

ISSUE: 3

SMRIII

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



SNEAK PEEK



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HOD'S DESK



As we complete the even semester of 2018, we all have a very good reason to feel happy about the fact that our college has been awarded the well-deserved autonomous status by the UGC committee. Together, I hope we will successfully face the challenges ahead of us in making use of the autonomy and the ensuing flexibility by devising improved curriculum and evaluation methodologies.

With a heavy heart, we all gave farewell to our colleague Shomona as she relocated to Dubai with her family. At this point, I would like to compliment her for the creditable efforts she put in as part of the newsletter team. Shomona was a good teacher, researcher and an excellent team player. We all will miss her.

I appreciate Shomona, Saraswathi, Sheeraz, Madheswari and Lokeswari for organizing the National Conference SS-REACH with an interesting set of talks, papers and the project contest.

I commend the student office-bearers and Madheswari for enthusiastically taking forward the idea of starting the SSN ACM-W Student chapter. The official launch event in the presence of Ms. Rashmi Mohan drew a lot of interest among the students. I wish the chapter all success. I am sure it will be a valuable addition to the vibrant ecosystem of learning new technological trends and the coding culture of the department.

The SSN coding cup contest organized by the ACM student chapter had large number of participations from several colleges. I am extremely happy to see such rigorous ICPC-style contests being organized by our students. My hearty congratulations to Preethaa Ganesh for receiving the best outgoing student of our department.

Of course, the best thing that happened during this semester which made our entire department proud was that 13 teams from our department were shortlisted to participate in the Smart India Hackathon 2018 Grand Finale all over India in which one of the teams won the first prize and 2 teams won the third prize. I congratulate all the winning teams and their mentors. I also appreciate the wonderful spirit exhibited all the teams that participated in the finals and the faculty as well as alumni mentors.

My best wishes to the students of the graduating batch to excel in their future endeavors.

Dr. Chitra Babu HOD/CSE

FACULTY ACTIVITES

- 1. **Dr. Chitra Babu** organized an ACM Chennai Chapter Expert Lecture by Prof. Anand Sivasubramaniam, Distinguished Professor at the Penn State University on "It's Hot Under a Cloud: Efficient Energy Management in DataCenters" at CLT, IIT Madras.
- 2. **Dr. A. Chamundeswari** attended Synopsis meeting of Mr. A. Viswanadham, a part time External PhD research Scholar at SRM University.
- 3. **Dr. A. Chamundeswari** attended PhD Comprehensive viva (oral) Exam of Mr. Shijoe Jose, a part time External PhD research Scholar at SRM University.
- 4. **Dr. B. Bharathi** served as judge for Project Expo contest held at Panimalar Institute of Technology, Chennai.
- 5. **Dr. B. Bharathi** served as Session chair for Signal processing track in the International Conference on Computer, Communication and Signal processing held at Department of Information Technology, SSN College of Engineering, Chennai.
- 6. **Dr. Chitra Babu** was invited to attend the ACM India Annual event that was organized at VNIT, Yashwant Chavan College of Engineering and Persistent Systems Ltd at Nagpur. She also participated in the Professional Chapter Summit representing the ACM India Chennai Professional Chapter.
- 7. **Dr. Chitra Babu and Mr. V. Balasubramanian** attended the pre-budget meeting and budget meeting with Kala Madam, principal and the CISCO team.
- 8. The term of **Dr. Chitra Babu** as Vice-chair for the ACM India Chennai Professional chapter has been extended for another year.
- 9. Dr. Chitra Babu spearheaded the efforts for the UGC Autonomous committee visit. A tentative curriculum for B.E(CSE) was prepared by a team comprising Prof. R.S. Milton, Prof. T. T. Mirnalinee, Dr. R. Kanchana and Dr. J. Suresh, by taking the ACM CS 2013 curriculum guidelines into account. Data compilation and presentation was prepared by Dr. J. Bhuvana and Ms. R. Priyadarasini with the help of several faculty members of the department.

SSN College of Engineering affiliated to Anna
University, has been granted autonomy by the
University Grants Commission, MHRD

- 10. **Dr. Chitra Babu** had constituted a committee for investigating systematically the internal and external factors that are affecting the sudden decline in admissions for the M.E(CSE) and M.E(SE) programmes. The committee comprised the **HoD**, **Dr. R. S. Milton**. **Dr. T. T. Mirnalinee**, **Dr. D. V. V. Prasad**, **Dr. R. Kanchana and Dr. J. Suresh**. After a thorough analysis, a report has been prepared detailing the rootcauses for this sudden decline and the potential measures that can be taken to improve this situation in the coming academic year.
- 11. **Dr. D. Thenmozhi** served a session chair for International Conference on Information Systems and Software Engineering (ICISSE 2018) organized by Meenakshi Sundararajan College of Engineering, Chennai.
- 12. **Dr. R. Kanchana** participated in the sixth edition of Agricon 2018 Conference on Precision Agriculture organized by Tamil Nadu Technology development and Promotion center promoted by Government of Tamil Nadu and CII at Velachery, Chennai on 16th March 2018.
- 13. **Dr. B. Bharathi** served as a session chair for Third International Conference on Innovative & Emerging Trends in Engineering and Technology (ICIETET'18)organized by Panimalar Institute of Technology, Chennai.
- 14. **Dr. Chitra Babu** attended the Board of Studies meeting of Information and Communication Engineering at Anna University.
- 15. **Ms. S. Angel Deborah** reviewed the following papers for SemEval2018, the 12th International Workshop on Semantic Evaluation:
 - i. ValenTO at SemEval-2018 Task 3: Exploring the Role of Affective Content for Detecting Irony in English Tweet.
 - ii. IronyMagnet at SemEval-2018 Task 3: A Siamese network for Irony detection in Social media.
 - iii. INGEOTEC at SemEval-2018 Task 1: EvoMSA and μTC for Sentiment Analysis.
 - iv. RNN for Affects at SemEval-2018 Task 1: Formulating Affect Identification as a Binary Classification Problem.

SemEval2018 will be collocated with the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2018) and will be held in New Orleans, LA, USA, June 5-6 2018.

- 16. **Dr. Chitra Babu** was invited as a Jury member for evaluating the research papers of Technology Enclave semi finals event, in the sub-theme "Digital and Innovation" at the Larsen & Toubro Limited.
- 17. **Dr. R. Kanchana** mentored a batch of II year students who participated in Smart India Hackathon 2018 and accompanied them to the event which was held in Techno India Salt lake, Kolkata during 30-31 March 2018.

PAPER / BOOK CHAPTER REVIEWS

- 1. Dr. A. Chamundeswari reviewed the papers for the conferences Springer TEAMC 2018, NSIT, New Delhi and IEEE ICSESP 2018, C.V.Raman College of Engineering, Bhubaneswar, Odisha.
- **2. Dr. Mirnalinee T T** reviewed a research paper titled "Band Dual Density Discrimination Analysis for Hyperspectral Image Classification" for IEEE transactions on Geo science and remote sensing.
- 3. Dr. D. Thenmozhi reviewed the papers titled "Movie Recommendation System using Enhanced Collaborative Filtering by Fusion Biclusters", "Performance analysis of DWPT- MC-CDMA system" for International Conference on Information Systems and Software Engineering (ICISSE'18).
- **4. Dr. D. Thenmozhi** reviewed a research article titled "NALDO: From Natural Language Definitions to OWL Expressions" for IEEE Transactions on Knowledge and Data Engineering.
- **5. Dr. P. Mirunalini** reviewed a research article titled "A Programmable Microscopic Stage: Design and Development" for Microscopy Research and Technique.
- **6. Dr. B. Bharathi** reviewed a research paper titled "Hidden-Markov-Model based Statistical Parametric Speech Synthesis for Marathi with Optimal Number of Hidden Layers" for International journal of speech technology.
- **7. Dr. S. Saraswathi** reviewed two book chapters titled "Analysis of Digital Evidence" and "Cybercrime Case studies" for Oxford University Press (OUP), India.
- **8. Dr. R. Kanchana** reviewed the extended version of a paper submitted to International Conference on Intelligent Information Technologies (ICIIT 2017), with conference theme "Internet of Things" held at Anna University, Chennai from December 20 22, 2017.

Prof. Dr. Ulrich Furbach, Universität Koblenz-Landau, Germany, had a discussion with the faculty members in **Machine Learning Research Group** on March 10, 2018 at HPC lab. He gave a talk on "AI - status quo and challenges".



PROJECT PROPOSAL SUBMITTED

Dr. R. Kanchana submitted a research proposal to The Department of Biotechnology, Government of India in collaboration with National Institute of Technology, Tiruchirappalli with a proposed budget of 53.81 Lakh and duration of 18 months.









Dr. S. Kavitha

K. Lekshmi

The project proposal for "Research on Viral Hepatitis" has been submitted to Indian Council of Medical Research under the scheme of extramural programme by Dr. S. Kavitha and Ms. K. Lekshmi.

Dr. S. Sheerazuddin submitted a project proposal to DST-SERB entitled "An investigation into the decidability of fragments of First-order Temporal Logic" under the Mathematical Research Impact Centric Support (MATRICS) scheme.





Dr. B. Bharathi submitted a project proposal titled "Development of anti-spoofing method for Automatic Speaker Verification System" under DST-TARE scheme.

