Department of Information Technology presents

identITy

Half Yearly Newsletter

January 2022 Volume 8, Issue2

In This Issue

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Letter from HoD

Greetings!!!

With immense pleasure we present to you the current issue of identITy highlighting the activites from July' 21 to December' 21. It shares the activities involving students and research scholars to learn and practice the latest trends and knowledge in the research areas of AI and ML, mobile app development and IoT security as workshops. Our students were offered an One-Credit course on using computer vision to understand the working of autonomous vehicles. Our faculty members interacted with the students from different AU affiliated colleges under an external research internship scheme. This issue also showcases the accolades brought to our department by the toppers of Anna University and shares the insights of our placement and internship trends. In addition, it has many articles penned by our students in emerging areas of technology and its applications for social good. Our alumni have also significantly contributed by sharing their experience and knowledge to their juniors in planning their future as leaders and entrepreneurs. This issue has also captured their artistic talents in the form of poems, photos and art works.

Dr. C. Aravindan,
Professor & Head of Information Technology

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.

Wish you an engaging reading!!!

Dr. R. Srinivasan, Professor

Highlights of Department Activities

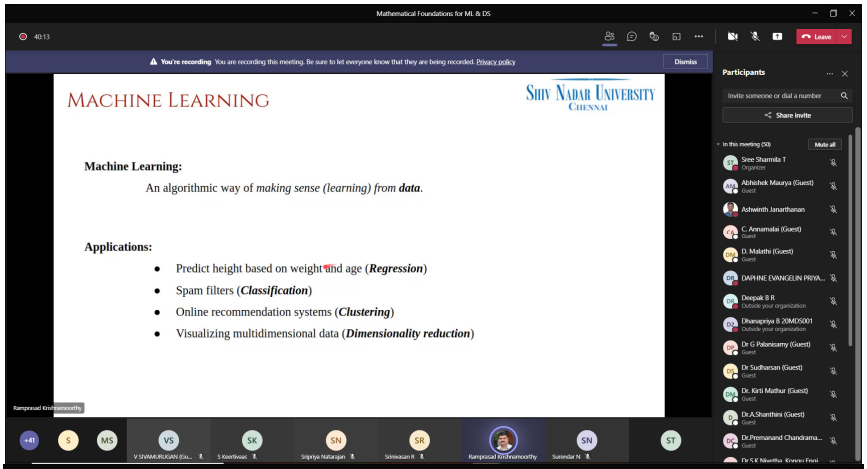
Dr. T. Sree Sharmila, ASP

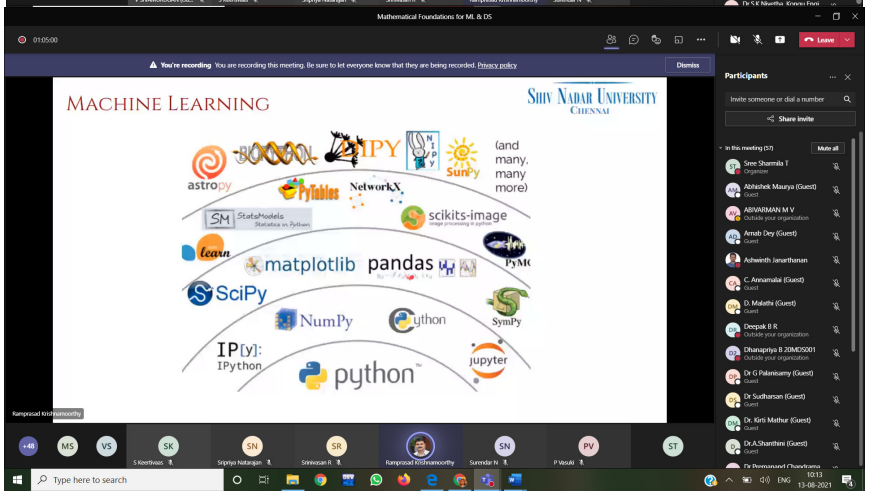
Workshop on Mathematical Foundations for Machine Learning and Data Science

The department of Information Technology, SSN College of Engineering in association with SSN IEEE Student Branch and IEEE Computer Society Student Branch Chapter organized a two-day online workshop, "Mathematical Foundations for Machine Learning and Data Science" during 13-14 August 2021. Dr. K. Ramprasad, Assistant Professor, SNU-Chennai has endowed the knowledge on basics and mathematical foundations of machine learning and deep learning. Dr. R. Srinivasan, Professor, SSNCE highlighted the roles of distance metrics in machine learning and Dr. Lakshmi J Mohan explained the reliability in big data storage with erasure codes. 82 active participants had participated in this virtual workshop. This event gave the mathematical foundations for machine learning and data science to the participants. This workshop was useful to the faculty, research scholars, and students to strengthen their knowledge in ML and data science.

Organizers

Dr. R. Srinivasan, Professor& Dr. T. Sree Sharmila, ASP





Dr. T. Sree Sharmila, ASP

IEEE Xtreme 15.0

IEEE Xtreme 15.0 - A 24 Hour Programming Competition

The IEEE Xtreme 15.0 24-Hours Programming Competition was hosted by Department of Information Technology and SSN IEEE Student Branch in online mode. A total of 9 teams participated in this event and the details of the top 3 teams are as follows:

Team name: Nutella

Team Members: Vrishin Viswanathan, Avinash Kartik, Joseph Amirtharaj

Madras Section rank: 1

National level rank: 1

International level rank: 12

Team name: TheHockeyTeam

Team Members: Harshavardhan Suresh, Kiran Raj K B, Deepak Sriram

Madras Section rank: 2

National level rank: 3

International level rank: 51

Team name: EnigMatrix

Team Members: Harrison Vijay, Aadhithya Kailash, Akarvin S A J

Madras Section rank: 3

National level rank: 5

International level rank: 55

Organizers

Dr. T. Sree Sharmila, ASP&SB Councellor, SSNCE

Dr. E. M. Malathy, ASP

One Credit Course

Dr.R. VinobChander, AP

One Credit Course

Intelligent Mobility: Applied Computer Vision and Deep Learning

IT department has taken initiatives to offer a one-credit course on intelligent mobility (autonomous vehicles). The course was offered by Dr. Vijay John, Toyota Technological Institute (TTI) Japan.

Theme of the course include

- Perception for Autonomous Vehicles
- Sensor Fusion and Calibration
- Predictive Behavior Analysis
- Automated Driving

Course Objectives:

- To understand the basic concepts of Computer Vision
- Be familiar with both the theoretical and practical aspects of computing with images.
- To build the foundation of deep learning
- To apply the various concepts of Computer Vision in other application areas

- The course was offered to all the interested 5th semester and 7th semester UG students who registered for the course There were 60 students across all departments to successfully completed the course. There was *no* registration charges, as the course was funded by our Management.
- The course was conducted through online mode on every weekend from Sep 4, 2021 to Nov 21, 2021.

The course coordinatorswere Dr. E.M. Malathy, ASP and Dr. R. VinobChander, AP.

One Credit Course

Student testimony on one credit course

"Intelligent Mobility: Applied Computer Vision and Deep Learning" course was very informative and I truly learnt a lot of things. The Course was like a perfect introduction to machine learning, deep learning and computer vision. It not only focussed on theory concepts but also the practical implementation. The course was perfectly paced and well organised by Dr Vijay John. The Assessments conducted throughout the course truly tested our basic concepts and application skills.Finally,Iwould like to say that this course has given me the confidence to try out some advanced things in the field of deep learning and computer vision.

Vishnu Prakash Prasannan, IV year, IT

Mr. V. Sivamurugan, ASP

Dr. E. M. Malathy, ASP

Dr. V. Arulkumar, AP

Workshop on Mobile Application Development with Flutter

The deaprtment of IT organized a two day workshop titled Mobile Application Development with Flutter on 16th and 17th August 2021 through online mode.All the students of 7th semB.Tech IT attended the workshop on both the days in connection to the lab course UIT1711 MOBILE APPLICATION DEVELOPMENT.

The course trainers were:

1. Mr. Narayan Vyas, Sr. Developer & Project Manager, Flexxited,
2. Dr. R. VinobchanderAP,IT

The two days session had a deep insight into the following points

- ✓ Introduction to App development and Flutter
- ✓ Hello Flutter, Deployments (simulator/emulator, devices),Scaffolding, Assets, app icon
- ✓ UI Components, Widgets in Flutter
- ✓ Routing, Interactivity, Packages
- ✓ State Management, Project Structure

Additionally, a two day workshop titled " Get Started with Flutter" was organized on Aug 27th& 28th, 2021.This workshop helped UG students who opted an open elective course UIT1941 Android application design and development (offered by IT department to all other 5th semester students).The resource person Mr. Narayan Vyas, Sr. Developer & Project Manager, Flexxited shared the practical knowledge of App development and Flutter from basics. The student gained knowledge in app deployment.

The workshop was coordinated and conducted by Mr. V. Sivamurugan and Dr. E.M. Malathy and Dr V. Arul Kumar.

Workshop on SCM with Git and GitHub

Dr. K. R. Uthayan, ASP

Dr. E. M. Malathy, ASP

Dr.R. VinobChander, AP

A two day workshop titled "SCM with Git and GitHub" was organized by the department of IT, on 24th and 25th September 2021 through online mode.

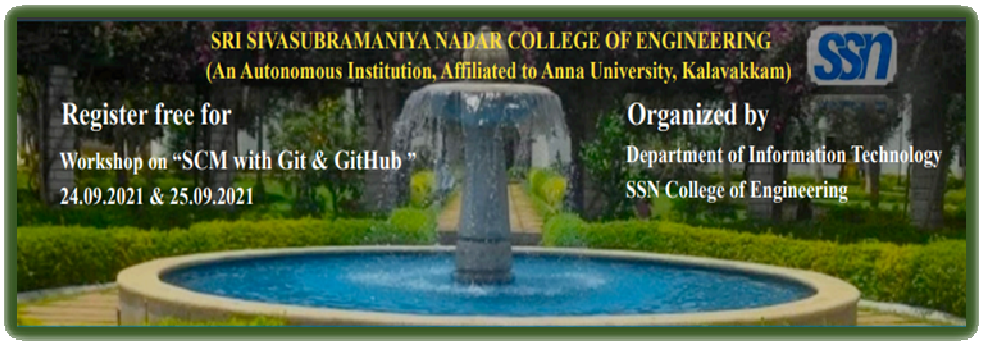
Dr. R. Vinobchander and Dr. K.R.Uthayan, shared the technical sessions.

The two days session had a deep insight into the following points:

- Introduction to VCS
- Basic to Intermediary levels – GIT commands
- Managing SCM both at local and remote

Students, faculty from various Institution and from inhouse attended the workshop in large number with participant about 95 on both the days.

The workshop was coordinated and conducted by Dr. R.VinobChander, AP, Dr. K.R.Uthayan, ASP and Dr. E.M. Malathy, ASP.



Dr. I. Joe Louis Paul, ASP

Developing Reactive Applications

Dr. S. Sasirekha, ASP

Workshop on Developing Reactive Applications

An One Day Workshop on Developing Reactive Applications was organized on 26th October 2021 by the Department of Information Technology coordinated by Dr. S. Sasirekha, ASP& Dr. I. Joe Louis Paul, ASP. The targeted audiences were the Final year students enrolled in the Reactive Programming profession elective course. The main focus of the workshop was to provide an experience on how to use reactive programming to simplify concurrent operations with the real-world scenarios and applications.

The workshop had two sessions. The first session was on Understanding Kotlin with Real-Time Scenarios handled by Ms. Sneha Vajjaramatti, Global Edge Software Ltd., Bangalore, India and the second session was on Real-Word Examples using RxJava handled by Mr. S. K. Praveen, Software Developer at PayPal, Singapore (SSN, IT ALUMNI – 2009 Batch).

