!

Allahabad

Allahabad was not a morning city, yet, a late breakfast of Aloo parathas with mint sauce and a large 'Matka Lassi' (thick sweet curd in an earthen pot) did manage to do some magic. The rest of the day and the next was temples, temples and temples.

The first 'real' event in the trip was our holy bath at the Triveni Sangam - the world's largest confluence of 3 rivers - Ganga, Yamuna and Sarasvati! Initially, our boat glided through the placid waters of the Yamuna, and as we drew nearer to the centre, I was amazed to see the river sharply merge into the silvery, speedy waves caused by strong currents of the Ganges!

This mystic, natural vista is probably the reason why scores of foreign tourists too, flock the city, despite the Benares summer heat! I feel, in every way, this panorama lends credence to the existence of Gods, Hinduism and divinity!

Benares

Shortly after our relaxing river bath, we set off to Benares by road. The first 2 days at Benares was spent on pujas and prayers and numerous temples. I accompanied my grandparents at the holy Kashi Vishwanath temple at 3:30 am, the only part of the day the temple is less crowded, to peacefully pray the deity!

The local sight - seeing comprised of some parks, fortresses and palaces converted into museums, the Benares Hindu University and my favourite Matka Lassis. True to its name, Benares was a textile shopping paradise! I enjoyed the 'Panch Ganga Snaan' or bathing at the 5 major Ghats on the banks of Ganga, ferrying from one Ghat to another, relishing each dip in the summer morning!



In hot May, when there's scarcity in our place, people play peekaboo in the abundant freshwater in another part of the country! That's incredible India!

23rd May, 2019

Not many are lucky to have been in Benares on that big day of election results! It was the prime minister's own constituency and excitement and elation rippled through the streets of Benares as the counting progressed in favour of our PM. Press and media showed the best of the current and charged atmosphere of the 'Modi Tsunami'! The party volunteers organised processions, distributed free sweets to passers-by, burst crackers, played Holi and celebrated their thumping victory! Indeed, that day, Benares celebrated its Diwali early!

The Aarthi

On the last day, at twilight, we proceeded to witness the famous 'Ganga Aarthi', wherein, lamps, big and small, were lit along with holy chants in reverence for Goddess Ganga and preserve the sanctity of the river.

As I watched the floating lamps brighten the night, spellbound, I couldn't help remembering a scene from the famous Tamil movie- 'Kalakalappu 2', in which the lead actors romance in the same spot in the lamp light! It's indeed a must-see!



Yes, I sulked in the beginning of the trip, however, I was as charmed as any other visitor at the end of it! It was undoubtedly a pleasurable and beautiful holiday with the sweetest of memories to savour!



Jananie RB, 3rd Year.

THE ESSENCE OF SPIRITUALITY IN INDIAN CLASSICAL ART

“Every art has its beauty, but it takes a true artiste to express it and an even truer admirer of art to perceive it”

Hello everyone! As we all know, Chennai is a city that is loaded with many art forms. It is also nicknamed the cultural capital of India. But somewhere, there are a lot of differences. The world of art involves a lot of diverse groups of people of highly varying age groups. The times of course have changed a lot and the artists who pursue various forms cannot expect to receive the perks that once existed long ago. However, apart from those issues, one group tries to bring in the contemporary form of art and the other finds this absurd and unacceptable.

A few days back I came across an article that showed up in one of my WhatsApp groups. It was about how the Indian classical art forms are losing its spirituality and divinity and also, how the field of art is slowly getting commercialized. The article also held the current generation of artistes responsible for depleting art! This is a pretty vast and deep aspect for an amateur like me to comment about. But from what I could understand, this is my point of view. Yes, I agree that the essence of divinity and spirituality has degraded many folds. But I would also say that we, the current young artistes are not entirely responsible for it. It was the time we were exposed into the artistic world (nascent stages of art getting into us and from there onwards...)

I would like to list out some factors for the word ‘time’ here...