EXTERNAL INTERACTION

Dr. T. T. Mirnalinee and Mr. H. Shahul Hamead had a meeting with Prof. Anand Sivasubramaniam, Professor, Penn State University and had research discussion at TCS Innovation Labs. IITM Research Park.





Dr..T. T. Mirnalinee

Hamead

EXTERNAL RECOGNITION



Dr. B. Prabavathy received Supervisor Recognition from Anna University, Chennai to guide PhD/MS (By Research) students.

The internet could be a very positive step towards education, organisation and participation in a meaningful society.

Noam Chomsky

TALKS DELIVERED



Dr. B. Bharathi, Associate Professor/CSE, delivered a guest lecture on "Syntax analysis and syntax directed translation - Compiler Design", to IT and CSE students of Jerusalem College of Engineering, Chennai during 5th and 16th February 2018.



WORKSHOP ON IMAGE PROCESSING

The following faculty members delivered a talk in "Workshop on image processing" conducted by Department of Information Technology, SSNCE on 30th January 2018.

Ms. R. Priyadharsini- "Introduction to Image processing and Image enhancement techniques"

Ms. A. Beulah – "Medical image processing and analysis"

Ms. S. Manisha- "Video text detection"

Twenty-five students from the department of EEE and IT participated in the workshop.

Dr. P. Mirunalini, conducted a session for first year students on "Introduction to Python Programming with hands-on", at Computer Science And Engineering Department – Saveetha School of Engineering, Chennai.



Dr. K. Vallidevi delivered a guest lecture for 65 students at Velammal College of Engineering, Chennai on the topic "Virtual Memory Organization". It was an interactive session with few problems being solved after the good understanding of the theory part. This lecture was delivered on 26th February, 2018.







Dr. J. Bhuvana and Dr. P. Mirunalini have given a guest lecture on 'Introduction to Python Programming with handson', for BE CSE II year "B" Section Students.

Dr. J. Bhuvana

Dr. P. Mirunalini

Dr. D. Thenmozhi delivered a key note address on "Research Directions in Text Processing" in International Conference on Information Systems and Software Engineering (ICISSE 2018).





Dr. D. Thenmozhi and Mr. B. Senthil kumar gave a hand-on sessions on "National Workshop on Deep Learning: Text Analysis & Image Processing (NWDLTAIP '18)" during 8-9 March, 2018 at Sri Venkateswara College of Engineering, Sriperumbudur.

The topics covered during the workshop sessions were: Setting-up Deep Learning Environment - ANACONDA3, NLTK, TensorFlow, and Keras, NLP stack using NLTK, Keras: A Deep Learning Library, Text Pre -processing using Python, Text Processing using Deep Neural Networks, Text Processing with Word Embeddings, Image Processing using Deep Neural Networks.

Dr. Mirnalinee T T delivered lectures on "Overview of Image processing" and "Overview of Computer vision" in the workshop on "Deep Learning in Image Processing and Computer Vision" at CSE department of College of Engineering, Guindy.



WORKSHOPS/FDPs ATTENDED



1. **Ms. S. Manisha** attended a Faculty Development Programme on "Communication Skills" on 10th February, held at SSNCE.

FACULTY PUBLICATIONS

- 1. **Bharathi B, Kavitha S and Suga Priya S**, presented a paper titled "Bilingual speech recognition system for isolated words using deep neural network", International Conference on Computer, Communication, and Signal Processing (ICCCSP 2018), SSN College of Engineering, Feb 22-23, 2018.
- Saranya S, Bharathi B and Kavitha S, presented a paper titled "An approach to detect replay attack in automatic speaker verification system", International Conference on Computer, Communication, and Signal Processing (ICCCSP - 2018), SSN College of Engineering, Feb 22-23, 2018.
- 3. **Mirunalini P, Bharathi B, Nirupan Ananthamurugan, Skanda Suresh and Shreyas Gopal**, presented a paper titled "Multi-Level Smart Parking System", International Conference on Computer, Communication, and Signal Processing (ICCCSP 2018), SSN College of Engineering, Feb 22-23, 2018.
- 4. **Dr. D. Thenmozhi** presented a paper titled "An Open Information Extraction for Question Answering System", International Conference on Computer, Communication, and Signal Processing (ICCCSP 2018), SSN College of Engineering, Feb 22-23, 2018.
- 5. A paper titled "Information hiding using LSB replacement technique and adaptive image fusion" by Lakshmi Priya S., Namitha S., Neela Niranjini V and Natha Manoj Kumar has been accepted for publication in International Journal of Computer Aided Engineering and Technology, Issue on Advances in Applied Mathematics.
- 6. **A. Beulah, T. Sree Sharmila, V. K. Pramod** published a paper titled, "Disc bulge diagnostic model in axial lumbar MR images using Intervertebral disc Descriptor (IdD)" in Multimedia Tools and Applications, Springer. DOI:10.1007/s11042-018-5914-8.
- 7. **S. Manisha, T. Sree Sharmila** published a paper titled, "A two-level secure data hiding algorithm for video steganography", in Multidimensional systems and signal processing, Springer. DOI:10.1007/s11045-018-0568-2.
- 8. **Dr. A. Chamundeswari** presented a paper titled, "Risk Assessment Framework: ADRIM Process model for Global Software Development", at TEAMC 2018 Conference, Nethaji Subash Institute of Technology, New Delhi. This paper was co-authored by **Sriraghav K, and Baskaran K**. This will be published in Springer CCIS series.



IEEE and CSI Students chapter A one day Workshop on Research Documentation - LaTeX

The workshop on "LaTeX" was organized by Department of Computer Science and Engineering, in association with IEEE and CSI students' chapter on 9th February, 2018.

Coordinators : Dr. D. VenkataVaraPrasad, Dr. A. Chamundeswari and Mr. V. Balasubramanian

No. of Participants : 37

Speakers : Dr. R. S. Milton, Dr. R. Kanchana, Dr. S. Sheerazudhin, Dr. J. Suresh and

Dr. K. Vallidevi

The first session was engaged by Dr. S. Sheerazudhin, Associate Professor, CSE, SSN covered the topics, Introduction to LaTeX, Mathematics, Typesetting, Macros. Dr. J. Suresh, Associate Professor, CSE, SSN, delivered a talk on mathematical equations in the next session. In the next session, Formatting Text, Verbatim, and Images topics was handled by Dr. K. Valli Devi, Associate Professor, CSE, SSN. In the afternoon the first session was handled by Dr. R. Kanchana Associate Professor, CSE, SSN. She discussed on Preparation of Journal article / Reports: Abstracts, bibliographies, and graphs.

The last session was handled by Dr. R. S. Milton. He gave a talk on Presentations: Beamer package, LaTeXiT. Hands on training was given in all the sessions. Thanks to all speakers, volunteers and participants for completing the workshop successfully.



Dr. A. Chamundeswari Asso. Prof. / CSE

QUOTE OF THE DAY:

Whenever you want to uncover the secrets of universe or you just want to pursue a career in 21st century, basic computer programming is an essential skill to learn.

-STEPHEN HAWKING

Workshop on Research Methodology

The workshop on "Research Methodology" was organized by Department of Computer Science and Engineering, in association with IEEE students chapter and CSI students chapter on 28th February, 2018. The Coordinators are **Dr. D. Venkata Vara Prasad, Dr. A. Chamundeswari**. 29 participants attended the event.



The first session was engaged by Dr. V. G. Idichandy, Chief Mentor ,SSN Incubation Centre and the SSN Innovation Centre. He delivered a talk on "Introduction to Research in Science and Engineering".

The next session was handled by **Dr. Shomona Gracia Jacob, Associate Professor, CSE, SSN**. She gave a lecture on "Procedures to apply for funded projects".

The afternoon session was handled by **Dr. Moses Inbaraj, Professor, Madras Christian College** gave a talk on "Possible venues for student research funding "

Dr. D. Venkata Vara Prasad Dr. A. Chamundeswari Prof./CSE

Today being my last day in SSN ...

"Fun filled challenges filled my path,
Highs and Lows...Friends and Foes...joy and wrath,
God's Will and Grace brought me through and held me high,
All's well that ends well and now it's time to say Good-Bye!

I will surely miss you all out there,

I am sure..we will always cherish the moments we shared!

I thank SSN for what it has made me become,

Life has much more to offer, and let's believe the Best is yet to come!"



Dr. Shomona Gracia Jacob Asso. Prof./CSE

CSI Student Chapter Second Project Colloquium 2018

SSN-CSI student chapter organized a second project colloquium event on 16th March 2018 for the various Engineering students in the four domain areas, Text analysis, Bio-medical, Image processing and Big data. Enormous response was received from student community. 20 projects was selected to present their poster presentation. Mr.Naresh Kumar, Spinsoft Learning Solutions Pvt. Ltd, Chennai delivered a talk on the topic, "Microservices" to the participants.

Following the talk, student poster presentation was judged by 6 team of judges.

- 1. Mr.Naresh Kumar, Spinsoft Learning Solutions Pvt.Ltd, Chennai
- 2. Mr. Srinivasan Mangadu, Sr. Director, CTS, Chennai
- 3. Mr. Srinivasan Vaidyanathan, Senior Director, CTS, Chennai
- 4. Mr.C.Karthikeyan C, IC Division Head, Netcon Technologies India pvt.Ltd, Chennai
- 5. Mr.Sheik Proskhan, Cyber security specialist, Netcon Technologies India pvt.Ltd, Chennai
- 6. Dr.J Suresh, Associate Professor, CSE, SSNCE.