Dr. S. Mohanavalli, ASP

Dr. S. Chithra, ASP

Dr. N. Bhalaji, ASP

Dr. S. Karthika, ASP

Research Scholars' Colloquium (RSC)

Research Scholars' Colloquium (RSC) is an annual event that is being conducted for the past six years in the Department of IT. The primary motive of this event is to handhold the budding researchers and guide them to walk through their basic difficulties, like identifying a valid and feasible research problem, penning down the research findings simply and understandably, and communicating to a suitable journal. RSC also provides a discussion forum for researchers to meet industry experts to have better insights about how the research ideas are realized as societal applications.

This year RSC 2021, has been elevated to a research and industry symposium. The symposium was organized in honour of Shri. F. C. Kohli, Father of Indian Software Industry and supported by ACM, CSI, IEEE CS Chennai chapters. The latest and the most innovative recent areas of researches in the field of "*Intelligent and Smart Systems*" were discussed in the symposium. RSC received 20+ papers that were peer-reviewed and 10 papers were accepted and invited for presentation.

Eminent Speakers:

Shri HR Mohan, Chair of ACM Chennai started the session by a briefing on Symposium Series on FCK and introduced the guest of Honour Shri S. Mahalingam, Former CFO & Executive Director, TCS. The guest of honour shared his fond memories of the legend Shri. F. C. Kohli and his vision. The keynote lecture was delivered by Dr Balasubramanian, Founder and CEO, Theme Work Analytics Pvt. Ltd., Bangalore on the title Defining Smart and Intelligent Systems Boundary**.**

Paper Presentation & Prizes

Two sessions of interactive paper presentations, judged by eminent subject experts, were conducted and the following authors were the prize winners:

First Prize (Rs. 10,000/-) - Ms Sai Bhargavi Gurram, TCS

Second Prize (Rs. 7,500/-) - Mr T V. Balakrishnan, TNOU, Chennai

Third Prize (Rs. 5,000/-) - Ms Rekha R, Nehru College of Management, Coimbatore

Special Prize I (Rs. 7,500/-) - MsDhivya S, SSN, Chennai

Special Prize II (Rs. 5,000/-) - MsDivya Stephen, SSN, Chennai

Dr. N. Radha, AP

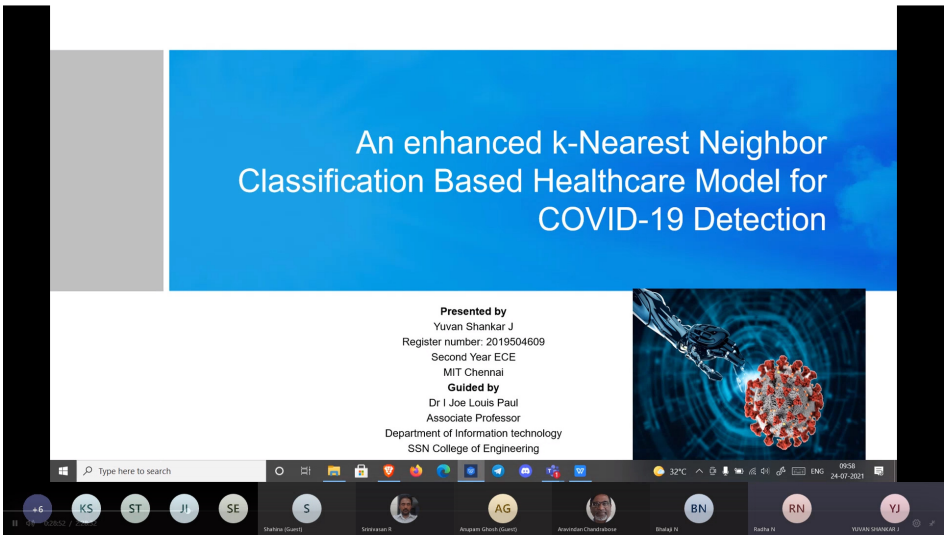
Research Internship

External Research Internship Scheme

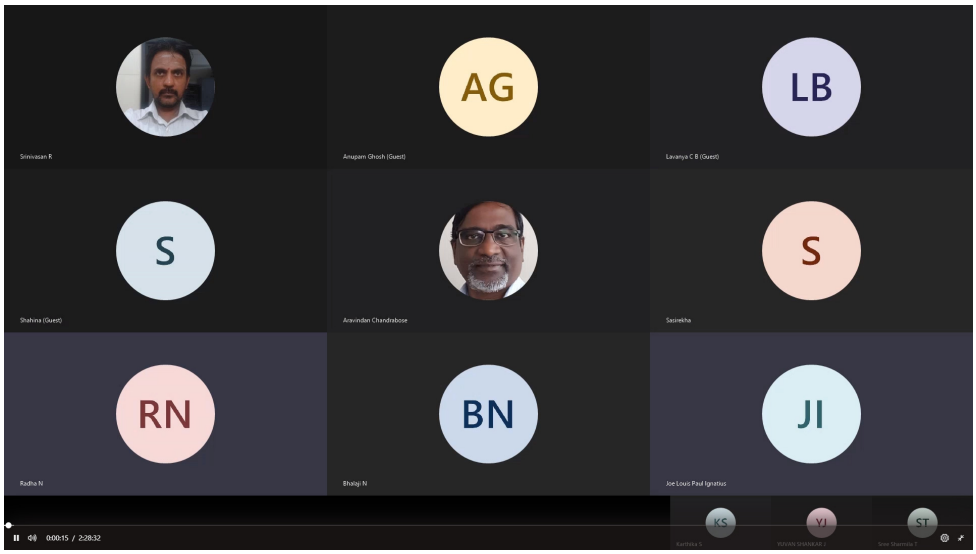
The Department of Information Technology organized the external research internship for students from other institutions in online mode during June-July 2021. There were 19 research projects that were shortlisted, and 12 of them successfully completed the internship.

The scheme had active students participating from the colleges like Sri Sairam Engineerong college, MIT, Chennai, Acropolis Institute of Technology and Research, Indore etc,.They were mentored by ten faculty members from the department of IT. The major thrust areas were artificaial intelligence and machine learning, image processing, Internet of Things and augumented reality.

Research Internship



The research projects were reviewed periodically by Dr. C. Aravindan, Professor and HoDand Dr. R. Srinivasan, Professor. The projects were evaluated based on the rubrics namely statement of research problem, data collection, research methods, analysis/results, conclusion/discussion and overall presentation.



Invente 6.0

Invente6.0

INVENTE, the annual technical fest of SSN Institutions is an event which etched its name in the walls of the most familiar and awaited college festivals. The 6th Edition of INVENTE, albeit online, is no different from the editions of the past and aims to showcase the technological prowess of students across the country.

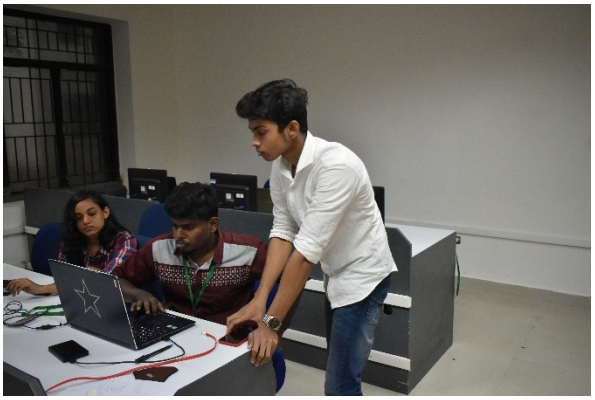
The Department of Information Technology focuses on a wide range of areas ranging from Data Structures and Algorithms to Artificial Intelligence and Machine Learning. We had around 400 participants from a variety of colleges around India. In INVENTE 6.0 IT Department had 8 events which included **6 technical events** (Enigma, Websitica, Codera, Analytics Sprint, Reverse Gear and Papyrus) and **2 non-technical events** (Sports Quiz and E-Treasure Hunt).

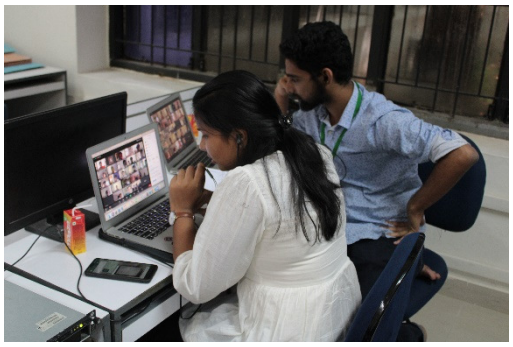
We were able to run every event smoothly with the help of our valuable sponsors. We are grateful to **Yoode Promotions LTD., Mr. Cooper and ISACA**. The Department of Information Technology gave prize money, around **Rs. 30,000/-**,to winners and runners of all the events.

We selected our winners and runners based on their performances on several rounds of the particular events. Some of the events consisted of MCQ round and Coding round, some had two levels of coding round.

The winners and runners of CODERA and WEBSITICA has been offered with **internship opportunities from Mr. Cooper India** along with the cash prizes and certificates.

Invente 6.0



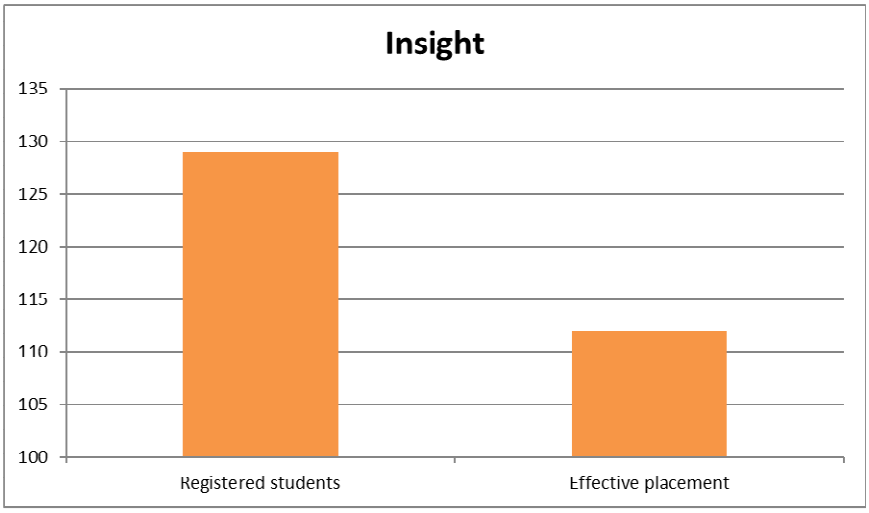


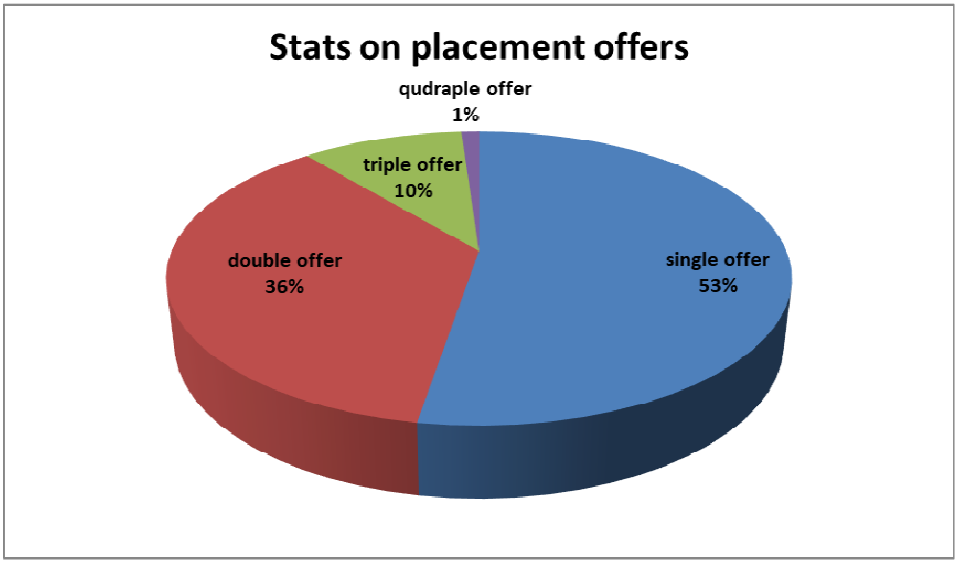
Placement Insight of

2022 Batch

Insights into Placement Activity

With every passing year, the IT department has set high milestones with regard to placements. This year was no different with the students in fact receiving multiple offers.





