SMRITI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SSN

SNEAK PEEK

HOD'S DESK

It has been little more than a month since the lockdown began due to COVID-19 pandemic. I very much miss SSN and its vibrant ambience. I am very happy to communicate with all of you through this newsletter. Our college definitely took an early lead by handling UG as well as PG classes without any discontinuity in the teaching-learning process. With the long-term ramifications of this world-wide pandemic, it becomes imminent that we need to reflect upon our traditional assessment methods. The present scenario provides the necessary impetus to overcome our collective inertia and an opportunity to reinvent the academic landscape. I am confident that we all will rise to the challenge. The current situation might give us the final push to move towards an assessment model where we place increased emphasis on testing the higher order thinking abilities of students.

I very much appreciate Aravindan sir, Thenmozhi, Mirunalini and Bhuvana for successfully organizing the International Conference during this semester. I also thank the whole team of faculty who helped in reviewing the papers and who took various responsibilities toward the seamless organization of the conference.

We continued with the training of second and third batches of SubInspectors of Police, Tamilnadu Cybercrime Division. We received an excellent feedback from the participants as well as their superiors. As a whole, this was a very rewarding experience for the department. I place my sincere appreciations to all the faculty and staff who were involved in this effort.

Congratulations to Senthilkumar on receiving the Linguistic Data Consortium scholarship. This scholarship has provided him valuable data for his doctoral research on Semantic role labeling. I wish him success on his research journey.

Regarding the enthusiasm and achievements of our students, there are no words to express my joy. A bunch of second year students are excelling in all coding competitions they are participating in. One of those students, Vrishin, told me that they owe this success largely to the coding club activities where the current final year students are regularly discussing novel algorithms and efficient implementation strategies. I commend final year students Vishal, Sundar and others who have strengthened this coding club and have created an enviable

ecosystem. I request the students of subsequent batches to continue this tradition when they take up the helm of the affairs.

I appreciate the ACM-W student Chapter, Coding Club and also the other enthusiastic bunch of students who have managed to organize interesting activities even during the lockdown.

It is very important for the students to keep their spirits up and utilize this time productively to equip themselves with new skills. Change is the only constant thing in this world. Let us convert the challenges thrown at us due to the present uncertainty into winning opportunities.

Dr. Chitra Babu
HoD/CSE

FACULTY ACTIVITIES

1. **Dr. Chitra Babu** attended the ACM-W India Council meeting at IIT Gandhinagar on 13-Feb 2020.
2. **Dr. A. Chamundeswari** submitted a workshop proposal titled, "AI in Cyber forensics";, and it has been accepted, in Springer Conference ICCSA 2020. This conference is going to happen during July 1 - 4, 2020 in collaboration with the University of Cagliari, Italy.
3. **Dr. Chitra Babu** was invited to participate in a panel discussion on "Women in Computing: Opportunities for Higher Education and Research" at the ACM-W Workshop that was colocated with the ACM India Annual event at IIT Gandhinagar held on 14-Feb 2020.
4. **Dr. Chitra Babu** was invited to attend the ACM India Annual event that was organized at IIT Gandhinagar on 15-Feb 2018. Dr. Yann Lecun(one of the Turing award recipients of 2019), Dr. Shwetak Patel(ACM Computing Prize Winner of 2018), Dr. Susanne Albers and Dr. M. Balakrishnan(IIT Delhi) were the speakers at the event.
5. **Dr. R. Kanchana** was part of the Selection committee for PhD (PT) of IIIT Una (HP). The candidates were interviewed through VC on 15-Feb 2020.
6. **Dr. T. T. Mirnalinee** served as PhD Viva voce examiner for the thesis entitled, "A Novel Approach for text segmentation and text Recognition in onscene digital images" on 17-Feb 2020.
7. **Dr. J. Bhuvana** attended a DC meeting at SRM Katangulathur on 12 march 2020.
8. Selection process to employ 3 JRFs for the BIRAC funded project was initiated by **Dr. R.**

Kanchana. A panel of 2 two PIs Prof. S. Selvakumar IIIT UNA, and **Dr. R. Kanchana along with Prof. R.S.Milton** interviewed the candidates on 17th March 2020 and 4th April 2020 and selected the candidates. An online written / coding test was also conducted prior to the interview.

9. **Ms. S. Rajalakshmi** has successfully completed online courses on "Recommendation Systems with TensorFlow on GCP" provided by Google Cloud and "Programming for Everybody (Getting Started with Python)" provided by the University of Michigan in Coursera.

10. **Ms. S. Angel Deborah** has successfully completed online courses on " A Crash course in Data Science" and "Building a Data Science Team " provided by Johns Hopkins University in Coursera during the period April 14-26, 2020.

EXTERNAL PROJECT PROPOSALS SUBMITTED

1. **Dr. S. Mohanavalli, Dr. N. Sripriya and Dr. S. Kavitha** submitted a proposal titled 'Intelligent Posture Correction System for People with Sedentary Lifestyle' to DST -CRG.

   Duration: 2 years

   Budget: 24.68 lakhs

2. **Dr. J. Bhuvana and Dr. T. T. Mirnalinee** submitted a proposal titled 'Computer Vision-based Recommendation System for Precision Farming' to Tamilnadu State Council for Science and Technology.

   Duration: 2 years

   Budget: 4.45 lakhs

3. **Dr. S. V. Jansi Rani, Dr. R. Priyadharsini, Dr. K. Satheesh Kumar** from SSN College of Engineering and Dr. S. A. Shanmugam, Ms. A. Jemila Thangarani from Institute of Fisheries Post Graduate Studies and Dr. J. Jayalalithaa from Fisheries University (TNJFU), submitted a proposal titled 'An Intelligent Automatic Feeding and Monitoring system for aquaculture farming based on the behavioural pattern and sensory parameters of the aquatic animals using ICT' to Tamilnadu State Council for Science and Technology.

   Duration: 2 years

   Budget: 9.94 lakhs

4. **Dr. G. Raghuraman and Dr. S. Kavitha** submitted a proposal titled 'Intelligent System

for Transmission pipeline defect detection to prevent real-time issues' to Tamilnadu State Council for Science and Technology.

Duration: 2 years

Budget: 9.22 lakhs

5. **Dr. S. Kavitha and Dr. S. Mohavalli (IT)** submitted a proposal titled 'Prediction of Learning Behaviour for Students of Online Courses' to Tamilnadu State Council for Science and Technology.

Duration: 2 years

Budget: 9.42 lakhs

6. **Dr. V. S. Felix Enigo, Dr. B. Prabavathy, Dr. K. Nirmala and Dr. Sachin Gaurishankar Sarate** submitted a proposal titled 'Artificial Intelligence (AI) based Screening Tool to predict future Osteoporotic Hip Fracture Risk in Post-menopausal women and Elderly population using X-ray Image' to DBT-BIRAC BIG – 16/20, GoI.

Duration: 18 months

Budget: 50.00 lakhs

WORKSHOPS ATTENDED

1. **Dr. B. Bharathi**, Asso.Prof/CSE attended the 5th Workshop on Text analysis and Information Extraction & Retrieval TIER 2020, Department of CSE, SSN College of Engineering.

2. **Dr. Chitra Babu** Prof & Head/CSE attended the National workshop on "Deep Learning for Cyber Security" organized by the Society for Electronic Transactions and Security(SETS) along with ACM Chennai, IEEE Computer Society and ISACA during 6-7 March 2020.

EXTERNAL RECOGNITION

Mr. B. Senthil Kumar received the Spring 2020 LDC Data Scholarship Award from the Linguistic Data Consortium (LDC) for his research on semantic role labeling. The data was awarded towards his research work which costs Rs. 65,000 (approx.). He was one among the 7 recipients to recieve the data sholarship award for their research.

CONFERENCE / WORKSHOPS ORGAINZED

1. **Dr. A. Chamundeswari**, organized CSI Student Chapter sponsored Two days workshop on Intellectual Property Rights during 11-12 Feburary 2020.

2. **Dr. B. Prabavathy, and Dr. V.S. Felix Enigo,** conducted two days workshop on "Full Stack Web Application Development using Javascript Frameworks" during 17th - 18th, February, 2020.

3. **Dr. C. Aravindan, Dr. D. Thenmozhi, Dr. J. Bhuvana, and Dr. P. Mirunalini** organized IFIP 3rd International Conference on Computational Intelligence in Data Science (ICCIDS 2020).