Students from various Engineering colleges presented their posters. Best three posters were selected and gift vouchers were presented.



Dr. A. Chamundeswari Prof./ CSE

NATIONAL CONFERENCE ON SMART SOLUTIONS FOR RESEARCH IN ENERGY, AGRICULTURE AND CHALLENGES IN HEALTH INFORMATICS SS REACH 2018

The department of Computer Science and Engineering organized the National Conference on Smart Solutions for Research in Energy, Agriculture and Challenges in Health Informatics – SS REACH 2018

during 23 - 24 February, 2018. This conference primarily aimed at attracting young researchers and students, developers and practitioners from academia and industry to present, discuss and address theoretical and experimental work that could yield a solution to the existing research challenges in the fields of Agriculture, Energy



conservation and Health informatics. The conference included keynote talks given by distinguished personality who have crossed several milestones in unearthing research solutions to challenging problems in the field of Energy, Agriculture and Health.

The inaugural session of the conference began with the inaugural address delivered by the Head of the Department, CSE Dr. Chitra Babu. She presented the umpteen research issues in the themes related to the conference and encouraged young minds to search for solutions in the right directions and not linger on the easy path. She brought out the need to explore the unexplored issues and achieve the impossible. This was followed by the keynote talk given by Mr. Gokul Shrinivas, Founder & CEO of Minion Labs, Bangalore. Mr. Gokul is a young smart entrepreneur, and a recipient of 3 Indian National Awards for his work in Smart Energy Systems. He gave a general talk on the projects he has completed and how he evolved from an average student to an amazon employee to the young entrepreneur. His talk was well received and many students gave a very positive feedback on his

knowledge sharing.

The following session witnessed an enlightening talk on Automated Farmer Centric Helplines, a 120 million project funded by the MHRD. The talk was delivered by Dr. Syed Shahnawazuddin, Assistant Professor, NIT Patna. Dr. Syed introduced us to the various challenges they encountered while designing the farmer-centric helpline from the speech processing perspective. He was quick to answer all queries and brought out the



various mid-size projects that could be taken up by students during their course of study. The afternoon session was devoted to paper presentation. A total of 6 papers were presented and the paper on "Smart Gardening" by Edison and Geethika of CSE won the Best Paper Award. Dr. Syed Shahnawazuddin, Dr. Sheerazuddin S, Asso.Prof./CSE and Mr. H. Shahul Hamead, AP/CSE chaired the session.

The opening keynote talk on Day 2 was delivered by Dr.Sriram Kailasam, Assistant Professor, IIT Mandi, on Cloud- Based Framework for Smart Systems. It was a very interactive session and Dr.Sriram took every effort to ensure that all in the audience were following the basics of designing cloud-based smart systems and discerned the issues entailing the same.

This was followed by a comprehensive talk on Applications of Computer Science to Problem Solving in Biology by Dr. Karthik Raman, Assistant Professor, Department of Biotechnology, IIT Madras. He delivered an amazing talk on different aspects of Computer science ranging from data structures to graph mining and how they played a potential role in solving research issues in biology.

The postlunch session was taken over by students participating in the Smart Contest. Harika S, PhD scholar, EEE department and M. S. Vignesh, UG student, IT department, won the first prize for the project on "Smart Grid Systems'" and "Person Spotting" respectively. Aashish along with Arunima and Thirumla Devi of CSE department won the second prize for their projects on Smart Image Processing and Smart Farming respectively. The projects were judged by Dr. J. Suresh, and Dr. S. Sheerazuddin, Faculty/CSE.

It was a great experience listening to the talks and presentations. A very encouraging feedback was received from all participants. The organizers wish to thank the Management, Principal, HoD/CSE and all faculty technical/support staff for their support in making SS REACH, 2018 a grand success.

The Organizing Committee SS REACH 2018



(L-R-The Organizing Committee) :Dr. Shomona GJ, Dr. S. Sheerazuddin, Dr. Chitra Babu, Dr. Syed Shahnawazuddin, Ms. K. Madheswari, Ms. Y. V. Lokeswari, Dr. S. Saraswathi

PayPal Unity Meet up for Machine Learning Women Enthusiasts

The Paypal Unity Meetup was conducted at PayPal office in Shollinganallur on 9- February-2018. The Paypal Unity meet up was organized by PayPal Diversity and Inclusion team for giving a chance to all machine learning enthusiasts and entrepreneurs to collaborate and share their ideas on applying machine learning algorithms for analyzing voluminous data. There was three session, started with an introduction about Machine Learning algorithms, second session was applying machine learning algorithms to find out wrong filing of bill desk from PayPal customers and last session discussed about applying supervised machine learning algorithms for predicting the customer churn. The expectation of the program was to know about how corporate researchers use Machine Learning in data analytics.

The Unity meet up was very exciting which gave a forum to meet all young women entrepreneurs around India, interact with them, discuss ideas and learnt about how industry people solve the real time problems.





Ms. Y. V. Lokeswari
AP / CSE

"Everybody in this country should learn how to program a computer... because it teaches you how to think."

-Steve Jobs

Le - Incasso 2018

Saveetha School of Engineering, Chennai, Sponsored by IET

About Le-Incasso

An event where one can gain more knowledge and at the same time have a lot of fun. It is a three day of joy. The workshops being conducted are on trending topics. As every other normal workshop, they



have a theoretical talk. But unlike other workshops, more importance is given to hands-on training sessions which will improve your practical knowledge.

Le-Incasso is a yearly event of high profile value that attract students from various colleges to compete on a big scale level and showcase their talent. The event has been successfully conducted for five years. This year, the event is expected to be attended by more than 200 external participants from various colleges and universities all over India. Two workshops are conducted which will be of distinct topics for all department students to attend. Apart from the technical events which include Poster presentation, Project Expo, Robotics, etc., the event will also have a host of non-technical events which include Shipwreck, Turn Coat and Short film, etc.

Workshop details

One day workshop on Big Data and Hadoop

One day workshop on Big Data and Hadoop, covers the introduction to Big Data and in Hadoop, a tool which is widely used for analyzing the Big Data. Second half concentrates on hands-on, where the listeners will install the needed tools (Virtual Machine and Hadoop) in the systems and run simple Hadoop programs.

Dr. J. Suresh Asso.Prof./CSE



AGRICON 2018 CONFERENCE ON PRECISION AGRICULTURE TECHNOLOGIES

Venue : Hotel Westin, Velachery, Chennai **Conducted By** : Tamil Nadu Technology development

and Promotion center promoted by Government of

Tamil Nadu and CII

The sixth edition of Agricon 2018 had 17 talks by eminent persons in the field of Agriculture and 3 stalls showcasing the products used in precision agriculture.

Mr. Chandramohan from CII is the organizer who made excellent arrangements and he introduced the theme of the conference. He highlighted contract farming and integrated farming methods and role of ICT and IoT based solutions for spraying, monitoring, irrigation and soil analysis. Mr Padmasingh, MD of Aachi group of companies emphasized the need for private ponds and Agri hubs. Shri K. Pandiyarajan, minister in TN Government talked about 2020 vision of the government in Agri sector, green revolution – II, fair trade labeling, rain water harvesting, Uzhavan App, etc. Ms. Nancy Anabel from MS Swaminathan Research foundation elaborates avenues for collaboration and the various products developed by them. Interesting among them are Soil watch toolkit – a mobile soil testing system to provide recommendations, plant clinic – expert system, and weather station.

The session on New ideas for Agriculture had experts from Ministry of Agriculture and Farmers welfare, GOI, The Boston consulting group and Syngenta foundation.

The session on Water and Nutrient management had speakers from Rasi seeds and Farms 2 Fork technologies. It also had a progressive farmer Mr Ravichandran talked on doubling the farmers' income. He insisted corporates to take up desilting of water bodies.

Post lunch session on Engineering and design excellence had invitees from TAFE, Lateral Praxis (India) Ltd, Accenture and DronaMaps. Ms. Suniti Gupta an entrepreneur from Lateral Praxis gave an impressive talk on smart farm technologies detailing their products such as LP-connect and LP-smartfarm.

The last session on Role of ICT in Agriculture had resource persons from AT&T, Pixel Softek, Mycrop and Vasudhaika Software Pvt Ltd. Interesting products introduced were Farmer Mithra APP, Canal irrigation system, automated controlling of remote motors, etc. Everyone emphasized the applications of AI, Big Data, IoT in smart farming.

In a nutshell, the conference was very good providing an excellent platform for exchanging ideas.

Dr. R. Kanchana Asso.Prof. / CSE

SSN ACM-W STUDENT CHAPTER

In view of actively promoting women in the field of computing, SSN inaugurated its newly launched ACM-W Student Chapter on 28th February. Ms. Rashmi Mohan, Secretary, ACM India Council and



former Sr. Engineering Manager at Yahoo Research Labs was invited under the ACM India Eminent Speaker Program for a talk titled "Computer Vision from Industry's eye". The inaugural function began with the auspicious lighting of the lamp by Dr. Chitra Babu, HoD, CSE and Ms. Rashmi Mohan followed by Ms. Madheswari, Faculty Sponsor, SSN ACM-W delivering the welcome address. After that, Dr. Chitra Babu elaborated on the importance of ACM professional society and its Student Chapters. She covered all aspects in which ACM and ACM-W functioned to promote computing, their various initiatives and the enriching opportunities that were provided to the students such as the Grace Hopper Student Scholarships, travel grants for research conferences, research competitions, programming contests, hackathons some of which are specially targeted for Women.

