DEPARTMENT OF INFORMATION TECHNOLOGY

PRESENTS

identity identity	identity- identity			шеницу	identity identity identity	identity identity identity iden identity identity identity iden identity identity identity iden	tity	
identity	identity-			identity	identity	identity	identity	identity
identity	iden- titityid-	iden-	/X	identity identity	identity	identity	identity	identity
identity	enidentitytity identity	tity identityidentity	identity identity iden	identity identity	identity	identity	identity	identity
identity	dentity id- "ty identity	identity identity	identity identity identity	identity	identity	identity	identity	identity
identity	identity i identity	identity identity	identiti- dentity identity identity	identity	identity	identity	identity	identity
identity	identity identity	identityidenti identity identity	identity identity	identity	identity	identity	identity	identity
identity		identity iden identity identity identity	identity identity	identity	identity	identity	identity	identity
identity	identity y identity	identity identity-	identity identity	identity	identity	identity	identity	yidenti-
identity	identityidentityidentity	identity identityidenti-	identity identity	identity	identity	identity	ty ide	
identity	identity identity	ty identity	identity identity	identity	identity	identity	ident	
		ty identity	Menuty Menuty	identity	identity	identity	identi	•
							identity identi	ty
							idontity idon	

HALF YEARLY NEWSLETTER

VOLUME 7 | ISSUE 2 | FEB 2021

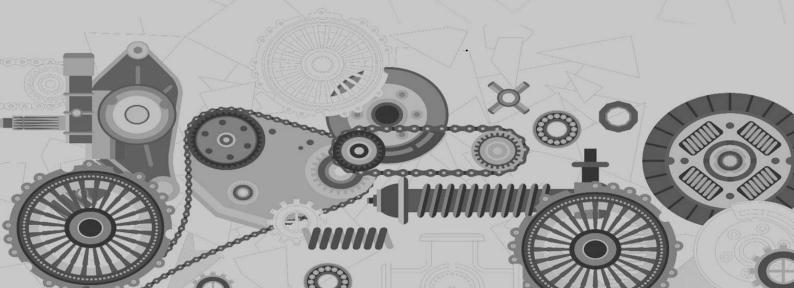


Table of Contents



1	INTRA AND INTER DEPARTMENT EVENT	51
2	INSIGHT INTO PLACEMENT ACTIVITY	20
3	UNIVERSITY RANK HOLDERS	26
4	STUDENT ACCOLADE	27
5	FACULTY CORNER	40
6	ALUMNI CORNER	81
1	INTERNSHIP EXPERIENCE	93
8	TECHNICAL ARTICLE	101
9	NON-TECHNICAL ARTICLE	124
10	MOVIE REVIEW	128
11	BOOK REVIEW	131
12	POEMS	134
13	РНОТО ВООТН	139
14	ART DISPLAY	144
15	NOTE FROM EDITORS	147



ICCCSP

INTERNATIONAL CONFERENCE ON COMPUTER, COMMUNICATION AND SIGNAL PROCESSING

(ICCCSP 2020)

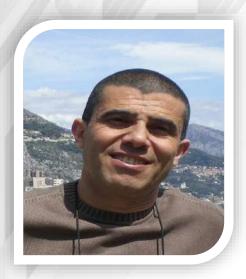
The 4th International Conference on Computer, Communication and Signal Processing (ICCCSP 2020) was held during 28th and 29th September, 2020. The vision of the event is to shed the spotlight on the recent trends in the research areas of Computer Science, Communications, and Signal Processing.

ICCCSP 2020 was organized by Dr. T. Nagarajan, Professor and Head, Dr. I. Joe Louis Paul, ASP, Dr. V. Thanikachalam, ASP, Dr. S. Sasirekha, ASP, and Ms. R. Swathika, AP and was technically co-sponsored by IEEE Madras Section and supported by IEEE Computer Society Madras Chapter, ACM Chennai Professional Chapter, IEEE Computational Intelligence Society (CIS) Madras Chapter, IEEE Communications Society (COMSOC), Madras Chapter and financially sponsored by SSN and Cargotec India Pvt Ltd., (navis.com).

The 2020 edition of the annual conference holds its lens on Data Visualization. Data Visualization, is the cardinal reason for the growth and development of Information Technology. This event brought together researchers, students, and practitioners who are interested in Big Data, Data Engineering, Data Mining, Statistical Learning and Modelling, Machine Learning, Visualization, and Predictive Analytics, by creating a forum for sharing knowledge and ideas motivated by the diversity of experts spread across the vast geology. The event provide a forum for the fellow researchers across the globe to brainstorm and innovate novel ideas.



Around 100 zealous participants from various institutions in India and abroad have participated in this conference. The event had speaker sessions which served as a medium for knowledge sharing. The keynote speakers and their topic of discussion include:



Dr. Rachid Jennane
University of Orleans,
France

Dr. Rachid Jennane, Professor, I3MTO Laboratory, University of Orleans, France, engaged on the topic "Bone Tissue Characterization: From Fractals to Deep Learning". The speaker focused on the use of the Fractional Brownian Motion model (FBM) and DL models for image analysis. Starting from the FBM of unique parameter H, different stochastic models were defined and discussed. DL models for bone disease classification were presented and discussed. An application of these models to osteoporosis and knee osteoarthritis diagnosis was also presented.



Dr. G. R. Gangadharan NIT, Trichy

Dr. G. R. Gangadharan, Associate Professor, NIT Trichy, India, engaged on the topic "Forecasting Data Center Energy Demand Using Machine Learning". The speaker discussed on the concepts of Green data centers and the applications of machine learning algorithms to forecast energy consumption in data centers.





Dr. A. Paventhan (R&D) Govt. of India

Dr. A. Paventhan, Director (R&D) education and Research Network (ERNET) Ministry of Electronics and Information Technology, Government of India, engaged on the topic "Communication technologies to augment internet access network". The speaker presented some of the complementary access network technologies for internet connectivity, evolving standards, typical use cases, deployment experiences and challenges.



Dr. Monojit Choudhury Microsoft Research Lab, Karnataka

Dr. Monojit Choudhury, Principal Researcher, Microsoft Research Lab, Bengaluru, Karnataka, India, engaged on the topic "From Turing Test to the Octopus Test: Making sense of the Deep Revolution in NLP". The speaker engaged a discussion on the story of NLP and NLU and ways to achieve the holy grail in this field.

The participants contributed to the conference by submitting their original articles. The theme attracted enormous response from the research community which reflected in the quality and quantity of the papers received. The conference saw a total of 209 paper submissions, including 109 accepted papers and 55 registered papers.

The paper presentation session of the Conference was divided into three tracks and each track consisted of two sessions which were chaired by faculty experts.

Track 1:

This track focused on Signal Processing. The first session (held on Day 1) was chaired by Dr. P. Vasuki, ASP and Dr. N. Sripriya, ASP. The second session (held on Day 2) was chaired by Dr. R. Srinivasan, Professor and Dr. T. Sree Sharmila, ASP.

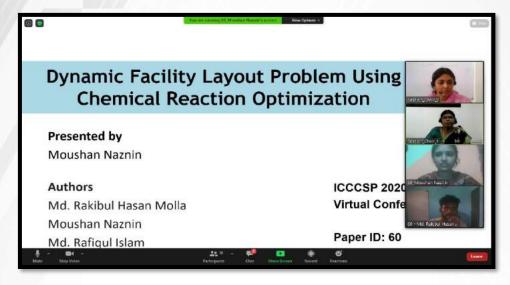
Track 2:

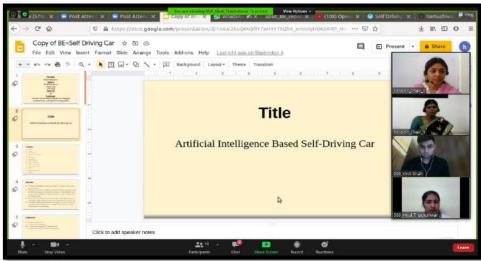
This track focused on Computer. The first session (held on Day 2) was chaired by Dr. S. Mohanavalli, ASP and Dr. S. Karthika, ASP. The second session (held on Day 2) was chaired by Dr. S. Chithra, ASP and Dr. K. R. Uthayan, ASP.

Track 3:

This track focused on Communication. The first session (held on Day 1) was chaired by Dr. N. Bhalaji, ASP and Dr. E. M. Malathy, ASP. The second session (held on Day 2) was chaired by Dr. S. Poornima, ASP and Dr. T. Shanmugapriya, ASP.









The event served as an excellent platform for the participants to showcase their original ideas and comprehensive technical research and also exchange views on the future research directions in various fields. The papers thus submitted by the participants not only contributed to the success of this event but also to the advance of Science and Technology in general.



IN-HOUSE ONLINE PROCTORED COUNSELLING FOR ADMISSIONS

The Coronavirus (COVID-19) pandemic has caused a major disruption in the college admission process 2020 in India. The novel pandemic has forced all the states of India to go into lockdown and has had a major impact on any events that require social gatherings. Particularly, the education sector of India, being in its admissions phase has been severely impacted due to the movement restrictions enforced by the lockdown. This rare and unpredictable event has caused major disruptions in the events and admission process in colleges across India.

In this situation, it is quite normal for any student to be more concerned about how to take admission to colleges during the Coronavirus outbreak. Moreover, with the lack of availability of traditional means of college admissions, parents and students were left confused. Keeping in mind the ongoing COVID-19 pandemic, **Dr. Kala Vijayakumar**, President, SSN Institutions had decided to conduct the entire admission process virtually for the very first time to both First Year B.E./B.Tech., Admissions (including General, Rural, Sports and PIOs) and the Second Year Lateral Entry B.E./B.Tech., Admissions for the current academic year 2020-2021.

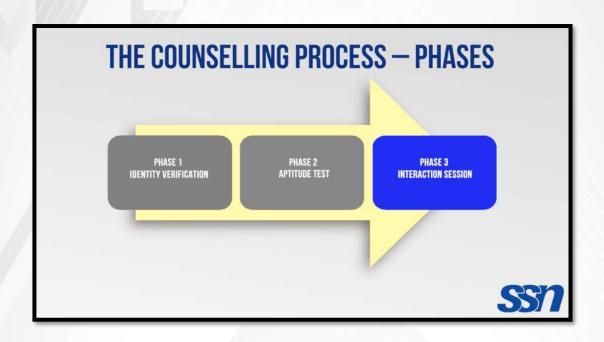
As per the requirements of our Management, the Department of Information Technology had come up with an **In-house Online Proctored Counselling Framework**: Zoom + LMS Moodle + Safe Exam Browser (SEB) using the available resources.











SSN counselling orientations were conducted for the candidates through Google Meet by SSN faculty members. The SEB installation guidelines along with the demo were given to the candidates virtually. Additional support was also given to the needy candidates through remote desktop access.

A series of orientations were also conducted for the proctors and the ID verifiers by the core team of the admissions to the various faculty members, the non-teaching staff across the departments and finally for the representatives from HCL Madurai and Ambattur who were involved in the counselling process.

The in-house online proctored system supported the candidates to walk through the entire counselling process seamlessly right from ID verification till the final interaction with the counselling panel. **This system was successful in conducting the admission process for nearly 3000 candidates.**

We whole heartedly thank our President and Principal for giving the opportunity to be a part of this counselling process.

RESEARCH SCHOLARS' COLLOQUIUM(2020)



Dr. S. Mohanavalli, ASP, Dr. S. Chithra, ASP, Dr. N. Bhalaji, ASP and Dr. S. Karthika ASP, organized the virtual Research Scholars' Colloquium (RSC'20) supported by IEEE & ACM, Chennai chapter on 23rd & 24th October 2020 in the department of IT, SSN CE. The scholars were introduced to the double-sided nature of data where Dr. S. Mohanavalli focused on the lack of data and application of GAN in healthcare application. The other side of data abundance and misinformation issues were discussed by Dr. S. Karthika. The discussion on open research issues in the fields of IoT Security was presented by Dr. S. Chithra. The ways to demystify journal publications was shown by Dr. N. Bhalaji.

The strategies of scientific communications was interestingly presented by Professor Ponnurangam Kumaraguru (PK), Department of CS, Dean Student Affairs IIIT Delhi ACM India Council Member, TEDx & ACM Distinguished Speaker. The session was followed by an interactive Q & A session, "Ask Me Anything (AMA)" with the participants. The event had an active participation from 50+ faculty members and research scholars from different educational institutions across the country.

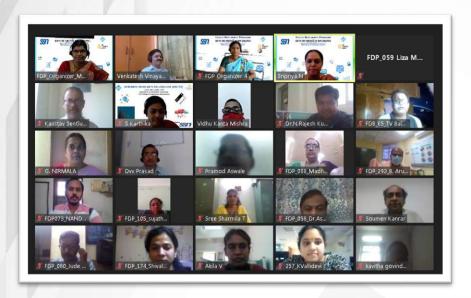
FDP ON END TO END PROCESSES IN DATA ANALYTICS

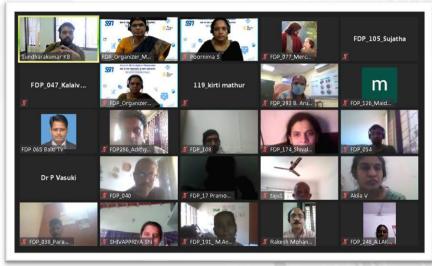
The virtual FDP on End to End Processes in Data Analytics, supported by IEEE & ACM, Chennai Chapter, was successfully conducted with 300 participants during November 2-6, 2020. The FDP sessions were designed to expose the advances which have evolved in each process / stage of data analytics. Apart from conveying the theory concepts, this event focused on revealing the industry practices of these concepts.

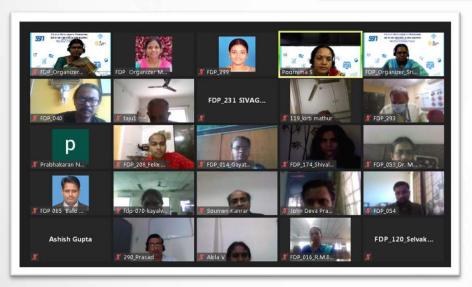
- November 2, 2020 Dr. V. Venkatesh from Chennai Mathematical Institute gave a good start to the FDP through his introductory talk on "Data Analytics Key Enablers and Associated Challenges" covering the basics of big data and its storage challenges. Dr. E. M. Malathy ASP, SSNCE added to this session by highlighting the challenges in acquiring data specifically in Wireless Networks. The following session was on "Data Preprocessing Concepts" with interesting demonstrations from Mr. N. V. Laxmi Narayen, Data Scientist, Logitech.
- November 3, 2020 Professor A. Kannan from VIT, Vellore gave detailed lecture on "Supervised Machine Learning Techniques" followed by a demo on applying SVM to agricultural applications " Early Diagnosis of Plant Diseases" by Dr. S. Poornima, ASP, SSNCE. Dr. S. Mohanavalli, ASP, SSNCE gave a talk on "Applying Data Science in Unsupervised Learning" and illustrated the effect of statistical parameters in learning the patterns in a data population, using experimental runs with Spectral Clustering.

- November 4, 2020 The day's session was on the hot topic of analytics -"Deep Learning". Dr. Vijay John, from Toyota Technological Institute, Japan shared an interesting ongoing project in Toyota research lab during his talk on "Fundamentals of Deep Learning and their application to Autonomous Driving". The second session of that day was on "Deep Learning Models for & Demo" Real Time **Applications** was content rich. with Professor. Shahina's explanation about RNN concepts followed by Dr. N. Sripriya's lucid illustration on working of CNN with demonstrations for using CNN and RNN on Medical images and Text processing.
- November 5, 2020 Mr. S. Vigneshwaran, Tax Consultant, Ernst & Young demonstrated the power of visualization through his talk titled "Data Visualization Concepts & Tools". The second session was an interesting and interactive session with active participation on "Tableau Interactive Demo" by Dr. K. B. Sundhara Kumar, SSNCE.
- ❖ November 6, 2020 Mr. C. Sricharan, Team Lead, GAIN Credit gave a talk on concepts employed in "Sustainability of Machine Learning / Deep Learning Models". Dr. K. B. Sundharakumar gave another interesting session on "Deployment of Machine Learning Pipelines in Cloud" in the scope of reusability and abstraction of ML models by end users.

The feedback from the participants were really encouraging. A sample of the feedback received - "A nice FDP program, with time-related Title and its components as sessions. The Program feathered all the speakers enriched knowledge during their delivery. The mix of Industry and SSN speakers & sessions, has been chained appreciably well, which endeavoured continued learning curve". The event was felt to be successful in providing an opportunity for the audience to acquire the skill set required to transform data in to useful decision models.







FDP ORGANIZERS:

- Dr. S. Mohanavalli, ASP
- Dr. N. Sripriya, ASP
- Dr. S. Poornima, ASP
- Dr. E. M. Malathy, ASP

STTP ON AI IN HEALTHCARE

The six-day virtual Short Term Training Programme (STTP) on "AI in Healthcare" was organized by the Department of Information Technology, SSNCE, during 14–19 December, 2020. There were 445 registrations and about 216 participants from nearly 85 different institutes across the globe participated in the programme virtually. The plethora of sessions on AI in Healthcare was handled by 13 internal speakers and 7 external speakers from various Industries and Anna University.