4. The department of CSE has conducted a six days training programme for the second and third batches of Sub-Inspectors of Police, Cyber Crime Wing, Tamil Nadu Police during 3-8 Feb and 24-29 February 2020 respectively. The event is coordinated by **Dr. Chitra Babu, Dr. V. Balasubramanian, Dr. J. Bhuvana and Dr. S.V. Jansi Rani.**

5. **Dr. R. Kanchana** organized four one-day online training programme with hands on through zoom for the research scholars working under BIRAC funded project at SSN as well as IIIT UNA.

    1. 01.02.2020. Cassandra model

    2. 02.02.2020. Spring boot and VueJS

    3. 28.03.2020. Scalability Testing on Databricks

    4. 04.04.2020. Visualization with Metabase

        8 JRFs and 2 PIs attended the training sessions.

    The trainer was Mr. Sasikumar Venkatesh, Software Engineer, Walmart Bangalore.

TECHNICAL TALKS DELIVERED

1. **Dr. D. Thenmozhi, and Mr. B. Senthil Kumar,** conducted hands-on sessions on "Transformer Models for Text analysis - BERT" in 5th workshop on Text Analysis for Information Extraction and Retrieval (TIER 2020) as part of ICCIDS 2020.

2. **Dr. T. T. Mirnalinee**, delivered a talk on "Semantic Segmentation" in the Pre-conference Workshop on "Image and Video Analysis" as part of 3rd International Conference on Computational Intelligence in Data Science conducted by Department of CSE, SSNCE on 20-Feb 2020.

3. **Dr. T. T. Mirnalinee**, delivered a talk on " Machine Learning Algorithms" at RMK College of Engineering on 25-Feb 2020.

4. **Dr. R. Kanchana,** was a resource person for the workshop on "Big Data Analytics" as a part of "International Conference on Computing, Communication and Control (I4C - 2020)" held on February 29th 2020 in Sri Sairam College of Engineering, Chennai, Tamil Nadu Organized by Institute for Engineering Research and Publication (IFERP).

5. **Dr. Suresh J**, delivered a talk on "Data Science using R" at Jeppiaar SRR Engineering College on 11.03. 2020.

6. **Dr. R. Kanchana** delivered a talk on "Document Preparation using Latex" during the one day workshop on Research Documentation using LATEX organized by the department of CSE under the banner of CSI, ACM and IEEE on 5th March 2020.

TECHNICAL PAPERS REVIEWED

1. **Dr. V. Balasubramanian**, reviewed the following papers:

   a. Privacy Preserving Deep Learning on Big Data in Cloud

   b. Privacy-Aware Collaborative Protocol for Data Classification: Application to Anomalous User Detection for Computers & Security Journal.

2. **Dr. B. Bharathi,** reviewed the following papers:

   a.   " Performance Enhancement of Text-independent Speaker Recognition in Noisy and Reverberation Condition Using Radon Transform with Deep Learning" for International journal of speech technology

   b. " UNet architecture based dental panoramic image segmentation " for the International conference WISPNET 2020.

3. Dr. D. Thenmozhi, reviewed a paper titled " Rule extraction from scientific texts: Evaluation in the specialty of gynecology" for the journal "Elsevier - Journal of King Saud University - Computer and Information Sciences".

4. **Dr. S. Saraswathi** reviewed two papers for the International Conference on Computer, Communication and Signal Processing (ICCCSP 2020).

   a. "Secure agritech farming using staging level blockchaining and transaction access control using micro qr code"

   b. "Enhancing Data Security in Cloud Using Blockchain".

5. **Dr. R. Priyadharsini** reviewed two papers for the International Conference on Computer, Communication and Signal Processing (ICCCSP 2020).

   a. Number Plate Reorganization using Image Processing and machine learning Approaches: A Review

   b. Recognize objects for visually impaired using Computer Vision.

6. **Dr. Y. V. Lokeswari**, reviewed the following papers for the International Conference on Computer, Communication and Signal Processing (ICCCSP 2020).

   a. Credit Card Fraud Detection Using Machine Learning.

   b. PROTECTION OF END USER'S DATA IN CLOUD ENVIRONMENT.

   c. Exploration of Big Data Analytics in HealthCare Analytics

7. **Dr. D.Venkata vara Prasad,** reviewed the following papers for the International Conference on Computer, Communication and Signal Processing (ICCCSP 2020).

   a.Multiobjective Computational RNA Design using Chemical Reaction Optimization

   b. Redefining search terms for Cybersecurity: a bibliometric perspective.

8. **Ms. S. Angel Deborah,** reviewed the following papers for ICCCSP 2020:

   a. Detecting Trojan Attacks On DNN

   b. Intelligent water monitoring system using IOT.

9. **Dr. S.V.Jansi Rani,** reviewed 2 papers for ICCCCSP 2020 Conference:

   a. Prediction of cyberbullying incident on social media network

   b. A Machine Learning Based Fake News Content Detection Using NLP.

10. **Mr.B.Senthil Kumar**, reviewed two papers for the conference ICCCSP 2020:

    a. ADAPTIVE LEARNING PREDICTION BASED ON LEARNERS STYLE

    b. Deep Learning for Threat Actor Attribution from Threat Reports

11. **Dr. B. Bharathi** reviewed the following papers for " International conference on signal processing and communications (SPCOM 2020)" IISC, Bangalore

    a. Improved Feed Forward Attention Mechanism in Bidirectional Recurrent Neural Networks for Robust Sequence Classification

    b. Intelligibility Improvement of Dysarthric Speech using MMSE DiscoGAN

    c. Improving Automatic Speech Recognition by Classifying Adult and Child Speakers into Separate Groups using Speech Rate Rhythmicity Parameter

    d. Studies on Nonverbal Paralinguistic Speech Sounds: A Review

    e. Enhancing the vision in darkness: Hybrid domain transfer deep architecture for NIR face images

12. **Ms. A. Beulah**, reviewed the following papers for the International Conference on Computer, Communication and Signal Processing (ICCCSP 2020):

    a. Improving Facial Recognition of FaceNet in a small dataset using DeepFakes

    b. Catching violence in video surveillance using haar cascade algorithm.

13. **Dr. Lokeswari YV** reviewed the following manuscripts for IEEE Access

    a. Texture Features Based Breast Cancer Detection Using Artificial Neural Network

    b. Deep Learning for Multi-Tissue Cancer Classification of Gene Expressions.

14. **Dr. Lokeswari YV** reviewed the manuscript titled "So-called idiopathic scoliosis – disfigure deformity in children, pain problems in adults" for Journal of Advanced Pediatrics and Child Health.

FACULTY PAPER PUBLICATIONS / PRESENTATION

1. **Mr.K.R. Sarath Chandran, and Dr. Premanand Venkatesh Chandramani**, published a paper titled "Hardware - software co-design framework for sum of absolute difference based block matching in motion estimation" in Journal of Microprocessors and Microsystems (Elsevier), Volume 74, 2020, 103012, ISSN 0141-9331, (Impact factor:1.045), https://doi.org/10.1016/j.micpro.2020.103012.

2. **Dr. R. Priyadharsini, and Dr. T. Sree Sharmila**, published a paper titled "Object Detection In Underwater Acoustic Images Using Edge Based Segmentation Method" in Elsevier Procedia Computer Science 165, 27 Feb 2020, ISSN: 1877 - 0509, pages 759–765.

3. **Mr. B. Senthil Kumar,** presented a paper titled Tamil Paraphrase Detection using Encoder-Decoder Neural Networks in IFIP ICCIDS 2020 - 3rd International Conference by CSE, SSNCE.

4. **Dr. S. V. Jansi Rani,** along with **Karthikeyan Chinnusamy and A. Rajaraman** published a paper title "Wind mill audio mining and future scope", AIP Conference Proceedings 2207, 040007 (2020)

STUDENT PAPER PUBLICATION

1. **Subin Sahayam (Alumnus), Nanda H. Krishna (3rd year student) and Umarani Jayaraman**, published a paper "Brain Tumor Segmentation" in BrainLesion (BrainLes) 2019 Workshop, 22nd International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2019)" Shenzhen, China held on 17 October, 2019.