1. There was no gurukulam system but only a mere one-hour “class”

(addressed by almost everyone) and as we all know it existed during the times of Gods and monarchs, where people dedicated their whole lives to learn and master just one art and turned out to be so brilliant at it that almost seemed impossible to believe. Hence comparing the same kind of dedication and quality to those of the 21st century is quite unfair as we are well aware of the fast-paced, industrial lives we lead.

2. Academics that threw light upon the Devadasi system in a way that only its negatives were highlighted. We learnt that it was a practised social evil that was abolished. I'm pretty sure 90% of our generation would not know the positive side and the rich art forms it gave us. Moreover, even the word 'devadasi' evolved to be a swear word over time. Despite all this mess, finding the goodness of that system which gave birth to Naatya and other priceless art felt impossible until someone puts up a powerpoint presentation or a lecture demonstrate to actually tell us.

3. People then were 100% devoted to their field of art. But now as we all know it is school or college and 'extracurriculars' not by choice but by society's law.

4. Most of us here have parallel professions and we tend to choose the one we get more income to satisfy our daily needs as the cost of living has exponentially gone up since those times.

5. Different standards of spirituality varying amongst various individuals.

6. Sometimes the spirituality and divinity you feel towards naatya or any other field alone is not enough because you go unnoticed especially when you are taking it up as a profession, as people around you are way more competitive and market their art. And also that sense of fear.. fear of going unnoticed makes you do things like for example, shows to get name, fame, money etc.. here that person may or may not lose his sense of divinity. It depends. Maybe according to him, propagating art to many people around the world, "globe-trotting" would be an ideology of spirituality.

7. The article also said 'many artistes were unknown and only recently they were discovered and have been made history'.. but.. what if.. they weren't discovered at all?

What if there were so much more that we haven't discovered?

If we don't spread our art (definitely not commercially though), in 1000 years would there be anyone to even care to discover it? With this growing fan base towards western culture?

Hence, I feel we are trying to be the best of both worlds which definitely has some compromises and if theories show that spirituality is the one finally being compromised, it is time to rework our balance. Both worlds showed great differences, but the only similarity that managed to exist through centuries was that both equally contributed and gave back to the world of art and ultimately that's what counts. Apart from that, it is our duty as Indians to be proud of our art forms and do utmost justice to it.

Sushmita Raj Tilak, 3rd Year.



MY EXPERIENCE IN A FOREIGN UNIVERSITY

Hey guys, Vijay here. I'm pursuing my Master of Data Science at Monash University, Australia. I would like to share a few things and my experience, which I felt the need of the hour for students who have the dream of pursuing their master's from Foreign Universities.

Most of the engineers in India possess the sense of hope that their lives would become much better when we attain graduation from a foreign university. In most of the cases, the answer is yes, we can attain betterment in life through a degree from a foreign university, but if and only if we possess the following qualities; adaptability, adjustability, attentiveness and hard work.

- **Adaptability** – Need to get adapted to the surrounding wherever you're in,
- **Adjustability** – Need to adjust both the characters of certain people and things available and happening around us,
- **Attentiveness** – Need to be very attentive not only in classroom lectures but also in each step and decision you take in,
- **Hard work** – the last but not the least we need to work hard, since the main aim we have in foreign university is to attain a quality education and competition will be massive, as we will be competing with students from many parts of the world.

Apart from studies, the major part of studying in an abroad university is it teaches us how to lead a life without depending on anyone and the way to take care of oneself under self-management.

In terms of studies, the important comparison we give foreign university with our Indian university is that in abroad they stress the importance of practical knowledge than theoretical knowledge, yes it's true, all the units (subjects) will be having at least a 40% weightage for the assignments. This buzz word "Assignments" will always be the scary one for almost many students across the world. The reason is Assignments are sometimes time-consuming, needs a lot of effort and timed tasks.

We need to manage our personal timings along with the assignments since penalties will be incurred for late submissions. If we have a valid reason like some health issues or shifting of houses we can also apply for an extension of assignment submission. But still, it's preferable to submit on time because we will be having submissions one after the another like a round-robin fashion, so it's always advisable to submit assignments before the deadline.