Subsequently, Ms. Rashmi Mohan delivered the ESP talk. The talk began with an introduction to Computer Vision and its wide range

of applications on the day-to-day web. The influence of Computer Vision on advertising aesthetics was talked about and the speaker's discussion on the famous Google experiment with 41 shades of blue was interesting. The core part of the talk focussed on various methods utilised in Computer Vision to achieve its applications in various industry verticals such as medical, multimedia, gaming etc. The speaker provided significant insights on how industries use Computer Vision through various use cases, some of which included photography, medical diagnosis, applications of Artificial Intelligence, Retail

and E-commerce. The interesting measures namely, bounce rate, CTR, dwell rate and architecture used for optimizing any visual representation was dealt upon. The possibilities and the various aspects of combining Artificial Intelligence with Computer Vision were also discussed by the speaker. The informative and talk ended with enlightening discussion on various research topics that could largely be affected by Computer Vision. The audience were completely bowled over by Ms. Rashmi Mohan's enthusiastic engaging talk. It was very much evident from the



extensive interactions the students had with her at the end of the talk.

The gala event ended with HoD presenting a memento to the speaker and the ACM-W student chapter chair, R. M. Kirtana, delivering the vote of thanks.

SSN CODING CUP 2018

SSN ACM Student chapter conducted the SSN Coding Cup to celebrate its five year anniversary. It was an ACM ICPC styled Onsite Programming contest that was organized on March 24th 2018 from 12:40 PM to 3:40 PM. It was a team based contest with team size of at most three. 48 teams registered for the contest and the contest was held in parallel from three labs - Systems programming lab, PG lab 2 and Java Technology lab.

The contest consisted of 6 problems testing knowledge of Data Structures, Algorithms and Discrete mathematics. The duration of the contest was 3 hours and there was a penalty of 5 minutes for wrong submission. ACM-ICPC scoreboard was used for the ranklist which orders teams based on the number of problems solved and breaks tie by the total time spent from the starting of the contest. The first three problems had a difficulty range of easy to medium. The remaining three were medium to hard.

There was intense competition in the first one hour to solve the first three problems as soon as possible. After the one hour mark, teams were working on simplifying the medium level problems based on some observations. At the two hour mark, team "Your Name" from IIIT-DM solved the fourth problem which involved dynamic programming and binary search. Closely after, the lone wolf team of Sudarshan S, CSE third year solved the fourth problem and was second due to the total time taken.

Ranklist was frozen around forty five minutes before the end of the contest and many teams were trying to solve the fifth problem. By this time, most of the first year students' teams had solved three problems and were trying the fourth problem enthusiastically.

Dr. Madhavan Mukund, Professor and Dean of Studies at CMI, had consented to be the chief guest for the felicitation ceremony. He spoke about the history of ACM ICPC and how such competitive programming contests hone the much-needed skills in applying the knowledge in Data structures and Algorithms for solving the real-world problems.



Team "Your Name" from IIIT-D&M comprising of Aneesh, Sankar and Vikas stood first. A singleton team of Sudarshan S, CSE third year stood second and the team "Pongal Vadai Reheated" from MIT comprising of Akshay Venkat, Timothy and Ashwin stood third.

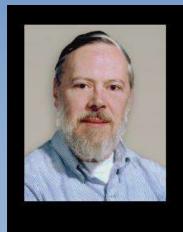


(L-R): Dr. Madhavan Mukund, Dr. Chitra Babu, Sudarshan S, R G Sudha Parimala

22 teams out of the total 48 were comprised of first year students and most of them solved the first three problems. The enthusiastic participation of first year students deserves special mention. 22% of the submissions were in Python. There were six all girls team from different colleges in the contest. We had two problems unsolved, even though two SSN teams were really close to solve the fifth and the sixth problem.

We thank our HoD ma'am, Madheswari ma'am, Shomona ma'am, Balasubramanian sir, and all the volunteers from the second and third years without whom this contest would have not have been possible.

R Roopeswar, IV year CSE



C is quirky, flawed, and an enormous success -Dennis Ritchie -

ACM INDIA ANNUAL EVENT

This year, the ACM annual event was held at Persistent Systems Ltd, Nagpur. The annual event featured four talks by eminent people. The first technical talk was given by one of the 2015 Turing Award winners, Dr. Martin Hellman (yes! The inventor of the popular Diffie-Hellman key exchange protocol), on "The evolution of Public-key Cryptography". In his talk, he acknowledged some of the unsung heroes. First one is Ralph Merkle of UC Berkeley who came up with public key distribution system independently. Second is John Gill who came up with the idea of using discrete logs.





Dr. Chitra Babu with Dr. Martin Hellman and Prof. Moshe Vardi during ACM Annual Event

The second talk was by Prof. Sunita Sarawagi of IIT Bombay. She talked on "Advances in Neural Models for Sequence Prediction". She explained how deep learning has become a game-changer and has brought the worlds of researchers in image understanding, speech recognition and Natural Language Processing together. There were a lot of interesting takeaways such as the features learnt through deep learning should be remembered and used in some other context, domain expertise should be used along with deep learning to achieve generalized learning capabilities.

The third talk was given by one of the 1986 Turing award winners, Prof. Robert Tarjan on the topic "Simplicity in Algorithm Design". He talked about a new data structure called the **zip tree** that uses randomization to simplify the balancing operations and how this data structure looks especially good in dealing with concurrency.

The final talk was on "Humans, Machines and Work" by Prof. Moshe Vardi from the Rice University, who was the editor-in-chief for the ACM's flagship magazine "Communications of the ACM" for the past 10 years. He elaborated on the AI breakthroughs such as AlphaGo, IBM Watson's Jeopardy



(L-R) Dr. Chitra Babu, Prof. Robert Tarjan

game, Deep Blue winning chess game against Gary Kasparov. He provided interesting statistics and views on how AI and automation will lead to massive loss of jobs as they exist today, but might create new jobs. If automation of driving becomes a reality, 15 million US jobs that involve operating a vehicle will no longer be there. With supporting data, he gave insights on the possibility that new jobs created might require a much higher skill level than that is possessed by the people who may become unemployed due to automation.



Dr. Chitra Babu HOD /CSE

Dr. Chitra Babu also participated in the Professional Chapter Summit representing the ACM India Chennai Professional Chapter

It's hot under the Cloud



Prof. Anand Sivasubramaniam gave a talk titled "It's hot under the cloud". The talk emphasized the importance of energy savings in Data centers. He started with the aspects of business; by reducing unwanted energy consumption, the operational expenditure could be cut down. On the other hand, he talked about how silicons can be exploited towards the fullest utilization of capital expenditure. relationship among voltage, frequency and capacitance of semi conductor was narrated since the fundamental energy saving algorithm "Dynamic voltage frequency scaling" is built on the physical properties of these metrics. Widely used soft techniques like Sleep and Wake-up were also mentioned in the talk. Additional factors like server consolidation at data centers, placement of cooling equipments add supplementary greenness at the Data centers.



Mr. H. Shahul Hamead AP/CSE

Rise of Artificial Intelligence: Should Humans be Worried?

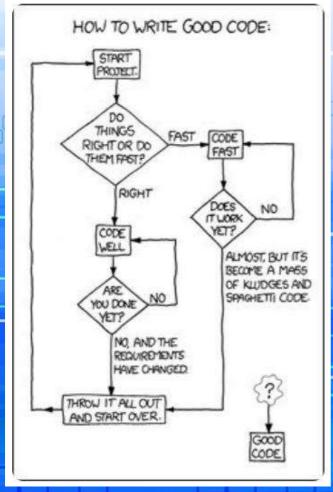


ACM India Chennai Professional Chapter orgainzed an expert lecture on "Rise of Artificial Intelligence: Should Humans be Worried?" which was delivered by Mr. Ganesh Sankaralingam, Director, LatentView Analytics on 10th April at Ramanujan Auditorium, Institute of Mathematical Sciences (IMSc).

Contributions of Dennis Ritchie and Ken Thompson (1983 Turing Award Winners for their invention of UNIX Operating system)

As part of the "50 years of Turing Award" lecture series organized by ACM India Chennai Professional Chapter, the 11th talk on "Contributions of Dennis Ritchie and Ken Thompson" which was delivered by Dr. V. Uma Maheswari and Dr. Ranjani Parthasarathi, Professors, Dept. of Information Science and Technology, CEG, IMSc on 8th March at the Mini Auditorium, Second Floor, Dept. of ECE, College of Engineering, Guindy.







MACHINE LEARNING WORKSHOP ACM-W STUDENT CHAPTER

The Machine Learning workshop was conducted by the ACM-W student chapter on 23rd march 2018. The workshop was an introduction to the gargantuan world of Machine Learning and Artificial Intelligence.

Since most of the participants were novice, the workshop was wonderfully planned out. With a forenoon session where basics and frequently used terminologies were discussed.

The afternoon session was a hands-on session where the students trained and tested a model to identify different kinds of clothing, using python.

The sessions were conducted in a very friendly atmosphere. Each and everyone was attended to, when they encountered doubts or any problems, by the conductors, very patiently.



The participants were provided with guidance and online references, for learning more on their own.