WORKSHOP ON FULL STACK WEB DEVELOPMENT

The workshop on Full Stack Web Application using JavaScript based Frameworks was conducted on 17th- 18th February, 2020. All the sessions of this workshop were handled by professionals from Coda Global, Chennai. This team includes Mr. Arvind Muthuram, Senior Software Engineer supported by Ms. Harini M, Ms. VishnuPriya V, and Ms. Kokila E. Total participants were 51 which encompasses 45 UG students, 5 research scholars and 1 PG student. All the sessions were practical hands-on sessions except the introductory session.

The first day of the workshop started with inaugural address by our beloved Head of the Department, Dr. Chitra Babu followed by the introduction of the speakers by Dr. B. Prabavathy. In the first day sessions, basics of web application development, a case study on Event Management System, ExpressJS and integration to MongoDB were introduced. Throughout the workshop, Javascript frameworks were taught by implementing this case study.

In the next and final day, Frontend development using AngularJS, integration with NodeJS as a backend server were taught. Finally, the deployment of the developed web application

in AWS Cloud Service was demonstrated. All the participants individually installed the frameworks and developed the event management system.

Finally, the workshop ended with vote of thanks by Dr. V.S. Felix Enigo, followed by certificate distribution and feedback from the participants.

The workshop was highly productive and most of the participants expressed their desire to see this kind of workshop on emerging technologies in future, getting organized for a longer time period. We thank our HoD and SSN Managment for their support in conducting such workshops for the benefit of the students.

Dr. B. Prabavathy, Dr. V.S. Felix Enigo

TECH, TRAINING AND POLICE: AN INITIATIVE

The Department of Computer Science and Engineering had organized a six-day Intensive Training Programme on the Basics of Cyber Crime Investigation for the Sub-Inspectors of Police, Cyber Crime Wing, Tamil Nadu. 183 Sub Inspectors underwent this training in three batches: between 25th-29th January 2020; 3rd-8th, February 2020 and 24th-29th February 2020.

The main aim of the program was to teach computer basics and fundamental aspects of cybercrime. Content and topics were developed in coordination with Additional Director General of Police, Cyber Crime Wing, Tamil Nadu by Dr. Chitra Babu, Professor, and Head, Department of Computer Science and Engineering who was the overall coordinator of the program. Along with her, the faculty members who coordinated the event were Dr. V. Balasubramanian, Assistant Professor, Dr. J. Bhuvana, Associate Professor and Dr. S.V. Jansi Rani, Associate Professor from the same department.

Eighteen faculty members were involved in handling the various sessions. The program was designed with equal emphasis on both theory and hands-on sessions. We had a very pleasant experience interacting with the police officers. Our faculty members also conducted online tests every day on the portions that were taught in the previous day in 4 different labs having 15 officers in each lab. The course was designed in such a way that the lab sessions were scheduled every afternoon. Those lab sessions were quite interesting and the officers had conveyed in their feedback that they thoroughly enjoyed them. Take-home assignments were also given to the participants every day. It was quite challenging handling heterogeneous participants from different academic backgrounds such as arts, circuit, and non-circuit branch engineering disciplines.

The department had a very unique rewarding experience by undertaking this socially relevant outreach activity. We look forward to more such opportunities in the future.

Dr.S.V.Jansi Rani
Associate Professor/CSE

IFIP - ICCIDS 2020

When we got the permission to host the conference this year, first decision taken was to publish the papers in Springer. We have retained the same theme of Computational Intelligence in Data Science and planned to carry forward this year's conference as IFIP - 3rd International Conference on Computational Intelligence in Data Science (ICCIDS 2020). We had invited Prof. Eunika Mercier-Laurent, Chairman IFIP TC12, Dr. Ulrich Furbach, Department of Computer Science, Universität Koblenz-Landau Fachbereich Informatik, Koblenz Germany, and Dr. Ashish Ghosh, Professor and Head, Machine Intelligence Unit, Indian Statistical Institute, Kolkata as the programme committee members and later few more experts had been invited and consented to be part of the committee.

We submitted the proposal to International federation for Information Processing (IFIP) Advances in Information and Communication Technology (AICT) Springer by the month of June, 2019. We have received the conditional approval by August, 2019 for the same. We released the first call for papers by September 18, 2019 and whose deadline has been extended thrice and the papers received till December 30, 2019 were considered for review process. As one of the conditions stated by IFIP AICT Springer, we gave four weeks of time for the reviewers.

We reached out to more than 120 experts in the field of Computational Intelligence, Data Science to review the papers received. The submitted papers have gone for thorough reviewing by 3 reviewers and their review comments have been communicated to the authors before the conference. Out of 94 papers received through easychair submission management system only 31 papers were accepted. 27 papers have been registered and presented by authors from India and abroad. We approached several funding organizations for sponsorship and submitted proposals to DRDO, TNSCST, ISRO, etc and also reached out to several software and hardware industries. In the end along with the financial aid given by SSN, we received sponsorships from Frontiers, Tata Motors, HCL, Boston, CoMMNet.
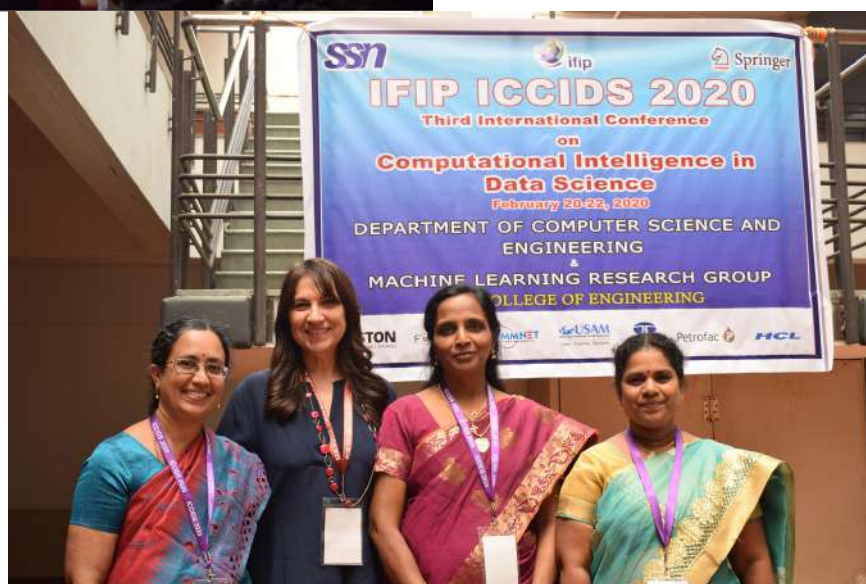
We have scheduled two preconference workshops on 20-02-2020 on the topics 'Text analysis and Information Extraction & Retrieval - TIER 2020' and 'Image and Video Analysis - IVA 2020'. We had 30 and 26 participants registered for the two workshops.

Topics handled in TIER 2020 are RNN, LSTM, Seq-2-Seq models for Text Processing by Mr. Suriyadeepan, Saama Technologies and Transformer-based models for Text analysis by Mr. Kamal Raj, Saama Technologies, GPU Computations for Deep Learning by Ms. LaxmiNageswari, Global Lead, AI Edu & Solutions, Boston Limited and Mr. Krishna Mouli from Nvidia certified Deep Learning faculty, Boston IT Solutions. Hands-on Training on Transformer models were given by Dr. D. Thenmozhi, Mr. B. Senthilkumar, Ms. S. Kayalvizhi. In IVA 2020, Dr. T. T. Mirnalinee handled , 'Understanding Semantic Segmentation with U-Net, followed by 'Generative Adversarial networks for image generation' by Ms.Hemalatha, Madras Institute of Technology, Anna University. Hands-on Training on U-Net was given by Dr. P. Mirunalini and Dr. T. T. Mirnalinee.

The conference was inaugurated by our Principal on 21-02-2020 followed by the two keynote talks by Dr. Ashish Ghosh, Indian Statistical Institute, Kolkata and Dr. Prahlad Vadakkepat, National University of Singapore on Machine Learning and Big Data Analysis and Industry 4.0 - AI, Robotics and Automation.