Day 1 (14-12-2020)

The forenoon session was handled by Dr. R. Srinivasan, Professor, Department of IT, SSNCE, who gave an introductory talk on "Zero shot learning". The afternoon session was handled by G. B. Pon Manivannan, Principal Technology Leader and Head, L&T Technology Services who discussed on "Power of AI in leverage of the Healthcare system".

Day 2 (15-12-2020)

Dr. P. Vijayalakshmi, Professor, Department of ECE, SSNCE, gave a talk on "Speech disorders" followed by a session by Ms. Madhura, Saama Technologies who delivered a brief talk on "Federated Learning". The post lunch session was handled by Dr. Swaminathan, Professor, College of Engineering, Anna University on behavior and cognitive modeling.

Day 3 (16-12-2020)

Dr. A. Shahina, Professor, Department of IT, SSNCE handled a session on "DNN for Healthcare application". The session had its focus on automated Glaucoma detection using different Neural Networks. Dr. C Aravindan, Professor, Department of CSE, SSNCE handled a session on "Deep learning techniques for Computer Vision". The session on "Segmentation of Coronary Arteries from CTA Axial Slices using Deep Learning Techniques" was handled by Dr. Mirunalini, ASP, Department of CSE, SSNCE.

Day 4 (17-12-2020)

The morning session was handled by Dorai Thodla, Founder/CTO Technology Strategies LLC, CA. It was on "Building Chatbot for Medical Applications" which provided an insight on how to build chatbot using Dialog Flow. It was followed by a talk by Dr. P Vasuki, ASP, Department of IT, SSNCE on "AI-based aids for fighting Diabetes". The post lunch session was handled by an industry expert Mr. Senthil Kumar followed by a session on "Medical Image Processing using ML" by Dr. T. Sree Sharmila, ASP, Department of IT, SSNCE and Ms. Beulah, AP, Department of CSE, SSNCE.

Day 5 (18-12-2020)

The day started with a presentation by Dr. A Kavitha, Professor and Head, Department of BME, SSNCE on "AI in the diagnosis of Neurodegenerative Disorders". The session on "AI for epilepsy detection" was handled by Dr. Pravin Kumar, ASP, Department of BME, SSNCE and Mr. Vignesh Baskaran, Senior Data Scientist, Clarivate, Brussel.

Day 6 (19-12-2020)

The session on Smart Healthcare was handled by Dr. N. Bhalaji, ASP, Department of IT, SSNCE who highlighted many smart devices to monitor health of people. It was followed by a session by Dr. K. B. Sundharakumar, AP, SSNCE who covered "Application of Generative Adversarial Networks in Health Care". The post lunch session was handled by Dr. T. Shanmugapriya, ASP, Department of IT, SSN CE on "Privacy in Healthcare". It was followed by session on "Data Visual Analytics" by Mr. Vignesh Lokanathan, Senior Business Intelligence Analyst, Cardiff, Wales, UK.

EVENT ORGANIZERS:

- Dr. P. Vasuki, ASP, IT
- Dr. T. Sree Sharmila, ASP, IT
- Dr. T. Shanmugapriya, ASP, IT
- Ms. J. K. Josephine Julina, AP, IT



Awareness:

Dr. T. Sree Sharmila, ASP, conducted an awareness program on "IEEEXtreme – A 24 Hour competition". The program was lead by Mr. Murugappan S, Software Engineer, Google (Alumnus) on 11th October, 2020.

The main purpose of this program was to provide a brief insight into "IEEEXtreme" and what all it entails for the beginners. Mr. Murugappan shared his own experience with the competition and talked about the various perks and exposure students might gain through these 24 hour Competition. He also walked through some of the general topics one might stumble across at such competition. "It was in some ways better than the shorter competitions as there is more time to learn and apply it", he said.

The program ended with a doubt session and and it left a positive impact on students. Dr. T. Sree Sharmila winded up the session with a thank you note and students had a clear picture of what and how IEEEXtreme happens.

Competition:

The IEEE Xtreme 14.0 24-Hours Programming Competition was hosted by Department of Information Technology inassociation with SSN IEEE Student Branch in online mode. A total of 9 teams (27 participants) participated in this event and the details of the top 3 teams from department of IT are as follows:

Team details	Rank
Team name: Enigmatrix, Team members: Harrison	International: 99 Region:44
Team name: WonkruJuveniles, Team members:Abhaya Jajula , Arun Laxman A,	Country: 8 International: 505 Region: 279
Team name: Piedpipers,Team members: Jothika Raja, Aishwarya Vaikundam, Harshini S	Country: 65 International: 900 Region: 461 Country: 158

SMART INDIA HACKATHON



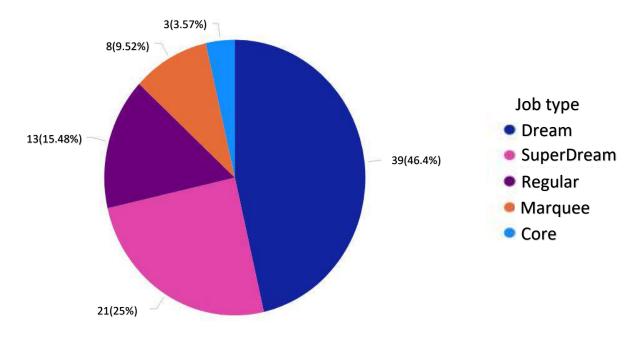
- Mr. V. Arulkumar, AP, Ms. J. K. Josephine Julina, AP, and Ms. S. Vidhusha, AP, were part of the Organizing committee for the Grand Finale of Smart India Hackathon (SIH) 2020 edition.
- ❖ Dr. S. Chithra, ASP, acted as Evaluator for the Grand finale event of "Smart India Hackathon 2020" on 22-07-2020.
- Dr. T. Sree Sharmila, ASP, acted as a Jury and Mr. V. Arulkumar, AP, acted as a Proctor in Virtual Grand Finale of SIH-2020 software edition at SSN College of Engineering during 1-3 August, 2020.

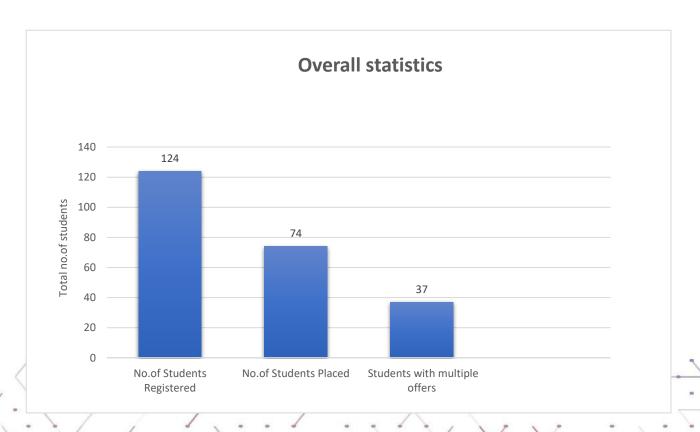


PLACEMENT STATISTICS

(2021 BATCH)

The below graph showcases the percentage of students who got placed under various categories.





CATEGORIES:

DREAM:

Company Name

Deloitte

Ford Motor

Gain Credit

LatentView.

托斯

Mad Street Den

NPCL

Oracle

Power of N

TATA Consultancy Services

ThoughtWorks

Verizon

ViewZen and CDFI

ZoomRX Health Care

SUPERDREAM:

Company Name

Accolite

Amadeus

Barclays

Citibank

Dell

Mckinsey

Optum

Thorogood

CORE:

Company Name

ComCast

REGULAR

Company Name

Infosys

L&T Technology Services

Legato Health

Mu Sigma

MARQUEE :

Company Name

Amazon

Goldman Sachs

Microsoft

PayPal

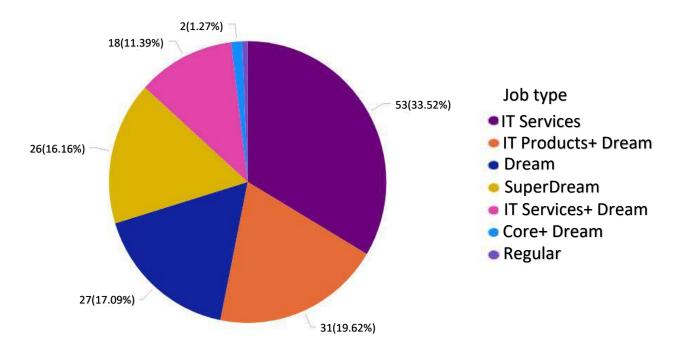
SALARY OFFERED:

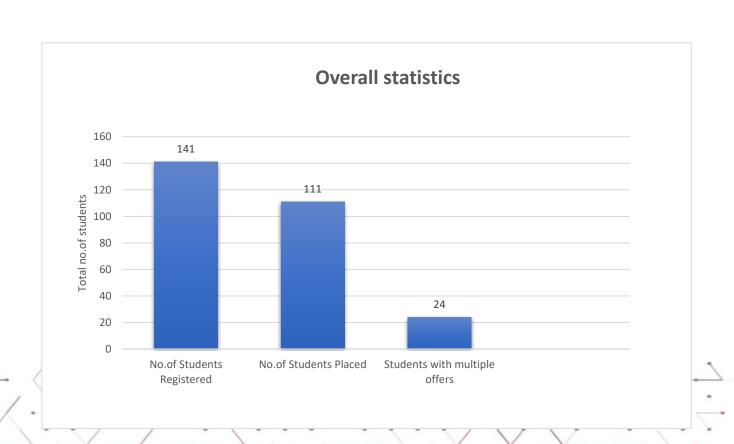
Company Name	Job Type	Salary (In Lakhs) ▼
Microsoft	Marquee	44.00
Amazon	Marquee	30.00
Amazon	Marquee	29.50
Goldman Sachs	Marquee	23.00
PayPal	Marquee	23.00
Citibank	Super Dream	13.70
Optum	Super Dream	12.09
Accolite	Super Dream	11.00
Optum	Super Dream	11.00
Amadeus	Super Dream	10.00
Barclays	Super Dream	10.00
Dell	Super Dream	10.00
Mckinsey	Super Dream	10.00
Thorogood	Super Dream	10.00
Gain Credit	Dream	8.98
ThoughtWorks	Dream	8.30
LTI	Dream	8.00
Deloitte	Dream	7.60
Mad Street Den	Dream	7.50
TATA Consultancy Services	Dream	7.20
Verizon	Dream	7.15
ViewZen and CDFI	Dream	7.00
LTI	Dream	6.50
NPCI	Dream	6.20
ComCast	Core	6.00
Oracle	Dream	6.00
Power of N	Dream	6.00
Ford Motor	Dream	5.50
LatentView	Dream	5.50
ZoomRX Health Care	Dream	5.50
Legato Health	Regular	4.50
L&T Technology Services	Regular	4.00
Infosys	Regular	3.60
Mu Sigma	Regular	3.50

PLACEMENT STATISTICS

(2020 BATCH) /

The below graph showcases the percentage of students who got placed under various categories.





CATEGORIES:

IT SERVICES:

IT SERVICES + DREAM:

Company Name

Acies Global

Capgemini

Cognizant

DXC Technology

FASTLAB

Freshworks

HCL

Hyundai Mobis Technical Center-India

Infosys

Neeyamo

NSEIT

Pick Your Trail

SysArc Infomatix Pvt Ltd

TATA Consultancy Services

Company Name

Capgemini

L&T infotech

CORE + DREAM:

Company Name

Saint-Gobain

WABCO

REGULAR:

Company Name

Power of N

SUPER DREAM:

Company Name

Accolite Software Pvt. Ltd.

Citibank

Lynk Logistics Ltd

Mckinsey

NAVIS

NIELSEN INDIA

Optum

PayPal

Think & Learn (BYJU S)

Thorogood

Viasat

Vivriti Capital Private Limited

DREAM:

Company Name

BA Continuum India Pvt. Ltd

Flexicode Technologies

Ford Motor

Freshworks

Hexaware Technologies

Hippo Video

Infosys

LatentView

Mu Sigma

TATA Consultancy Services

TITAN

IT PRODUCTS+DREAM:

Company Name

ADF Data Sciences

Ajira Soft

Barclays

Flex

IBM

IBM (Associate Developer)

Lucid Software Limited

Lucid Technologies & Solutions

Mr.Cooper (NSM Services India Pvt LTD.)

Sirius Computer Solutions India Private Limited -

TransUnion

Zilker Technology India Pvt. Ltd

ZOHO

UNIVERSITY RANK HOLDERS



Chaluva Jwala Sowmika

CGPA-8.95

Rank-10



Megna Iyer D L CGPA-8.95 Rank-10



Sushmita Rajtilak V K CGPA-8.87 Rank-17



Harini M CGPA-8.86 Rank-18



Pasupuleti Rekha CGPA-8.86 Rank-18



Spandana J S N
CGPA-8.85
Rank-19



Varun Kumar P CGPA-8.84 Rank-20



Oviyaa M CGPA-8.82 Rank-22 **26**



Sri Hari Karthick N CGPA-8.80 Rank-24



THE BEST OUTGONG STUDENT AWARD



SUSHMITA RAJILAK (2016-2020)

RECEIVING THE BEST OUTGOING STUDENT AWARD - MY JOURNEY





I would like to begin by expressing my utmost gratitude towards the members of my Department who have been a family to me for the past four years. SSN has always been an enriching campus with a plethora of opportunities and platforms to develop our skills, showcase our talents and bring out the best in each individual. Every day at SSN has always been challenging and is a very fast-paced environment that demands diligence and effort. Pursuing my courses at the IT department was indeed demanding owing to the nature of the industry.

Along with academics, I have also been pursuing dance in the field of Bharatanaatyam, for the past 16 years, performing in many cities. After college hours, my average day would be packed with rehearsals. I always looked forward to taking part in Instincts, inaugural performances at various conferences and other inter-college competitions. I am grateful that all the faculty members always gave me the freedom to take part in extracurricular and co-curricular activities. Sometimes I had to miss a unit test or a model lab as I had dance shows or had to travel to other cities to perform. Along with rescheduling the tests, the department always encouraged me to pursue my passion.

Instincts and MELA were two of my most favourite events. The MELA by SSN Lakshya brought out a new passion in me, that is baking. I bought my own stall and sold cakes and savouries for two consecutive years. SSN had so many events and opportunities and it was up to us to make the most out of the platform provided. Internally Funded Projects, Poster Presentations, Paper Presentations at Conferences, Hackathons by various Institutes, a diverse range of Seminars and Webinars by professionals, alumni, the department and other organizations and Inter College Competitions summed up my last two years at SSN.

I would like to highlight the immense freedom given to students to take part and be a member of various clubs involving Entrepreneurship, Sports, Dancing, Singing, Theatre, Literature, Photography and conducting workshops, along with academics. They encourage all-round development in every individual which is not just constrained to books and hence, all my peers are phenomenal students in their own way.

Lastly, I am immensely grateful for this huge honour and recognition awarded to me and I shall always strive to keep the name and flag of SSN flying high. On the first day of college, at the orientation ceremony, I heard the words, "Welcome to the first day of the best four years of your life." I believed it to be a cliché statement at first but now, at the end of my four years at SSN, I can guarantee that that statement holds true and I wish I could relive my SSN days again. It has been an extremely fruitful and rewarding journey. I once again thank each and every member of the SSN family for giving me the knowledge, mentoring and guidance that inspires me to thrive as an IT professional and an all-round individual.

- Sushmita Rajilak



EVENT DESCRIPTION:

Alcrowd Blitz was an online competition in which the contestants were supposed to solve 5 Machine learning, Deep learning problems in a span of 15 days.

HIS EXPERIENCE:

I teamed up with a group of friends from another college and we ended up securing the 2nd place out of 2500 submissions. This was my first official ML online competition and it was a great learning opportunity for me.



SECOND POSITION AT RIT VIRTUAL HACKATHON

EVENT DESCRIPTION:

RIT conducted a virtual hackathon to encourage participants to come up with innovative solutions for persistent problems. It was a 24 hours hackathon where problem statements were given on spot. Evaluations were conducted via google meet and project code and description was to be submitted through GitHub and a YouTube video respectively.

THEIR EXPERIENCE:

Our team of 3, selected the chatbot stream and took up the statement of creating a chatbot for ordering meat products during the lockdown period. During the 24-hour contest time, our team underwent 3 evaluations where our progress was tracked and constructive suggestions were given. The results were announced after the contest and we are happy to have won the second prize. Looking forward to many more such contests.



SANJAY KUMAR K, III YR FOUNDER OF BOOKARY

DESCRIPTION:

Bookary is a startup aiming to bring the library to your doorstep. We are an online library that brings you the good-ole paperback books. We'll get you the books you've been dying to read from the libraries around you. We developed a website through which you can rent the book you want at a nominal price, and we will deliver it to you at your doorstep and the app is under development, logging onto it you'll be able to find the libraries around you and all you have to do is browse through the catalogue and find your book, and our book bearer will deliver it to you and pick it back when you are done reading. We believe this can resurrect the habit of reading in youth and children. If you are someone with an amazing collection of books and you are happy to lend it, you can become our lending partners and your books will make the money for you. We promise safe delivery of books. Why did we start? We all know libraries are extremely resourceful yet under-utilized at this digital age; we've gotten lazy to go to a library and read a book. Though we found alternatives like ebooks, despite the harmful effects of blue light and the cost of ebooks. Nothing could be compared to the satisfaction of reading a paperback book, so we thought why not get the books to readers at their home. How we started? We, a group of 5 engineering students participated in a Stackathon (A Startup hackathon) conducted by studymonk. Inc. Our idea "the library at the doorstep" got us runner up. And we got selected to the accelerator program by Studymonk. Inc to establish our startup in real-time.