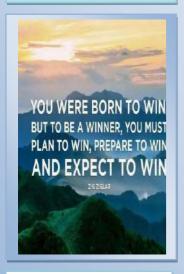
The workshop was successfully conducted by Simran Modi, Avinash Bharat and Srinidhi V. of fourth and Vishal Gupta of third year Computer Science and Engineering.



STUDENTS WINNING MOMENTS









- 1. Anish Badri R S and K Sundar Rajan of second year CSE secured first place in Abacus Reverse coding and debugging conducted by Department of CSE, College of Engineering, Guindy during 27th February 1st March 2018.
- 2. Anish Badri R S, Vishal A and K Sundar Rajan of second year CSE secured third place in Abacus OSPC conducted by Department of CSE, College of Engineering, Guindy during 27th February 1st March 2018.
- 3. Vishal A and Anish Badri R S of second year CSE secured second place in ITRIX OSPC conducted by Department of IT, College of Engineering, Guindy during 9th February 2018.
- 4. **Vishal A of second year CSE** secured **first** place in Samhita OSPC conducted by Department of IT, MIT, during 16-17th February 2018.
- 5. **K Sundar Rajan of second year CSE** secured **third** place in Samhita OSPC conducted by Department of IT, MIT, during 16-17th February 2018.
- 6. **Hariny G and Aishwarya R of second year CSE** secured **second** place in Samhita Street Coding of conducted by Department of IT, MIT, held during 16-17th February 2018.
- 7. **Keshav, Prashant Mahesh and Roopeshwar of final year CSE** secured **first** place in Kurukshetra Onsite programming contest conducted by College of Engineering, Guindy during 31 January 2018 03 February 2018.
- 8. **Keshav, Prashant Mahesh and Roopeshwar of final year CSE** secured **first** place in Kurukshetra Tame the code conducted by College of Engineering, Guindy during 31 January 2018 03 February 2018.
- Keshav of final year CSE secured first place in Kurukshetra online programming contest conducted by College of Engineering, Guindy during 31 January 2018 - 03 February 2018.
- 10. Roopeshwar of final year CSE secured second place in Kurukshetra online programming contest conducted by College of Engineering, Guindy during 31 January 2018 - 03 February 2018.
- 11. **Keshav and Prashant Mahesh of final year CSE** secured **second** place in Kurukshetra Ninja Coding conducted by College of Engineering, Guindy during 31 January 2018 03 February 2018.
- 12. **Sudarsan S of third year CSE** secured **first** place in ITRIX Online Programming conducted by Department of IT, College of Engineering, Guindy during 9th February 2018.
- 13. **Sudarsan S of third year CSE** secured **first** place in Praytna Online Programming Contest conducted by Department of CSE, MIT, during 2-3rd March 2018.
- 14. Sudarsan S and S.Kaushik of third year CSE secured first place in ITRIX Onsite Programming Contest conducted by Department of IT, College of Engineering, Guindy during 9th February 2018.
- 15. Sudarsan S, S.Kaushik and Srikkanth of second year CSE secured first place in Abacus Onsite Programming Contest conducted by Department of CSE, College of Engineering, Guindy during 27th February 1st March 2018.

SIH 2018



SIH 2018- TOI Ahmedabad Newspaper article mentioning our college name and the winning project title



<u>Available at: https://timesofindia.indiatimes.com/city/ahmedabad/six-winners-emerge-from-smart-india-hackathon/articleshow/63561717.cms?utm_source=whatsapp&utm_medium=social&utm_campaign=TOI_</u>



Team WYSIWYG4's Winning Experience @ SIH2018

Smart India Hackathon 2018 experience is something that no one in our team would forget for a long time to come. The team here refers to myself (Muthu Annamalai), Prashant Mahesh, Keshav Reddy, Roopeshwar, Varun Ranganathan, Avinash Bharat and our mentors Satish Palaniappan (SSN Alumni) and Somasundaram Mahesh (Satish's Colleague). We named our team as WYSIWYG4, referring to the famous CS acronym "What You See Is What You Get". Please don't ask me what that 4 stands for! Let it be a mystery!

We were selected to represent our college in the grand finale that happened at Ahmedabad, Gujarat for Department of Space, ISRO (Indian Space Research Organization). The problem statement we worked on was "Distributed Panorama Construction of UAV Drone Images using Public Compute Nodes". Basically the problem was that the high resolution images taken by ISRO drones for mapping an area were extremely large in size and stitching the individual images to obtain the complete image of that area using a single machine was extremely slow since the algorithms that run behind this are computationally intensive. So in order to speed up this process we could make use of all the under-utilized power and computational resources that we carry in our hands every day. Yes, our smartphones and laptops! We can split the entire task into a list of atomic jobs and assign this work to each of these consumer devices which send the computed results back to the server where the results of these jobs are merged together. This way we can distribute and solve this complex problem and at the same time involve the interested citizens of this country to contribute their computational resources to solve such problems. We did exactly that and named our system DIPS (Distributed Image Panorama Stitching). We planned our architecture well in advance with the help of our mentors so that we don't get confused with anything during the hackathon while implementing it. I think that was the most important reason for our win, the planning that we did beforehand which saved us a lot of time and made our solution look robust. For instance during one of the evaluation rounds, the judges asked what would happen if one of our node fails! Since we spent so much time architecting our system we thought of all such cases and so the fault tolerance was already inherently built into our architecture. When the judges realized this when we showed a demo to them they were highly impressed with our solution.

The entire trip was filled with lots of fun, bonding and lots and lots of code! Right from our train trip to Ahmedabad, where we started planning on who takes care of implementing which part of our solution architecture, to sitting sleeplessly for straight 36 hours and coding during the hackathon, to stressfully debugging our code, to jumping with joy when our solution worked, to that final pitch before a roomful of ISRO scientists, to those tense moments when the results were announced and finally to that surreal moment when we were announced as winners of the Hackathon, the entire trip was one unforgettable experience. It was all intellectually stimulating and highly satisfying. We need to thank our mentors here for helping us out so much which ultimately helped us win the hackathon. And also I would like to thank our HOD Dr.Chitra Babu, Our Department Faculty and Our College Management for constantly encouraging us to take part in such events every year.

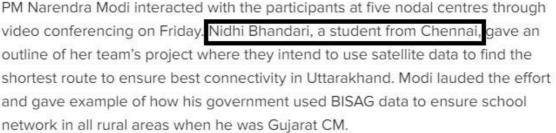
I request all the juniors to apply and take part in such hackathons whenever they get a chance. Hackathons are highly rewarding and also help you bond as a team. They also improve your product building skills and presentation skills so much. Even if you have never been to a hackathon before just apply and experience it. Trust me you won't regret it!

Muthu Annamalai CT, Final Year, 2018 Batch, Team Leader, WYSIWYG4.

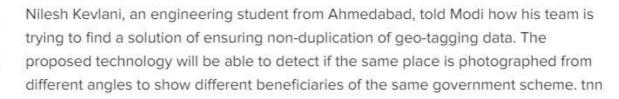
SIH 2018- TOI Ahmedabad Newspaper article mentioning our student Nidhi Bhandari'name















Available At: https://timesofindia.indiatimes.com/city/ahmedabad/36-hour-hackathon-begins/articleshow/63550852.cm

Nidhi Bhandari and SIH 2018

Our Student Nidhi Bhandari of 3rd year CSE interacted with our Honorable Prime Minister at Ahmedabad during SIH 2018. The interaction is as follows:

Nidhi Bhandari:

Good Evening, Honorable Prime Minister Sir. My name is Nidhi Bhandari, and I am from Chennai, representing SSN College Of Engineering. My problem statement is dealing with establishing connectivity in the state of Uttarakhand, by converting some of the unmetalled roads into metalled roads. The solution my team and I have proposed is to develop a Geo-spatial tool, using the high satellite imagery data from Bhuvan, a public platform for such satellite images, launched by ISRO. Using this data, we aim to extract village points (i.e., location coordinates), and the unmetalled roads around these villages. We then utilize this extracted data and identify which of these unmetalled roads should be converted into All Weather Roads. These unmetalled roads will be chosen in such a way that the villages will either be connected to each other, or to the closest State/District Highway, and the governmental expenditure will also be minimal. We thus aim to provide maximum connectivity, which will help in development of the people of Uttarakhand.



Available At: https://www.youtube.com/watch?v=pZTDs45vEAM— Go to 28th minute.



Prime Minister:

This is a very good issue, considering the hilly terrain in Uttarakhand, because earlier road construction was done such that people had to go around the hills to reach the top. However, now with the satellite data, we can find the shortest route, and also provide a leveled terrain. I believe that the students who aim to solve this problem should have Dashrath Manjhi as their inspiration. Dashrath Manjhi, a poor, uneducated person spent a considerable amount of time in his life to dig up and construct a path right between two hills, when people were going around these two hills to reach their destination. Dashrath Manjhi thus helped them cover the same distance in 20 minutes, which would earlier take people 2 hours. I also encourage you students to visit BISAG in Gandhinagar. There is immense development happening in this institute in the field of space technology and geographic mapping.