The conference has 4 tracks - Computational Intelligence on Text and Speech Analysis, Computational Intelligence on Sensor and Other Data, Computational Intelligence on Image

and Video Analysis and Data Science. On the first day of the conference two parallel tracks were scheduled with 7 papers each. The session started with a session talk on Code Variants Retrieval by Dr. Venkatesh Vinayak Rao, Chennai Mathematical Institute. The second day of the conference had two keynote talks on 'The assessment of Information Credibility in the Social Web by Dr. Gabriella Pasi, Professor, Department of Informatics, Systems, and Communication (DISCo), University of Milano-Bicocca, Italy followed by 'Transfer Learning for Natural Language Processing' by Dr. Anand Kumar M, National Institute of Technology, Suratkal. The session talk was delivered by Dr. Raj Ramesh, Chief AI Officer, DataFoundry, AI, on 'How Data Scientists Can Help the Business?'. The two parallel tracks are scheduled with 7 and 6 papers each, where three papers were presented through skype sessions. The journey does not end with the second day of the conference, the comments given during the paper presentations by the three session chairs of every track have also been communicated to the authors. The final formalities are underway towards publishing the papers in Springer IFIP AICT series.

We are grateful that the entire department helped us and shared the responsibilities in conducting this conference. It's a different and satisfying experience that we have been part of this milestone event 2020.

Conference Co-ordinators

PRE-CONFERENCE WORKSHOP - TIER 2020

I attended a pre-conference workshop on "Text analysis and Information Extraction & Retrieval - TIER 2020" on Feb.20, 2020 at Department of CSE, SSN College of Engineering. In the morning session three talks were scheduled. The first talk was on the topic "RNN, LSTM, Seq-2-Seq models and Attention Mechanisms for Text" handled by Suriyadeepan, Saama Technologies. He gave the brief description about Recurrent neural networks, LSTM and various sequence to sequence models. He also explained about various attention mechanisms used in the text. The second talk was on "Transformer-based models for Text analysis" handled by Kamal Raj, Saama Technologies. He explained about various transformer models used in the natural language processing and its applications. The third talk was on "GPU Computations for Deep Learning with Demo" handled by Laxmi Nageswari, Global Lead, AI Edu & Solutions, Boston Limited,Krishna Mouli , Nvidia certified Deep Learning faculty, Boston IT Solutions. They have demonstrated the importance of GPUs used for deep learning applications. Afternoon session was a hands-on session on transformer models. In this session, we are trained with BERT for classification tasks and sentence embedding using transformer models.

Dr. B. Bharathi
Asso. Prof./CSE

ACM INDIA ANNUAL EVENT 2020

Dr. Chitra Babu was invited to attend the ACM India Annual event that was organized at IIT Gandhinagar on 15-Feb 2018. Dr. Yann Lecun(one of the Turing award recipients of 2019), Dr. Shwetak Patel(ACM Computing Prize Winner of 2018), Dr. Susanne Albers and Dr. M. Balakrishnan(IIT Delhi) were the speakers at the event.

Dr. Chitra Babu with Dr. Susanne Albers, 2008 Gottfried Wilhelm Leibniz Prize winner, Technische Universität München, Germany

Dr. Chitra Babu with
Dr. Shwetak Patel, Winner of
2018 ACM Prize in
Computing, University of
Washington

Dr. Chitra Babu participated in a panel discussion on "Women in Computing: Opportunities for Higher Education and Research" at the ACM-W Workshop that was colocated with the ACM India Annual event at IIT Gandhinagar.

Dr. Chitra Babu with all ACM-W council members after the ACM-W Council meeting

PODCASTS AND PROMINENT MINDS

Dr. Chitra Babu has been featured in a podcast series that interviews prominent people in the domain of technology. Here we detail the interviews and the events leading upto it.

Technology evolves on a rapid scale today, thanks to the congregation of bright minds in the field. Such meets and conferences are official marks of technological leaps. But inaccessibility remains an issue. These forums are either unreachable or unfriendly to a meager individual who often has not an inkling about what transpires during these events.

In an initiative to portray some of the prominent people in a friendly light, a series of podcasts are in the making-an initiative of Ms. Apeksha Srivastava, Senior Project Associate, prolific writer, and editor, External Communications, IIT Gandhinagar. This series brings to the audience, interviews with people of prominence. In Ms. Apeksha's words-

"the most eminent minds in computing education and research"

Our HoD, Dr. Chitra Babu is one of the few people who were interviewed. Her interview appears alongside Hina Timani, Chairperson of ACM-W and Lipika Dey, Principal Scientist at TCS Innovation Labs. These brightest females in the field of computer science were interviewed at IRISS, ACM-W workshop, and ACM- annual event which happened between 13th and 15th February 2020, organized by IIT, Gandhinagar.

Ms. Apeksha Srivastava

Dr. Chitra Babu

These interviews revolve around their views, ideas, and understanding of the different aspects of computing and education. Here is a snippet of Dr. Chitra Babu's interview as she talks on a range of issues.

•*You were a part of a panel discussion in the ACM-W workshop 2020 at IIT Gandhinagar. Can you please highlight a few points from this session for us?*

This panel discussion was about the opportunities for women in computing in the area of higher education and research.We talked about the hurdles which we went through — the message is that every time you defeat an obstacle, it makes you stronger. We discussed the Massive Open Online Courses (MOOCs) — how they are a boon today and how they have democratized education. Today we can listen to some excellent lectures from MIT or Johns Hopkins, which was not at all possible earlier. We also exchanged our views on the topic of women who want to come back and re-enter their careers after a break — how we can help and guide them in their journey. We also spoke on how forums like ACM-W promote networking with other women, scientists, researchers, and companies and how they encourage the concept of life-long learning.

•*In terms of pursuing your work, what were some of the challenges that you faced? How did you overcome them?*

One of the current challenges of today is that it is not about teaching alone. If you look at it, the educational institutes have delved deeper into research over the last couple of decades, and this research is collaborative. In essence, it can involve multiple disciplines or be concerned with the industry-academia association. It all comes to managing teaching and research efficiently. Effective time management and support from people are the key things for pursuing quality work.

While the podcast series is in various stages of the editing process, interesting snippets are available on Ms. Apeksha's blog on Medium.
https://medium.com/@apeksha.0503/my-podcasting-experience-part-ii-acm-w-india-4e3dcb0fb0e8

TENTH TCS IIT MADRAS COLLOQUIUM

Dr. R. Kanchana, Mr. B. Senthil Kumar, JRFs Ms. M. Sasikala and Ms. Kavitha attended a talk by Prof. Raghu Ramakrishnan, Microsoft on 30th Jan 2020. The topic was 'Cloud, ML, Data and Governance: Big Changes Ahead'. It was organized as a part of Tenth TCS IIT Madras Computer Science and Engineering Colloquium at IIT Madras.

Raghu Ramakrishnan is CTO for Data and a Technical Fellow at Microsoft since 2012. Earlier, he was a professor at University of Wisconsin-Madison, where he wrote the widely used text "Database Management Systems", and a Yahoo! Fellow, serving as Chief Scientist for the portal, cloud and search divisions. Ramakrishnan has received various academic awards. On 30th, he gave an overview of the evolving data landscape at Microsoft and the Azure Data roadmap. The talk was very interesting and gave pointers to the following: Azure Synapse analytics, convergence of data lake and data warehouse, Unified governance of relational and non-relational data.

A SCHOLARLY VENTURE: IPR WORKSHOP

The CSI Student chapter hosted the Intellectual Property Rights Workshop, an elaborate session that probed into the introduction and importance of IPR along with procedural specifications that entails it. It was a 2-day event held on 11th and 12th of February,2020. It catered to the interests of faculty, research scholars, and UG students alike. The four women scientist-trainees, WOSC Kiran, IPR-11 batch, conducted the various sessions.

The session details are outlined below:

1. Dr. G. Geetha started the first session with a very essential introduction to Intellectual Property Rights. This established the base points clearly and eased in the attendees to the more sophisticated topics that would follow.

2. Mrs. Padmaja Dhenuvakonda followed up with her talk on 'Idea to patent and patent search', which offered a brilliant insight into the quest for patents and the several ideologies and proper approaches associated with it.

3. Mrs. Lija Arun handled a thorough session on Patent Drafting, addressing the How, Why, What, When and Where questions that often come with it.

4. Dr. Priya Esther wrapped up the sessions by addressing the more practical aspects of IPR: 'Applying for Patents'. She walked the attendees through the procedures, the form collection and the monetary aspects of it, (i.e) the fees.

The sessions were well-received by the participants who actively interacted with the speakers via some well-thought questions. It was, for sure a purposeful set of sessions that would help the participants with their future scholarly ventures.