Top 10 offers

@ Amazon

Jothika RajaJayesh Laxman

Obed Immanuel Raj J J

@ Google

J Harrison Vijay

Top 10 offers

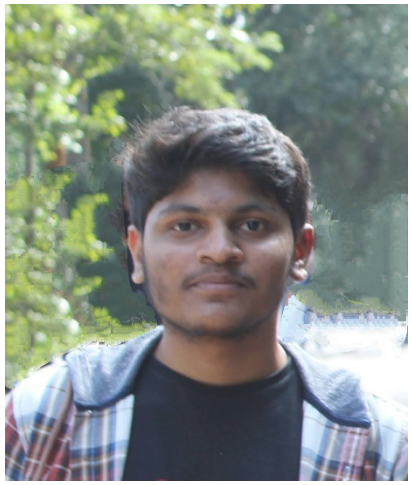
@ PayPal

AadhithyaB.Kailash

Badrinarayanan R

Keertivaas S

@ Avalara



Arun Laxman A

Top 10 offers

@ ChargeBee


B SridarshanVigneswaran Sekar

My Journey to Google

Sundar Pichai was announced as the CEO of Google in 2015. I was in 10th grade back then. This might sound cliché, but ever since then, it was a dream of mine to get into Google. It finally came true on July 22nd, 2021, when I got the offer from Google. I'll be joining them as a Software Engineer in July 2022 at their Bangalore office.

Though it was my dream since 10th grade, I wasn't clear on the path. I never knew actual programming until after my 12th board exams, though I was in the Computer Science group in grades 11 & 12. I started with C Programming after my 12th board exams, before joining college. I got admission in the Information Technology department at SSN - this was one of the best things that happened to me. I've got to learn from extremely good faculty, make awesome friends, and also got the opportunity to take part in Google's hiring process.

I got to know about Competitive Programming through my friends in the second semester. I've participated in multiple contests since then, individually as well as with a team, but I never took the time to build good ranks in the different competitive coding websites. Somehow, I always had more interest in Software Development. I learned Android App development, Web development etc. in my free time.

In the internship season at the start of 3rd year, I cleared the test and DSA round at Motorq, but didn't get through the System Design round. After that, I cleared the test and interview rounds of Citibank and got an internship. My experience with participating in different CP contests, and the knowledge gained from courses in our syllabus like DS, ADA, and DBMS, helped me achieve this. But I knew this wouldn't be enough for Marquee companies. I had to study advanced Data Structures and Algorithms, practise solving interview problems etc. I did this from April

Top 10 offers

to June 2021. I used AlgoExpert - I'm sure most of you would have seen their ad on YouTube. I purchased this product, as I didn't have much time and I needed a curated set of problems that would expose me to various topics. There are free alternatives to AlgoExpert, like LeetCode and InterviewBit, that have an extensive set of problems. It's not necessary to buy paid courses and products, as there are many resources available on the internet for free.

Since I didn't have great ranks in the competitive coding websites, I started doing projects, to make my résumé stand out. I did projects using things I knew - Web development, DSA etc. You can check them out on my Github profile. (*github.com/harrisonvijay*)

By the end of June, the placement season started. Google was the first company of the season, excluding the PPOs. They let us know beforehand that there won't be any questions on Aptitude, System Design or CS Fundamentals. This saved a bit of time for me, as I only had 2 weeks before the initial test. I started revising and revisiting DSA concepts in those 2 weeks.

I had the test on July 10th, with 2 DSA problems of Medium to Hard difficulty. I was able to solve one problem fully and the other for half the points. Based on this, they shortlisted a handful of people for the interviews. These interviews happened over Google Meet on July 22nd. In the gap of 10 days in between, I filtered the problems previously asked by Google, in InterviewBit, and started solving them one by one. I went through about 75% of it, and I'm sure this helped me.

On July 22nd, I had 3 rounds scheduled throughout the day. In each of these rounds, I had to solve 1-3 DSA problems - think out loud, discuss the problem, arrive at the optimal solution, explain the time and space complexity, and then, code it out on Google Docs. My first round went okayish. I wasn't satisfied with my performance. I had focussed more on thinking out loud, that I forgot to think. Thankfully, to ensure they don't lose good candidates due to one bad round, Google's rounds are non-eliminative. Everyone gets to attend all the rounds. I made up for my bad performance, in the second and third rounds. In one of these rounds, I also had a "Googley-ness test". There were a few behavioral and scenario-based hypothetical questions.

I got the result on the same day. Our Placement Manager, Mr. Jothi Basu contacted me over the phone at around 11PM, to let me know that I got selected. Funnily enough, I called him back once again to confirm. And yeah, that's how the day went. It has been a wonderful journey albeit stressful. I thank God, my family, friends, SSN, IT Department, the faculty, and the Placement Cell for all this. If you are someone who is aspiring to get into a Marquee company, then you must focus on DSA.

If you are interested in Competitive Programming, practise as much as you can - it's like a superset of DSA. If not, you can still practise from sites like GeeksForGeeks, LeetCode, and InterviewBit, taking the "competition" out of programming. You'll also need to do projects to build your résumé - more so if you don't have great CP ratings. In addition to DSA, you'll have to be strong in CS Fundamentals - OS, DBMS, CNA etc. Some companies expect a basic knowledge in ML too.

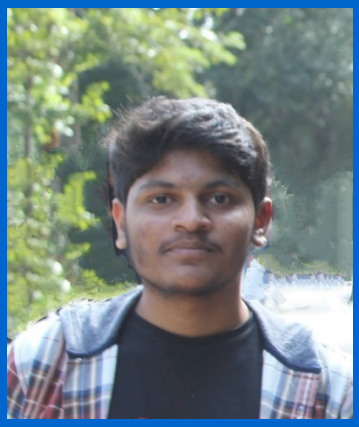
From my experience and also my friends', I know the placement season can be very stressful, and at times, unfair too. Staying motivated and picking yourself up after failures is hard. But enduring it, and doing your best will always bring you what you want. Even if things don't go your way for now, it isn't the end. You can always try later. Go at your own pace. All the best!

You can connect with me on LinkedIn. (linkedin.com/in/harrison-vijay)

Harrison Vijay J, Fourth Year

Top 10 offers

My Experience of Getting into Avalara



Avalara is a company that automates goods and service tax compliance for all industries including manufacturing, retail, logistics etc. I have been hired for the highly selective Software Engineer role.

It was not a greenish path to get into this coveted role. There were a total of 4 rounds. In the first round, 4 problems will be given and you have to solve them within 2 hours. The second round was a technical face-to-face interview and questions were asked from OS, DBMS and computer networking. There was a simple coding question and I was asked to solve. The third round was yet another technical face-to-face interview where the interviewer dived deep on my projects. The questions in this round were centered on principles of software engineering and system design. The final round was a managerial round and the senior director of Avalara interviewed me.

To get into Avalara, I would recommend my juniors to know at least two programming languages very well, concentrate well on coding and try out problems in leetcode, learn new algorithms as it would help you solve coding problems. Do good projects so that your resumes will stand out. Most importantly don't lie on your resume, if you know something then mention it else don't!!. Improve your communication skills, and most importantly be very thorough with OS, DBMS, and Networks subject's concepts.

My final piece of advice is to do both hard work and smart work, plan well and try to cover aptitude, OS, DBMS, Networks, PSE and concentrate very well on coding. Finally, some companies may reject you but don't lose hope. Keep trying and definitely you will land on a great company. All the best and I wish you good luck.

Arun Laxman
Fourth Year

Internship

2021 – 2022

@

Red Bull

ITSMYNE

Sirius Computer Solutions Inc.

Latent View Analytics

Optum Global Solutions

Healthcare Technology Innovation Centre, IIT-Madras

JK Fenner

MADIEE Games

Facilio INC

Fidelity Investments

F13 Technologies

Citi Bank

MyWays

Omkar Drop Taxi, Chennai

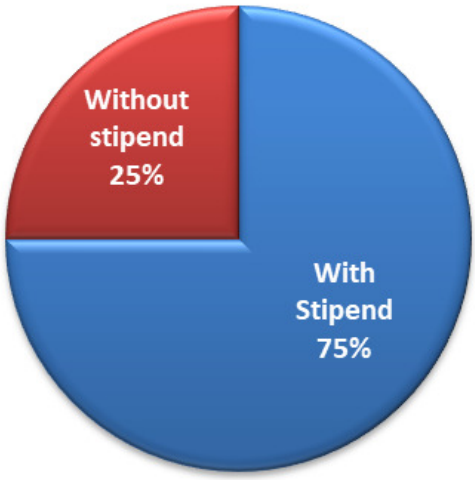
XfinitoBiodesigns

Reflections infosystems

Super Ops

Stats and Trends of Internship

July 2021 to December 2021



Roles offered to the interns

Marketing	**Front-End Design**
Business Development	**Full Stack Engineer**
Software Development	**AWS Cloud Intern**
Software Engineer	**Analyst**
Project Development	**Product Development**
Data Analyst	**Web Development**
	Machine Learning

Student Accolade–

Anna University Top Rankers

Congratulations Graduates!!!

NAVEEN S
Rank: 1

ISHWARYA S
Rank: 3

SRINIDHI S
Rank: 8

ABINAYA P G
Rank: 13

SANJANA B
Rank: 13

SOWMYA K
Rank: 24

DEVANATHAN N G
Rank: 25

Student Accolade

TEAM'ing WITH TEACHERS
- ATTENDANCE CALCULATOR APP

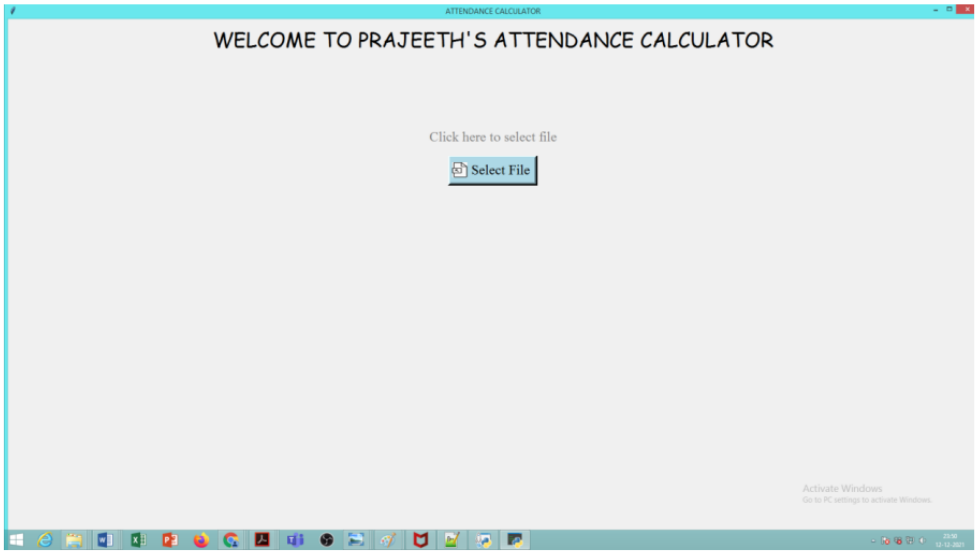
The pandemic has been hard on everyone, including the teachers, and one prime difficulty in conducting an online class is calculating the attendance. The attendance calculator is an elegant and handy tool that helps teachers calculate, evaluate, store and maintain the attendance that has been downloaded from the Teams app. Single click of a button can save you loads of time calculating precise and accurate attendance.