CO-FOUNDERS:

A Sabareesh, Rohit K, Viswapriya G, Monisha J



DESCRIPTION:

ACM-W organized Online DevFest 2020 in the month of May. The participants were asked to create their own open-sourced projects using NLP, ML or a simple Python hack. It was a 2 day open sourced Hackathon.

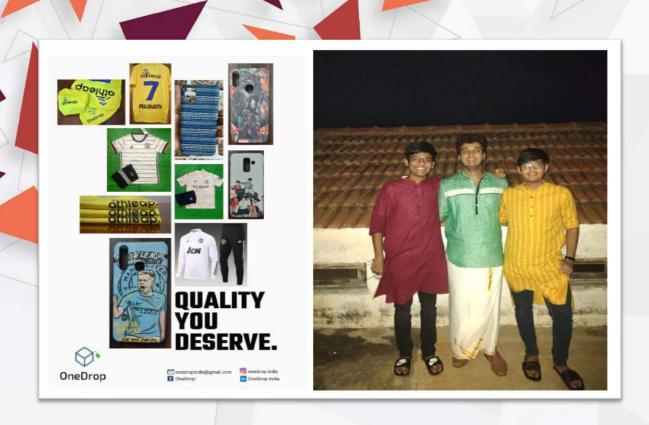
The developing skills of the participants were checked and the winning team's projects were merged into their Git repository. Developed HospitalBot (Winning Team). This is a bot created to provide hospital addresses in a pincode provided by the user. This bot makes use of the Hospital Directory dataset provided by data.gov.in. If general hospitals in your area are to be found, simply tweet tagging @HospBot and the particular pincode in which you want to find hospitals. Another additional feature is the bot can provide hospitals which are also COVID-19 testing facilities. Simply enter the city you're searching in while tagging @HospBot and the bot will provide you with the details. This bot works by using Twitter's unofficial API for Python, TweePy. Github Link: https://github.com/mahima1911/HospitalBot.



Won 1st position in OSINT-CTF at National Level Conclave on Cyber Policing Best Practices 2020 on 17th October 2020.

SEMI AUTOMATED OSINT TOOL - FOR THE INDIAN SCENARIO:

OSINT stands for Open Source Intelligence. It refers to intelligence that has been derived from publicly available sources. Social Media Intelligence (SOCMINT) is a sub-branch of Open Source Intelligence (OSINT), it refers to the information collected from social media websites. Though OSINT isn't limited to any geo-location, most of the tools(which are used to collect such public data and form a profile based on the entity's web presence) that exist in the current trend pertain to particular country/countries. This forms a major drawback when it comes to countries like India, where information is everywhere but there aren't much tools to gather what is required. The prime goal of Semi automated OSINT tool (SAOT) is to create an OSINT tool for the Indian scenario along with functionalities that cover the global scope as well and aid the government authorities in identifying and profiling probable suspects that may be involved in crime. SAOT is an application that aggregates information and provides a report to the user to cater their needs especially for the Indian Scenario. In this manner, SAOT eases the process of information gathering about individuals and/or the internet of things; reduces the time consumed in performing OSINT analysis by putting together many tools under "one roof"; overcomes the limitations that exist with most of the SOCMINT tools with respect to geographic location. SAOT shall be used by Law Enforcement Officers, Cyber Security Enthusiasts, Penetration Testers, Social Engineers, Intelligence Personnel, Recruiters, Insurance Investigators, Human Resources Personnel and Researchers.



ONEDROP

FOUNDER'S NOTE:

This is Yuvan Arvind from IT here. Two of my college friends from SSN, namely Tushar Shah from CSE and Jambunathan S from Chemical department founded a startup called OneDrop.

DESCRIPTION:

Quoting Dr. APJ Abdul Kalam, "To succeed in your mission you must have single-minded devotion to your goal." We the students of SSN College of Engineering present to you our goal, "OneDrop". OneDrop is a start-up founded by 3 second year SSN students with a goal to provide quality products at affordable prices to all our customers delivered at their doorstep! Dedication and perfection are the pillars on which we have started this company. Our first two launches are customisable phone cases and jerseys. Our products are sourced from quality vendors ensuring a hygienic environment.



BADRINARAYANAN M, III YR

FOUNDER OF HALCYON AI



DESCRIPTION:

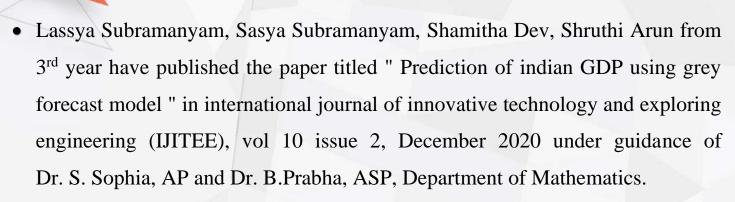
BadriNarayanan. M of III year IT has started a mobile application development startup company called Halcyon AI.

Halceyon AI is a tech startup that aims to build state of the art solutions using

- ✓ Machine Learning
- ✓ Deep Learning
- ✓ Artificial Intelligence
- ✓ Natural Language Processing
- ✓ Computer Vision
- ✓ Speech Signal Processing

- ✓ OpenCV
- ✓ Python
- ✓ Java
- ✓ C++
- ✓ AppDevelopment
- ✓ Website Development

 Sowmya K and Srinidhi S of final year presented the paper titled Identifying Influential nodes in Planar Trusses and Meshes using centrality measures at Second International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2020) organized by the Department of Mechanical Engineering, Velalar College of Engineering and Technology, Erode, Tamil Nadu, India on 20-11-2020.



 V. Laasya Subramanyam of III yr, got selected to represent the Telangana at Junior and Youth nationals to be held in the month of February 2021 at Indore/sonepat.

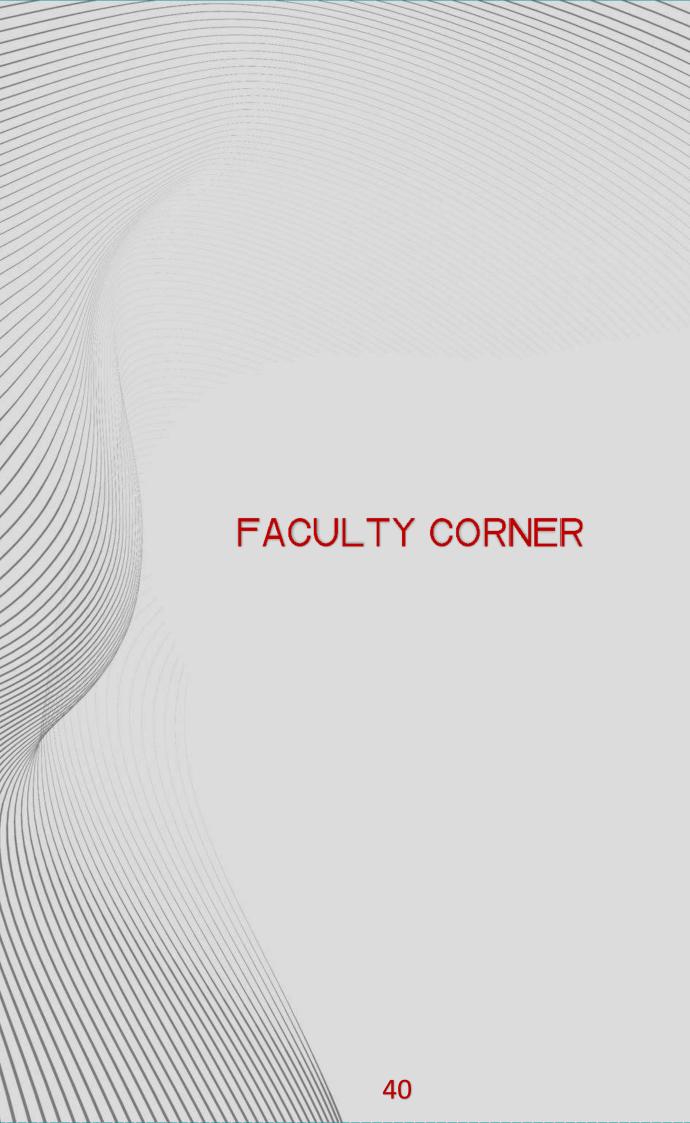


OTHERS









BEST TEACHER AWARD



The Department of Information Technology congratulates Dr. T. Sree Sharmila, ASP & Dr. I. Joe Louis Paul, ASP for receiving the prestigious Best Teacher Award on the Teachers' Day Program for the year 2018-19.





Ph.Ds AWARDED



Ms. J. Sofia Jennifer, AP, IT, scholar of Dr. T. Sree Sharmila, ASP, IT, successfully defended her thesis titled "Study and analysis of blink detection in real time human system interactions" on 13.08.20.



Mr. V. ArulKumar, AP, IT, under the guidance of Dr. N. Bhalaji, ASP, IT, successfully defended his thesis titled "Investigation on Task Scheduling Algorithms in Cloud Computing" on 22.12.20.



Mr. K. Kabilan, AP, IT, under the guidance of Dr. N. Bhalaji, ASP, IT, successfully defended his thesis titled "Certain Investigation on Performance Analysis of the Internet of things Protocol" on 29.09.20.



Ms. S. Vidusha, AP, IT, under the guidance of Dr. A. Kavitha, Professor and HoD, department of Bio-medical Engineering, successfully defended her thesis titled "Characterization and Classification of high functioning and low functioning autism using fMRI and Deep Belief Networks" on 14.12.20.

CERTIFICATIONS

	S.No	Name of the faculty	Online platform offering the course	Name of the course
8	1	Ms. J. K. Josephine Julina	Coursera	Computer Vision Image Basics with OpenCV and Python
	2	Ms. J. K. Josephine Julina	Coursera	End-to-End Machine Learning with TensorFlow on GCP
	3	Ms. J. K. Josephine Julina	Coursera	Machine Learning for Business Professionals
	4	Ms. J. K. Josephine Julina	Coursera	Image Processing with Python
	5	Dr. V. Thanikachalam	Coursera	Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
	6	Ms. R. Swathika, AP	NVIDIA Deep learning institute	Fundamentals of Deep learning for Computer vision
	7	Dr. T. Sree Sharmila	International Federation of Red Cross and Red	Disaster Response Emergency Fund Resources
	8	Dr. T. Sree Sharmila	Coursera	Introduction to Virtual Reality
	9	Dr. S. Chithra	Coursera	Introduction to C# programming and Unity









SANCTIONED EXTERNAL FUNDED PROJECT

 Radiation Resilient RF Receiver Front End Components Through SiGe BiCMOS: Design and Validation

The project submitted by Dr. R. Srinivasan, Professor, IT, Dr. V. C. Premanand, ASP, ECE and Dr. K. K. Nagarajan, ASP, ECE has been approved a funding of Rs. 30 Lakhs by Board of Research in Nuclear Science on 25.07.2020.

SUBMITTED EXTERNAL FUNDED PROJECTS

- Learning Online based on Human Computer Interaction and Biosignals LeBIOS
 - Dr. S. Vidhusha, AP, IT and research team member under Dr. A. Kavitha, Professor & Head, BME (Principal Investigator) submitted the project proposal under International Cooperation (Bilateral) call for India Portugal Joint Proposal scheme to DST-FCT on 30.07.2020.
- CyberKavach: An enhanced multi-modal deep learning-based application to predict cyberbullying incidents and safeguard adolescent students in India
 - Dr. S. Karthika, ASP and Dr. T. Sree Sharmila, ASP have submitted the project to SERB-POWER (Promoting Opportunities For Women in Exploratory Research) Research Grant 2021 on 21.12.2020.

 Swachh Bharat Abhiyan: Blockchain-based alert for Sanitation and Cleanliness awareness among Indian citizens

Dr. N. Bhalaji, Dr. S. Chithra and Dr. S. Karthika, Associate Professors submitted a project to Department of Science & Technology (DST) Technology Development & Transfer (TDT) Division Project Proposal under Waste Management Technology (WMT) Program on 30.11.2020

SMART KURAL KIT- Interactive Speech Interface for Thirukkural

The project has been submitted to Tamil Virtual University for a budget of Rs.7 Lakhs by Dr. P. Vasuki, ASP, Dr. N. Sripriya, ASP, Dr. T. Shanmugapriya, ASP and Dr S Sasirekha, ASP.

Al Health Care

A Proposal has been submitted for Anna University Sponsored FDP by Dr. Sree Sharmila, ASP, Dr. P. Vasuki, ASP, Dr. T. Shanmugapriya, ASP and Ms. Josephine Julina, AP.

 BOLAAC – Brain Computer Interface based Online Learning Assessment in ASEAN Countries

The Research Proposal has been submitted under DST-ASEAN Collaborative R&D Scheme on 31.10.2020 by Dr. N. Bhalaji, ASP (India), Dr. Allan Melvin (Malaysia), Dr. Patricia Angela R. Abu (Philippines).

 SMART (Specific Measurable Attainable Result oriented Assistive Technology) - Early detection of pre-eclampsia in rural Indian women

The Research Proposal has been submitted under the Biomedical Device and Technology Development Programme under – Technology Development Programme on 31.10.2020 by Dr. N. Bhalaji, ASP, Dr. S. Chithra, ASP, Dr. K. Kabilan, AP & Dr. T. Sabarinathan (MBBS,MD).

SANCTIONED INTERNALLY FUNDED FACULTY PROJECTS(IFFP-2020)

We thank the SSN management for their extended support and financial aid amounting **7.81** lakhs for the faculty.

Topic: Person authentication using Transient Evoked Otoacoustic Emission (TEOAE) signals with deep learning neural network architectures

Budget & Duration: 1.2 lakhs & 2 years

Name of the PI/Co-PI: Dr. A. Shahina, IT

Dr. T. T. Mirnalinee, CSE

Topic: A prediction system for pest and disease occurences in plant

Budget & Duration: 1.5 lakhs & 30 months

Name of the PI/Co-PI: Dr. S. Poornima, IT

Dr. N. Sripriya, IT

Dr. S. Mohanavalli, IT

Topic: A hybrid approach for query-based text summarization using deep learning

Budget & Duration: 1.10 lakhs & 2years

Name of the PI/Co-PI: Dr. N. Sripriya, IT

Dr. S. Mohanavalli, IT

Dr. S. Poornima, IT

Topic: Privacy Manager

Budget & Duration: 2.21 lakhs & 2 years

Name of the PI/Co-PI: Dr. T. Shanmughapriya, IT

Dr. P. Vasuki, IT

Dr. S. Chithra, IT

Dr. Cherry Mathew Philipose,

English

Topic: Detection of COVID-19 cases using deep neural networks with X-ray images.

Budget & Duration: 1.20 lakhs & 2 years

Name of the PI/Co-PI: Dr. J. Sofia Jennifer, IT

Dr. T. Sree Sharmila, IT

Topic: A talking 3D AI teaching learning assistant for learning environment

Budget & Duration: 0.60 lakhs & 43 months

Name of the PI/Co-PI: Mr. A. Sandana Karuppan, IT

Dr. V. Arulkumar, IT

GUEST LECTURE DELIVERED

- ❖ Dr. T. Nagarajan, Professor & Head, IT, was invited to present a talk titled "Speech-to-Speech Translation System" in the ATAL FDP on Speech Processing using Deep Learning organized by Department of Electrical Engineering, Indian Institute of Technology Dharwad, Karnataka on 30-12-2020.
- ❖ Dr. A. Shahina, Professor, was invited by NIT Suratkal (Karnataka) to deliver a lecture on the topic "CNN and RNN for Cybersecurity applications", in the one-week short-term course they organized on "Cybersecurity and Deep Learning Applications" on 16th July, 2020.
- ❖ Dr. S. Karthika, ASP, has delivered a presentation in the title "Community mining in Social Networks" in the Department of Computer Science and Engineering, Panimalar Engineering College on 20-07-2020.
- ❖ Dr. N. Bhalaji, ASP, delivered a talk on "Introduction to Blockchain", "Demystifying Cryptocurrencies" and "Research Directions in Blockchain Technologies" at AICTE sponsored STTP on Blockchain technologies and applications on 31.07.2020 & 01.08.2020 organized by Sona College of Technology, Salem.
- ❖ Dr. I. Joe Louis Paul, ASP, delivered an invited talk on "Security aspects in Evolving Technologies 2 (Blockchain & IoT) for AICTE Training and Learning Academy (ATAL), Online Five Days FDP on "Cyber Security", organized by Department of Information Technology, St. Joseph's College of Engineering, Chennai on 28.08.2020.