RESEARCH DOCUMENTATION USING LATEX

A one day workshop on Research Documentation using LaTeX Software, March 2,2020. The workshop on Research Documentation using LATEX software was organized by Department of Computer Science and Engineering , in association with IEEE and CSI Student chapters on March 2, 2020. The Faculty Coordinators are Dr.D.Venkata Vara Prasad, Dr.A.Chamundeswari and Mr.N.Sujaudeen. The speakers for the event are 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.Sheerazuddin, Associate Professor, SSN CSE, gave a Introduction to Latex Article. The next session, was handled by Dr. R. Kanchana Associate Professor, SSN CSE. She discussed on Preparation of Journal article / Reports: Abstracts, bibliographies, and graphs.

In the afternoon, the first session was handled by Dr.R. S. Milton, Professor, SSN CSE gave a talk on Beamer Presentation. In the next session Formatting Text, Verbatim, and Images topics was handled by Dr. K.Valli Devi, Associate Professor, SSN CSE. In the last session, Dr.J.Suresh ,Associate Professor, SSN CSE delivered a talk on formatting mathematical equations. Hands on training was given in all the sessions. Thanks to all speakers, volunteers and participants for completing the workshop successfully.

Dr. D. Venkata Vara Prasad
Prof./CSE

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT(AITAM) - TEAM VISIT TO SSN

The follwing faculty members from Aditya Institute of Technology and Management(AITAM), Srikakulam(Dist), Andhrapradesh visited SSN, to observe the best practices followed by SSN:

1. Dr. G. S. N. Murty , HOD/CSE
2. Dr. B. V. Ramana ,HOD-IT.
3. Dr. Ch. Ramesh , Professor & Assoc Dean(IQAC)

TEACHING - LEARNING UNDER LOCKDOWN

As the world is experiencing a significant impact due to Covid 19 pandemic in all areas like agriculture, industry, economy and precious lives of people, it is our responsibility to minimize crowding at a single place and the spread of the Corona virus. Indian Government announced lockdown from March to May which also affected our academic schedule to complete the remaining portions of the subjects.

Thanks to the digital technology, we were able to conduct the online classes through Zoom meetings and able to complete the portions. To our surprise more than 90% of the students attended all the sessions. The students understood the situation and co-operated very well. For the smooth conduct of the online video lectures, students were asked to login with their name and number, mute themselves on entry, click raise hand option for any query and clarify their doubts. We had screen sharing facility through which we shared our presentations and used whiteboard option for the problem solving.

Most of the students expressed that the online classes were certainly a new experience and were very interesting. This removed their fear about the completion of the syllabus. Students were able to solve their doubts using audio conversation or through chatting option. As some of the students have internet issues with limited bandwidth in rural areas, or 2G connection in Kashmir, we have recorded the videos of online lectures and shared with them. Those students expressed that recorded videos of the online classes conducted were very useful to review and refresh the concepts at any point of time mimicking a live classroom environment.

Even though this has solved our main problem of syllabus covering, it will not definitely replace our online face to face classroom lecturers. Due to the limited bandwidth and data usage, students were asked to cut down their videos. In the classroom environment we were able to check, whether the students understood the concepts by looking their faces itself, so that we can clarify their doubts. In online classes, this aspect was missing. In classroom environment, we can go in person and solve their doubts at their desk itself. Giving concentration to each and every student in that 40 to 60 minutes lecture is somewhat difficult only. Although, we were unaware of what the students do on the other side, we hope the best from our SSN students by calling out their names and asking some questions in between the lectures to keep them in place. We got immediate response and answer most of the times.

Let us all be safe, solve this problem and make Corona run away from the globe. Take care of your family, your city, your state and your nation.

"Even this will pass away"

"Patience is not the ability to wait, but the ability to keep good attitude while waiting"

Ms. S. Rajalakshmi

AP/CSE

APPROVED INTERNALLY FUNDED FIRST YEAR STUDENT PROJECTS - 2020

S.No	Name and Year of the Students	Project Guide(s)	Title of the Project
1	Aravind Kannan Rathinasabapathi B. Sandeep Sekhar A. Karthi	Dr. P. Mirunalini Dr. R. Priyadharsini	Self Defence System for Children
2	T. R. Venkat Narayan S. Srivatsan Raman Gopal Chirania (EEE)	Dr. S. Kavitha Dr. V. Balasubramanian	Self Balancing Robot Protocol
3	S. K. Anandh Krushna K. Deepananth K. R. Nithish Bharathwaj Praveen Kumar, EEE	Dr. K. Lekshmi Dr. K. K. Nagarajan ECE	Solar Panel Dual Management System
4	D. Karthi , CSE Daniel Mark Isaac, ECE	Dr. P. Mirunalini Dr. B. Bharathi Dr. Cherry Mathew Philipose, English	IoT Driven Smart Bus Stops
5	P. Chalini, CSE B. Sandhya, ECE	Dr. R. Vinob Chander, IT Dr. Cherry Mathew Philipose, English	Gate pass automation
6	M. Abhishe Narayan S. Srivishnu	Dr. G. Raghuraman Dr. S. Kavitha	IoT Based Pipeline Inspection Robot 1
7	Sushaanth Srinivasan Vaishali Chandrasear	Dr. R. S. Milton	Gesture Recognition Using Sensors and Conversion to Text or Act

THE INTERN INSIDER: VERWIN TECHNOLOGIES

I had the opportunity to intern at Verwin Technologies as a Backend Developer last winter. As an intern, I primarily worked with NodeJs and MongoDB. My field of interest being Backend Development and Networking, this internship turned out to be quite fruitful for me.

It instilled a sense of confidence to take up any task/challenge and solve it with ease . Being in the rudimentary stage of development, the company had its developers focus solely on the development of the website to attract the consumer crowd, Verwin Technologies is a Job consulting firm. It handles thousands of resumes on a daily basis.

As an intern, the work was cut out for me- handling the DB and creating routes to handle the customers requests. I wrote a script which automated the daily download of user data from the database to show numbers to the management team based on which the business strategies can be devised. I also created a route to send emails to people that have applied via the company's website and another to post the user questions on "Twitter" .

Furthermore , since Verwin is essentially a career guidance site , spam was one of the major problems. I proposed a solution where one could use keyword matches to scrape the web for answers and display the result post after a certain time out period. I even created a prototype , using NodeJs and Puppeteer. This idea is yet to be implemented by the company.

Perhaps the best pary of the experience was that I was able to articulate my passion for photography. A technical intern needn't necessarily stay with tech bounds. I was tasked with an authentic company photoshoot for Verwin. I also designed a lot of posters for the "Facebook Campaign" that proved to be a great success in helping people get jobs through this prestigious firm.

During my time as an intern , I attended the "IFA Hackathon" in which we got a special mention from a developer at Microsoft for my team's idea on Chatbots . I played a major role in writing the server code for the app my team created which was possible with the experience i gained from my internship . The biggest takeaway for me, from this internship is TeamWork and Coordination. Though there was pressure on deadlines , my project manager kept us all smiling through difficult times and made every task achievable . This experience really got me interested in the IT field and has proliferated my passion for development. To conclude, it was a proper and purposeful internship experience.

I thank the CSE Department for encouraging me to pursue internships and expanding my knowledge.

-V. Rahul,
CSE-C, IIIrd year

SPECIAL NEEDS TUTORING- AN EXPERIENCE

I had the privilege and pleasure of interning at HashHackCode, an immersive learning platform for teens and adults with special needs. It was an incredible opportunity to give back to the community and help raise the next generation of coders and programmers.

The one month I spent at this organisation served both as a respite from the fastpaced experience one gets at an industry-based job, and also taught me what amazing benefits teaching another person can have. This experience was enriching and introspective, especially in such a friendly, holistic environment. I specifically would like to acknowledge and extend my sincere thanks for Mr. ManuSekar, the founder of HashHackCode, for giving me the opportunity to intern as a Special Needs Tutor at his esteemed organisation, and for his help, guidance and extremely helpful feedback.

My work week consisted of six days, Monday through Saturday, from 10 AM to 6 PM. I tutored students of various learning levels in HTML 5 and CSS 3 programming for a period of one month. My daily intern responsibilities involved mentoring students in a one-on-one manner as they worked on programming assignments, assisting them as and when needed. I also helped in framing a handbook for future tutors, which included teaching plans, hints and the like. I also spent the last half hour every workday discussing with Mr. Manu about the day's students, what can be done to improve their learning experience and so on. This helped in recapitulatingthe day and identify problem areas.
 information. They left with ventures for the future.