To begin with, this app has been developed predominantly using Python and Tkinter. It has a clean and simple user interface for the users to interact. This app has a lot of features built into it. It basically calculates and stores the attendance in an excel sheet, which is very easy for the user to interact and modify. This creates a log-book which has the attendance details that we require for all the files that has been selected. The attendance is mapped to each students' name and registration number for easy reference in later cases. The code basically calculates the attendance with the criteria as, the total time of presence of a student in a class. The entire attendance part is colour coded. The app takes in multiple files with different timestamps, where each file will be arranged chronologically. In case you enter the same file twice, don't worry, that has been covered too! , The interface responds with a message saying that the attendance for the selected file has already been calculated. The code has the provision to work with both excel and csv type of files.

How it's done!

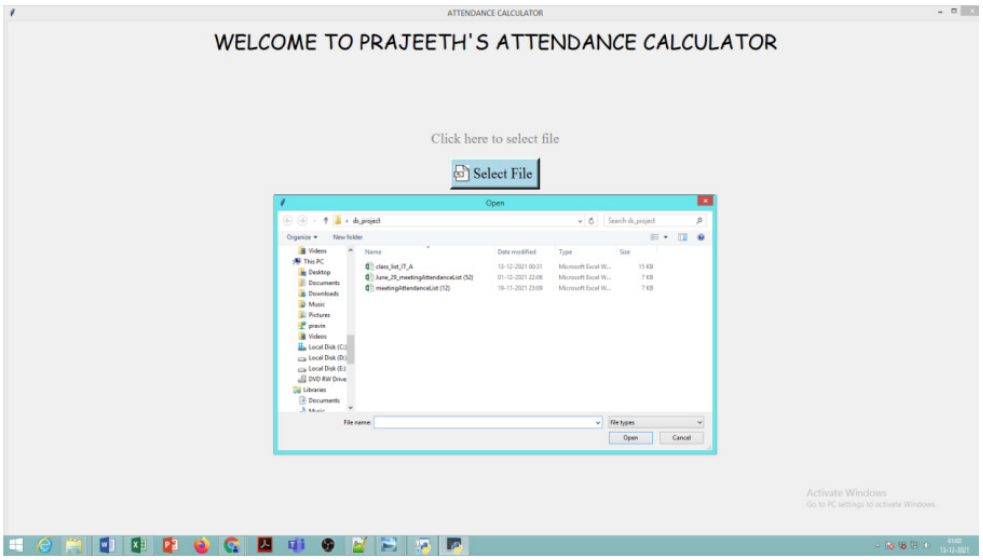
Open the Attendance calculator app. The app opens with the user interface shown below.

Click the button present on the screen. Once you click the button a dialog box will open and will prompt you to select your file of choice.



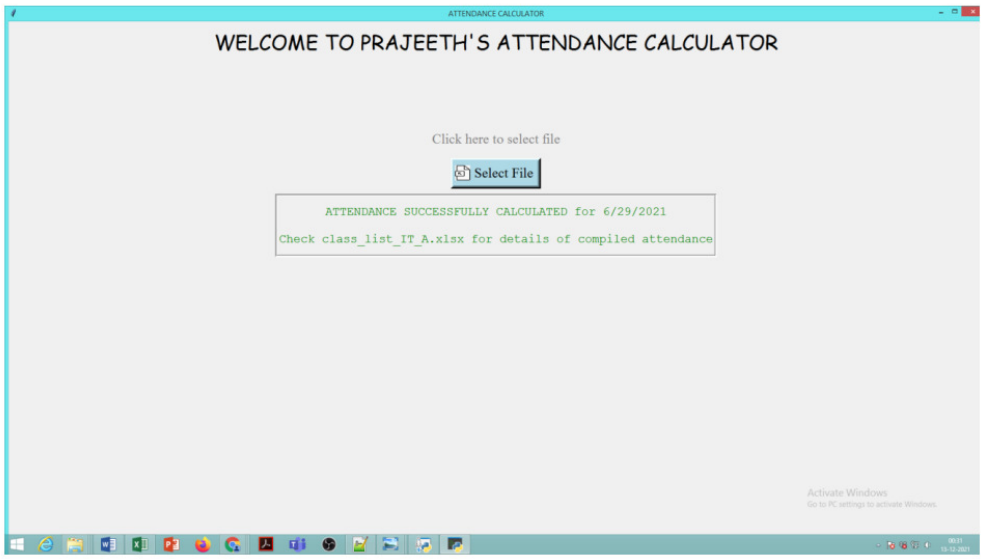
Student Accolade

Once the user has selected the file, the user's job is done! , the app does all the hard- work from here on.



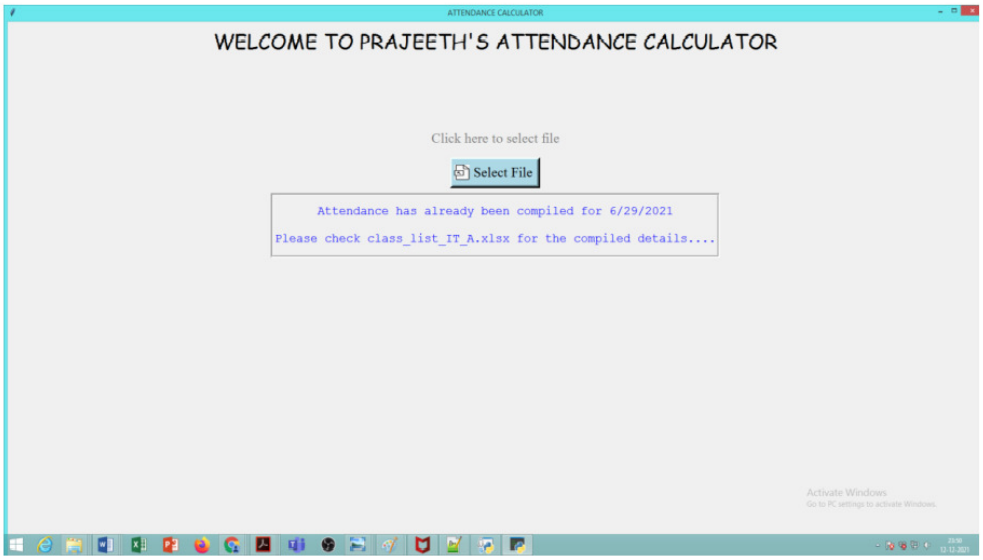
It then displays the message according to the file you have selected.

If you are selecting a new file, then it will calculate the attendance and the following message will be displayed.

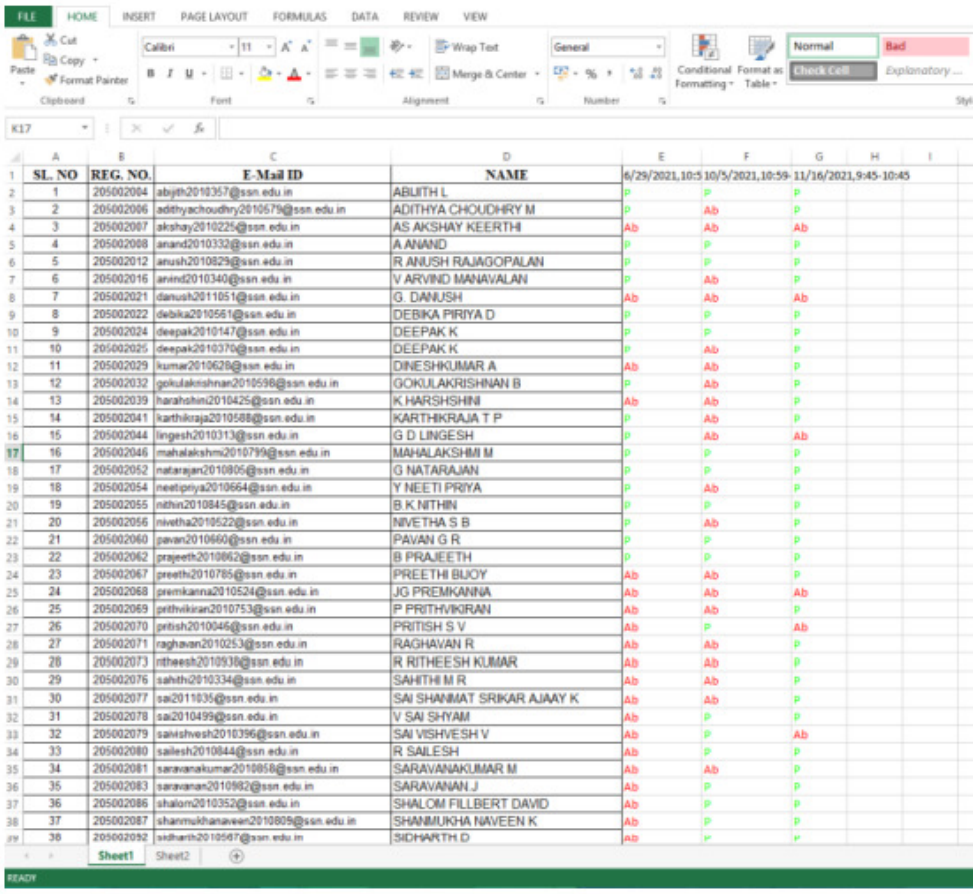


If you have selected a file for which attendance has already been calculated, the following message will be displayed.

Student Accolade



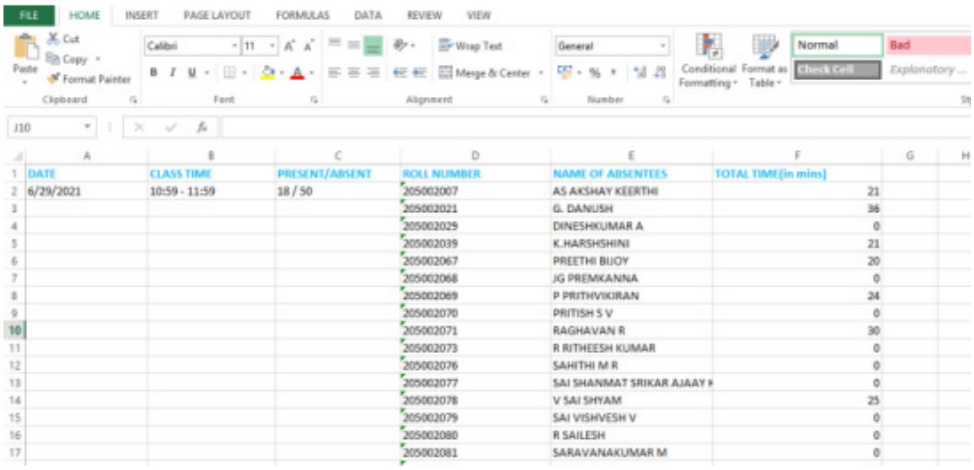
The excel file where all the details information are stored has two sheets in it. The sheet 1 has the concise details of all the calculated and colour coded attendance in chronological order.