- ❖ Dr. N. Bhalaji, ASP, delivered a talk on "Sneak Peek to Blockchain" in ATAL sponsored online Faculty Development Program titled Blockchain Ethereum on 01.09.2020 hosted by Mahendra Engineering College, Namakkal.
- ❖ Dr. N. Bhalaji, ASP, delivered a talk on "Demystifying Internet of Things" in ATAL sponsored online Faculty Development Program titled Internet of things held on 07.09.2020, hosted by KSR Institute of Engineering and Technology, Namakkal.
- ❖ Dr. N. Bhalaji, ASP, delivered a talk on "Beginner level exposure to Blockchain Technologies" in ATAL sponsored STTP on Blockchain technologies and its applications held on 15.09.2020, hosted by Sona college of Technology, Salem.
- ❖ Dr. N. Bhalaji, ASP, delivered a talk on "Cryptocurrencies in Academic perspective" in ATAL sponsored STTP on Blockchain technologies and its applications held on 16.09.2020, hosted by Sona college of Technology, Salem.
- ❖ Dr. S. Chithra, ASP, delivered a talk on "Research Directions in Blockchain Technologies" at AICTE sponsored STTP on Blockchain technologies and applications on 17.9.20 organised by Sona College of Technology, Salem.
- ❖ Dr. N. Bhalaji, ASP, delivered a talk on "Demystifying Internet of Things Protocol" in a webinar conducted by ACM Chennai, IEEE CS Madras and CSI Chennai on 06.10.2020.
- ❖ Dr. N. Bhalaji, ASP, acted as Special Guest speaker and delivered a talk on "Handshaking of AI and Cybersecurity" in International webinar "National Strategies for Cybersecurity" conducted by Centre for Cybersecurity Research and Innovation, Nepal, on 10.10.2020.

- ❖ Dr. I. Joe Louis Paul, ASP, delivered an invited guest lecture on "Security Requirements and Challenges in Internet of Things (IoT) during COVID-19 A Review" organized by the Department of Information Technology, St. Joseph's Institute of Technology, OMR, Chennai on 17.10.2020.
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Deep learning for Cybersecurity" in AICTE Sponsored Two Weeks Online Faculty Development Program(FDP) On "Deep Learning In Image And Computer Vision Applications", organised by Sri Krishna College of Technology, Coimbatore on 03.11.2020
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Research Directions for Blockchain" in AICTE-STTP titled "Demystifying Blockchain Technology and Cyber Security Threats, Issues and Challenges", Organised by S.A. Engineering College, Chennai, on 21.11.2020
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Deciphering Blockchain Technology" in AICTE-STTP titled "Challenges and Research Directions for Blockchain in IoT", Organised by Sona College of Technology, Salem on 27.11.2020.
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Demystifying the Blockchain" in AICTE-STTP titled "Demystifying Blockchain Technology and Cyber Security Threats, Issues and Challenges", Organised by S.A. Engineering College, Chennai on 30.11.2020.
- ❖ Dr. S. Chithra, ASP, has delivered a talk in the AICTE sponsored STTP on "Demystifying Blockchain Technology and Cyber Security threats: Issues and Challenges" on 30.11.20 organized by Department of Computer Science and Engineering, S.A. Engineering College, Chennai

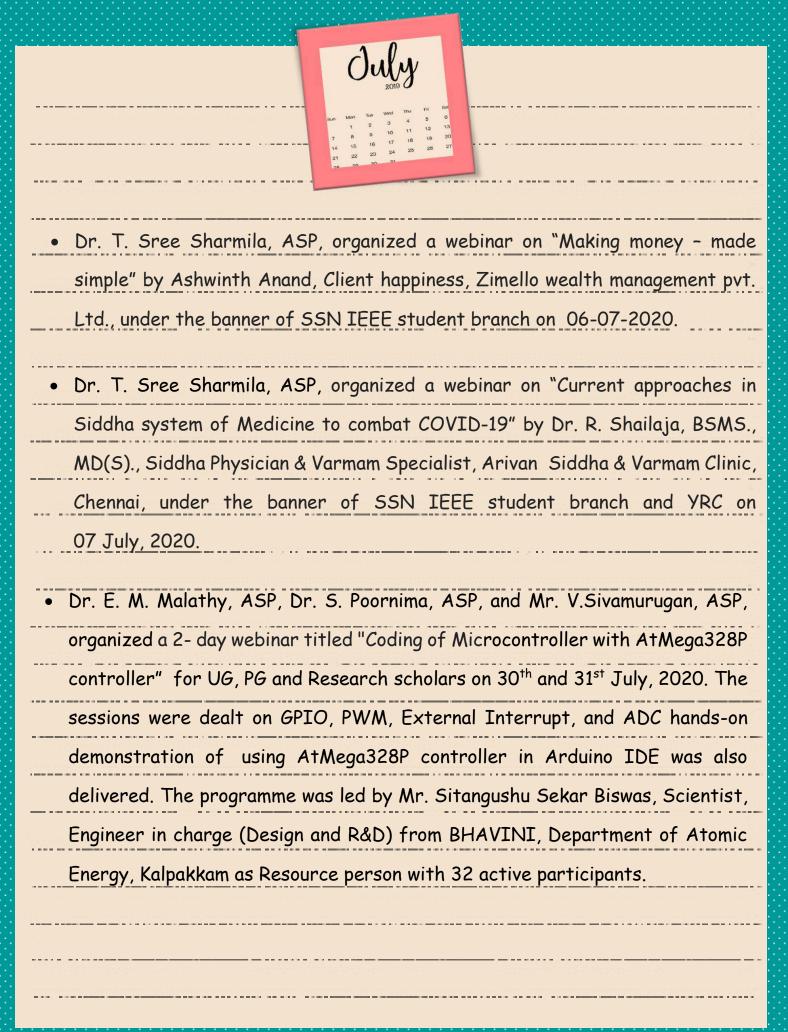
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Deep Learning for Cybersecurity" in AICTE sponsored Five Days Online ATAL FDP on Deep Learning for Cyber Security on 02-12-2020, held at Sri Venkateswara College of Engineering (SVCE), Chennai.
- ❖ Dr. S. Chithra, ASP, has delivered a session on "IoT layered Protocols" in AICTE

 ATAL Sponsored Online FDP on "INTERNET OF THINGS (IoT)" on 4.12.20
 organized by Department of CSE, Sairam college of Engineering, Chennai.
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Research Directions in Blockchain" in AICTE Sponsored STTP CSE SAEC Demystifying Blockchain Technology and Cyber Security Threats, Issues and Challenges on 05.12.2020 organised by S. A. Engineering College, Chennai.
- ❖ Dr. N. Sripriya, ASP, delivered a talk titled "Deep Learning" in the AICTE -AQIS sponsored STTP on "Artificial Intelligence and Machine Learning Algorithms for Cyber Security Solutions- Phase-2", conducted by Department of Information Technology, S. A. Engineering College on 11.12.2020.
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Demystifying the Blockchain" in AICTE Sponsored STTP CSE SAEC Demystifying Blockchain Technology and Cyber Security Threats, Issues and Challenges on 14.12.2020 organised by S.A.Engineering College, Chennai
- ❖ Dr. S. Chithra, ASP, has delivered a talk on the topic "IoT, Blockchain and Industry 4.0" in the AICTE sponsored Short Term Training Program (STTP) on Challenges and Research Directions for Blockchains in the Internet of Things organized by Sona College of Engineering, Salem on 18.12.20.

- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Handshaking of AI and Cybersecurity" in AICTE Sponsored Two Weeks Online Faculty Development Program on "Deep Learning in Image and Computer Vision Applications" on 18.12.2020 at Sri Krishna college of Technology, Coimbatore.
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Deciphering Blockchain" in AICTE sponsored online STTP on "Challenges and Research Directions for Blockchains in the Internet of Things" held on 18.12.2020 organised by Sona College of Technology, Salem.
- ❖ Dr. N. Bhalaji, ASP, has delivered a talk on "Research Directions in Blockchain" in AICTE Sponsored STTP CSE SAEC Demystifying Blockchain Technology and Cyber Security Threats, Issues and Challenges on 19.12.2020 organised by S. A. Engineering College, Chennai.
- ❖ Dr. S. Mohanavalli, ASP, has delivered a talk on "Unsupervised Learning and Applications" in the One day virtual workshop jointly organized by Department of CSE, Mohamed Sathak A J College of Engineering, Chennai, Tamil Nadu & Mohamed Sathak Engineering College, Kilakarai, on 29.12.2020.
- ❖ Dr. S. Poornima, ASP, has delivered a talk on "Introduction to Machine Learning and Supervised learning" in the one day virtual workshop jointly organized by Department of CSE, Mohamed Sathak A J College of Engineering, Chennai, Tamil Nadu & Mohamed Sathak Engineering College, Kilakarai, on 29.12.2020.
- ❖ Dr. N. Sripriya, ASP, has delivered a guest lecture on "Journey from Machine Learning to Deep Learning" in a one day virtual workshop on "Machine Learning" jointly organized by Department of CSE, Mohamed Sathak A.J. College of Engineering and Mohamed Sathak Engineering College on 29-12-2020.

WEBNARS AND SEMINARS CONDUCTED

>>>>>>>>>>>>>>>





- Mr. A. SandanaKaruppan, AP & Dr. V. Arulkumar, AP, organized a seminar on "Trending technologies - Cloud and Devops" by Ramkumar Rathinam, Hewlett Packard on Aug 21, 2020, 02:00 PM under Cloud Computing Working Group (C2WG).
- Mr. A. SandanaKaruppan, AP & Dr. V. Arulkumar, AP, organized a seminar with hands-on session on "Load balancing in AWS" by Mukundaraman. V, Solution's Architect, Crayon Data on Fri Aug 28, 2020, 2 PM - 3:30 PM under Cloud Computing Working Group (C2WG).



 Dr. T. Sree Sharmila, ASP, conducted a webinar on "SPONGE Leadership Lessons" presented by Dr. Ambi M G Parameswaran, Brand Strategist, Founder, Brand-Building.com on 26-09-2020 under the banner of SSN IEEE Student Branch.



 Dr. R. Srinivasan, Professor, IT, was invited to deliver the talk titled "Mathematics in Art" under IEEE WIE on 10-12-2020. The event was organized by Dr. S. Karthika, ASP.

PAPER PUBLICATIONS

- ❖ Ms. S. Umamaheswari, AP, under the guidance of Dr. A. Shahina, Professor, has published the following journal paper: S. Umamaheswari, A. Shahina, A. Nayeemulla Khan, "A Study on the Impact of Lombard Effect on Speech Systems Using CNN", Archives of Acoustics, Vol. 45, No. 3, pp. 419–431 (2020) (Clarivate Analytics, Impact Factor: 1.34)
- ❖ The journal manuscript authored by R. Yugha and Dr. S. Chithra, ASP, titled "A survey on technologies and security protocols: Reference for Future Generation IoT", accepted for publication in the Journal of Network and Computer Applications, Elsevier, is available online from 12-08-2020.
- ❖ The paper authored by Ms. S. Umamaheswari, AP, under the guidance of Dr. A. Shahina, Professor, has been accepted for publication and the details are as follows: S. Umamaheswari, A. Shahina, A. Nayeemulla Khan, "Understanding Lombard Speech: A Review of compensation techniques towards improving Speech Based Recognition Systems", Artificial Intelligence Review (Clarivate Analytics, Impact Factor: 5.942).
- ❖ Mr. V. Sivamurugan, ASP and Dr. P. Indumathi, Professor, ECE, MIT, published a paper titled as "An enhanced OCT image captioning system for ophthalmologists in detecting and classifying eye diseases" in the Journal of X-Ray Science and Technology, Vol.28, no.5, pp 975-988 during September 2020. (IF:1.662).
- ❖ Dr. N. Bhalaji, ASP and M. V. Ranjith Kumar has published the following article: "Blockchain-Based Chameleon Hashing Technique for Privacy Preservation in E-Governance System", Wireless Personal Communication (2020). (Indexed in Clarivate Analytics with IF = 1.06) (Online).

- ❖ The paper authored by Dhivya S, Jenifer Anjali R, Mohanavalli S, Sripriya N, Kavitha S, titled "Investigations of Shallow and Deep Learning Algorithms for Tumor Detection" was presented in IEEEHYDCON-2020. (virtual biennial signature conference of IEEE Hyderabad Section) held during 11-12, September 2020.
- ❖ The paper authored by Dhivya S, Mohanavalli S, Karthika S, Shivani S, Mageswari R, titled "GAN based Data Augmentation for Enhanced Tumor Classification", was presented in the 4th IEEE International Conference on Computer, Communications and Signal Processing (ICCCSP 2020) conducted by Department of IT, SSNCE during 28-29, September 2020.
- ❖ The paper authored by Sripriya N, Poornima S, Mohanavalli S, Pooja Baiya R, Nikita V, titled "Speech-based Virtual Travel Assistant for Visually Impaired", was presented in the 4th IEEE International Conference on Computer, Communications and Signal Processing (ICCCSP 2020) conducted by Department of IT, SSNCE during 28-29, September 2020.
- ❖ The paper authored by Dr. S. Karthika, ASP, and the student authors R. Meenakshi, A. K. Buvanasri and V. Arjun Anand for final year B.Tech, IT titled "PeopleXploitToolstack for Open Intelligence" was presented in the IEEE International Conference on Computer, Communications and Signal Processing (ICCCSP 2020) conducted by Department of IT, SSNCE during 28-29, September 2020.
- ❖ The paper authored by Dr. E. M. Malathy, ASP, Mr. V. Sivamurugan, ASP, and the student author Sushmita Rajtilak of final year B.Tech IT titled "Performance Analysis and Enhancement to Biometric based Attendance System " was presented in the 4th IEEE International Conference on Computer, Communications and Signal Processing (ICCCSP 2020) conducted by Department of IT, SSNCE during 28-29, September 2020.
- ❖ Dr. V. Arulkumar, AP, presented a paper titled "Improving Elasticity in cloud computing using Predictive Algorithms" in IEEE Sponsored International Conference on Smart Technologies in Computing, Electrical and Electronics (ICSTCEE-2020) held at Reva University, Bangalore during 9-10 Oct 2020.

- Dr. V. Arulkumar, AP, presented a paper titled "Improving Elasticity in cloud computing using Predictive Algorithms" in IEEE Sponsored International Conference on Smart Technologies in Computing, Electrical and Electronics (ICSTCEE-2020) held at Reva University, Bangalore during 9-10 Oct 2020.
- Dr. S. Karthika, ASP, Janice Marian Jockim, Meghana K, Third Year UG students have presented the paper titled "Reel or Real Survey of Machine Learning to Adversarial Machine Learning Algorithms for Fake Content Detection in the Education Domain" in the 2nd International Conference on IoT, Social, Mobile Analytics and Cloud in Computational Vision and Bio-Engineering (ISMAC-CVB 2020), Elsevier, SSRN during 29-30 October 2020 held at St. Mother Theresa Engineering College, Thoothukudi.(Online Mode).
- Dr. V. Arulkumar, AP, presented a paper entitled "Asuurance on Data Integrity in Cloud Data Centre using PKI RDIC METHOD in the 4th International Conference(Online) approved by CRC press (Taylor&Francis Group) and sponsored by Government of India organized by KIET Group of institutions, Delhi-NCR, Meerut, Ghaziabad during 28-29 November 2020.
- Dr. N. Sripriya, ASP, presented a paper entitled "Unsupervised Extractive Text Summarization Using Hierarchical Clustering" in the AICTE sponsored International Online Conference on Current Trends and Challenges in Health Care Informatics and Technology organized by the Department of Computer Science and Engineering, K. S. R. College of Engineering during December 10-11, 2020.
- Ms. J. K. Josephine Julina, AP, IT presented a paper titled "Design of Compact Chargeable Device", co-authored by S. Avinash, P.G. Abinaya, S. Naveen of final year IT, in the International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS 2020), organized by St. Joseph's College of Engineering and Technology, Kerala during 10-11, December 2020.
- Dr. N. Bhalaji, Shanmuga Skandh Vinayak and Xiao-Zhi Gao presented an article titled "Analysis of Cryptocurrency Mining in Gaming Consoles" in 26th Annual International conference on Advanced computing and Communications" on 16.12.2020, held at NIT, Silchar.

ARTICLES REVIEWED

Dr. I. Joe Louis Paul, ASP, reviewed the following articles:

- ❖ International Journal of Reconfigurable and Embedded Systems on 01.10.2020.
- ❖7th International Conference on Electrical Energy Systems (ICEES 2021) on November 21, 2020.
- ❖ Arabian Journal for Science and Engineering (AJSE) Springer on December 21, 2020.
- Wireless Personal Communications Journal on December 30, 2020.

ACHIEVEMENTS

- ❖ Dr. T. Sree Sharmila, ASP, acted as a panelist on VCOP 2020: Virtual Conference Organizers' Panel organized by IEEE Bangladesh Section during 1-2 July, 2020.
- ❖ Dr. S. Sasirekha, ASP, has co-ordinated the open elective subject allocation process for the 7th semester students for all the departments.
- ❖ Dr. T. Sree Sharmila, ASP and Dr. L. K. Pavithra, ASP, VIT Chennai Campus have submitted the patent proposal titled "A Novel Texture Feature: Multi-resolution Radial Gradient Binary Pattern for Image Classification and Retrieval" to the SSN scrutiny committee.
- ❖ Dr. S. Karthika, ASP, attended Board of studies meeting for B.E (Cyber Security) in the Department of Computer Science and Engineering, SRM Valliammai Engineering College.
- ❖ Dr. N. Bhalaji, ASP, attended Board of studies meeting for B.E (Artificial intelligence and Data science) and M.Tech (Data science) in the Department of Information Technology, SRM Valliammai Engineering College.
- ❖ Dr. N. Bhalaji, ASP, has attended the Virtual Alumni Meet held on Sept 5th, 2020 organised by the Alumni Association of SSN via Airmeet platform.