I tutored over 15 students over the course of my internship, most of them attending classes during alternate days of the week. I was also responsible for developing the Creative Coding Kit, a kit designed for students, parents and tutors alike, comprising exercises, hints and the like.

The students themselves served as way for me to learn what my shortcomings were, as a programmer. Their doubts and the areas which posed difficulties to them made me evaluate my own weaknesses.

Overall, the internship was extremely educational and helpful in serving as a mirror-like look into my strengths and weaknesses as a programmer as well as a tutor. After all, the best way to strengthen a skill is to teach it to someone. The experience was uniquely liberating and introspective.

Aparna. K
CSE-A, IIIrd Year

LAURELS AT INDIA'S LARGEST QUIZ

Srinithyee S K of II^(nd) year on how her team crossed hurdles to bag the III^(rd) runner-up prize at India's largest quiz arena.

SBI's Numero YONO, one of the biggest annual quizzes for college students was organised for the South Zonal Division on 25th of February. SBI Numero YONO quiz is meant for college students pursuing their Undergraduate (UG) or Postgraduate (PG) courses. It tests their knowledge of current affairs, general knowledge, etc.

We were a team of three-Vishakan(CSE IInd year),Andrea(ECE IInd year) and myself.The first round was digital and tested 280 Colleges teams across TamilNadu on general knowledge. It was a two minutes quiz with 20 questions. Only the top 8 teams would make it to the finals. We gave our best and hoped that we would make it there. As they called out the names of the qualified teams,we were overwhelmed to know that our team(CH132) had made it to the finals! It was live streamed on their official twitter handle and was also aired on Hotstar.

The quiz kept us on our toes. There were four rounds-pounce and bounce, SBI NUMERO, Rapid Fire and the Finale. It was an interesting experience,fast and captivating, competing against the brightest minds across Tamil Nadu. We emerged as the Third Runner Up. Although we were happy with our results,we aim on participating next year and winning the Scholarship amount of 2 Lakh Rupees!

FESTS AND FEATS

The even semester is an especially blessed time for tech-geeks and coding enthusists. Come January, an array of fests flood our calenders, hosted by universities, big and small, nonetheless holding great repute. Our students have participated and won laurels at every one of these. Here is a briefing.

PRAYATNA:

Prayatna is a nationally recognized technical event organized by Association of computer Technologists MIT, Anna University, which helps unleash the power of analytical thinking and computer programming. It was held on 8th and 9th of Feb, 2020.

Shashank. R of CSE-C and **Avinash Kartik** of CSE – A, 2nd year were declared

- Second Runner-up in Onsite Programming Contest (OSPC)

V Vrishin Vigneshwar of CSE – C and **Avinash Kartik** of CSE – A , 2nd year
were declared

- Winner in OSPC
- Winner in Sherlock
- Second Runner up in Online Programming Contest (OLPC)
- Second Runner up in Hexlathon

V Vrishin Vigneshwar
CSE – C, 2nd year

CodeStandard ReplyChallenge:

The Reply Code Challenge Standard edition is a team-based coding competition open to students and professional coders aged 16 or older. It was held on March 12th, 2020

Avinash Kartik, Shashank. R and **Vrishin Vigneshwar** of CSE- C, 2nd year gained

- Rank 136 on an International scale

SAMHITA:

Samhita is a National Level Technical Symposium held at Madras Institute of Technology, Chennai. It is organized by the Information Technology Association (ITA). It tests students in aptitude on coding, designing and other ambidextrous domain concepts. It took place on 31st January and 1st February, 2020.

Avinash Kartik of CSE – A 2nd year has been declared

- Winner, in OLPC
- Winner, in Unbox Coding
- Winner, in Math-O-Mania
- Winner, in Street Coding
- Winner, in Code Golfing
- Runner up in OSPC
- Runner up in Reverse Coding

Shashank. R of CSE – C 2nd year has been declared

- Winner in Code Obfuscation
- Runner-up in Math-O-mania
- Runner-up in Reverse Coding

ABACUS:

Abacus is the flagship symposium conducted by the Department of Computer Science and Engineering,CEG, Anna University. The prizes are often given as cash and internship opportunities. It was held between 5th and 7th of March,2020.

Shashank. R of CSE - C, 2nd year was declared

- Second Runner-up in Programming Loopholes

Vrishin Vigneshwar of CSE- C, 2nd year was declared

- Second Runner up in Code Hungama
- Second Runner up in Problem Free Statement

Avinash Kartik of CSE – A 2nd year has been declared

- Second Runner up in OSPC
- Second Runner up in Code Hungama
- Second Runner up in Problem Free Statement

Jayaraman. N. R and Hemanth. S of CSE- A, 3rd year were placed at

- Second position in Datathon event

Hemanth. S and Ashwin Kumar. J of CSE- A, 3rd year were placed at

- Second position in Deadlock Opener even

KURUKSHETRA:

CEG's inter-college techno-management festival, upholds that reputation and takes pride in being the first ever techno-management college fest in India to obtain UNESCO patronage. It was hosted between 12th and 16th February,2020.

Avinash Kartik of CSE – A 2nd year has been declared

- Second Runner up, in Tame The Code
- Second Runner up, in Ninja Coding
- Third Runner up, in OSPC

V Vrishin Vigneshwar of CSE – C, 2nd year was declared

- Second Runner up in Tame The Code
- Second Runner up in Ninja Coding
- Third Runner up in OSPC

EXLOG:

Conducted by the Department of Mathematics, the ExLog was held on 15th February, 2020.

Vrishin Vigneshwar of CSE- C and **Avinash Kartik** of CSE – A, 2nd year were declared

- Winners in Math Charades

ACM/ACM-W:

ACM hosts events around the year.

Vrishin Vigneshwar of CSE- C, 2nd year was declared

- Second Runner up prize in Code Relay held at SSN

Avinash Kartik of CSE – A 2nd year has been placed at

- Rank 51 in the ACM ICPC Kharagpur Asia regionals held on Dec 2019, under the team name Enigma1.

CARTE BLANCHE:

Conducted by MIT and Anna University, this event helps participants to get into the details, to collaborate in creating Open Source content, be it H/W or S/W, as well as appreciate the efforts of fellow enthusiasts. It was held on 28th February and 1st March, 2020.

Vrishin Vigneshwar of CSE- C, 2nd year was declared

- Winner, in OSPC
- Runner up, in CodeMarathon

NEXT GENERATION NETWORK MANAGEMENT: AN INSIGHT

The 12th of February witnessed a hoard of students flooding the Mini Auditorium. There was a thrum of expectant anticipation. For two reasons. One, the topic of the session held gravity- Network management grounded the technological world. Secondly, the speaker of the day stood by the dais was a man of expertise and experience. Mr. Subramanian Ramakrishnan. Senior Manager, Global connectivity Infrastructure at Viasat India with more than 31 working years in the IT and Telecom industry. Before joining Viasat, he has worked with Cisco Systems, Juniper Networks, Bharti-Airtel, HCL Infinet, and HCL Info-Systems. He was known widely for heading the Presales Team of Service provider Vertical business for India and SAARC at both Cisco and Juniper. He was heading Data Transport Network & NLD and ILD Switch planning in Airtel.

The speaker revealed organizations looking for 100% uptime and reliability (99.999% is not good enough). The traditional way of building a network and managing is out the window. Managing the network with the script-driven approach is already reaching its limits, he quoted. Production-grade service provider and enterprise networks require a production-grade automation framework. Also, many new technologies such as Self Heal, Software Defined Network (SDN), Network Function Virtualization, and Orchestration are at their peaks. Moreover, there is a yawning gap between the student's expertise and the expectations from the industry.

As he led the students from the dawn of network computing to the current trends, the speaker gave a real-time demonstration of monitoring network usage in Telecom by collaboration with a colleague via video conferencing. The demo involved step by step construction and execution of the script.