SL. NO	REG. NO.	E-Mail ID	NAME	6/29/2021,10:5	10/5/2021,10:59	11/16/2021,9:45-10:45
1	205002064	abijith2010357@ssn.edu.in	ABIJITH L	P	P	P
2	205002066	adithyachoudhry2010679@ssn.edu.in	ADITHYA CHOUDHRY M	P	Ab	P
3	205002067	akshay2010225@ssn.edu.in	AS AKSHAY KEERTHI	Ab	Ab	Ab
4	205002068	anand2010332@ssn.edu.in	A ANAND	P	P	P
5	205002012	anush2010829@ssn.edu.in	R ANUSH RAJAGOPALAN	P	P	P
6	205002016	arvind2010340@ssn.edu.in	V ARVIND MANAVALAN	P	Ab	P
7	205002021	danush2011051@ssn.edu.in	G. DANUSH	Ab	Ab	Ab
8	205002022	debika2010561@ssn.edu.in	DEBIKA PIRIYA D	P	P	P
9	205002024	deepak2010147@ssn.edu.in	DEEPAK K	P	P	P
10	205002025	deepak2010370@ssn.edu.in	DEEPAK K	P	Ab	P
11	205002029	kumar2010628@ssn.edu.in	DINESHKUMAR A	Ab	Ab	P
12	205002032	gokulakrishnan2010598@ssn.edu.in	GOKULAKRISHNAN B	P	Ab	P
13	205002039	harahshini2010425@ssn.edu.in	K.HARSHSHINI	Ab	Ab	P
14	205002041	karthikraja2010588@ssn.edu.in	KARTHIKRAJA T P	P	Ab	P
15	205002044	lingesh2010313@ssn.edu.in	G D LINGESH	P	Ab	Ab
16	205002046	mahalakshmi2010799@ssn.edu.in	MAHALAKSHMI M	P	P	P
17	205002052	natarajan2010805@ssn.edu.in	G NATARAJAN	P	P	P
18	205002054	neetipriya2010664@ssn.edu.in	Y NEETI PRIYA	P	Ab	P
19	205002055	nithin2010845@ssn.edu.in	B.K.NITHIN	P	P	P
20	205002056	nivetha2010522@ssn.edu.in	NIVETHA S B	P	Ab	P
21	205002060	pavan2010660@ssn.edu.in	PAVAN G R	P	P	P
22	205002062	prajeeth2010862@ssn.edu.in	B PRAJEETH	P	P	P
23	205002067	preethi2010785@ssn.edu.in	PREETHI BIJOY	Ab	Ab	P
24	205002068	premkanna2010524@ssn.edu.in	JG PREMKANNA	Ab	Ab	Ab
25	205002069	prithvikiran2010753@ssn.edu.in	P PRITHVIKIRAN	Ab	Ab	P
26	205002070	pritish2010046@ssn.edu.in	PRITISH S V	Ab	P	Ab
27	205002071	raghavan2010253@ssn.edu.in	RAGHAVAN R	Ab	Ab	P
28	205002073	ritheesh2010938@ssn.edu.in	R RITHEESH KUMAR	Ab	Ab	P
29	205002076	sahith2010334@ssn.edu.in	SAHITHI M R	Ab	Ab	P
30	205002077	sai2011035@ssn.edu.in	SAI SHANMAT SRIKAR AJAAY K	Ab	Ab	P
31	205002078	sai2010499@ssn.edu.in	V SAI SHYAM	Ab	P	P
32	205002079	saivishvesh2010396@ssn.edu.in	SAI VISHVESH V	Ab	P	Ab
33	205002080	sailesh2010844@ssn.edu.in	R SAILESH	Ab	P	P
34	205002081	saravanakumar2010858@ssn.edu.in	SARAVANAKUMAR M	Ab	Ab	P
35	205002083	saravanan2010982@ssn.edu.in	SARAVANAN J	Ab	P	P
36	205002086	shalom2010352@ssn.edu.in	SHALOM FILLBERT DAVID	Ab	P	P
37	205002087	shanmukhanaveen2010809@ssn.edu.in	SHANMUKHA NAVEEN K	Ab	P	P
38	205002092	sidharth2010567@ssn.edu.in	SIDHARTH D	Ab	P	P

Student Accolade

The sheet 2 has the details information about all the absentees such as total time of presence, name, registration number, count of all the absentees. Both the sheets will have the attendance information in chronological order.



DATE	CLASS TIME	PRESENT/ABSENT	ROLL NUMBER	NAME OF ABSENTEES	TOTAL TIME(in mins)
6/29/2021	10:59 - 11:59	18 / 50	205002007	AS AKSHAY KEERTHI	21
			205002021	G. DANUSH	36
			205002029	DINESHKUMAR A	0
			205002039	K.HARSHSHINI	21
			205002067	PREETHI BIJOY	20
			205002068	JG PREMKANNA	0
			205002069	P PRITHVIKIRAN	24
			205002070	PRITISH S V	0
			205002071	RAGHAVAN R	30
			205002073	R RITHEESH KUMAR	0
			205002076	SAHITHI M R	0
			205002077	SAI SHANMAT SRIKAR AJAAY	0
			205002078	V SAI SHYAM	25
			205002079	SAI VISHVESH V	0
			205002080	R SAILESH	0
			205002081	SARAVANAKUMAR M	0

All in one, we have an easy-to-use attendance calculator that can be used with a click of a single button that can save teachers loads of time and a log-book with precise and accurate details of attendance which has been compiled for many timestamps and stored in an excel file chronologically, to refer from.

A Faculty's Note

I want to take the time to thank Prajeeth for the fantastic job. He did an excellent job by creating an attendance App.
During this pandemic with all the new technology for teaching, teachers found it difficult to manage the students online. The App created by Prajeeth called TEAMS ATTENDANCE CALCULATOR has the following features

- *Just one click on the downloaded attendance from team.*
- *Sorting and giving attendance is done automatically by the App.*
- *Each day attendance is updated in an excel sheet.*
- *It gives attendance to those students who attend at least for a stipulated time set by the teachers. This makes a huge difference in the students to stay fully for the one hour class.*

Keep it up Prajeeth, I appreciate your thought to create this App. Also I am really thankful for your efforts to make this work on my desktop with windows 10.

Thank you once again!

With deep appreciation for your efforts,
Dr.N.Padmapriya – Associate Professor, Department of Mathematics

B Prajeeth,
Second Year

Student Accolade – Certificate of Excellence

Student Accolade

- Adithya R has complete internship at Fidelity Investments for 2 months (Jun-Jul).
- Smithi P of final year participated in the 4th National Engineering Olympiad (NEO 4.0) round1 examination and has been qualified for Round 2.
- Aarthi N (CSE), Anirudh Anand (CSE), Chirag Bheemaiah PK (IT) and Meena Muthukumar (CSE) have applied an IEEE Student Project Funding proposal titled "Road Accident Prevention and Detection System" under the guidance of Ms. Josephine Julina J. K, AP.
- Dr. A. Shahina, Professor, has presented a paper along with B.Tech IT students, Sriram Na and Vishaq, titled "Covid-19 detection using chest X-rays: CNN as a classifier vs CNN as a feature extractor" in the Second International Conference on Machine Intelligence and Smart Systems 2021 (MISS 2021), held in Gwalior, India during September 24-25, 2021.
- Debadyuti Bhattacharya (B.Tech IT), Sri Hari Karthick (B.Tech IT) N, Shahina A, " Early Detection of Suicidal tendencies from text data using LSTM ", Proc. 3rd Intl. Conf. Innovations in Power and Advanced Computing Technologies (i-PACT), Kualalumpur, Malaysia, November 27-29, 2021.
- Chirag Bheemaiah P.K. of third year has participated in the WCE Hackathon 2021 and his team was qualified in the top 8 teams out of the participating 89 teams. The final round was conducted on the 17th of July 2021.

Student Accolade – Certificate of Excellence

- Vibha V.K of third year completed a non-technical marketing internship at MyWays for the period of June-July.

MYWAYS LIFE LAYOUTS PVT. LTD.
CIN: U80904DL2018PTC337725
E: hr@myways.in

MyWays I reflect I explore I create

DATE: July 12th , 2021 REF NO: MWC21124

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Ms. Vibha Visvanathan** has completed the full time virtual Internship at **MyWays Life Layouts Pvt.Ltd.** as per details below:

INTERNSHIP PERIOD	11.06.21 to 10.07.21
DIVISION	Employer Marketing and Strategic Partnerships

She showed exemplary work performance in the creating strategic partnerships and completed internship to our satisfaction.She demonstrated entrepreneurial abilities and worked on various functions. She displayed a self motivated attitude towards her work and was always willing to learn new things.

We wish her very best in her future endeavors.

With Best Wishes

From, MyWays Life Layouts Pvt. Ltd.

MyWays Life Layouts Pvt. Ltd. RZ H-3/49 Mahavir Enclave Palam Colony New Delhi-110045 Visit us at www.myways.in

Anjali Patel

Team HR

Student Accolade – Certificate of Excellence

- Ashwini of third year has completed an internship on cybersecurity from Gurugram police in the interval of Jun to July.

SafeHouse

GURUGRAM POLICE

CYBER SECURITY SUMMER INTERNSHIP

CERTIFICATE OF RECOGNITION

This to certify that

ASHWINI RAMESH

has attended

CYBER SECURITY SUMMER INTERNSHIP PROGRAM 2021

conducted from June 2021 to July 2021 at the Cyber Crime Cell, Gurugram Police.

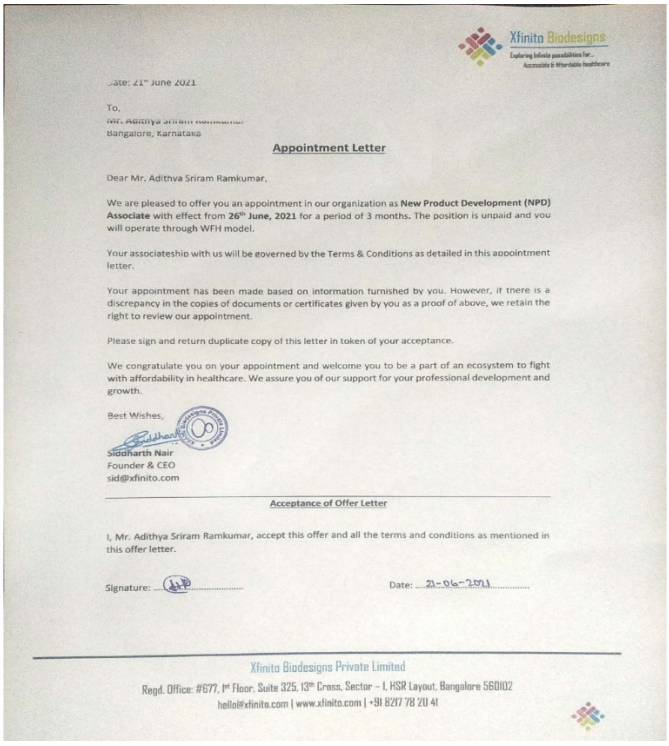
During the internship his/her performance was rated *Excellent*

Dt:- 15/07/2021

Sri K. K. Rao, IPS
Commisioner of Police, Gurugram

Sri Rakshit Tandon
Coordinator/Advisor, Cyber Cell Gurugram Police
Director, Hackdev Technology Pvt. Ltd.

- Adithya Sriram Ramkumar of third year started his internship with XfinitoBiodesigns, Bengaluru on 26th of June. The period of the internship is 3 months.



Xfinito Biodesigns

...ate: 21st June 2021

To,
Mr. Adithya Sriram Ramkumar
Bangalore, Karnataka

Appointment Letter

Dear Mr. Adithya Sriram Ramkumar,

We are pleased to offer you an appointment in our organization as **New Product Development (NPD) Associate** with effect from **26th June, 2021** for a period of 3 months. The position is unpaid and you will operate through WFH model.

Your associateship with us will be governed by the Terms & Conditions as detailed in this appointment letter.

Your appointment has been made based on information furnished by you. However, if there is a discrepancy in the copies of documents or certificates given by you as a proof of above, we retain the right to review our appointment.

Please sign and return duplicate copy of this letter in token of your acceptance.

We congratulate you on your appointment and welcome you to be a part of an ecosystem to fight with affordability in healthcare. We assure you of our support for your professional development and growth.

Best Wishes,

Siddharth Nair
Founder & CEO
sid@xfinito.com

Acceptance of Offer Letter

I, Mr. Adithya Sriram Ramkumar, accept this offer and all the terms and conditions as mentioned in this offer letter.