- ❖ Dr. T. Sree Sharmila, ASP, participated in a month-long Training & project Build-a-thon program organized by IBM in collaboration with Smartbridge during 28 September, 2020 28 October, 2020.
- ❖ Dr. S. Karthika, ASP, has attended 3-day National Level Conclave on Cyber Policing Best Practices Meet 2.0 on 15th 17th October 2020 organized by CRCIDF, in collaboration with ISEA, CPF & IJM.

SCHOLAR RELATED

- ❖ Dr. T. Sree Sharmila, ASP, conducted the online doctoral committee meeting for submission of corrected thesis for her research scholar Ms. J. Sofia Jennifer on 15 July, 2020.
- ❖ Dr. S. Karthika, ASP, conducted online Synopsis meeting for her research scholar Ms. R. Geetha on 31-07-2020.
- ❖ Mr. K. B. Sundharakumar, Part-time Internal Scholar supervised by Dr. N. Bhalaji, ASP, has successfully defended his PhD thesis during the Viva Voce examinations held on 03.09.2020.
- ❖ Dr. N. Bhalaji, ASP, attended an online Doctoral Committee meeting held at SRMIST, Kattankulathur on 21.09.2020 for the scholar of Dr. RuhanBevi, ASP, ECE.
- ❖ Dr. N. Bhalaji, ASP, attended an online Doctoral Committee meeting held at VIT university, Chennai campus, on 11.09.2020 for the scholar of Dr. V. Neelanarayanan, ASP.
- ❖ Dr. N. Bhalaji, ASP, attended an online Doctoral Committee meeting held at VISTAS, Chennai on 30.09.2020 for the scholar of Dr. Mohammad Faisal, ASP.

- ❖ Dr. N. Bhalaji, ASP, conducted the doctoral committee meeting for suggesting subject experts for oral examination for his part time research scholar (internal), Dr. V. Arul kumar on 02.11.2020.
- ❖ Dr. T. Sree Sharmila, ASP, conducted the doctoral committee meeting for suggesting subject experts for oral examination for her part time research scholar, Ms. A. Beulah on 21.11.2020.
- ❖ Dr. S. Chithra, ASP, attended an online Doctoral Committee meeting held at SRMIST, Kattankulathur on 25.9.20 for the scholar of Dr. K. Venkatesh, ASP, IT.
- ❖ Dr. N. Bhalaji, ASP, conducted Doctoral Committee meeting for his parttime internal scholar Mr. A. Sandanakaruppan, AP, on 09.09.2020.
- ❖ Dr. S. Chithra, ASP, attended an online Doctoral Committee meeting held at SRMIST, Kattankulathur on 29.9.20 for the scholar of Dr. R. S. Ponmagal, ASP, IT.

FOPSAND WEBNARS

8



- Dr. I. Joe Louis Paul, ASP & Dr. S. Sasirekha, ASP attended a two days FDP on "Developing E-Content for Effective Teaching Learning Process" organized by the Department of Computer Science and Engineering, St. Joseph's College of Engineering, Chennai during 01-7-2020 & 02-07-2020.
- Ms. R. Swathika, AP, has participated in a two weeks online Faculty Development Programme on "Machine Learning for Computer Vision" jointly organized by Electronics and ICT Academies, IIITDM-Jabalpur during June 29 - July 8, 2020
- Dr. E. M. Malathy attended Faculty Development Program on "Preparing students for 21st Century Skills and Competencies in New Normal Education (NI Way)" organised by IETE Chennai Centre, National Instruments, Bangalore in association with SRMIST, Vadapalani, Chennai on 10 July 2020.
- Ms. J. K. Josephine Julina, AP, attended online FDP on "Applications of Image Processing" organized by Department of IT, St. Joseph's College of Engineering in association with National Centre for Coastal Research (NCCR), and Ministry of Earth Sciences, Government of India, NIOT Campus from 14-07-2020 to 18-07-2020.
- Dr. E. M. Malathy, ASP, attended a 3-Day Online Faculty Development Programme (FDP) on Internet of Things organised by NITK - Surathkal from 16th to 18th July 2020.

- Dr. V. Arulkumar, AP, attended "One Week online Faculty Development Programme on Machine Learning with Python" organized by Department of Computer Science and Engineering, Infomac, ACM & CSI Chapters' of KKR & KSR Institute of Technology & Sciences, Guntur, Andhra Pradesh from 13-07-2020 to 18-07-2020.
- Dr. E. M. Malathy, ASP, attended online FDP on Recent Trends in wireless communication and Signal Processing conducted by Saranathan College of Engineering Tiruchirappalli from 27.7.2020 to 29.7.2020.
- Ms. R. Swathika R, AP, Ms. J. K. Josephine Julina, AP, Mr. Sandanakaruppan, AP, attended online FDP on "Deep Learning Models and Applications" organized by Department of ECE, SSNCE during 20-07-2020 & 21-07-2020.
- Dr. T. Sree Sharmila, ASP, Dr. P. Vasuki, ASP, Dr. V. Arulkumar, AP and Dr. S. Vidhusha, AP, participated in an AICTE sponsored six days Short Term Training Programme (STTP)on "Cognitive Computing" organised by Department of Computer Science and Engineering, RMK College of Engineering and Technology during 20-25.07.20
- Ms. J. K. Josephine Julina, AP, attended the webinar on "Deep Learning Using Tensor Flow and Keras" organized by the Department of ECE, Agnel Institute of Technology & Design in association with PANTECH on 06-07-2020.
- Dr. T. Sree Sharmila, ASP, participated in the webinar on "FUTURE TECHNOLOGY OF ONLINE LEARNING" conducted by Department of Humanities, Coimbatore Institute of Technology, Coimbatore on 06 July, 2020.

- Dr. S. Vidhusha, AP, attended the webinar on "Open Book Examination Awareness - An Introductory Session" organized by Dept. of BME, SSNCE
- Dr. I. Joe Louis Paul, ASP & Dr. S. Sasirekha, ASP, attended a webinar on "VMware vRealize Network Insight Hands-on Lab" organized by VMware on 15-7-2020.
- Dr. V. Thanikachalam, ASP, attended one day webinar titled "Building and Deploying Machine Learning Pipelines" organized by IT Dept, SSNCE on 18-7-2020.
- Dr. T. Sree Sharmila, ASP, participated in the webinar on "Exploring the Educational resources of IEEE", organized by IEEE India Council on 18 July, 2020.
- Dr. T. Sree Sharmila, ASP, participated in the webinar on "Benefits of IEEE
 Membership" organized by IEEE Madras Section Membership Development
 Committee on 19 July, 2020.
- Dr. T. Sree Sharmila, ASP, participated in the webinar on "How to write effective HAC and SIGHT Proposal for IEEE HAC Projects 2020" organized by IEEE Humanitarian Activity Committee (HAC), IEEE India Council on 20 July, 2020.
- Dr. K. R. Uthayan, ASP, attended webinar on "Amazon Web Services", Code Magazine on 29-07-2020.
- Mr. V. Sivamurugan, ASP, attended an Open Session on "Bringing AI to the EDGE with NVIDIA Jetson Xavier NX" organized by PHYtec Embedded Pvt Ltd on 24th July 2020.
- Mr. V. Sivamurugan, ASP, attended an Open Session on "Cellular IoT Products from Neoway" organized by PHYtec Embedded Pvt Ltd on 3rd July 2020.

- Mr. V. Sivamurugan, ASP, attended an Open Session on "Technology Exploration - NBIoT to 5G with its use cases" organized by PHYtec Embedded Pvt Ltd on 01.07.20.
- Dr. V. Arulkumar, AP, attended the Capacity Building workshop on "E-Content Development for Digital Learning", organized by Dept. of EEE & ISTE-faculty chapter, SSNCE, from 27-07-20 to 29-7-20.
- Dr. V. Arulkumar, AP, attended National webinar on "Art of Writing an Effective Research Article" Organized by School of Engineering and Technology. CMR University. Bangalore. on 30.07.2020.
- Dr. S. Karthika, ASP, attended the webinar titled "X1 Social Discovery Best Practices" organized by X1 Discovery INC on 11-07-2020.
- Dr. R. Srinivasan, Professor, attended an online seminar on "Quantum Computing", given by Dr. Clarie Allison McLellan, Stanford University, and was organized by St. Joseph Engg. College, Chennai on 18-07-2020.
- Dr. S. Mohanavalli, ASP & Dr. N. Sripriya, ASP, attended a webinar titled "Deployment of Machine Learning Models in AWS using Flask Framework" on 4-7-2020 organized by Department of IT, SVCE.
- Ms. J. K. Josephine Julina, AP, attended a webinar on "Perspectives in Design Thinking" organized by the Department of ECE, SSN CE in association with Tata Elxsi on 22-07-2020.

- Dr. T. Sree Sharmila, ASP, participated in the One day international webinar on "Remote Sensing: Latest Trends And Perspectives" conducted by department of Computer Science and Engineering, Assam University, Silchar on 4th July, 2020
- Dr. P. Vasuki, ASP, Dr. S. Mohanavalli, ASP, Dr. N. Sripriya, ASP, Dr. I. Joe Louis Paul, ASP, & Dr. S. Sasirekha, ASP, attended a one day workshop on "Insights into Deep Learning Techniques" on 28-07-2020 organized by the Department of CSE, SSNCE.
- Dr. T. Sree Sharmila, ASP, participated in the national level online learning cum
 e-quiz programme, "TODAY'S TOOLS FOR TOMORROW'S TEACHING-TTTT"
 organized by department of education, IDE, University of Madras on
 5 July, 2020.





- Dr. N. Sripriya, ASP, has attended 10 days FDP on NLP, Web scraping, Recommendation System using Deep Learning during July 31- August 10 2020 organized by Edux Labs.
- Dr. V. Arulkumar, AP, attended FDP on "Data Science" Organised by Sathyabama Institute of Technology, from 6-11 August 2020.
- Dr. V. Arulkumar, AP, attended FDP on "Blockchain and AI Enabled Edge Computing", organised by Department of IT, P.S.G Institute of Technology, Coimbatore, from 19-21 August 2020.
- Ms. Swathika R, AP, attended FDP on "Deep learning networks and applications" organized by the IEEE Madras Section from 26-08-2020 to 29-08-2020.
- Mr. V. Sivamurugan, ASP, attended "2020 IEEE Sensors Council Summer School at NSYSU" on 29th and 30th August 2020.
- Dr. S. Chithra has participated in three days Virtual Workshop on "Aspects of Outcome based Education and use of software" organized by SVCE, Chennai from 6.8.20 to 8.8.20.

- Dr. V. Arulkumar, AP, attended STTP on "Cloud of Things: Theoretical and Practical Implications", organized by Ambedkar NIT Jalandhar, from 10-14th August 2020.
- Dr. S. Chithra, ASP, and Dr. N. Bhalaji, ASP, attended "A Two Day Webinar on IoT security (WISE) organized by C-DAC, Hyderabad and SETS, Chennai, during 28th - 29th August 2020.
- Ms. J. K. Josephine Julina, AP, attended the webinar on "Opportunities and Challenges for Artificial Intelligence" organized by IEEE - Product safety Engineering Society, Madras Chapter on 04-08-2020.
- Dr. T. Sree Sharmila, ASP, participated in the webinar on "Role of Indian Space Program in New Space Age" organized by IEEE India council on 08 August, 2020.
- Mr. V. Sivamurugan, ASP, attended a Webinar talk on the title "Optical Coherence Tomography" on August 8, 2020 organized by Department of BME, SSNCE.
- Dr. J. Sofia Jennifer, AP, attended an online International Webinar on 'Neutrosophic Sets' organized by the Department of Mathematics, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam held during 03-04 August, 2020.
- Dr. S. Karthika, ASP, participated in the ACM SIGKDD Conference Data Science in India on 28-08-2020.



- Dr. E. M. Malathy, ASP, attended AICTE ATAL FDP on "Internet of Things" from September 21 - 25, 2020, conducted by College of Engineering, Anna University.
- Ms. J. K. Josephine Julina, AP, attended the ACM India Webinar Series on Education: "Transitioning from physical classrooms to online instruction" on 01-08-2020.
- Dr. S. Poornima, ASP, attended a Webinar on "Continuing Professional Development for Teachers" conducted by SSN College of Engineering, English Department on 29-09-2020.
- Dr. K. R. Uthayan, ASP, attended a Webinar on "State of .NET Cognitive Services, AI, Machine Learning" organized by Code Magazine on 30-9-2020.
- Dr. S. Karthika, ASP and Dr. N. Bhalaji, ASP, attended the EC-Council Academia Series Access webinar on 30-09-2020.



- Ms. Josephine Julina J. K, AP & Ms. S Uma Maheswari, AP, attended a 5-day FDP-Online Workshop-on Universal Human Values for Student Induction (FDP-SI) during 19-10-2020 to 23-10-2020.
- Dr. S. Mohanavalli, ASP and Dr. N. Sripriya, ASP, attended the DST-SERB sponsored workshop on deep learning for healthcare conducted by Department of CSE, SSN CE, on 9th October 2020.
- Ms. J. K. Josephine Julina, AP, attended the webinar on "Design Patterns: A Quick Introduction" organized by CSI, ACM & IEEE CS Chennai Chapters on 14 October 2020.
- Ms. J. K. Josephine Julina, AP, attended the webinar on "Introduction to Git" organized by CSI, ACM & IEEE CS Chennai Chapters on 20 October 2020.
- Dr. T. Shanmughapriya, ASP, attended webinar titled "Introduction to Blockchain Technology - For Privacy and Security Professionals" conducted by IAPP local chapters on 22.10.2020.



- Dr. T. Sree Sharmila, ASP, Dr. S. Karthika, ASP, Dr. V. Thanikachalam, ASP, Dr. P. Vasuki, ASP, Dr. T. Shanmugapriya, ASP, Dr. N. Radha, AP and Ms. R. Swathika, AP, attended the Faculty Development Programme on "End-to-End Processes in Data Analytics", held during November 02 06, 2020, at the Department of Information Technology, SSNCE, Kalavakkam.
- Ms. Josephine Julina J. K., AP, attended 6-Days Faculty Development Programme
 (FDP) on "Niching methods on Multi Modal Applications" organized by Department
 of Electronics and Instrumentation, SRM Institute of Science and Technology
 from 16.11.2020 21.11.2020.
- Dr. V Arulkumar, AP, has attended the Six Days AICTE Sponsored Online Short-Term Training Programme on "Leveraging the Power of Serverless Computing: Architectural and Economic Impact, Research Challenges and Issues" organized by Department of Computer Science and Engineering, Kongu Engineering College during 02.11.2020 - 07.11.2020.
- Dr. S. Karthika, ASP, Dr. S. Mohanavalli, ASP, Dr. N. Sripriya, ASP and Dr. S. Poornima, ASP have attended 2-day Online National Level Workshop on Role of Machine Learning and Deep Learning in Cyber Security conducted by Department of Computer Science, SSN CE on 27th and 28th November 2020.

- Swathika R, AP attended one day International webinar on "Basics of Image Processing and its Mathematical Insights" on November 30, 2020 organized by St. Joseph University, Dimapur, India.
- Dr. N. Bhalaji, ASP, attended "The Inaugural Raj Reddy Artificial Intelligence Lecture" held virtually at Carnegie Mellon University, USA on 18.11.2020.
- Dr. S. Poornima, ASP a Webinar on "Green Energy Solutions with DC Appliances
 & Smart Micro Grid" conducted by IEEE Madras Section SAC & IEEE Student
 Branch of St, Joseph's Institute of Technology on 10th Nov, 2020.



- Dr. T. Sree Sharmila, ASP participated in AICTE Training and Learning (ATAL)
 Academy Online FDP on "Quantum Computing" conducted by
 Muthayammal Engineering College (Autonomous) during 7-11 December, 2020.
- Dr. S. Poornima, ASP, Dr. N. Sripriya, ASP, Dr. S. Mohanavalli, ASP, Dr. S. Karthika, ASP and Dr. N. Radha, AP, attended One-week online Short Term Training Programme on "AI in Healthcare" held during 14.12.2020 to 20.12.2020 at the Department of Information Technology, Sri Sivasubramaniya Nadar College of Engineering.
- Dr. S. Mohanavalli, ASP, Dr. N. Sripriya, ASP and Dr. S. Poornima, ASP, have
 participated in a two-day International Workshop on "Deep Learning Models and
 its Applications" organized by the Department of Electronics and Communication
 Engineering, SSN College of Engineering, December 8-9, 2020.