When I was in Gujarat, and when I had to build schools and hospitals, there was often pressure from several MLA's and other political parties to ensure that these schools and hospitals were built closer to their individual houses and offices for their convenient access. However, I had decided that the placement of these important institutions should be done in an unbiased manner. So I contacted BISAG and asked them to provide me with details of how many schools are present in a certain square kilometer radius, using satellite. I also used data relating to the population of a given sector, and distance of this sector from the nearest school/hospital. As a result, I was able to build a school network using technology and without any political influence. I strongly believe that your application or technological solution will greatly help the people working in the infrastructure sector, among others. I wish to congratulate Bhandari and all the other young students sitting there, and all the best. Thankyou friends.

Nidhi Bhandari: Thankyou very much Sir.

SIH 2018 and Soumya K

On 28th March 2018, the 6 of us- Nandita, Roshni, Shivaani, Soumya K, Soumya T and Priyanka boarded the Kacheguda Express at 4 pm to reach Kurnool, Andhra Pradesh which was our nodal center for the prestigious Smart India hackathon, 2018. We reached at 2 am the next day. The college which hosted us was Brindhavan Institute of technology. The management was very approachable, and we were provided comfortable accommodation. Our mentors Seshan and Vignesh joined us the next day. The hackathon was for 28hrs during the 30th and 31st of march. These two days were filled with lots of excitement as well as enrichment. Our project was to implement a centralized borewell monitoring system. We had already discussed how we were going to implement this idea and our ideas materialized during the hackathon. After a lot of hard work and brainstorming, we successfully completed the project and had a working prototype to demonstrate the functioning. Our return journey was booked for the 1st of April at 6pm. Overall, it was a completely new experience for us and we enjoyed and learnt a lot. We would like to thank our teachers and SSN college for providing us with this opportunity.



(L-R): Nandita Gopal, Roshni P. Anand, Soumya T., Priyanka V., Seshan R.(SSN Alumnus), Vignesh S.(SSN Alumnus), Soumya K. and Shivaani K.

SIH 2018 – ROAD NOT TAKEN

We the members of "Road not taken" participated in the 2018 edition of Smart India Hackathon organized by the government of India. The problem statement we worked on was from ISRO, aiming to solve the challenges faced by HRD to connect all unconnected villages across India under the PMGSY scheme.

The main challenge for the government was the manual effort involved in finding all kuccha roads in a district and finding the best route to connect these villages.

We tried to assuage this effort by leveraging technology to solve the problem. We worked on geospatial data to extract kuccha roads and used spanning tree algorithms to find the shortest route to connect the villages.

The participants for this event were all over India and each team had a maximum of 6 students accompanied by a maximum of 2 mentors from the industry.

A little over 2 weeks before the Hackathon, we got together as a team and started to discuss on what has been done by the team until now and what needs to be done, going forward. As the mentors and the students were not localized, we had most of our discussions online or through a call. With the plan in place, we were able to lay the foundation for the hackathon.

On the D-DAY, we got together again and planned for the arduous 36 hours ahead. We split internally and started to work on individual items that when integrated would be the final solution.



We had multiple rounds of reviews and guidance sessions from the industry experts and they were really happy with the solution we proposed, as we not only focused on the problem in hand, but we also went above and beyond to look at what other data can be used to make an effective connection between villages.

This was very evident because of the fact that, our team was the first team to get shortlisted for speaking about our problem statement and solution to our **Honourable Prime Minister Shri Narendra Modi.**

The key area were we lacked expertise was the image processing domain and much of our efforts went in vain, to get things right there.

Though we could not be the top 3 on that day, the team put in their best foot forward and it was great to see the team work, commitment and the dedication that are characteristics of any winning team. It was wonderful to see the knowledge brought on to the table by the students of SSN. It was on par with any bright minds from the best institutions across India. This shows the quality of teaching and learning methodologies adopted by the faculty and we as mentors, were indeed happy to see the student's ability to apply the concepts they have been learning to solve a real life problem or I would say "Engineered" their way through.

At this juncture, we, the mentors, would like to thank the institution for giving this wonderful opportunity to work with such bright talents and giving us an experience to cherish and reflect upon.

V Anandh SSN Alumnus 2011-15 Batch Road not taken - Mentor

SIH 2018 – Cyber Tribes

I had the opportunity to mentor our team 'Cyber Tribes' - a group of enthusiastic second-year students for the 'Smart India Hackathon 2018' event. It is a brilliant initiative by the Government of India to harness the potential of its youth to drive the future of the nation.

This was my motivation to participate as a mentor along with my co-mentor Ms. Valli Devi. We went to the eastern end of our country to Guwahati to participate in the grand finals of the 'Smart India Hackathon'. Our project was for the Ministry of Tribal Affairs and it involved creating an interactive application to encourage uploading crowd-sourced content on tribal cultures.



The hackathon was well-organized and was a wonderful experience. We had a steady 36-hour coding spree. During the event, the Honorable Prime Minister addressed us through video-conferencing and encouraged the students by highlighting how their solutions can solve the problems that our nation is facing. Many secretaries and project fellows from the ministry took a closer look at our work and tried to understand it. They appreciated several aspects of it. They gave us good insights into how the ministry implements software projects and gave valuable feedbacks during the reviews. Ms. Valli Devi played a key role in coordinating the team strategies and doing the review presentations.

We had zumba, yoga and music sessions in the middle, aimed at helping us be relaxed. In the valedictory ceremony, people from the ministry expressed their satisfaction with the event and many cultural performances highlighting the cultural heritage of Assam were organized. Dancers performed Bihu, the traditional dance of the state and finally managed to get everybody dancing.

Although our team did not win the prize, it was indeed a big win in terms of the exposure our student had in software development and the



Personally, the hackathon offered me a platform to reconnect with the students of our college and guide them in their journey of learning, leaving me with many memorable moments to take away.

PRAVISH SAINATH SSN Alumnus (Batch 2011-15)



The Winning Team at SIH, 2018 – WYSIWYG4 from Ahmedabad -First Prize

(Top L-R): Dr. P. Ramasamy, Dr. S. Salivahanan, Ms. Kala Vijaykumar, Dr. Chitra Babu, Dr. V. G. Idichandy (Bottom L-R): Satish Palaniappan (SSN Alumnus), Keshav R, Prashant Mahesh, Avinash Bharat, Varun Ranganathan D, Muthu Annamalai CT, Roopeshwar D and Somasundaram Mahesh (Another Mentor)



The Winning Team at SIH, 2018 – Delta Fjord from Kanpur - Third Prize

(Bottom L-R): Sreenidhi V, Arjith N, Avanthikaa Ravichandran, Akshaya Natarajan, Ashwini Raja and Aparna A



The Winning Team at SIH, 2018 – Tech Whiz from Noida - Third Prize

(Bottom L-R): Aswin Kumar(SSN Alumnus), Geetika B, Rebecca Sharon J, Hariny G, Yamini L, Preethi M, and Arvind Muthuraman (SSN Alumnus)



(Top L-R): Mr. Arun Prakash, Mr. Amit Tyagi, Ms. K. Madheswari and Dr. N. Nallusamy

Talk on Data analytics

---Gyan Data Pvt. Ltd



The experienced professionals from the Gyan Data Company gave us an overview of the much talked "Big data analysis". They made us realize how the correct manipulation of the available data could bring a big change in the field of analytics. They also discussed about the growing job opportunities in the field of analytics and how there will be a great need for experienced and qualified analysts in the next 5 years. They also gave a glimpse of the mathematics involved in the analysis. It made us realize that Data science can be mastered with proper understanding on mathematics and good coding skills.

Srinethe S, 2rd Year

Talk on Indian and International Education

Guest Lecture on 22nd March,2018 witnessed a talk on INDIAN AND INTERNATIONAL EDUCATION OPPURTUNITIES by Mr. P N Santosh and Mr. Amith Ravindran from Byju's – The learning app.

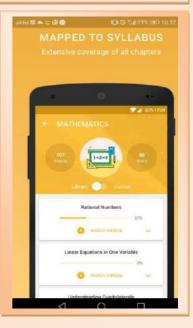
They gave us the awareness about the existing competition for PG seat in top universities. There were 3 sessions with 10 mins in each session. Session 1 was an introduction to CAT, GATE, and GRE. Session 2 was about the Top universities where students could apply. Session 3 covered tips on GRE preparation. End of the talk had a counseling session. In the counseling session experts spoke about the difficulties in getting admissions in world's top universities and gave ideas in building a strong resume and Letter of Recommendation.

Nithya Rathna A, 3rd Year









NPTEL IBM WORKSHOP ON "ROBOTICS BEHAVIOR DRIVEN BY MACHINE LEARNING"



NPTEL along with IBM conducted a One-Day Workshop on 29th March 2018 at IIT, Madras on the topic "Robotic behaviour driven by Machine Learning". The workshop included a total of three sessions.

In Session One, Prof.Balaraman Ravindran of the CS Department, IIT Madras gave a talk which he titled a "very gentle" Introduction to Reinforcement Learning. Followed by this session, the main speaker of the day, Mr. Vishal Chahal gave an elaborate talk on the Industry perspective of Machine Learning.

Mr. Vishal Chahal is the Chief Architect for Cognitive Solutions at System Integrators lab and Technical Lead for IBM Machine Learning Hub at IBM Software Labs in Bangalore. He specializes in Watson Cognitive Products, Advanced Analytics, Advanced Visualization, Data Warehouse and Data Integration technologies. He also gave a live demo of the robot he designed that has quite a few autonomous behaviours present in it. He also emphasized on the usage of several open source APIs by IBM available at https://www.ibm.com/watson/.