Next phase of our studies will be our examinations which will contribute at least 50% of the entire unit grade, the key factor of examinations is to check your understandings and knowledge on the unit (subject). We can either write the answers in bulleted points or in a paragraph but must be a proper solution to the problem (question).

If we have prepared well and have understood the concepts overall, we can surely clear (pass) the unit. Each country has a different

specification of the percentage of marks in Grades (Out of 4 or 5) or WAM (Weighted Average Mean), it's advisable to maintain a percentage above 75% overall.

On the other hand, we need to keep in mind that knowledge matters in professional job perspective, so it's crucial to develop those skills within our course duration. As far as jobs are concerned we need to build our networking both with our peers and professionals by attending many seminars and meet-ups, such we would know about what's happening in industries and how can we meet their expectations.

Finally, as always, we can have our leisure time now and then whenever there are no submissions of assignments and no overhead issues. So, if you are planning for higher studies in foreign universities brace yourself, prepare for your next phase of life. All the best for your future.

- **Vijay, Alumnus,**

HARRY POTTER AND MANAGEMENT VIEW

Unlike the popular opinion held by adults (and by adults I mean mostly my parents), Harry Potter is not just a children's fantasy book. Just like we gradually grow older and more mature, the need for money changes from buying popsicles to buying a house or a car; similarly, the books start making more sense and become more relatable when reading at different phases of our lives. When we were younger, it just meant the triumph of good over evil but now I realized it also highlights important social aspects like children becoming orphans because of adults fighting wars, or an oppressive government taking away free speech of the media. As a matter of fact, if we dwell deeper into the pages, the series highlights certain important managerial skills as well.

The wizarding world has all kinds of people who are looked down upon. There are Squibs, Giants and Werewolves, shunned from society because of the stereotypes attached to their race. Squibs couldn't perform magic; werewolves and giants were considered as dangerous creatures. Dumbledore made sure that in his school, everybody got a fair chance in spite of their backgrounds.

He believed that *"Differences of habit and language are nothing at all if our aims are identical and our hearts are open."* He took in Hagrid, Lupin, and Filch and gave them jobs when everybody out there refused to hire them. This gives us an important lesson on inclusion. Be it the LGBTQ community or differently abled employees, if a candidate shows adequate skills and potential, he/she deserves a fair chance. So don't get deceived by the appearances and welcome every candidate with open arms.

Sirius Black, Harry's godfather, once said, "If you want to know what a man's like, take a good look at how he treats his inferiors, not his equals."

Dobby, the house-elf, was always mistreated by his previous masters, the Malfoys, whereas he was shown love and care by Harry and his friends. At the time of need, Dobby was the most loyal friend of the Golden Trio. Kreacher, another house-elf, belonging to the Black family, was treated with contempt by Sirius, so when the time came, he betrayed him, which eventually led to his death.

On the contrary, Kreacher was extremely devoted to Regulus Black, Sirius' brother, and agreed to avenge his death at once. Similarly, in the office, you will always need your subordinates' support to meet deadlines, deliver exemplary work and spread good vibes. It is critical, therefore, to treat them with the respect that they deserve and build some long-lasting relationships.



Jayaram, Final Year

LOCK AND KEY

Ever tried passing a message on paper to your friend at the end of the room? The most probable outcome would be the message being read half a hundred times in between and the chances are not null that the message received at the end would be contradictory to the message you sent. How annoying!

What if this message can be coded in such a way that no one except you (sender) and your friend (receiver) could decipher it? This is where cryptography comes into the picture.

The basic principle of cryptography is to transform or lock the message (plaintext) by passing it through a sequence of algorithms along with the help of a secret sequence / key which is known only to the sender and the receiver. The outcome of this locking / encryption is a long random sequence of numbers and characters which make no sense whatsoever. So, anyone trying to peek would be in for a disappointment.