Non-Teaching Staffs Achievements

- Mr. V. Guru Prasad, Mr. K. Kumar, Mr. M. Devarajan and Ms. S. Selvi, Lab Assistants has assisted in the First year admission certificate scanning process.
- ❖ Mr. M. Arunprasad, Lab Assistant has assisted throughout the UG admission for the academic year 2020.
- ❖ Ms. R. Umamageswari, Junior Executive, Mr. V. Guru Prasad, Mr. M. Arunprasad, Mr. S. Ramesh, Mr. K. Kumar, Mr. M. Devarajan and Ms. S. Selvi, Lab Assistants have assisted in the data entry and consolidation of faculty recruitment application forms.
- Mr. V. Guru Prasad and Mr. S. Ramesh, Lab Assistants have assisted in the editing work of FDP recording on 11-11-2020.
- ❖ Mr. V. Guru Prasad, Mr. M. Arunprasad, Mr. M. Devarajan and Mr. K. Kumar, Lab Assistants are the technical assistants for Orientation Program of 1st Year Students from 19/11/20 to 03/12/20.
- Mr. M. Arunprasad, Lab Assistant created the mail template for CoE, for dispersing individual draft mark sheets for verification.
- Mr. M. Arunprasad and Mr. V. Guru Prasad, Lab Assistants created the certificate template for the Research Scholar's Symposium conducted in the department on 3-11-2020.
- ❖ Mr. V. Guru Prasad & Mr. M. Arunprasad, Lab Assistants has assisted in the payment process for SNU stock from 4-11-2020 to 10-11-2020.

- Mr. V. Guru Prasad, Mr. M. Arunprasad, Mr. S. Ramesh, Mr. K. Kumar, Mr. M. Devarajan and Ms. S. Selvi, Lab Assistants has assisted in the SNU stock register entry.
- Mr. S. Ramesh, Lab Assistant has updated the website of the International Conference on Computer, Communication and Signal Processing 2021 (ICCCSP 2021).
- Mr. S Ramesh, Mr. V. Guru Prasad, Ms. S. Selvi and, M. Devarajan, Lab Assistants have assisted in the formatting of ICCCSP 2020 conference papers during December.
- Mr. M. Devarajan, Lab Assistant, has assisted in the filing of Final Year Mark Sheet and Degree Xerox Copy Filing on 15-12-2020.
- Mr. V. Guru Prasad, Lab Assistant has created the certificate template for the STTP titles AI in Healthcare conducted in the department during December.
- Mr. M. Arunprasad, Lab Assistant assisted CoE for Meritrac Question Paper Formatting during December.
- Mr. S Ramesh Lab Assistants has done the NAAC AQAR online Data upload work done from 8-12-2020 to 10-12-2020.
- Mr. M. Devarajan, Lab Assistant, IT has completed the online course "Bits and Bytes of Computer Networking" in Coursera during October 12 -November 16 2020 (6 Week Course).

- Mr. V. Guru Prasad, Mr. M. Arunprasad, Ms. S. Selvi, Mr. M. Devarajan, Mr. K. Kumar, Mr. Ariyanayakasundaram C, Mr. S. Ramesh have assisted in the online counseling process for I year B.E/B.Tech students.
- Ms. S. Selvi, Mr. Ariyanayakasundaram C, Mr. M. Devarajan, Mr. K. Kumar, Mr. M. Arunprasad, Mr. V. Guru Prasad, Mr. S. Ramesh have assisted in the online examination conducted for the lateral entry students.
- Mr. V. GuruPrasad, Lab Assistant, has attended the Webinar on The Essential Guide to Event Management Technology.
- Mr. M. Devarajan, Lab Assistant, has attended the webinar on Introduction to SQL on 8-12-2020.
- Mr. M. Devarajan, Lab Assistant, has attended the webinar on Introduction to Software Quality Assurance on 10-12-2020.
- Ms. R. Umamageswari, Junior Executive, has complete the online course titled "Excel skills for business" offered in Coursera.
- Ms. S. Selvi, Lab Assistant, has attended the Launch of Employee Self Service Programme on 23-12-2020.
- Ms. S. Selvi, Lab Assistant, has assisted in the Projector fitting and installation work done in the Alan Turing Lab.



ALUMNI TALK SERIES

SEPTEMBER 2020

The alumni Association of the Department of IT conducted a "Three-day Alumni Talk Series" from Sept 12 to 16, 2020. We invited 3 distinguished alumni from 3 completely different fields to provide light on different domains after our graduation.

ALUMNI TALK-1



The first one was on Entrepreneurship which is still a field where there is very less awareness and Mr. Sagar Modi (2009 batch) gave an enchanting speech about the exhilarating aspects in Entrepreneurship Mr. Sagar is currently the Managing Director of Synergy Security Systems which is headquarter at Chennai.

In his speech he explained us the challenges he has to face to promote his concept of digital locking system as he has to compete with world level leaders of digital locking like Godrej and Schlage.

He went on to tell us that studying the market to make calculated investments is the key to success in Businesses. He is also an active member of the program "Make in India" introduced by our Prime Minister.

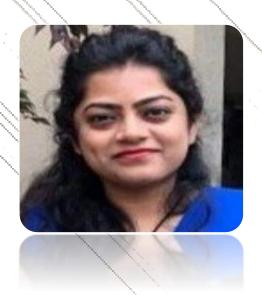
ALUMNI TALK-2



On Sept 14th we had a talk on the scope of "Higher education and career opportunities in the Software Industry" from Mr. Jayaram Hariharakrishnan (2019 batch) who gave us new insights about the future of higher education, the pros and cons about Indian Higher education and finally about the advantages of MBA over MS.

He gave a rock-solid method about how we could be the masters of shaping our future and the importance of doing a masters for the booming IT sector. He is currently pursuing his PGDM at SP. Jain in the domain of Marketing Management.

ALUMNI TALK-3



The trilogy talk series concluded with the Mrs. Madhumitha (2015 batch) giving a wider perspective about the current trending effect of Machine language and Artificial Intelligence on Sept 16th. She pursued her masters at the prestigious Carnegie Mellon University.

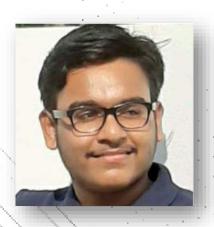
She went on to give the students a better knowledge about the importance of learning the basics and provided a solid method for a newbie to start a career in ML& AI. She is currently working in Wayfair as a Business intelligence analyst.

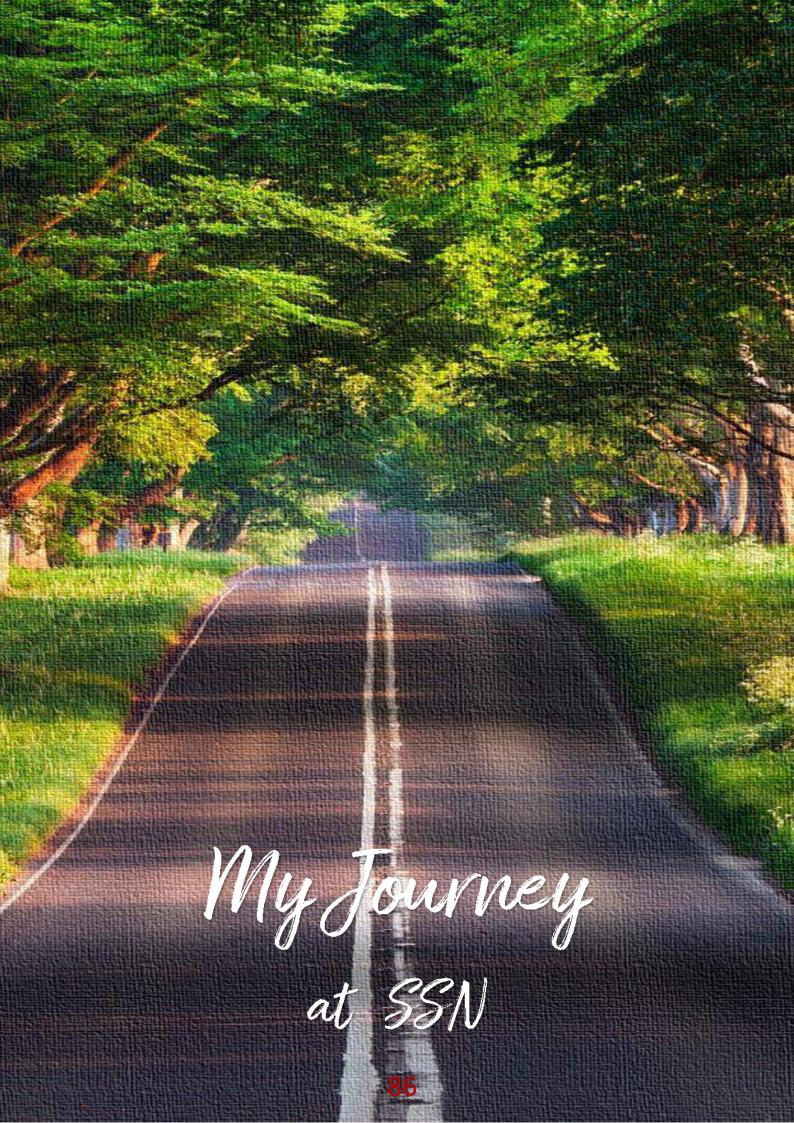
A paramount observation was throughout this entire Alumni talk trilogy, the Alumni's we invited were really eager to share their insights about their respective specialization despite their busy time schedule and to add this grave COVID-19 pandemic. They were really happy to meet the faculties and were more than happy to

see many students interested in listening to their talks. I hope more events like this will be conducted in the forthcoming years and we will strive to improve the Student Alumni interaction of our department.

I want to convey my heartful thanks to Dr. P. Vasuki and Dr. Balaji Natarajan for actively supporting and helping us to make this event a grand success.

-Vasudhevan S IT-B 2nd year





It gives me immense pleasure to introduce K. B. Sundharakumar, he spent a decade with SSN, from Undergraduate to PhD. He is not an alumni but an integral part of our institution. When every MNC was at his doorstep, Sundharakumar decided to do teaching which speaks volume about his dedication and commitment to impart knowledge for future generations. His diligence and path breaking teaching methodology earned him a place in SSN Advanced Career Education as Assistant Professor. His area of interests comprises Data analytics, Data mining and Machine learning. There are a lot of pupils under his tutelage today and it gives me great satisfaction that one of our students is following our footsteps.



-Mohanavalli S, ASP

My Journey at son

Usually you would have come across people writing stories like "My journey to...". But I am writing this article as "My journey in SSN" because of my long-term association with SSN. I (like most of you) didn't aspire to become an engineer but the marks I scored made my dad to force me to take up engineering because of the trend. My neighbour was studying her second year at SSN who told me about the college and the various facilities available. So, I told my dad that I would join engineering only if I get a seat in SSN, otherwise I would join Mathematics program elsewhere (as I was so attached to mathematics that I actually wanted to do B.Sc (Maths). Comparing my score with previous year cut-offs, I thought I wouldn't get a seat in SSN. But fate had other ideas. Physics exam was tougher and the cut-offs had dropped down slightly. I got a seat in SSN in B.tech, IT.

My journey started in the year 2009. I can tell with pride that I am the only one (so far) who have taken all the possible roles in SSN (except watchman role., that is how my PhD supervisor would make fun of me). I joined B.Tech, IT in SSN (2009-2013) and from there I did my M.Tech, IT once again in SSN from 2013-2015. After a small break of 6 months, I came back to SSN in Jan 2016 as a full time research scholar once again in IT department and now I am an Assistant Professor in SSN. I can read the mind-voices of all of you asking "how on earth is this possible?"

IT IS POSSIBLE BECAUSE IT IS SSN

AND

MORE SPECIFICALLY ITS 'IT' DEPARTMENT

I think all of you will agree at some point in your lifetime that schools and colleges are the places where you have plenty of memories (96 movie Déjà vu?). Coming back to my journey, I was very lucky enough to have a great gang of friends and the best of the faculty members who handled the classes for us. I was inclined towards teaching right from my school days (inspired by some of my school teachers). Right from my second year at SSN, I thought that there is enough scope for me to become a professor and I started to travel in that direction. I volunteered for few seminars which my faculty members allowed. I was also lucky enough to interact and conduct some seminars for my juniors which reduced much of my stage fear. My friends were also supportive and asked me to take teaching as a career and motivated me in every possible way. They appreciated my passion towards teaching and encouraged me.

Now that I decided to pursue my career in teaching, I went to my dad, who once said do engineering for my sake and then you can do anything you want. He kept his words and permitted me to pursue M.Tech since that is the first step required to become a Prof. When I was looking for options to do M.Tech, I learnt that the curriculum was revised (modified in 2013) and it had all the updated topics such as Data analytics, Big Data, IoT, etc. I thought this is going to be a wonderful opportunity as I can learn everything from scratch. But when I decided that I would do M.Tech also in SSN, many people (including my parents and some teachers) were like: "Petromax lite eh dhanvenuma?". Some even asked me to do MS abroad. But I was determined to do Masters in SSN because I already know the infrastructure here (also I was a known face in the department).

For PG lab, the systems were also newly purchased in order to cater to the newer technologies. So, we had to set up the entire labs by ourselves. This provided yet another advantage for me as I learnt everything by doing. It was all practical in PG. We also had a chance to do research and I utilized every single item that would help me to land up a teaching job or do a PhD. We had to attend some conferences and I also got a chance to organize a workshop in IT department. I also had a chance to do my research internship in Ericsson during my PG. As soon as I finished my PG, I got a job as an Assistant Professor in another well-known college. But my heart always wanted me to go back to SSN somehow. So I took a risk by quitting the job and came back to SSN as a research scholar. Not to forget the bus journeys to and from. It is always a joyful ride and it feels like going on a trip with lot of guys in the bus, playing some games like literature, mafia, etc. To top it all, I was always the one who is elder to every single student in the bus. So naturally, I got all the respects. I know this is already lengthy but this is such a feeling which cannot be expressed in a single article. My journey is still continuing in SSN as I am now an assistant professor and I am very happy to have followed my passion. Another happiness is that I still stay connected to my mentors, my professors and also with lot of students (through projects/hackathons), constantly learning new things as you know learning never stops.

-K. B. Sundharakumar



To the place that is a dream to many,

To the place that not just teaches, but gives us wings

To explore, learn, grow and inspires us

To achieve and succeed in anything and everything, not just academics,

To the place that feels like home,

Filled with fun and memories,

To the heaven called SSN, I owe what I have grown to become today,

And I feel proud to call myself an SSNite.

Having had the best of times, who would ever want it to end?

Who would not miss the beautiful campus and the awesome time with friends?

Who would not wish to go back to this carefree life that had no worries?

Who would not wish to re - live those times again?

I am sure I am not the only one who misses college,

And what better way for an art lover to express this, than an artwork of that awesome place!

-K.N.Keertthana (2019 Batch)





JOURNEY TO MICROSOFT

The beginning of our third year meant the hunt for internships would soon begin and we had to start preparing to make the most of the opportunities presented to us. The first company on-campus was Goldman Sachs. We were super excited and nervous. I got through the coding round and went on to the face to face interviews, after which I faced my first job rejection. I had my hopes high for the next company which was to come on-campus - Citi Bank. The same loop repeated once again and it was quite disappointing to be rejected once again since no other companies were planning to come on-campus rest of the year. Nevertheless, I was persistent with my prep and was hoping more good opportunities would turn up in the future.

A few months later, I got an opportunity to try for the off-campus intern recruitment drive-One Test by Microsoft through a senior's referral. The first round was an online coding round. I got through this round and had a phone interview. I got the results a month later and was invited to the onsite interviews which were to be held on the main campus in Hyderabad. It was an amazing experience by itself. Right from the beautiful campus tour, interactions with the recruitment team, engineers, fellow students and of course - all the free food!!! We had a group fly round followed by two rounds of interviews with elimination after each. This was followed by the longest hour of my life spent prancing up and down the office waiting for the results. It finally came out and I was on cloud nine to be among the selected interns.

After seeing the beautiful campus, meeting the friendly enthusiastic team of people working there, and hearing amazing intern experiences from my seniors, and reading blogs online, I was eagerly waiting for the day I'll go back to Hyderabad. But life, as we know, was never the same since that one fateful day in March when the lockdown was announced which has now extended infinitely. We were all pretty confused about how these internships would take

place and there was a lot of uncertainty around it. Luckily, most companies decided to make internships virtual and there we were- the first batch of graduates to do our entire summer internships virtually.

- I was initially super skeptical about how things were gonna work out virtually, right from forming a bond with my manager, mentor and fellow interns to completing an entire project online from the scratch with guidance just through phone calls or Team meets. All these doubts were shattered after our smooth onboarding process, and it was just as easy to discuss anything and everything with our mentors, understand our projects and get our doubts clarified. I was part of the Azure Automation team and had to work on a project with Machine Learning and Software Engineering involved. It was a totally new experience since I had to work on a fresh ML problem that hasn't ever been solved before. It had no dataset and we didn't even know which features we would need for the model, unlike most online contests where we usually have a pre-existing dataset readily available for use. It was super exciting to do tons of research to figure out possible features to solve the problem while talking to several team leads since the relevant data existed across their protected databases. It made me understand the importance of balancing the art of learning to do things by yourself and asking for help from the right person when needed. It was a great learning experience to understand how to write industry level code and the art of documenting everything you do for anyone to understand later. Having free, unlimited access to the Azure cloud led me to explore the numerous features they have and I was spellbound by how advanced the tech was and how it scaled to billions of users every day. It was super challenging and exciting to integrate code written in different languages together for a single functional unit.
- It was a pretty hectic internship owing to the fact that we were working from home with no limits on working hours, nevertheless, I enjoyed every minute. Apart from the technical aspects, we had fun sessions and games with our fellow interns every week and game nights within each team. I also had the chance of having one on one conversations with some very senior members and it was truly a humbling experience to see how they've progressed into

Leading such a huge company from starting as interns there. After 7 weeks of a super exciting internship where I learned and unlearned a lot followed by the final grueling week with several reviews with different teams and one on one interviews for selecting FTEs, the entire process finally came to an end. Finally, I got the PPO two weeks later when the results were announced. It was one of the happiest moments of my life.