Signature: ..... Date: 23-06-2021

Xfinito Biodesigns Private Limited
Regd. Office: #677, 1st Floor, Suite 325, 13th Cross, Sector – I, HSR Layout, Bangalore 560102
hello@xfinito.com | www.xfinito.com | +91 8217 78 20 41

Student Accolade

Antler India Fellowship

TickEth - a Web3 startup founded by Yuvan Arvind G &Sayeeshwar Kumar consists of 4 students (Yuvan Arvind, Sayeeshwar Kumar, Vedh Vijay and Nivas Muthu) from the Department of InformationTechnology(2019-23). We aim to provide immense value to tickets like never before. Use of tickets now won't stop with just as an entry into an event, value is retained even after the completion of the event. Long story short, our platform converts tickets into an asset class using breakthrough technology.

TickEth is one amongst the 8 (out of 2,400+ applications) that got selected for the first cohort of the Antler India Fellowship, a program to build the next generation of college start-ups.Antler is a global early-stage VC enabling and investing in the world's most exceptional people. Antler India Fellowship is designed as a space for students to experiment, fail and learn as they turn their ideas into a business.

It's a 16-week hands-on program to understand the nuances of building a start-up, facilitated by some of India's top domain experts and mentors. They also supplement this with a $20,000 grant (Zero equity) so that students can focus on building instead of worrying about salary or placements. In short, there has never been a better time to be a student entrepreneur and they want to propel these ideas to fruition.

TickEth : https://ticketh.in/
Antler India Fellowship: https://www.antler.co/india-fellowship

Faculty Corner

Dr. AshwinthJanarthanan,AP

Felicitation for Completion of Ph.D.

Congratulations!!!

Dr. AshwinthJanarthanan, AP, has successfully defended his Ph.D. thesis titled "Meta-Heuristic Approaches for Data Aggregation with Secured Routing in Wireless Sensor Networks" on 26th August 2021.

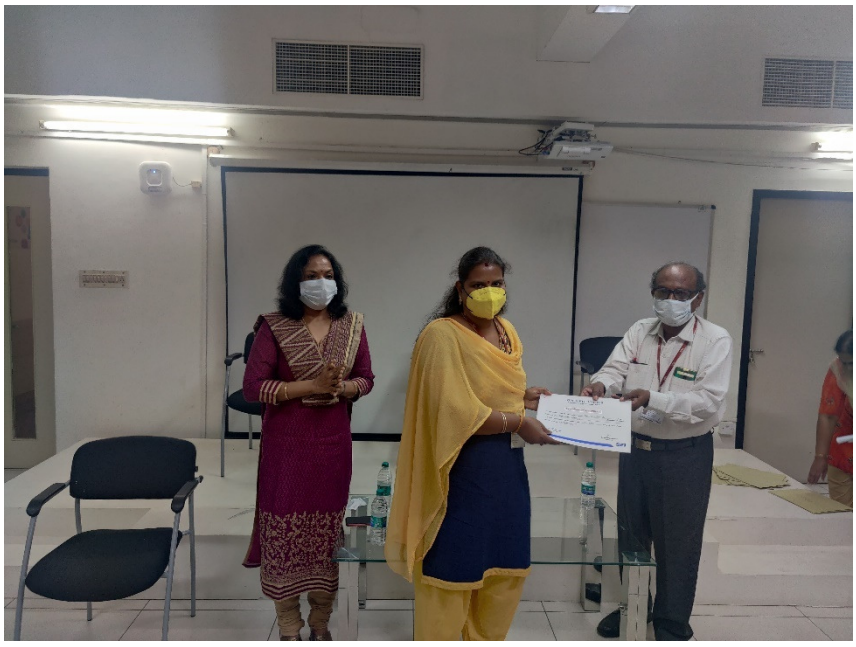
Meta heuristic optimization techniques are involved for aggregation in Wireless Sensor Networks, since they require lesser computational effort and also render better optimization results in comparison to conventional optimization techniques. The goal of localization is to determine the physical position of the sensors whose location information is unknown. Security is another concern in such optimized routing approaches since data conservation and attack mitigation are of paramount importance. The proposed work aims to develop data aggregation techniques on optimization the task of data aggregation in WSN. Three different methods are hence developed namely Localization Based Evolutionary Routing (LOBER), Improved Bee Colony Optimization Routing (IBCOR) and Insider Attack Detection by Fuzzy logic (IADF). A Localization Based Evolutionary Routing (LOBER) method is developed, which is an energy-aware system to optimize the process of routing. It uses a geometrical method of localizing the nodes and an evolutionary optimization algorithm that employs meta-heuristic techniques to optimize the routing process. An optimal routing approach, Improved Bee Colony Optimization Routing (I-BCOR) method, which uses a routing framework based on Bee Colony Optimization, offers improved network traffic routing in WSN scenario to improve energy efficiency. I-BCOR method accurately localizes the sensor node, thereby eliminating the need for additional positional devices. A security scheme, Insider Attack Detection by Fuzzy logic (IADF) is developed, where the limitations of predicting insider attacks in WSN are addressed effectively. The system employs additional parameters like transceiver range, transmission rate, packet delivery ratio, RSS, forwarding delay, residual energy for the purpose. A Fuzzy based approach has been used to calculate the degree of suspect of each node in the system in place of using a discrete method to classify malicious and benign nodes. It is observed that the proposed IADF method is efficient in terms of security and the routing approaches namely LOBER and IBCOR operate well in terms of network lifetime, energy consumption, end-to-end delay and packet delivery ratio than the existing methods. These meta heuristic intelligent data-aggregation systems are found to require lesser power consumption while aggregating sensor node system and could, therefore, increase the network lifetime.

Faculty Corner –

Best Teacher

Award

Best Teacher Award



Dr. T. Sree Sharmila, ASP
Best Teacher Award – I

Dr. S. Karthika, ASP
Best Teacher Award – II

Faculty Corner

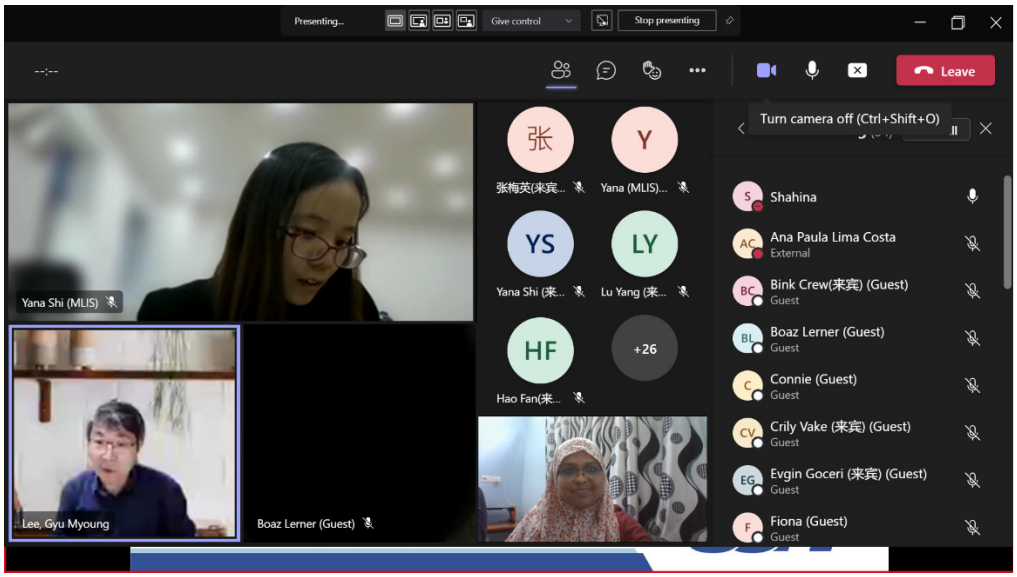
SNU VC Visit

Prof. S.K. Bhattacharyya, Vice Chancellor of Shiv Nadar University, visited the Department of IT on 12th of July 2021. He visited various facilities of the department and interacted with faculty members and research scholars.

Faculty Corner

International Conference Speaker

Dr. A. Shahina, Professor, was an invited speaker in the 3rd International Conference on Machine Learning and Intelligent Systems (MLIS 2021, held in Xiamen, China (8-11 Nov. 2021). She delivered a lecture titled "Otoacoustic emissions as a viable biometric for person authentication".



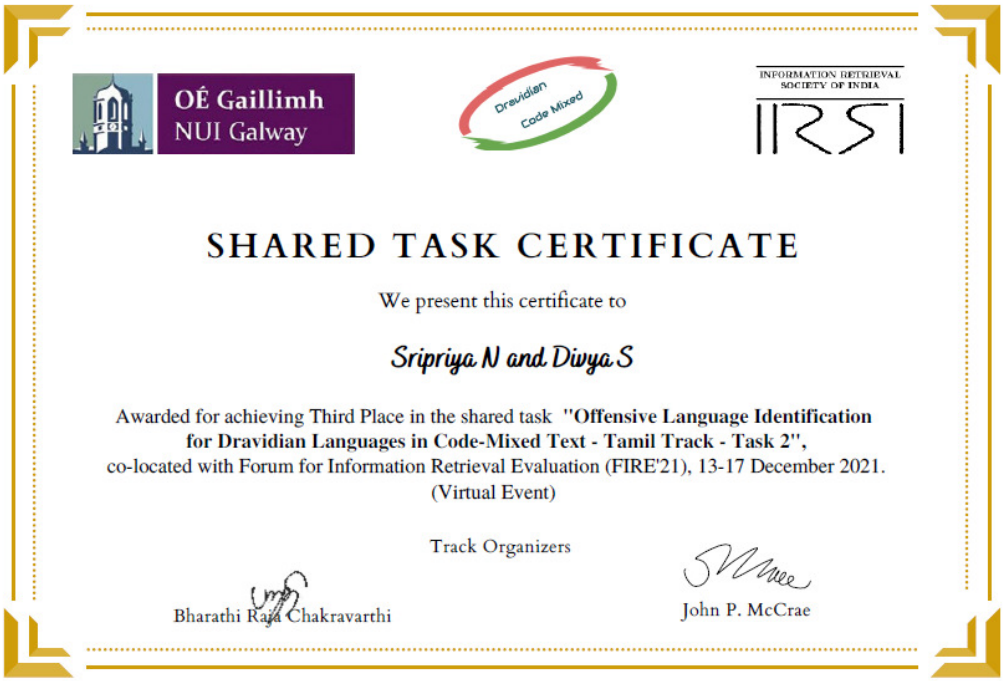
Dr. N. Sripriya, ASP

Faculty Corner

FIRE 2021

Dr. N. Sripriya, ASP and S.Divya, Research Scholar, Department of Information Technology, participated in the competition "HASOC-Offensive Language Identification- Dravidian CodeMix FIRE 2021" and secured the 3rd position on July 17, 2021.

FIRE 2021: Hate Speech and Offensive Content Identification in Indo-European Languages (HASOC) provides a forum and a data challenge for multilingual research on the identification of problematic content. The HASOC track intends to provide a platform to develop and optimize Hate Speech detection algorithms for Code-mixed, Tamil, Hindi and Malayalam. The dataset is collected from a Twitter archive, YouTube comments and pre-classified by a machine learning system. HASOC task is a challenge where an efficient model that is capable of classifying offensive and not-offensive input data is developed.



OÉ Gaillimh
NUI Galway

Dravidian Code Mixed

INFORMATION RETRIEVAL SOCIETY OF INDIA
IRSI

SHARED TASK CERTIFICATE

We present this certificate to

Sripriya N and Divya S

Awarded for achieving Third Place in the shared task **"Offensive Language Identification for Dravidian Languages in Code-Mixed Text - Tamil Track - Task 2"**, co-located with Forum for Information Retrieval Evaluation (FIRE'21), 13-17 December 2021. (Virtual Event)

Track Organizers

Bharathi Raja Chakravarthi

John P. McCrae

Dr. K. S. Gayathri, AP

IFFP

Dr.R. VinobChander, AP

Sanctioned IFFP

The Internally Funded Faculty Project (IFFP 2021) was sanctioned to Dr. K.S. Gayathri, AP and Dr. R. VinobChander, AP, for the project titled "*Ambient Assisted Dementia Care through Smart Home with Activity recognition, Abnormality detection and Decision Support system using Artificial Intelligence and Machine Learning Technique*" budgeted to an amount of Rs 2,00,000/- for a duration of 3 years.