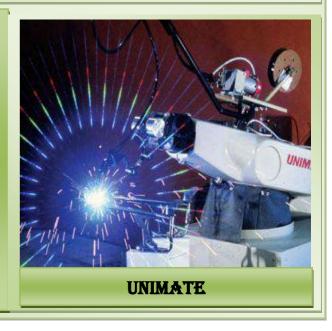
Prof.Sudharsan Iyengar from IIT Ropar gave a talk in the third Session of the workshop. He is also the course instructor of "Social Networks" in Nptel. He spoke "Page Rank Algorithm" used by Google Search and the various other interesting use cases where it is used. The workshop concluded with the collection of feedback from the participants.

Kavya 3rd Year CSE

Amazing Fact

Unimate was the first industrial robot, which worked on a General Motors assembly line at the Inland Fisher Guide Plant in Ewing Township, New Jersey, in 1961.

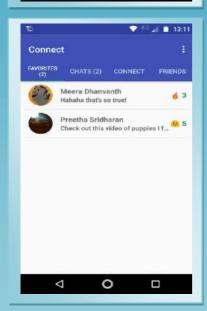
Revolutionizing manufacturing the world over, the Unimate was the very first industrial robot. Conceived from a design for a mechanical arm patented in 1954 (granted in 1961) by American inventor George Devol, the Unimate was developed as a result of the foresight and business acumen of Joseph Engelberger - the Father of Robotics.



CONNECT







Varun Ranganathan of final year released an app - a social network for SSN called Connect. The design for the app was made by Shreyas Sriram of Second year.

Connect is an app designed to make your privacy the priority while giving you the opportunity to interact with new people around you.

Connect comes with two huge features -

The 'Connect' feature is one that connects you with someone new based on your aligned interests. Delve into deep conversation anonymously using our question pool if you need and talk to them for up to 3 days. If you see the makings of a good friendship, you can choose to eliminate the mystery and send a request to identify your conversational partner and just like that you have yourself a new friend!

The ability to control the time of last seen as seen by different people, because all that matters is your privacy. Add your closest friends to the favourites tab so they can see your real last seen while still keeping it cordial with others who will see a different and older time of last seen.

Connect gives you the freedom to be yourself. Connect is designed to help you forge meaningful and long lasting friendships, so what are you waiting for?

Download here ->

https://play.google.com/store/apps/details?id=com.varunranganathan.connect&hl=en

For more information on how Connect works ->

https://connectforcollege.wordpress.com/

Since the app launched, there have been more than 2000 connects on the app!

Ashwini Raja 4th Year CSE



SmartAttendanceApp

Suryakanth M of third year released an app called **SmartAttendanceApp.** SmartAttendanceApp is a handy self tracking application which helps all the college students to track their attendance details. In this app, Timetables can be set and viewed. Attendance can be marked on a daily basis and daily attendance can be viewed.

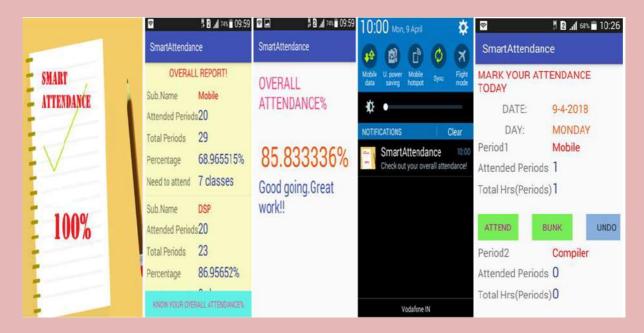
Overall Report of Attendance can be viewed and Overall attendance percentage can be checked whether it is above 75%. The feature that distinguishes this app from other apps is that it provides push notifications about the overall attendance. It also predicts the number of classes more to attend to make an overall of 75% attendance.

The specific features include:

- -Regular Push Notifications about overall attendance percentage.
- -Attendance can be marked daily.
- -Date wise attendance can also be viewed.
- -Specifies number of classes needed to make up overall 75%

You can download the app from the link below:

https://play.google.com/store/apps/details?id=in.co.msk.smartattendance



Suryakanth M 3rd year



Campus to Corporate

V ANANDH SAP Labs India 2011-15 Batch

To all the budding engineers, who are gearing up for the upcoming placement season, here is my two cents about my delightful journey from the campus to a corporate life. If I am at one of the best places to work, you are already at the best place to study. Job well done so far. You are almost there. Hold on tight!! Without further ado, let me directly start from my placement experience.

Gearing up for the placement season -

Initially it started with the usual dilemma - Job or Higher studies?? I was not sure on the major I wanted to specialize on andhence opted for the industry experience over a PG. Especially with the investment, a master's degree demanded, job was my safe bet. From my experience, I would say that, if you are not completely sure on your post grad plan, industry is a great platform where you get to decide what's best for you, wherein you get a chance to don multiple roles/responsibilities. Once I was completely sure about the path I will be taking, I started to prepare extensively for the placement drive.

SAP - A Blessing in disguise

How naive was I to believe that the company that had an enticing paycheck is the only company I should get into, to an extent that, I did not even focus on other companies that were lined up for our placements. My interview stint at my so called "dream" company, which was my first interview, ended rather early to my dismay. It was devastating for me and to me "that" moment meant the end of the world. Now I am happy that it was all **meant to be,** and not for a moment, I regret for having joined SAP.

Learning 1 :-

Never lose hope. "Best for you" is just one step away. Be patient and tag along with time.

Talking about my naivety earlier, neither did I know, nor was I keen to factor in other parameters that will decide the so-called buzz word "work-life balance".

Learning 2 :-

Invest some time to get to know the company, and evaluate yourself to see if you will be a good fit and enjoy working there. Let me not get into details, but knowing about the work routine, tech stack the company is working on etc. can really help align you with the company's requirement.

The IRON TRIANGLE for placements -

The three most important traits that will sort out 90% of placement/work life woes are -

- 1) Positive Attitude
- 2) Exhibiting teamwork
- 3) Problem solving skills

Let me throw some light on the above points –

- ❖ **Attitude** A positive attitude to anything and everything is a very impressive trait recruiters don't want to miss out on. They can get the answers from simple gestures like the way you respond, the way you sit and the way you accept a failure during the interview.
- ❖ Team work For most of you, working as a team would mean to work with your best bud in your projects, which you already know for 2-3 years. Though this qualifies a teeny bit, the real picture on the field is totally different. To start, you will work with totally new people right from day one and they will be of different age that brings its own share of egos to deal with. Accepting the differences is the best way out. Scary it may sound; 99% people are nice to work with and then there will be this 1% everywhere with whom you must find a way around.
- ❖ **Problem Solving** Easiest of the three, as it's all about what you have gained so far from the curriculum and how you apply it to solve real life problems. Also, easy as it is a quality that can be self-taught with that "extra" effort. Make sure your basics are strong. Basics will be more than enough to work on any challenging technology or work assigned in your career.
- **Learning 3** Communication and soft skills are equally important.

Corporate life - Phases

- 1) Once you join, your schedule usually starts with couple of orientation sessions were employers talk about the company, perks, corporate etiquette etc.
- 2) Once you join your team, your manager will introduce you to your team mates and the team specific Knowledge sessions start.
- 3) After that you are all by yourself. Do not push the panic button yet. Let me bolster your confidence by saying that, almost everyone adapts to the new environment / work.
- 4) The time to grow within the company entirely depends on the individual's
 - ✓ Ability to grasp concepts quickly and apply them to solve problems
 - ✓ Ability to perform with confidence
 - √ People skill (not fawning)
 - ✓ Last but not the least, loving the work you do. Remember the phase I talked about investing time to see if you are best fit?? If you do that, you will end up loving the work you do.

I would like to end this by quoting a couple of my, perhaps, indispensible learning through my journey in the IT industry –

- 1) "Academics is **not** the only dimension for a successful career, though it will always be the strong foundation, you build upon"
- 2) "Life does not end at a failure. It's just the beginning of a fruitful journey you are about to embark on".

Wish each and every one of you, the very BEST!!

A proud alumnus ©

Thank you **Mrs. Angel Deborah** mam for giving me an opportunity to share my experience. Tried my best to address the common concerns through my experience by being as laconic as possible.

P.S. Please feel free to reach out to me at anandhviru@gmail.com if you think I can help you out in your journey.



LATHA KARTHIGAA WRITES...

I am Latha Karthigaa M, completed Masters of Engineering (Computer Science and Engineering) at SSN College of Engineering in the year 2011. SSN helped me to learn several skills to achieve my long-term career goals. Some of the skills that I would like to highlight are the technical skills, research skills and teaching skills.

Having completed the Bachelor degree from a rural area, even the simplest assignment in the first semester looked complex for most of the students in class. The staff members supported us really well to have an amazing transition in learning several technical skills related to web/desktop based programming, software engineering, and project management. During the early days of the study in SSN, Prof. Chitra Babu, Prof. Venkateswara Prasad, Dr. R. Kanchana, Dr. J. Suresh, Dr. S. Kavitha, Dr. B. Prabhavathy, and many others helped us in learning the technical skills required for being an amazing software professional. SSN had an amazing placement opportunity. With all the learning, I was given two offer letters, one from CTS, and other from Infosys Ltd. I took the offer from Infosys and worked there for 1.5 years. Most of the technical skills required for the industry was already taught in SSN, which helped me to have an easy transition to industry.