The session ended with students shooting questions regarding employability and industry to which the speaker delightfully replied with interesting facts. It was one fruitful session for the pupil.
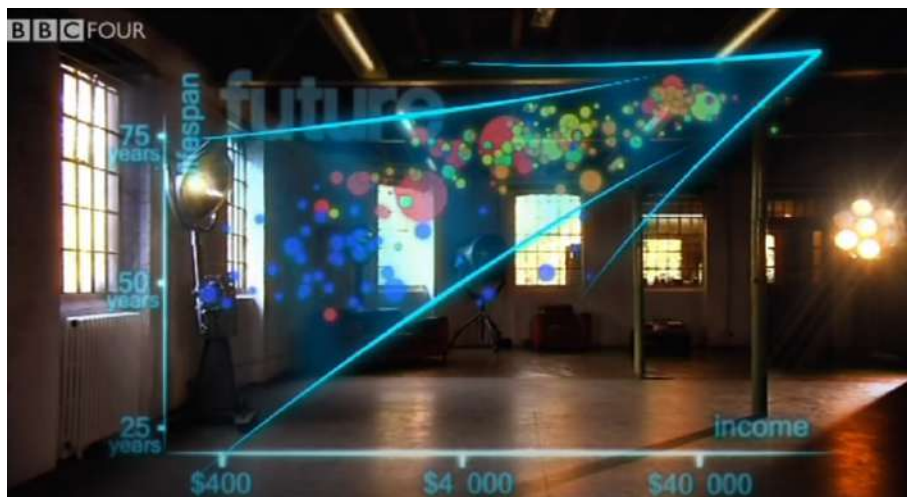
THE BEAUTIFUL POWER OF DATA

Data rules the world. We are accustomed to describing it 'powerful' and 'crucial'. But 'beautiful'? Not necessarily. Mr. Anantharaman Mani disagrees. In his lecture, he cites the 'beauty' data visualization can bring about. And just how crucial it is in understanding the trajectory the world shall take into the future. He put data in a poetic perspective. Here is a briefing for the readers.

A guest lecture on "Beautiful power of data" was organized by the department 25th February 2020 for second- year students. The talk was delivered by Mr. Anantharaman Mani, IT consultant, HCL Healthcare, Chennai.

The speaker started the lecture by showing the "Hans Rowling's 200 Countries, 200 Years, 4 Minutes - The Joy of Stats - BBC Four". The video speaks about the economy and lifestyle of the people throughout 1810-2010, the data visualization technique used here shows the data in such a way that a person who doesn't understand global economics can very easily understand the difference between the lifestyle and hardships faced by different countries throughout this time period. He claimed that this video inspired him to start his company.

The speaker posed his point-*visualizing data is as important as the data itself.*
Visualization helps us to get a rectilinear understanding of the subject matter as such. The speaker then spoke about his company and what they have done in the past 10 years. They have helped the government reach out to public via understandable illustrations of stats.

One of the interesting pojects of this company involved a revelation: In India, kids born between September-December always scored more marks in board examinations than kids born in the other 8 months. Why was that? The first set of kids were older than the other set and hence possessed higher metal ability to grasp concepts.

The government, impressed by the study acted on it. Necessary steps were carried out to level the abilities of the children with extra coaching and tutorials. The speaker's company also worked with many NGOs and tried to represent many global problems in simple ways through the art of data visualization

To quote the speaker:
  "Simple data management and visualization techniques are more than enough to solve/represent the problems faced by the world today".

Suffice to say it was one beautiful session.

DEVFEST 2020

DevFest 2020 was an initiative to emphasize professional coding and documenting techniques - essential elements of open-source contributions. It all started with a simple motive to make the lockdown time more productive for people interested in coding. We associated with the ACM-W chapter of our campus to organize this event. We kept the "Automation" as the theme of this event. Participants made submissions of projects with innovative ideas.

The event was scheduled for two days, from 13th to 15th April, during which the participants submitted their project code and documentation for review. We created a GitHub organization for this purpose and all the submissions were done to a repository on that page.

To make a submission, we asked the participants to create a branch for their team and submit their code as a pull request to the repository. Once a team made their submission, two reviewers reviewed their code and gave comments. The participating team's project went through an iterative improvement and in the end the following projects were successfully merged to the master branch.

● Github Automation: A command-line interface to access the remote repository in GitHub. It also provides facilities to create a new remote and local repository with a single command.
● HospitalBot: a Twitter Bot that responds to messages it is tagged in with a list of all nearby hospitals, and which if those offer testing and treatment for COVID-19.

As the organisers of the event, we were pleased with the quality of the projects and enjoyed reviewing them and working together with the teams to improve their ideas. We hope to carry this forward with future editions, and improve Open Source development in our college. The projects are available at: https://github.com/SSNDev/DevFest-April20

- Kandavel A, Mohanasundar M, Nanda H Krishna, Praveen Kumar R

III Yr CSE B

HACK 101 - A HACKATHON ESSENTIAL

Hackathons are tricky. They require an assortment of skills, from effective coding to impeccable presentation skills to impress the panel. The best shot to win a hackathon is through proper preparation and mentoring by those with experience.

ACM-W Student Chapter of SSN organized Hack 101 on 10th March 2020. The event had 54 participants from across all departments and years.

Participants were grouped into teams and were given real-time problem statements in fields such as Computer Vision, Data Analysis, Development, and Security to work on. Each of the teams was given 3 minutes at the end of the session to pitch their solution.

Student mentors from 3rd and 4th year CSE were assigned to each of the teams. These mentors provided constant guidance to the team and helped them with formulating their solution. Pitched ideas and solutions were improvised to produce a well-rounded, marketable product that fits into the current industry standards. The student mentors were Aparna K, Ferran Sulaiman, Harshana S, Jahnavi Srividya, Jay Vishaal J, Jyothishmathi CV, M Mohanasundar, Kandavel A, Nimish Santhosh, and Rahul Venkatesh. Their support and skills made sure the event was fresh and properly-paced.

Students were also introduced to various online platforms that conduct challenges across several fields. This would ensure that they stayed at the top of the charts and in par all challenges. It was hence a proper toolbox for all hackathon enthusiasts and amateurs alike.

CODE FROM HOME - AN ONLINE CODING CONTEST

While a pandemic rages outside, we have driven programmers working indoors, polishing their skills to the sheen. ACM and ACM-W collaborated to help channel their untapped potential via a unique contest that enabled students to code from home.

SSN Coding community along with ACM and ACM-W Student chapters conducted Code from Home, an Online coding contest on 22nd March 2020.

The contest had 5 problems with varying complexities that were designed by the heads of the SSN coding community. This two- hour contest saw about 150 students submitting their solutions. Over 108 students solved at least 1 problem of the given 5.

The first place was secured by Vignesh Suresh from CSE 3rd Year. Vrishin Vigneshwar from CSE 2nd year stood second and Sanjay Thiruvengadam from CSE 3rd year stood third. Apart from this, there was a separate prize pool for the first years. In this category, Hari Saran from IT 1st Year came first followed by Joseph Amirtharaj from IT 1st Year.

We congratulate all the winners and appreciate all the participants who showed great enthusiasm and took part in the contest!

-Nandhinee PR,
4th year, CSE

CODHER 2020: WINNING MOMENTS

P.R. Nandhinee of CSE-B, IV year, Harshana. S and S. Jahnavi Srividya of CSE-A, III year, detail their experience at CodHer 2020 conducted by ACM, College of Engineering, Guindy(CEG). They were declared winners at the event for their extraordinary work that addresses the unspoken troubles of women travellers.

It is a constant struggle to find hygienic and safe restrooms while traveling and especially for women this can be a nightmare, many women avoid drinking water or control their urge just because of this. And this can lead to serious health issues. We have developed an Application- Pee-In-Peace, that allows women travellers to discover restrooms and review them. These reviews are used to recommend restrooms and routes through the best of restrooms while travelling.

An ML-based model is used to predict the rating of a restroom based on review history and the time of day- The ML model is used to recognize a pattern in the clean-unclean cycles of the restrooms throughout the day. Other reviews on latches, Sanitary napkin vending machines, and disposal systems, etc are weighed in while calculating the predictive rating as well. We were able to implement this idea in the 24-hour hackathon Codher'20 conducted by the ACM student chapter of College of Engineering Guindy on 14-15 March 2020.

We were awarded as winners of the event with a cash prize of 9000 Rupees. We would also like to thank ACM Student Chapter, CEG for the wonderful arrangements for the hackathon. The fun activities organized kept the hackathon interesting. The mentors were from various reputed companies and provided valuable insights and motivated us throughout the hackathon. The judges were from Guvi Technology, Mad Street Den, and Skcript who also understood the technical difficulties like slow internet problems and patiently evaluated our app.

We would also like to thank the mentors and the jury for the wonderful feedback and points for improvement. Altogether, this hackathon was a memorable and interesting experience for all of us.