The WHO statistics shows that 50 million people across the Globe are currently affected with dementia, an age related memory loss. The statistics further reveal that the dement count would double by 2030. The demented individual requires the help of a care taker to carry out their daily routines. Offering continuous care is a challenging task, as it involves huge resources in terms of time, money and effort. Therefore, ambient assistive health care systems are essential. Such health care systems can be designed through Smart Homes, an ambient intelligent environment. Activity recognition, abnormality detection and decision making are the primary components in the design of assistive dementia care systems through smart homes. Significant criterion to model dementia care is to handle incomplete event sequences (produced due to memory loss) and to model occupant specific knowledge (provided by the caretaker / doctors). The existing systems have either used data driven or knowledge driven approaches in the design. It is essential to include probabilistic machine learning approaches to handle uncertainty reasoning and domain specific modeling approaches to handle contextual reasoning. Moreover, the existing products on assistive care available in the market focus on specific functionality. Many such devices are collectively required to monitor and assist the people in daily routines. Thus, this proposal presents a novel framework to design an ambient assistive care system through smart home that monitors and offers support in Activities of Daily Living (ADL) using uncertainty reasoning and context level reasoning techniques. The outcome of the project would be an assistive health care product that supports the dement occupant in daily routines with minimum intervention of the caretaker.

Faculty Corner – External Interaction

Faculty Corner

- Dr. C. Aravindan, Professor and HoD, has acted as expert member in the Syllabus Sub Committee meeting for framing curriculum and syllabi for B.Tech. Artificial Intelligence and Data Science, B.Tech. Computer Science and Business Systems under the Faculty of Information and Communication Engineering, Anna University, Chennai on 14.8.2021.
- Dr. C. Aravindan, Professor and HoD, has acted as expert member in the Syllabus Sub Committee meeting-IX for framing curriculum and syllabi for B.Tech. Artificial Intelligence and Data Science, B.Tech. Computer Science and Business Systems under the Faculty of Information and Communication Engineering for the Non-Autonomous colleges Affiliated to Anna University, Chennai on 14.8.2021.
- Dr. C. Aravindan, Professor and HoD, has acted as expert member in the DC meeting for the research scholars of Dr. A. PremaKirubakaran, Associate Professor, Department of Computer Science, School of Computing Sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), on 21.8.21.
- Dr. C. Aravindan, Professor and HoD, has acted as expert member in the Synopsis meeting for the research scholar of Dr. G. Sumathi, Professor, Department of IT, Sri Venkateswara College of Engineering, on 31.8.21.
- Dr. C. Aravindan, Professor and HoD, has acted as expert member in the RAC meeting for the research scholars of Dr. V. Srinivasa Rao, Professor & Head, Department of Computer Science & Engineering, Dean, School of Computing, Vel Tech Rangarajan Dr. Sagunthala, R&D Institute of Science and Technology on 27.9.21.
- Dr. C. Aravindan, Professor and HoD, has acted as DC member for Ms. A. Aswathy, research scholar of Dr. P. Uma Maheswari, Anna University on 08.10.2021.
- Dr. C. Aravindan, Professor and HoD, has acted as DC member for the research scholar of Dr. P. Uma Maheswari, Anna University on 20.10.2021.
- Dr. S. Sasirekha, ASP, acted as an External Examiner for B.Tech IT Project viva-voce at SRM Institute of Science & Technology, Kattankulathur, conducted through Online Mode on 31.05.21 & 01.06.21
- Dr. S. Karthika, ASP, acted as a DC member for the research scholar of Prof. G. Mathivanan, Department of IT, Sathyabama Institute of Science and Technology on 29-06-2021.
- Dr. S. Karthika, ASP, received the Certificate of Appreciation in recognition of project guidance in the "5th National Level IEEE Project Competition-2021" Organized by IEEE Student Branch (STB17861), GSSSIETW in association with IEEE Bangalore Section and IEEE Mysore Subsection on 26th June 2021.
- Dr. N. Sripriya, ASP, attended a Comprehensive Viva-voce DC

Faculty Corner

meeting ofMs.C. Silpa, a part-time research scholar of SRM Institute of Institute of Science and Technology, Kattankulathur on Jun 15th, 2021.

- Dr. C. Aravindan, Professor &HoD, IT, acted as Faculty Selection Panel member for Kamaraj College of Engineering and Technology (Autonomous Institution, Anna University), K.Vellakulam, Madurai, held on 31-07-2021.
- Dr. E. M. Malathy, ASP, was invited as external DC member for Dr. A. Mythili, ASP and Dr. Abhishek. G, ASP, School of Electrical Engineering at VIT Vellore.
- Dr. T. Sree Sharmila, ASP, attended the Online Doctoral Committee Meeting of Mr. K. Sudhakar, to consider Synopsis of Ph.D. thesis for the PhD degree in the School of Computer Science and Engineering, VIT Chennai on 19 July 2021.
- Dr. S. Chithra, ASP, has acted as expert member in the DC meeting ofMs. P. Shanthi of SRM University on 18.8.21.
- Dr. S. Sasirekha, ASP, has acted as DC member for Ph.D candidate Ms.Mekala Devi of SRM University on 26.8.21.
- Dr. E. M. Malathy, ASP, acted as a DC member for the research scholar of scholar of Dr. Abhishek G, Assistant Professor Senior, VIT Vellore on 01.09.2021.
- Dr. E. M. Malathy, ASP, acted as a DC member for the research scholar ofDr. A. Mythili, Associate Professor, VIT Vellore on 13.09.2021.
- Dr. S. Chithra, ASP, has acted as DC member for the comprehensive viva voce examination of the candidate Ms. Anu Maria Joykutty on 27th October 2021, SRM Engineering college.
- Dr. S. Chithra, ASP, has acted as DC member for Mr. Rahul Kumar, SRM Engineering College on 28.10.21.
- Dr. E. M. Malathy, ASP, has acted as External member in the DC meeting panel for research scholar of Dr. S. Vidhya, Associate Professor, VIT, Vellore on the 8th of October, 2021.
- Dr. E. M. Malathy, ASP, has acted as External member in the DC meeting panel for research scholar of Dr. I. R Praveen Joe, Associate Professor, KCG college of Tech, on 26-10-2021.
- Dr K. S. Gayathri, AP, acted as an expert member in setting of Question Paper for End Semester examinations in Easwari Engineering College, (An Autonomous Institution), Ramapuram, Chennai, on 13 Oct 2021.
- Dr. K. S. Gayathri, AP, acted as a Doctoral committee member for a scholar ofDr. Geetha S, Professor, Department of CSE, Dr. M. G. R. Educational & Research Institute University on 7th Oct 2021.
- Dr. S. Karthika, ASP, has acted as DC member for the comprehensive viva voce examination for the research scholar Dr. G. Mathivanan, ASP, IT Department, Sathyabama University on 28-10-2021.
- Dr I. Joe Louis Paul, ASP, acted as an expert member in setting of Question Paper for End Semester examinations for Easwari Engineering College, (An Autonomous Institution), Ramapuram,

Faculty Corner

Chennai, on Oct 10, 2021.

- Dr I. Joe Louis Paul, ASP, acted as an expert member in setting of Question Paper for End Semester examinations for St. Joseph's College of Engineering, (An Autonomous Institution), OMR Chennai, on October 28, 2021.
- Dr. T. Sree Sharmila, ASP, participated in "IEEE Day Celebrations 2021" conducted by IEEE Madras Section at Hotel Savera, Chennai on 31.10.2021.
- Dr N.Bhalaji, ASP, acted as an Expert member for PhD viva-voce of Research Scholar G.Abirami of SRM Institute of Science and Technology who defended her thesis under the supervision of Dr Revathi Venkatraman on 07.10.21.
- Dr N.Bhalaji, ASP, acted as a subject expert member for PhD viva-voce of Mr P.Rajasekhar of SRM Institute of Science and Technology who defended her thesis under the supervision of Dr M.Pushpalatha on 27.10.21.
- Dr. C. Aravindan, Professor and HoD, has acted as RAC member for Mr. Senthilvel & Mr Srikrishnan, research scholars Department of CSE, Vels Institute of Science, Technology & Advanced Studies (VISTAS), Chennai on 17.12.2021.
- Dr. C. Aravindan, Professor and HoD, has acted as RAC member for Ms. Vaishali Kole, research scholar of Dr. N. Malarvizhi, Professor, Department of CSE, VelTech University on 27.12.2021.
- Dr. C. Aravindan, Professor and HoD, has acted as DC member for Ms. Abisheka, research scholar of Dr.C.Deisy, Professor & Head, Department of Information Technology, Thiagarajar College of Engineering, Madurai on 27.12.2021.
- Dr. C. Aravindan, Professor and HoD, has acted as RAC member for Mr. SaiyedFaiayazWaris, research scholar of Dr. Koteeswaran. S, Professor, Department of CSE, VelTech University on 31.12.2021.
- Dr. K.S.Gayathri, AP, acted as a Doctoral committee member for a scholar of Dr. N. Kanya, Prof, IT department of Dr. M. G. R. Educational & Research Institute University on 1 Dec 2021.
- Dr. T. Sree Sharmila, ASP, received certificate of appreciation in IEEE Annual General Meeting conducted by IEEE Madras section at Le Royal Meridien, Chennai on 12.12.2021 in recognition and appreciation of activities organized towards the advancement of IEEE and Engineering Profession during the year 2021.
- Dr. T. Sree Sharmila, ASP, participated in IEEE office bearers meet conducted by IEEE Madras Section on 12.12.2021 at Le Royal Meridien, Chennai.
- Dr. S. Karthika, ASP, has been a chair person in the Conference on Mathematical Sciences and Applications in Engineering (CMSAE 2021) held during 9 – 10 December 2021 organized by Department of Mathematics, Hindustan Institute of Technology and Science, Chennai.

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Journal Publications

Dr. S. Chithra, ASP, has published the following papers:

- S. Chithra, R. Yugha, Aishwarya. S, Mythreyi.R, Niranjana Devi.V, "TS-IoT: Trustworthy and Secure Smart Wearable Device for Child Tracking and Monitoring System", LINGUISTICA ANTVERPIENSIA, Issue - 3, 994-1006, 2021. (Scopus indexed)
- Yoganand Selvaraj & Chithra Selvaraj (2021): Proactive maintenance of small wind turbines using IoT and machine learning models, International Journal of Green Energy, 2021 Jun 14:1-2, DOI:10.1080/15435075.2021.1930004

Dr. S. Karthika, ASP, has published the following paper:

- Geetha, R., S. Karthika, ChaluvadiJwalaSowmika, and Bharathi M. Janani. "Auto-Off ID: Automatic Detection of Offensive Language in Social Media." In Journal of Physics: Conference Series, vol. 1911, no. 1, p. 012012. IOP Publishing, 2021. (SNIP:0.464)

Dr. T. Sree Sharmila, ASP, has published the following paper:

- Pavithra LathaKumaresan, Subbulakshmi Pasupathi, SindhiaLingaswamy, Sree Sharmila Thangaswamy, Vimal Shunmuganathan and Danilo Pelusi "Fruit-Fly optimization-based feature integration in image retrieval" in Mathematical Biosciences and Engineering (IF:2.08).