One major assumption made during designing these encryption and decryption algorithms is that the network for message communication is considered to be open or non-secure (like a telephone line). So, algorithms and keys are selected in such a way that even if the attacker (let's call her Eve) gets the coded message (ciphertext), she shouldn't be able to get her hands on the plaintext.

In these modern times, all data right from our personal photos to a company's financial details, from commercial transactions to a government's secrets, is stored online. So, it is imperative to keep this data under lock and key. It is due to this need that cryptography is making leaps and bounds in modern technology.

1. **Cryptocurrency:** Different forms of cryptocurrency such as bitcoin, ethereum are types of virtual currency where transactions can be made anonymously and in a decentralized manner in order to reduce the risk of single point failure.

Blockchain technology is being used for implementation of these currencies. But cryptographic techniques of hashing are the ones which forge the links of this immutable data chain.

2. **Messaging:** Most people using WhatsApp must have come across the term 'end-to-end encryption'. It is the advancement made to the original encryption, where messages were encrypted only while being communicated in the network and not while being stored in the server.

To avoid the risk of the data being hacked in its unencrypted form from the server, the encryption and decryption processes are carried out locally in the user devices.

3. **Security for organizational data:** It is imperative for big organizations to protect their private data as huge amounts of resources and assets are involved in transactions.

Thus, a dedicated cybersecurity team is set up to safeguard the virtual wall of the company from threats and attacks.

While Eve is never tired of making attacks, it is up to us to step up and take the security of data seriously and encourage the practice of cryptography in all technical domains.



Sowmya.K, 2nd Year

NO MATTER HOW MUCH YOU PUSH THE ENVELOPE, IT WILL BE STATIONARY

WHITE OR BLACK - LEGAL OR ILLEGAL

Thanks to the movies that after hearing the word hacking the first thing that strikes us is a scene where we see a hooded person, tapping away on their keyboard in a dark room with neon lit screen hacking the system to steal data . No doubt that it is what hacking is but there's a lot more to it .Hacking simply means finding weaknesses in a computer system or network or cracking the system to gain access. Hacking per se is not illegal if done to help someone for good but when the same action is used against them without their knowledge then it's called illegal .Illegal hacking includes:

- Hacking for political purposes
- Hacking as a part of organised crime
- Hacking for fun
- Hacking for notoriety

Predominantly these forms are illegal as there is no authorisation for these individuals to access or conduct active testing on these systems, which leads into a number of offences. They are referred to as Black-Hat Hackers .Ethical hacking on the other hand is absolutely legal and encouraged . Going by the name , they use the same skills and tactics as a hacker, but with Permission of the system owner to carry out this attack and hence ,ethical . In addition, Ethical hackers A.K.A White-Hat hackers do not disclose the weaknesses of an evaluated system to someone else except the system/organization

owner.

Best part about this is that organizations pay ethical hackers to hack their own network, simply to see if it is secure. They hire to verify that their security procedures do not have any holes in it. So, next time you think of donning the black-hat, why not don the white-one and get paid too at the same time.



Priyanka Atul Srivastava, 2nd Year

SIXTH SENSE

We've all seen these sci-fi movies with the cool futuristic technology and wondered how amazing it would be to actually use that tech daily. The holographic display of computer screen, commands given by gestures, the smart digital assistant that talks to us and so on.

What if I told you all this could be true in the very near future? Few years ago, this might have sounded ridiculous, but now thanks to the researchers at MITmedia lab, this could be our new reality.

'SixthSense' is a wearable gestural interface that augments the physical world around us with digital information and lets us use natural hand gestures to interact with that information.

It is an amalgamation of various technologies like Augmented Reality, gesture recognition, image capturing, processing, and manipulation, etc. It integrates the real world with the digital world.

Us humans have five basic senses: touch, sight, hearing, smell and taste. The sensing organs associated with each sense send information to the brain to help us understand and perceive the world around us.

But with the growth of technology, we don't get the information from just the physical world. A large chunk of our information is something that can't be understood and perceived by our biological senses. It's all in digital form.