SMART INDIA HACKATHON 2020

Smart India Hackathon is a nationwide initiative to provide students with a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem-solving. SIH' 20 is currently in its fourth edition. With 8,60,000 students looking into 353 problem statements, it is the world's grandest technological initiative.

Student teams from our department, amidst heightened competition and stricter criteria, have been selected to participate at the Grand National Finale. 3 teams in Software and 1 team in the Hardware edition have been selected by various ministries. The finals have been scheduled (as of now) from 18th to 22nd of July, 2020.

Software Edition:

1. *Harshana S*, S Jahnavi Srividya J Jay Vishaal, K Aparna, Ferran Sulaiman from CSE-A and Rahul V from CSE-C by *Bajaj Fin Serv.*
2. *Harish B*, Harshavardhini L, Bhuvaneshwari P, Clement Smith R, Ashwin Kumar.J, Balaji Jegadeesh V from CSE-A by *Dr. B R Ambedkar Institute of Technology.*
3. *Harini Raa*, Dakshinamoorthy k, Harini R, Akshay Ramakrishnan, Arunima S, Amritha Sennappa Sudharsan from CSE-A by *Directorate of Technical Education Chandigarh.*

Hardware Edition:

1. *Rohinidevi S V* from CSE-C, Adithya from ECE-A and Roshan Ram Dayal, Shri Harri, Survesh, Praneeth from the Mechanical department by *Ministry of Housing and Urban Affairs.*

We wish all the teams best of luck with the endeavor ahead.

INNOVATION DAY 2020

Seven socially relevant projects from CSE department were displayed on Innovation day 2020. Professor Dr. Raj Reddy delivered the keynote talk. Following that, the jury panel evaluated the various innovative student projects that were on display at the CDC block. Mr. Dinesh Vincent, IoT Engineering Mabager from Caterplillar and Mr. Vasanth Balakrishnan, VEO of a startup company, LeanKloud were part of the jury panel. These two were invited by the department to serve as part of the jury panel.

In this small column, let me give the unique attribute of each project. "Weed detection and removal by robot" is a project which contributes to smart agriculture and reduces the usage of weedicides, pesticides and other chemicals. "Voice bot" is useful in accessing zones which are not safe for human . "Intelligent surveillance system" is a hand-held device used for easy scrutiny, could be used at entry and exits points . "Virtual fashion mirror" is an Augmented reality enabled system used to have a quick preview of dresses and other wearables." Automated residential control for disabled people" is a smart home management system could be operated by tapping the wall. "Smart warehouse management" is a small prototype which defines the process for handling transportation of commodities based on demand ." Facial recognition attendance manager" is a smart attendance system which uses image processing for verifying the identity of the students .

Mr. H. Shahul Hamead
AP/CSE

SSN CREATIVE WRITING CONTEST

The Department of English, SSN College of Engineering, launched the first *SSN Creative Writing Contest* in July 2010. Three literary prizes are instituted every year to attract and honour effective writing among the students of SSN College of Engineering in Fiction, Non- fiction and Poetry. Ssneha Balasubramanian of CSE-C , IIIrd year, bagged the first prize for her poem '*From Across the Room*' while Harrinei Kumaravel from CSE-A, IIIrd year was placed second for her portfolio '*She*'. Here we have their poems, each venturing into an unexplored niche.

FROM ACROSS THE ROOM

Hop on the last bus leaving our town,
And sit next to me, with your head in your hands,
And tears running down your face.
Leave everything behind,
But me, but us.
Let's learn the name of the town,
When the driver tells us that it is the last stop,
And let's move into an apartment,
Tinier than the minds of people back home.
Let's haunt bars and coffee shops,
And art galleries and museums,
And leave when people start calling us by the names,
We chose for each other.
Let's grow red roses on our balcony,
And watch sunrises and sunsets,
And all the people on the street.
Let's fight until the voices turn hoarse,
And our neighbours knock on our door to tell us to turn it down,
Then let's fight some more and fall asleep,
In each other's arms.

Let's sing at the top of our voices,
And dance in our tiny kitchen,
And make each other smile and laugh,
And scowl and cry.
Let's be imperfect, let's be wrong, let's be terrible,
But let's also be real.
Let's move into the cities everyone's moving out of,
And drive into the towns, everyone's driving past.

Let's live the future everyone's dreaming of,
And bury the past everyone's carrying with them.
Let's watch the stars and read poetry,
And grow younger with each passing day.
So, don't stare at me, from across the room,
Press a kiss against my forehead,
And tell me that you'll meet me at the bus station,
Tonight, at one,
So, we can avoid the couples running away at midnight.

-Ssneha B,
CSE C, IIIrd Year

SOOTHSAYERS BY THE SEA

(An account of one woman on the Indian shore as she reads palms and touches lives)

Softly, she sits,
Sighing with the sightless wind,
Smiling smoothly as she does,
Gazing into lined palms,
Some smooth and scabbed.

Walks an ornate wand
Scourging the tepid terrains,
Listening to a lost lore,
For fortunes and finery,
For love and loss,
Prospects and pleasures,
As her voice drones
Of distant doors and daunting dreams.

She collects the dimes,
Softly muttering a blessing.
Sighing as she struggles to stand,
Shifting stiffly in her sesame saree,
She shuffles away, anklets tinkling-
Her bare feet sinking in the sand.

She looks at her palms,
Riddled with scars,
Rough against her touch,
Fine lines etched deep.

Closing her palms quickly,
She hastens home.
She does not read her palm-
No, she doesn't.

MEDDLING WITH THE HUES

(A short excerpt of a plain brown girl that wishes to paint the world anew)

Only if she could
Meddle with the hues.

"Violet sunshine against velvet roses,
Silver skies sliding down soft hilltops,
Golden gusts sweeping glinting rocks"

Ah! If only she could,
meddle with the hues-
mere a mortal as she might be.

Mere a mortal-
With a bright-eyed gaze
and a blue-eyed pen.
Not knowing she does, in fact
meddle with the hues,
As she scribbles.

-Harrinei Kumaravel,
CSE A, IIIrd Year

சகுனி என்பேனா?
கண்ணன் என்பேனா?

அதர்மம் கூச்சலிட்டு
தலைவிரித்து
தாண்டவம் ஆடும்பொழுதினில்
இந்த பாரதப்போரை
தொடங்கிய உன்னை
சகுனி என்பேனா?
கண்ணன் என்பேனா?

மக்களை வீட்டுக்குள்
முடக்கி
யவரையும் எமனோ?
என விரோதப் பார்வை
காண வைக்கும் உன்னை
சகுனி என்பேனா?

அல்லது
மக்களை வீட்டுக்குள்
அடக்கி
உற்றோரின் நலம் பேண
சிந்திக்க கற்பித்த
உன்னை
கண்ணன் என்பேனா?

யவர் கண்களுக்கும்
புலப்படாமல் நயவஞ்சகமாய்
எம்மோரின் பிராணவாயுவை
குடிக்க நினைக்கும்
உம் போன்ற கயவனை
சகுனி என்பேனா?

அல்லது
பொதுநலம் விடுத்து
சுயநலம் என்னும்
காரிருள் மாயையில்
குதித்து கும்மாளமிடும்
கூத்தை

வலிய புஜங்களால்
அடக்கி ஒடுக்கி
கொழுந்து விட்டெரியும்
ஜ்வாலைக்கு
இரையாக்கிய உன்னை
கண்ணன் என்பேனா?

எம் மக்களின்
ஒற்றுமையறியாது
உம் பகடைகாய்களை
எம்மிடமே உருட்டி
எம் மருத்துவ செவிலிய
சகாதேவரால்
துடிதுடித்து மாளவிருப்பதால்
கூறுகின்றேன்
நீ சகுனியே

இந்த பாரதப்போரில்
எம்மவர் சிலர்
மாண்டு போயினும்
கரங்கள் குவித்து
உடலால் தனித்திருந்து
உள்ளத்தால் ஒருங்கிணைந்து
உம்மை சர்வநாசம் செய்து
உம்முயிர் குடிக்க
சூளுரை ஏற்றுள்ளோம்.

உம் அழிவை எதிர்நோக்கி
காத்திரு!
இப்பாரதப்போரின்
பதினெட்டாம் நாள்
வெகுதொலைவில் இல்லை !

ரக்ஷனா ர.
மூன்றாம் ஆண்டு 'ஆ' பிரிவு.

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