To all my juniors reading this, the whole intern/job hunt can be extremely challenging at times. Might sound extremely cliche when I say this, but out of personal experience I've found this to be absolutely true - 'Failure is the stepping stone to success'.Don't let failures demotivate you. Don't stop trying when you face rejections. Keep persevering hard and you'll definitely get your dream job. Good luck!



MEGHNA N
IT-A
FINAL YEAR

MYEXPERIENCE

AS

ANAMAZONINTERN

Towards the end of my 6th semester, I attended a Tech fest at MIT, Chennai. The competition I took part focussed mainly on competitive programming and the top four participants were awarded the opportunity to interview with Amazon. Much to my dismay, I couldn't pursue this as the HR couldn't fit me into a six month time frame, typically suited for a final year student.

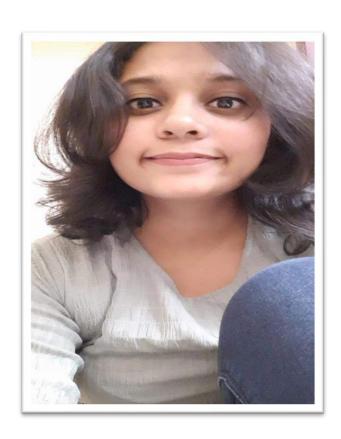
Fortunately, another opportunity came my way, this time at CEG, Anna University. Out of 21 teams that participated, my team came first and hence I was offered the opportunity to intern for the company.

Upon receiving my offer letter, I was assigned a mentor that mapped me to the Amazon Kindle Team, here at Chennai. Over the course of the first week I was asked to familiarize myself with the nitty gritties and the crux of the tasks that were set for me for the next 2 months. My learning during this time was tremendous as I worked on several languages and platforms such as REACT, JS, SQL and so on.

Owing to the pandemic, my internship was completely virtual but the team and my mentor were extremely friendly and kept me posted and connected throughout. I would be exaggerating if I said everything sailed smoothly from April to June. There were times when I found myself running around in circles due to a tiny technical fault or a hardware malfunction. The Amazon Help Desk really came in handy during this. A man from Nigeria named 'Kevin Bonjo' sat with me for hours together and resolved all my issues and put up with almost all my tantrums.

On my last day, I was asked to present my work to the managers and the rest of my team. During the course of those 8 weeks, I was given complete freedom of design & implementation of my ideas and prompted even more so by my mentor to explore new venues. Out of all the perks, the fact that I got to work in close quarters with an extremely accomplished, cohesive and largely growing team of professional individuals has been a huge privilege for me.





AKSHAYA VENKATESAN

IT-A

FINAL YEAR

MY EXPERIENCE AS AN GOLDMAN SACHINTERN

Hi, I am Janani, from IT A 4 th year. To give you context about me as a person, I'm generally very lazy and wasted the first two years of my college (not recommended). I then attended a competitive programming workshop conducted by Murugappan, MS Vignesh and Rahul (our department alumni) - PROCODE, and that's when I learnt about it. But me being the lazy person that I am, failed to follow up on that and wasted time again and months later started attending the college coding club (SSN Coding Community).

To date, I'm thankful to the seniors who conducted the club meets because that changed my life. I got more interested in competitive programming towards the end of the 4th semester and avidly practiced (in Codeforces and Codechef) over the summer. But I did not know then that GS would be visiting in early July. So when I did find out, it was a bonus! I started preparing more and more every day and also changed the topics I focused on and the way I prepared. So at the time GS visited our college, I was in good shape for the interviews and thankfully, had luck as well by my side.

We had an online round that had questions from CS fundamentals and Data Structures and Algorithms, and I was able to do well in it (thanks to all the 16 hour days over the summer). A week later I had 3 rounds of interviews. The first interview was pretty chill. I was able to answer all the questions I was asked and had the feeling I made a good impression. The second round was very different. One of the questions the interviewer asked was based on a concept I was not aware of. So I asked him to explain the concept to me and then I answered his question. Because of this, I thought I had messed up and was sure I was gonna get rejected. But to my surprise, I was the first person that went to the next round, which went well too. After this round, I was hopeful that I would get the offer and in the end, was overjoyed to know that I had got it.

So the next phase was more important in my opinion. After getting the internship offer, I did not stop working. I took a break for a few weeks (a little over a month) and started doing competitive programming again. I also spent a little bit of time on college and personal projects. Then eventually came the intern, which was surprisingly very fun (I thought everyone in GS would be serious for some reason) and of course, I loved the overall experience. I made sure I put in my best efforts every day and I reaped its benefits eventually because I got a full-time offer as well.

I learnt something very important from this experience - being mindful of how you spend your time every single day is of the utmost importance. Realizing this and working consistently, I think, is what helped me in this journey.



JANANI IT-A





CLOUD TECHNOLOGY

Cloud technology is the delivery of computing services – including servers, storage, databases, networking, software, analytics and intelligence-over the cloud to offer faster innovation, flexible resources, and economies of scale. It is typically pay only for cloud services, helping lower operating costs and run infrastructure more efficiently for business and individuals

Cloud technology is named as such because the information being accessed is found remotely in the cloud or a virtual space. Companies that provide cloud services enable users to store files and applications on remote servers and then access all the data via the Internet. This means the user is not required to be in a specific place to gain access to it,

allowing the user to work remotely. Cloud technology takes all the heavy lifting involved in crunching and processing data away from the device you carry around or sit and work at. It also moves all of that work to huge computer clusters far away in cyberspace.

The Internet becomes the cloud and your data, work, and applications are available from any device with which you can connect to the Internet, anywhere in the world. Cloud technology can be both public and private. Public cloud services provide their services over the Internet for a fee. These services are a system of networks that supply hosted services. There is also a hybrid option, which combines elements of both the public and private services.

Regardless of the kind of service, cloud technology services provide users with a series of functions including:

- Email
- Storage, backup, and data retrieval
- Creating and testing apps
- Analyzing data
- Audio and video streaming
- Delivering software on demand

Cloud technology is still a fairly new service but is being used by a number of different organizations from big corporations to small businesses, nonprofits to government agencies, and even individual consumers. The cost of an average security breach for a company is a cool \$3.8 million. This figure rises to \$7.9 million for American companies with an average time of 196 days for the detection of the breach in the first place. Data security on the cloud is important because you're no longer in total control. If, for example, you choose to run your applications on either a public cloud, you're effectively putting your trust in a third-party.

This means you must stay on top of things and ensure that your cloud technology provider understands this responsibility. While it is certainly in the provider's best interest to ensure top-tier security for long-term business prospects, you must, as the client, also go the extra mile. Cloud-based software offers companies from all sectors a number of benefits, including the ability to

use software from any device either via a native app or a browser. As a result, users can carry their files and settings over to other devices in a completely seamless manner.

Cloud based services also make it possible for users to back-up their music, files, and photos, ensuring those files are immediately available in the event of a hard drive crash. It also lets users upgrade software more quickly because software companies can offer their products via the web rather than through more traditional, tangible methods involving discs or flash drives. With all of the speed, efficiencies, and innovations that come with cloud computing, there are, naturally, risks. Security has always been a big concern with the cloud especially when it comes to sensitive medical records and financial information. While regulations force cloud computing services to shore up their security and compliance measures, it remains an ongoing issue. Servers maintained by cloud tech companies may fall victim to natural disasters, internal bugs, and power outages, too. The geographical reach of cloud computing cuts both ways: A blackout in Delhi could paralyze users in Chennai, and a firm in Bangalore could lose its data if something causes its Pune-based provider to crash. As with any technology, there is a learning curve for both employees and managers. But with many individuals accessing and manipulating information through single portal, inadvertent mistakes can transfer across an entire system.

This cloud technology is the hot piece of cake in today's world of 21st century. As this technology is explored at rapid pace, it is an idle place to invest your time and gain knowledge out of it. This technology has a lot of job prospects and is also a greenish land for entrepreneurial venture.



ASHWATHS

IT-A

SECOND YEAR

AFUTUREWITHAI



R. ARUN KUMAR
IT-A
THIRD YEAR

Pilot

First, let us have a standard boring technical introduction to Al. Artificial intelligence (Al) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. With already booming technological breakthroughs and the pandemic boosting technological advancements, significant advances in Al have taken place, making it more complex and robust. Now, Al not only stands poised to hack humans and outperforms them in what were hitherto uniquely human skills. It also enjoys uniquely non-human abilities, which includes connectivity and update ability.

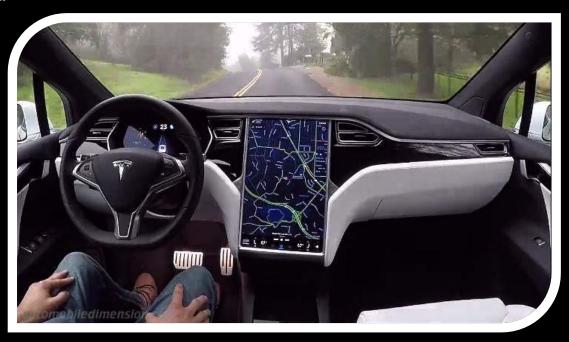


BumbleBee

One of the biggest challenges and applications of AI are self-driving cars. Self-driving cars are promising, here is the reason why. Currently, each vehicle on the road is an autonomous entity, when two vehicles approach the same junction at the same time, the drivers might miscommunicate their intention and the vehicles might collide. Self-driving cars on the other hand, can be connected to one another (irrespective of whether the car was manufactured by Tesla or Google).

When two such vehicles approach the same junction, they are not two separate entities, but rather a part of a single algorithm. The chances that they might miscommunicate and collide are therefore smaller. Self-driving cars can communicate with each other to provide a way for police, ambulances and other emergency vehicles. Further, any amendments in the traffic rules can be easily updated in all self-driving cars at the very same moment since they all are connected together.

Every year, approximately 1.25 million people are killed in traffic accidents and more than 90% of these accidents were caused by human errors. You see, the driver of the self-driving cars, the Artificial Intelligence algorithm, unlike humans, don't have the urge to drink alcohol, to fall asleep, daydream or text while driving, thereby significantly reducing the occurrence of driving-related accidents. Mind you, we still don't have the technology to make these possible, yet. Yes, there are autopilot features available in Tesla cars today which uses AI, but its potential is very restrictive. Although we could be cautiously optimistic as companies like Google, Tesla and Uber are working on complex versions of the self-driving cars which could be available to us sooner than we think.





The Good Place

Although a lot of work is still required to make self-driving cars a reality, it is interesting to see how scientists and engineers would solve or tackle the Trolley Problem'. Let us consider a modified version of the Trolley Problem where you are travelling alone in your self-driving car and all of a sudden five kids chasing a ball jump right in front of your car. Based on lightning calculations, the Al algorithm driving the car concludes that the only way to avoid hitting the two kids is to swerve into the opposite lane, and risk colliding with an oncoming truck, in which case there is 80% chance that the person/people present inside the car would be killed. This type of problems doesn't have any impact on human drivers because in times of crisis and split-second decisions humans forget about their philosophical views and follow their emotions and instincts instead. A human wouldn't know for sure what he/she would do in the Trolley Problem situation unless and until

he/she experiences the situation first hand, and moreover different outcomes might arise each time a human driver experiences this situation (Maybe the first time a person might instinctively decide to change the lane, but the next time he instinctively decides to run over the kids). But Algorithms do not have gut feelings, they have to be programmed to act in a certain way, which would make the self-driving car to decide whether to save the person in the car or the kids beforehand even before such situation arises. Would the car be programmed on the moral thoughts of Immanuel Kant? Would you want to buy a car that would save the kids by sacrificing yourself? Or would the scientist program the self-driving cars to protect the passengers no matter the cost?





Minority Report

The practicalities and potential of AI are limitless. But, it doesn't mean the AI is always correct and can be trusted upon. We are still in the initial stages of an AI revolution and a lot of work lies ahead. Let me share a tragic incident to support my stance. On October 2017, a Palestinian worker posted in his Facebook account a picture of himself in his workplace, alongside a bulldozer. Adjacent to the image he wrote 'Good morning!' An automatic algorithm made a small error when transliterating the Arabic letters. Instead of 'Ysabechhum!' (which means 'Good morning!'), the algorithm identified the letters as 'Ydbachhum!' (which means 'Kill them!'). Suspecting that the man might be a terrorist intending to use a bulldozer to run people over, Israeli security forces swiftly arrested him. He was later released after proving his innocence. The algorithm had made a mistake, it predicted a terrorist attack from a seemingly innocent man. This shows that even AI can make mistakes just like us.

The Terminator

With all its prospects, AI still hasn't taken away our jobs which we thought would happen. Right-wing leaders of the technologically superior western nations rant about the jobs in their countries being stolen by immigrants (primarily South Asians and Chinese) but none of them would blame the AI or Machine Learning Algorithms for the job loss. Significant research and developments are happening throughout the world, making AI more intelligent, powerful and robust every day. AI taking most of the human jobs is thus inevitable. But what if AI becomes more powerful? And more

intelligent? And more robust? What stops or saves us from a future AI-led apocalypse? Can we trust the AI in the future? Luckily for us, a research group at the Massachusetts Institute of Technology (MIT) recently, developed AI and Neural Network algorithms that can determine whether they can be trusted, and alert humans when they might be about to get something wrong. This self-awareness of trustworthiness has been given the name Deep Evidential Regression, and it bases its scoring on the quality of the available data it has to work with – the more accurate and comprehensive the training data, the more likely it is that future predictions are going to work out i.e as more higher quality data is made available, the ability of systems to accurately score their own trustworthiness will only improve. Thus with these advancements, it is time to reap the benefits of AI while hopefully averting a Terminator like situation in the future.



DATASCIENCE



KOUSHIKA PADMANABAN

IT-A
THIRD YEAR

I bet most of you would have heard of the term 'Data Science', is it as boring as it sounds one might think, well I'm going to break it down for you all and you can decide for yourself

The origin of Data Science dates back to 1962 when John Tukey wrote his book, The Future of Data Analysis where he talks about the convergence of statistics and computers, when outcomes were produced in hours, as opposed to the days or weeks it would take whenever done by hand. He is also popularly known for coining the term 'bit'. However, it was only in 1972, the expression 'Data Science' was used by Peter Naur in Concise Survey of Computer Methods where he defines it as:

"The science of dealing with data, once they have been established, while the relation of the data to what they represent is delegated to other fields and sciences."

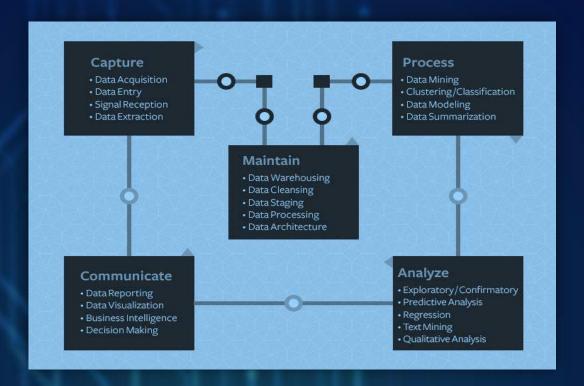
The definition of Data Science kept changing and now in 2020 it stands as a domain of study that deals with vast volumes of data using modern tools and techniques to find unseen patterns, derive meaningful information, make useful decisions and predictions. It is the intersection of three sectors - Substantive expertise, hacking skills, and math and statistics. Data science has recently been on the rise due to the enormous amount of data currently available and being generated. There is a little anecdote that describes the truly exponential growth of data generation we are experiencing. In the third century BC, the Library of Alexandria was believed to house the sum of human knowledge. Today, there is enough information in the world to give every person alive 320 times as much of it as historians think was stored in Alexandria's entire collection.



What do we do with all of this data? How do we make it useful to us? What are its real-world applications? These questions are the domain of data science.

Data science generally has a five-stage lifecycle that consists of:

- 1. Capture: Data acquisition, data entry, signal reception, data extraction
- 2. Maintain: Data warehousing, data cleansing, data staging, data processing, data architecture
- 3. Process: Data mining, clustering/classification, data modelling, data summarization
- 4. Communicate: Data reporting, data visualization, business intelligence, decision making
- 5. Analyse: Exploratory/confirmatory, predictive analysis, regression, text mining, qualitative analysis



Data science helps us achieve some major goals that either were not possible or required a great deal more time and energy just a few years ago, such as:

- Anomaly detection (fraud, disease, crime, etc.)
- Automation and decision-making (background checks, credit worthiness, etc.)
- Classifications (in an email server, this could mean classifying emails as "important" or "junk")
- Forecasting (sales, revenue and customer retention)
- Pattern detection (weather patterns, financial market patterns, etc.)
- Recognition (facial, voice, text, etc.)
- Recommendations (based on learned preferences, recommendation engines can refer you to movies, restaurants and books you may like)

In 2009, researchers at Google put data science in action and analysed 50 million commonly searched terms over a five year period, and compared them against CDC data on flu outbreaks. One of the benefits of data science and using big data is that it can identify correlations. They wanted to see if specific searches coincided with outbreaks of the flu. In this case they identified 45 words that had a strong correlation with the CDC flu outbreak data. With this data, they have been able to predict flu outbreaks based solely off of common Google searches!