Though we use various devices to interact with it, we don't communicate directly and naturally to the digital world as we do with the real world. The sixth sense technology is all about interacting with

the digital world in most efficient and direct way. It acts as a gateway between the tangible and the intangible world.

Steve Mann is considered as the father of Sixth Sense technology who made a wearable computer in 1990. He implemented the Sixth Sense technology as the neck worn projector with a camera system. Then his work was carried forward by Pranav Mistry, an Indian research assistant in MIT Media Lab.

The sixth sense prototype consists of a pocket projector, a mirror, mobile components, color markers and a camera, all fabricated as a pendant. The projector projects the computer screen onto any surface be it a wall or your own hand.

When the user moves their hands to form different gestures, the camera captures these movements with the aid of the colour markers on their fingertips. All the components are controlled by the mobile computing device in the user's pocket.

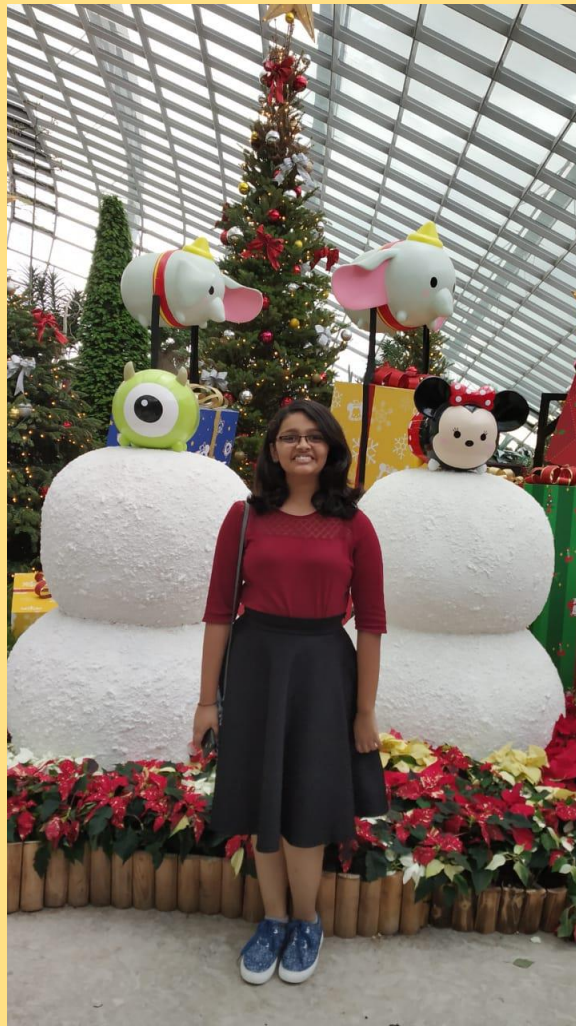
Gestures are how we communicate in the real world. We know that if someone shows you a thumbs up, then it means good and a thumbs down is bad. That's the basis of this technology as well. Each gesture has a meaning behind it and are tracked using the colour markers and the camera.

For example, making a square with your hands would click a picture and the action of turning your wrist to look at the time would project a watch on your wrist.

This has widespread applications ranging from helping make human-humanoid interaction more efficient to acting as a replacement to the 5 human senses for disabled people.

This would not only help us overcome the divide between the digital and physical world, but will also help us stay human and be more connected to our physical world. It ensures to an extent that we don't

become machines in front of machines.



Sanjana Sukumar, 2nd Year

PHOTOGRAPHY CENTRE

IT Identity



Shout it sweet in a song, listen to your heart it is singing!



All world's a stage and all men are actors! Yet, when coloured with the lights of love, isn't the play of life beautifully real?!

-SANGEETH SHRAVAN



Beach - Where bliss is the simple plate of Bhajjis after bathing!



Every dusk buries our day into the past but every dawn gives us a new beginning!

- SRIPATHI, 3RD YEAR.

THE EDITORIAL TEAM

We would like to express our sincere gratitude to the management, students and faculty for their valuable contributions, constant encouragement and support.

Wishing an engaging reading!

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The Editorial Team
IdentITy

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