The next important skill that I would like to highlight is to undertake independent research. I got an opportunity to do the final year project with Prof. R.S. Milton to Secure Multi-Application Smart Cards Using an Unassailable Brand New Cryptosystem. I would like to thank him from my heart for encouraging my research, for being my mentor, for being my role model, and for allowing me to grow as a valuable independent researcher. His advices on both research as well as on my career have been priceless. In particular, I cannot ignore the effort he has put in improving my writing. His advice on developing the ideas, presenting the idea are unforgettable. The discussions with him were always interesting and a book of learning every single time. I am indebted to him for all that he has done for me as my project supervisor. Prof. R. S. Milton sent a recommendation letter to the University of Auckland (New Zealand) to help me continue my research as a Doctoral Candidate. I was offered University of Auckland Doctoral scholarship (worth NZD 130,000 over 3.5 years) to pursue Doctor of Philosophy (Computer Systems Engineering) at The University of Auckland since July 2013. With the conference and Journal papers publications during the master degree helped me have a smoother transition during the early days of my doctoral degree. I completed my Doctoral degree on 20th April 2018, and my thesis was nominated by one of the examiners for 'Distinguished Thesis Award', and it is one of the highest honours for a doctoral candidate at The University of Auckland. Some of the other recognitions I received during my doctoral degree are IEEE IES Student Paper Travel Assistance Award (Worth USD 2000 to travel to Germany to present my research) and Leadership and Service award (silver).

While doing research is always good on resume, several universities look for teaching abilities. SSN gave me an opportunity to take seminars in every course that I was taught, which gave me an opportunity to explore my abilities to become an academician. With all those knowledge and experience, I was offered a part-time Lecturer position in one of the colleges in Auckland, New Zealand in July 2014. After completing the doctoral degree, I have been promoted as Assistant Head of the Department. I am also currently working as Innovation Research Assistant and Graduate Teaching Assistant at The University of Auckland, which helps me to explore both the research and teaching experiences at one of the top universities in the world.

Above all, I would like to thank SSN for supporting me with the Merit scholarship (worth INR 1.5 Lakhs) for 2 years, which helped me to complete my study with ease. One of the important information I understood after doing several years of research is that reading high quality articles help the researchers in creating high quality papers. With that in mind, SSN helped the students in paying the IEEE membership fees, which helped me to access high quality research articles, and to extend my research abilities. Overall, my experience at SSN was amazing, and I consider my life in SSN as one of the milestones to learn some of the important skills for my life.

Please visit my website http://lathakarthigaa.wix.com/index for more details about my publications, achievements, education and work experience.

Latha Karthigaa M, PG Alumnus, 2009-2011

BEST OUTGOING STUDENT OF THE YEAR

"All's well that ends well."

I'm extremely delighted to have received the award of "Best Outgoing Student of the CSE Department". It is a matter of pride of joy not only for me but also my parents and without doubt, the icing on the cake of four years of my college life. Moreover, being recognized for my work for Instincts as well as the Entrepreneurship Development Cell on the 22nd College Day function multiplied my happiness.

To be selected as the "Best Outgoing Student" especially among equally talented and deserving classmates was definitely a sweet surprise. The evaluation was based on achievements in all aspects such as academics, sports, extra-curricular and co-curricular activities. I am thankful to everyone who saw the potential in me and deemed me worthy of this award.

I will always cherish everything I did at SSN. Organizing Code it- Invente 2.0 as the Secretary of ACE and many other events for the college such as Instincts, SSNMUN, SYCon to name a few, has definitely helped me learn the art of persuasion and negotiation, nurturing my leadership skills and ability to communicate.

Our department challenges one to grow exponentially as a person. All one has to do is take advantage of the plethora of opportunities available, be it workshops, competitions, guest lectures or internships. More than just this, the friendly staff and their expert subject knowledge puts our department in a pedestal above the average.



I would like to take this opportunity to express my deep sense of gratitude to HOD Dr. Chitra Babu ma'am for her support and words of encouragement. I shall be forever grateful to all the faculty who have always been there for me, guiding me, correcting me and making me the best version of myself. A special mention to Balasubramanian sir and Sujaudeen sir. This award has reinforced my self-confidence. I have got the belief that I will be able to represent SSN well during my Masters at London School of Economics and beyond.

My four years at SSN have been nothing short of fabulous. A hundred lessons learnt, a million memories made. If at all I have to say something to my juniors, it would be this- "Seize every opportunity that comes your way and make the best out of it, for opportunities knock your door only once."

TRENDING TECHNOLOGIES

Our department alumnus Aaditya Seshadri working at Samsung Labs, US, gave a talk on Trending Technologies. The talk covered topics like Artificial intelligence, machine learning and Block chaining. Artificial intelligence can overcome the limitations of a program. He spoke about the various fields in which AI is used.



He gave a brief introduction on machine learning and deep learning, which are the two main technologies that drives AI forward. As an example, he showed us the video of the self driving cars, that are currently being developed using these technologies. We also came to know that ML is being used for smart assistance and recommended systems.





After this, he started about the third topic, block chaining. A block is a group of transactions grouped together. He spoke about how bitcoins work. He also implemented a simple block chain network. From this talk, we learnt the difference between the machine learning, deep learning and also that machine learning is a part of AI.

AS A VOLUNTEER IN DEFEXPO 2018...

The students of SSN, VIT, SRM were given a golden opportunity of volunteering the Defexpo 2018. About 150 volunteers of NSS, NCC from these colleges volunteered for all the 4 days of this event. A orientation programme was conducted 15 days before for the volunteers at VIT and a brief explanation was given. Then a half day and a full day training was also given on the field. ID cards, T -Shirts, caps were also provided individually to the volunteers. All the 150 volunteers were separated into various groups and each groups were allotted a respective place for volunteering like various halls, controls centres, food courts, live demonstration area.



The volunteers on their respective places were under the control of hall managers and other officials. There individual duties were given. The event was very very useful to the volunteers as the college students they had a great exposure in the event like volunteering stalls of various countries such US, UK. The skill of interacting with people is very much developed by attending this event and volunteering it. As the public had the chance of visiting it only at the last day , the volunteers had a great chance of visiting a each and every stall with plenty of time and learn much about Indian defence.

SPORTS DAY MARCH-PAST BY CSE

Performing March-past was one of the prestigious events that SSNCSE presents in a most delighted way. The day has come to perform the march-past on 29th of March since it is the 19th Annual sports day of SSN. CSE took its team of 30 to perform in the pavilion. The day started by 9:00 a.m. morning with the declaration of the chief-guest **Mr. RAMAN VIJAYAN**, an Indian **Foot Ball Manager and former National Team striker**.



Mr.Raman Vijayan



Mr.Raman Vijayan in SSN



March-past by CSE department

The event took its shape in the following way:

- 1. March-Past by 9.00 a.m.
- 2. Declare the Meet Open by the Chief Guest
- 3. Lighting the Olympic torch
- 4. Olympic Oath by Students
 - A. Welcome Address by Sports Secretary.
 - B. Introduction of the Chief Guest
 - C. Bouquet and Memento to Chief Guest
 - D. Address by the Chief Guest
- E. Prize distribution by the Chief Guest (100 Mts women and 400 Mts Men, Individual Championships, Special Awards)

- 5. Athletic Events.
- 6. Annual Report by Director of Physical Education.
- 7. Prize Distribution to staff
- 8. Prize Distribution to Students
- 9. Special awards to sports students
- 10. Vote of Thanks by Sports Secretary.
- 11. National Anthem





CSE students marching on Sports' Day lead by Karthik Kumar, and Preethi of IV year.



Ms .S. V. Jansi Rani AP/ CSE receiving prize from President, Ms. Kala Vijayakumar

Once all the events were completed, the prize distribution to the participants of march-past was announced. The march past event was successfully conducted by our Second and final year students and co-ordinated by CSE faculty in-charge Ms. Y. V. Lokeswari, AP / CSE. Also, heart felt thanks to 1st year CSE for their kind co-operation.

Senthil Raja II Year CSE ' B' sec

HIGHER EDUCATION CORNER

North Carolina State University

Avanthikaa Ravichandran Arvind Mohan Sahitya Sridhar Priyankha B

New York University

Nikhilesh M Lohita S

University of Southern California

Avanthikaa Ravichandran Sahitya Sridhar Priyankha B

University of Texas, Dallas

Nikhilesh M Aarthe Jayaprakash

Boston University

Nikhilesh M

SUNY, Buffalo

Nikhilesh M Aarthe Jayaprakash

California state university

Nikhilesh M

Carnegie Mellon University

Lohita S

Arizona State University

Nikhilesh M Arun Vignesh M

George Washington University

Nikhilesh M

University of North Carolina

Nikhilesh M Aarthe Jayaprakash

University of Connecticut

Aarthe Jayaprakash

Syracuse University

Aarthe Jayaprakash

University of California, Irvine

Arun Vignesh M

Johns Hopkins

Lohita S

London School of Economics

Preethaa K Ganesh

ESCP Europe

Preethaa K Ganesh



DR. CHITRA BABU HOD/CSE

STAFF IN-CHARGE

MS. A. BEULAH
AP/CSE
MS. S. ANGEL DEBORAH
AP/CSE

STUDENT TEAM

III YEAR

PARIMALA SURESH CONGOVI PRISCILLA ANDREW SAKTHI UMA MAHESWARI M SHASHANK A M

> II YEAR PRANAV R