Right now, our world has sunk deep into the ocean called data, with that there are several interesting problems to be solved. So buckle up, learn new skills and change the world.

References:

https://www.coursera.org/learn/data-scientists-

tools/ungradedWidget/HL1gS/what-is-data-science

https://www.simplilearn.com/tutorials/data-science-tutorial/what-is-data-science

https://builtin.com/data-science

https://ischoolonline.berkeley.edu/data-science/what-is-data-science/

https://www.edureka.co/blog/what-is-data-science/

https://whataftercollege.com/data-science/history-of-data-science/

DRAGON



So almost all of us reading this have phones, and spend our fair share of time with them every day. But like most other tech, mobile phones at their core essence are computers, and at the heart of every good computer, is a great CPU. I want to look about the newest addition to Qualcomm's snapdragon processor series, The 'snapdragon 888'.

Qualcomm is one of the leading manufacturers of smartphone processor chips and almost all the leading android smartphones (Like the OnePlus, Pixels, Samsungs. support snapdragon chipsets. They recently announced their next generation chipset and have pretty great claims about it. Other than the obvious performance boosts, let's take a look at the more interesting ones.

Camera:

The 888 is gonna have triple ISP (Image Signal Processor). It means the camera sensors will now have 3 cores (similar to what we have in our laptop CPUs, with 8–12 cores). This means that the phones with this chip will be capable of shooting videos from 3 different cameras simultaneously.



While this in itself might not be the most useful feature, its implications are more far reaching. This means, 3 frames from different cameras can be combined to give a better and closer to perfect final render of an image, making it far more better than what we are used to with current phones.

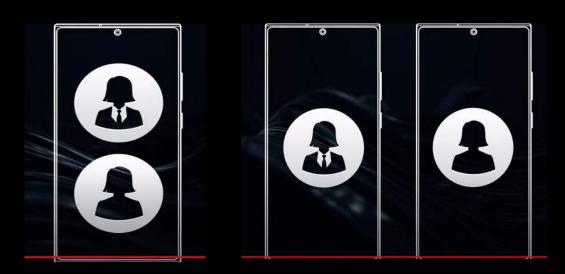




Another big way these chipsets are gonna affect Mobile Photography is with the speed of the ISPs. Most of us have noticed the time our phones take to process a portrait, or a night mode picture. Imagine reducing that time by at least 50%. Sound's cool right?

User Accounts:

All of us have seen some of our working relatives or friends maintain two different phones, citing that one was for work and one for personal use. Imagine having them both in a single device, kind of like running 2 different OSs in the same device(like running a Virtual Machine or having 2 Windows user profiles).





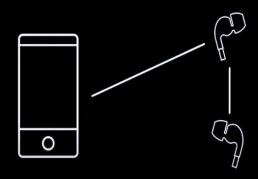
So our phones are gonna become powerful enough to pull that off. So you'd be able to share resources to have different profiles, with different app data and system settings, for handling different scenarios.

Connectivity:

So this might be a bit too technical to explain but try to stay with me here. All modern mobile devices are currently capable of using either 2.4Ghz and 5Ghz bandwidths. What this means is the number of roads your vehicles(data-packets) can flow through. 5Ghz has more parallel roads and hence less traffic, whereas 2Ghz might be a bit more congested. This has nothing to do with your internet speed, but instead directly affects what you'd call "Internet Traffic". So Higher the Ghz, less crowded the data transfer.

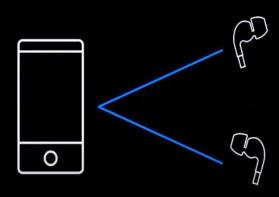
So what the snapdragon 888 promises is accessing **6Ghz** bandwidth capability. This means that very few other devices will be competing for your Wi-Fi and that you almost get your own exclusive bandwidth for data transfer. Along with this it also promises faster Wi-Fi on the currently existing 5Ghz bands than the earlier chipsets.

Then we have Bluetooth 5.2. This is pretty easy to ignore, but it is important for some of us, those who use earbuds/air-pods/ear-pods as our audio devices especially. So earlier what we had was, our phones send data to only one earbud and this earbud transfers it to the other one.





What Bluetooth 5.2 gives us simultaneous data transmission to both earbuds. This easily means lower latency and better coordination between both buds. So, the next time your enemy sneaks up on you in your Battle Royale game, you might just be aware enough to make it out alive.



So keep your eyes wide open for mobile phones from your favorite brands sporting this chipset, and you might be among the first to ride this wave of next generation mobile computing.



V MEGANATHAN IT-A SECOND YEAR



Remember 2020



DIVYAR

IT - A

THIRD YEAR

Remember 2020? How can one even forget 2020.....For most, if not all of us churn our wheels forward digitally and it's happening still. "When will this trauma end?, let me free from this digital world, i need fresh air", we think. "This is sort of nice and let me enjoy this for little while", we think. As we keep on pondering over these Ambivalent feelings towards "2020", let's walk on this year's road embellishing the gift it has bestowed upon us.

I tie my shoes, grab my cup of coffee and go upstairs to my terrace all geared up for my evening walk, really yearning for that fresh air and be a far from my laptop. As I open that door and the feel the air brush past, i see the clouds blushing and believe me, it's such a treat to the sore eyes. This takes me back to the flashback where I used to have this evening beach walk with my family and friends (and obviously with the hot bajjis and spring potatoes). It also makes me think how the hell did I manage to go out "almost everyday" in juxtaposition to my current situation. But since every one of us had our dosage big or small, let's here focus on the shine side.

Confined within these four walls of my home, I definitely missed a lot of things like hanging out with my friends, able to go to the movie theatres, try out new restaurants and fearlessly able to shake hands(brave me back then.!). It was all a little overwhelming. As the lockdown began and prevented us from any sort of outdoor activities, we all ended up trying something that we had no clue whatsoever before.

Many of us caught up on reading, again reconnecting with that library of yours, and going deep within the character, forgetting day and night that's happening around you. If you are someone, who has no clue for the book, and is looking for romantic or thriller books go for Nora Roberts' or Mary Higgins Clark's books as they will definitely keep you in the grip.

In a year defined by physical Distance, it was comforting to able to connect to our friends through these games like "Among Us", "Drawsaurus" and so on. Also, for someone whose cooking skills involved trying to get the perfect consistency for 2 Minutes Maggie and Pasta, being able to go through various recipes for the spicy gravy for that day is a huge first step.

Most of us were pretty comfortable being the couch potato and trying to move as less as possible. But, after two months of this crisis, this lockdown has taught me to move my body around and be active. All of us would have pretty sure now tried out Yoga, different sorts of workout, Dance fitness and whatnot. Some of us witnessed this pandemic together with our family while some of us have to endure this alone.

Now these things may seem small at first blush, but it's indeed a huge milestone that we have covered in our own personal development. As we try to seek refuge through all these escapades, and this year being that phase that holds many difficulties and challenges, let us all remember that "this too will pass on". We shall try to remember all these gifts that everyone of us individually got to try out and experience.

Let's "Remember 2020", for teaching us to face the challenges with gallant bravery and for various experiences and life lessons it showered us with!.

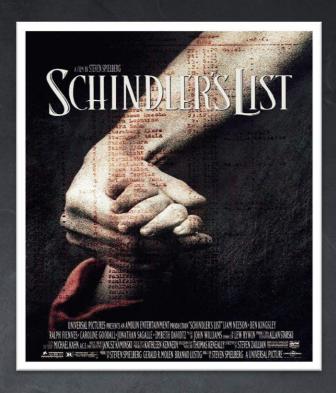






KRITHIKSHARAN IT - A THIRD YEAR

SCHINDLERS'S LIST (1993)



"Schindler's List" is described as a film about the Holocaust, but the Holocaust just acts as a base for the story, rather than the subject. The film is really two parallel character studies-one of a con man, the other of a psychopath. Oskar Schindler, who swindles the Third Reich, and Amon Goeth, who represents its pure evil, are men created by the opportunities of war In the ruins of a sad story, Spielberg found, not a happy ending, but at least one affirming that resistance to evil is possible and can succeed. The film as Spielberg made it is a haunting and powerful one. The major reason being the presence of a one-dimensional villain in a film whose hero has so many hidden dimensions. In "Schindler's List," his brilliant achievement is the character of Oskar Schindler, played by Liam Neeson as a man who never, until almost the end, admits to anyone what he is really doing. "Schindler's List" gives us information about how parts of the Holocaust operated, but does not explain it, because a few inhumane things like genocide can't be predicted why it happens. The power of Spielberg's film is not that it explains evil, but that it insists that men can be good in the face of it, and that good can prevail. The film ends in a very emotional and satisfactory manner. The powerful performance of Liam Neeson and this silence that follows makes way for one of the best endings to a rollercoaster of a movie. One of the best movies of all time displaying the very meaning of what it means to be a human.

BRAVEHEART (1995)



Brave heart is a red blooded battle epic on the life of the famous Scottish rebel William Wallace, who led his nation into battle against the English in the years around 1300. It's a very big film based on very simple concepts of love, bravery, patriotism and betrayal. Not much is known about Wallace, known as Braveheart, except that, he unified the clans of Scotland and won famous battles against the English before being captured, tortured and executed as a traitor. Wallace's dying cry, as his body was stretched on the rack, was "freedom!". And this single cry was enough to send chills throughout our body. "Braveheart" does a brilliant job of showcasing an army of men and horses for large-scale warfare on film. Gibson deploys what look like thousands of men on horseback, as well as foot soldiers, archers and dirty tricks specialists, and yet his battle sequences don't turn into confusing crowd scenes: We understand the strategy, and we enjoy the tactics even while we're doubting some of them. William Wallace may have been a real person, but "Braveheart" owes more to Prince Valiant, Rob Roy and Mad Max. All in all the actors in the movie, the emotions that they express takes this movie from ordinary to extraordinary. A must watch movies with an awesome display of acting skills.









BOOKREVIEW











AKSHAYA CHEENU IT-A THIRD YEAR

"I like the night. Without the dark, we'd never see the stars"

- Stephenie Meyer, Twilight.

It was this lockdown that made me revisit my old book reading habit. My friend had sent me a few books to read, the one book that really caught my attention was Twilight. When I was young, I had watched all the movies of the series Twilight Saga. The main reason why I liked the movie was that the cast was very well chosen. The flawless and handsome "Robert Pattinson" played the role of "Edward" who also acted as "Cedric Diggory" in "Harry Potter and the Goblet of fire". On the other hand, the role of "Bella" was done by the very beautiful "Kristen Stewart".

I was really keen on reading the books and completed all 5 parts in a short stretch. Many people say that it won't be exciting to read a book after watching its movie. I totally disagree with that. When we watch a movie, we see all the images of the characters and thus while reading the book, it makes it easy to visualize in our minds and relate every scene in the movie with the great depth of story in the books. Also, we sense a great deal of familiarity with our characters.



"Twilight", a romance novel by author Stephanie Meyer is a tale of Bella and Edward's budding relationship. Bella is drawn to the exquisite features of Edward Cullen who in the beginning has a profound hatred for Bella. Her attraction towards him grows stronger when he saves her life later in the story. She soon figures out Edward is a vampire and is not frightened by it. She still wants to go all the way with him and doesn't care what might happen while Edward thinks he is dangerous for Bella. "And so, the lion fell in love with the lamb". The book then revolves around how they find a way to exist together and the obstacles they face during it.

I thoroughly enjoyed the book as there was a lot of suspense and romance. I was completely engrossed in the book and became quite oblivious to my surroundings. It's a book which has a lot of thrills and life lessons to look forward to. In addition, it also has drama, action, and mystery which keeps us engaged and makes it more interesting. Personally, I always expect a book to have a happy ending and Twilight does and so it makes us smile when we finish our book. I suggest this book to all those who are interested in teenage drama and romance and assure you that you will keep reading ravenously till you finish it.





MY DESTINY

A day of fog Over a far distance I saw you, my love.

Within a second, I lost my heart...

Tears of joy shed seeing you!

As the time runs by you go far And I try so hard, my Love.

Would it be a failure?

Don't you feel my love?

Can't you see my heart...Sweetheart??

I'll be your side

You're my only one

Cast your eyes in me just this once....

Years are rolling by,

We both hold our hands...

Let our love....

Stay same.

- SWATHIKA B

IT-B

THIRD YEAR

WHY IS LIFE LIKE THIS?

Sitting on the bench, in autumn

A leaf on her shoulder, she brushes it off

Couldn't do the same to her problems,
Heavy like a boulder
Swears at her spirits hitting rock bottom

Wonders will it ever get better?
Should she stop being bitter?
Why is life like this?

Who knows, they say she knows, god knows But honestly she reaps what she sows.

She goes home, tries to sleep, no luck Like her thoughts paces back and forth Something struck, she decides on something That changes everything

She turns herself in, gets sentenced for 10 years

Many years later, you could see her sitting on the bench in summer

Leaves on the tree, worries brushed off the shoulder

Swore at her spirits soaring up high

She stopped being bitter since she knew better Why is life like this?

Who knows, they say she knows, God knows But honestly she reaps what she sows.

IT - A
THIRD YEAR

துரத்தும் கொரோனா!

குரங்குகைப் பூமாலையாய் குதறிக்கிடக்கிறது பூவுலகம்! இதழ்களில் ஏளனம் பூத்திட இதழ்இதழாய்ப் பிய்த்தெறிகிறது உருவமில்லா ஒரு குரங்கு! மாளாது உயிர்பிழைக்க மாய்ந்து மாய்ந்து மலர்கள் சிந்தித்தன! ஒன்றையொன்று தீண்டாதே-ஒதுங்கி நில்! அடிக்கும் காற்றுக்கும் அசையாதே-அங்கேயே கிட! வாசத்தை முடக்கு-வானரத்தின் பார்வையில் தப்பிட! எத்தனை எத்தனை தீர்மானம்! எதிர்வரும் மரணத்தை தடுக்க!

> -ஷிவானி த IT - B 3rd yr



PHOTOGRAPHY CORNER







PRAVIN VARMA V

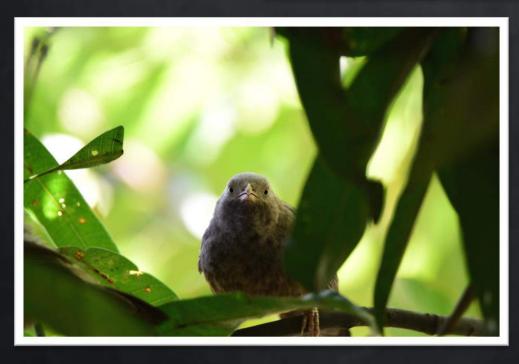
IT - B

THIRD YEAR

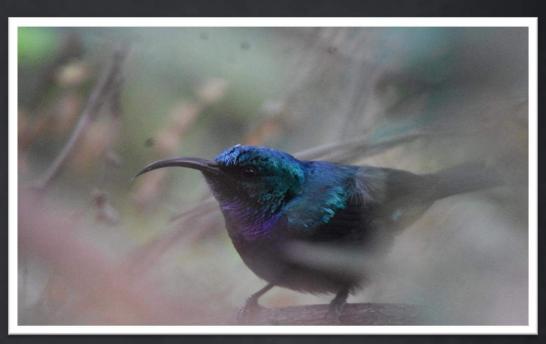






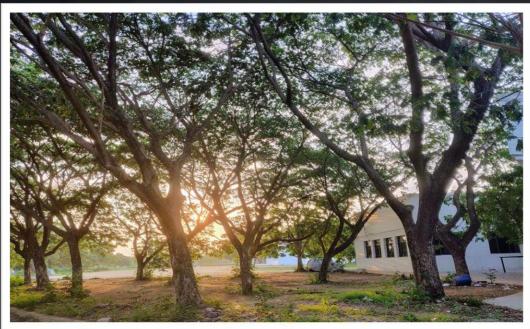








SIVARAMAKRISHNAN S IT - B FINAL YEAR







KRITHIK SHARAN

IT-A

THIRD YEAR









MANISHA G IT-A THIRD YEAR







ELAKIYA P IT-A THIRD YEAR



"A book is a gift you can open again and again."

- Garrison Keillor

At this juncture, we would like to express our sincere, heartfelt gratitude to the management, students and faculty for their valuable contributions, constant encouragement and support.

Wishing an engaging reading!

FACULTY EDITORS

Dr. T. Nagarajan Dr. A. Shahina

Dr. S. Vidhusha Dr. S. Karthika

STUDENTS EDITORS



IT-A
THIRD YEAR



R. ARUN KUMAR
IT. A
THIRD YEAR







ASHWATHS
IT-A
SECOND YEAR



KOUSHIKA PADMANABAN

IT-A
THIRD YEAR



VENKATESH PRASATH N

IT-B THIRD YEAR



PRAVIN VARMA V
IT_B
THIRD YEAR

149