Dr. E. M. Malathy, ASP, has published the following paper:

- E. M. Malathy,I. R. Praveen Joe, P. Ajitha, "Miniaturized Dual-Band Metamaterial-Loaded Antenna for Heterogeneous Vehicular Communication Networks", IETE Journal of Research, March 2021 (IF: 2.33) https://doi.org/10.1080/03772063.2021.1892539

Dr. N. Radha, AP, has published the following paper:

- Radha N, SachinMadhavan RM, Sameera holy S, "Parkinson's Diseases Detection using Machine Learning Techniques", REVISTA ARGENTINA DE CLINICA PSICOLOGICA, Vol.30. Issue no 2. 2021. (IF: 0.5)

Dr. S. Karthika, ASP, has published the following paper:

- Geetha, R., Karthika, S. &Kumaraguru, P. Tweet-scan-post: a system for analysis of sensitive private data disclosure in online social media. Knowledge and Information Systems, 63, 2365–2404 (2021). https://doi.org/10.1007/s10115-021-01592-2

Dr. A. Shahina, Professor, has published the following papers:

- Shahina A, Harshini V, Dhanwin, Khadar Nawas K, Nayeemulla Khan, "Biometric identification using transient evoked otoacoustic emission signals based on recurrence plots and convolutional neural networks", Journal of Huazhong University of Science and Technology, 50(08), pp 1-11, 2021 (Scopus).
- Dr. A. Shahina has published a paper titled "A deep learning approach for robust speaker identification using chroma energy normalized statistics and mel frequency cepstral coefficients" in International Journal of Speech Technology (Scopus indexed - IF = 2.8)

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Dr. T. Sree Sharmila, ASP, has published the following paper:

- R. Roselinkiruba and T. Sree Sharmila published a paper titled "Performance evaluation of encryption algorithm using fruit fly optimization improved hybridized seeker and PVD algorithm" in the International Journal of Information Technology on 29 August 2021. (Scopus indexed).

Dr. N. Radha, AP, has published the following paper:

- N. Radha, R. B. Jananie, and A. AntoSilviya, "Enhancing Speech Quality Using Artificial Bandwidth Expansion with Deep Shallow Convolution Neural Network Framework", Fluctuation and Noise Letters, 2250008, 0219-4775, 2021. https://doi.org/10.1142/S0219477522500080. IF:1.310

Dr. S. Karthika, ASP, has published the following paper:

- P Suthanthira Devi, S Karthika, Rumor Identification and Verification for Text in Social Media Content, The Computer Journal, 2021;, bxab118, https://doi.org/10.1093/comjnl/bxab118

Dr. E. M. Malathy, ASP, has published the following papers:

- EM, Malathy, Thanikachalam V, Ruby, D, Manikandan N "Metamaterial-loaded multiband antenna for embedded automotive Internet-of-Things communications." International Journal of Communication Systems: e4941. 10.1002/dac.4941 (IF: 2.047)
- Malathy, E. M., MythiliAsaithambi, Alagu Dheeraj, and Kannan Arputharaj. "Hybrid Bird Swarm Optimized Quasi Affine Algorithm Based Node Location in Wireless Sensor Networks." Wireless Personal Communications (2021): 1-16. 10.1007/s11277-021-08934-x (IF: 1.671)

Dr. V. Arul Kumar, AP, has published the following book chapter:

- Arulkumar, V., R. Lathamanju, and A. Sandanakaruppan. "Assurance on data integrity in cloud data centre using PKI built RDIC method." In Recent Trends in Communication and Electronics, pp. 98-102. CRC Press, 2021.

Dr. T. Sree Sharmila, ASP, has published the following paper:

- R. RoselinKiruba, T. Sree Sharmila, A novel data hiding by image interpolation using edge quad-tree block complexity, The Visual Computer, 2021.10.1007/s00371-021-02312-1
- Underwater Acoustic Image Denoising using Stationary Wavelet Transform and Various Shrinkage Functions, R. Priyadharsini, T. Sree Sharmila, Electronic Letters on Computer Vision and Image Analysis, 20(2), 38-50. (Scopus)

Dr. A. Shahina, Professor, has published the following paper:

- N. Ilakiyaselvan, A. Nayeemulla Khan, A. Shahina, Reconstructed phase space portraits for detecting brain diseases using deep learning, Biomedical Signal Processing and Control, Volume 71, Part B, January 2022, 103278, October 2021.
- AkshathVarugeese, A. Shahina, Khadar Nawas& A. Nayeemulla Khan, EarNet: Biometric Embeddings for End-to-End Person Authentication System Using Transient Evoked Otoacoustic

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Emission Signals, Neural Processing Letters, Neural Process Lett (2021). https://doi.org/10.1007/s11063-021-10546-2

- Mohamed Hashim C, Shahina A, Badri Narayanan M, and Nayeemulla Khan A, End to end speech recognition of Tamil language, Intelligent Automation and Soft Computing, Vol.32, No.2, pp. 1309-1323, 2022, (published Nov, 2021). 10.32604/iasc.2022.022021

Dr. N. Radha, AP, has published the following paper:

- Radha N, SachinMadhavan RM, "Acoustic-visual based Accent Identification system using deep neural networks", REVISTA ARGENTINA DE CLINICAPSICOLOGICA, DOI: 10.24205/03276716.2020.4093, 2021. (IF: 0.5)

- Dr V. Thanikachalam, ASP, has published the paper titled Intelligent Deep learning based disease Diagnosis usi`ng Biomedical Tongue Images in Computers, Materials & Continua, 70(3), pp. 5667-5681, 2022.
- Dr. K. R. Uthayan, ASP, has published the paper titled IoT-Cloud Empowered Aerial Scene Classification for Unmanned Aerial Vehicles in Computers, Materials & Continua, 70(3), pp. 5161-5177, 2022.

Conference Publications

- Dr. P. Vasuki, ASP, presented the paper titled "Program Synthesis - a Survey" along with Jacindha. S and Abishek. G, Alumni of Batch 2016 – 2020 in the International Springer Conference on Computational Intelligence in Machine Learning (ICCIML 2021) held on June 1st and 2nd 2021, jointly organized by Centre for Artificial Intelligence and Robotics, UTM Malaysia, USTC Chittagong, Bangladesh, Don Bosco Institute of Technology, Bengaluru, India and CMR College of Engineering & Technology, Hyderabad India. (Virtual mode).
- Dr. S. Karthika, ASP, has presented the following papers:
  - Srinidhi. S, Sowmya. K and Karthika. S, "Automatic Credit Fraud Detection Using Ensemble Model", IFIP Springer Sixth International Conference on ICT for Sustainable Development (ICT4SD 2021) in virtual mode held during August 5-6 2021
  - Naveen. S, Mayank Singh and Karthika. S, "Swear Words Replacement Suggestion System", IFIP Springer Sixth International Conference on ICT for Sustainable Development (ICT4SD 2021) in virtual mode held during August 5-6 2021
  - Buvanasri A K, Meenakshi R and Karthika S, "Applications of Open-Source Intelligence in Crisis Analysis – A COVID-19 Case Study", IFIP Springer Sixth International Conference on ICT for Sustainable Development (ICT4SD 2021) in virtual mode held during August 5-6 2021
- Dr. A. Shahina, Professor, has presented the following paper:

Dr. A. Shahina, Professor, along with Keshav Balachandar and

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AnamSaatvik Reddy, B. Tech IT students, published a paper titled "Summarization of Commercial Contracts" in the 2nd International Conference on Machine Learning, IOT and Blockchain (MLIOB 2021) held on August 21-22, 2021 at Chennai, India.

- Dr. A. Shahina, Professor, has presented a paper along with B.Tech IT students, Sriram Na and Vishaq, titled "Covid-19 detection using chest X-rays: CNN as a classifier vs CNN as a feature extractor" in the Second International Conference on Machine Intelligence and Smart Systems 2021 (MISS 2021), held in Gwalior, India during September 24-25, 2021.
- Dr. S. Sasirekha, ASP, along with her research scholar Mr. N. Sundareswaran presented a paper titled "Packet Filtering Mechanism to defend against DDoS attack in Blockchain Network" at the International Conference on Evolutionary Computing and Mobile Sustainable Networks [ICECMSN-2021] organized by Department of CSE / ISE and Department of ECE, RV Institute of Technology and Management, Bengaluru, India on 28 & 29, September.
- Dr. A. Shahina, Professor, has presented the following paper:
  Debadyuti Bhattacharya (B.Tech IT), Sri Hari Karthick (B.Tech IT) N, Shahina A, " Early Detection of Suicidal tendencies from text data using LSTM ", Proc. 3rd Intl. Conf. Innovations in Power and Advanced Computing Technologies (i-PACT), Kualalumpur, Malaysia, November 27-29, 2021.
- Arun Kumar R, V. Anoosh Solayappan, Sree Sharmila T, Ram Prasad K presented a paper entitled "Masked Deep Face Recognition using ArcFace and Ensemble Learning" at IEEE International Conference on Technology, Engineering, Management for Societal impact using Marketing, Entrepreneurship and Talent (TEMSMET) at Symbiosis Institute of Computer Studies and Research, Symbiosis International (Deemed University), Pune, 1-3 December 2021.
- Dr. R. Geetha, ML Engineer, TNeGA, Rekha Pasupuleti, IT Alumni, and Dr. S. Karthika, ASP, presented the paper titled Analysis of Online Health-related Private Data using Named Entities by Deep Correlation Techniques in 8th International Conference on Business Analytics and Intelligence (ICBAI) held during 20th – 22nd December 2021, organised by IISc, Bangalore, INDIA.

Articles Reviewed

- Dr. I. Joe Louis Paul, ASP, reviewed an article for CMC-Computers, Materials & Continua Journal (Tech Science Press) on July 1, 2021.
- Dr. S. Sasirekha, ASP, reviewed two articles for the book chapter to be published by CRC Press Taylor and Francis.
- Dr. S. Mohanavalli, ASP, reviewed a manuscript for Applied Artificial Intelligence, Taylor & Francis Journal on July 30, 2021.
- Dr. N. Sripriya, ASP, reviewed an article for the ACM Transactions on Asian and Low-Resource Language Information Processing on July 19, 2021.
- Dr. K. S. Gayathri, AP, reviewed a paper for International Journal on

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Knowledge-based systems, Elsevier, Aug 2021.

- Dr. S. Karthika, ASP, has reviewed a submission for Information Sciences Journal, Elsevier during August 2021.
- Dr. P. Vasuki, ASP, has reviewed a submission for Transactions on Asian and Low-Resource Language Information Processing during August 2021.
- Dr. E. M. Malathy, ASP, reviewed a research article for Waves in Random and Complex Media, Taylor and Francis Journal.
- Dr. I. Joe Louis Paul, ASP, reviewed an article for Wireless Personal Communications Journal (Springer) on September 29, 2021.
- Dr. I. Joe Louis Paul, ASP, reviewed the articles on September 18, 2021 for IEEE 6th International Conference on Computing, Communication and Automation (ICCCA 2021) organized by Galgotias University, Greater Noida, Uttar Pradesh, India.
- Dr. S. Mohanavalli, ASP, reviewed a manuscript for the journal "Informatics in Medicine Unlocked" (Elsevier) on September 23, 2021.
- Dr. AshwinthJanarthanan, AP, has been appointed as reviewer for 2021 IEEE Globecom Workshops (GC Wkshps): 2nd Workshop on Network Management for 6G Communication Systems (NetMan6G) between 7-11 December 2021, at Madrid, Spain.
- Dr. AshwinthJanarthanan, AP, has reviewed papers for 2021 IEEE Globecom Workshops (GC Wkshps): 2nd Workshop on Network Management for 6G Communication Systems (NetMan6G).
- Dr. R VinobChander, AP, reviewed a paper for the Journal of Computational Methods in Sciences and Engineering (JCMSE) of IOS Press on Oct 30th, 2021.
- Dr. R VinobChander, AP, reviewed a paper for RSC'21 on Oct 30th, 2021.
- Dr I. Joe Louis Paul, ASP, reviewed a paper for Research Scholars' Colloquium (RSC '21) organized by the Department of Information Technology, SSN College of Engineering on October 30, 2021.
- Dr. E.M.Malathy, ASP, reviewed manuscripts for IEEE ICAECA 2021 Conference conducted by Kumaraguru college of Engineering.
- Dr. S. Sasirekha, ASP, reviewed a paper for the Journal PLOS ONE on Oct 28th, 2021.
- Dr. S. Sasirekha, ASP reviwed two papers for the 4th International Conference on Computing and Communications Technologies (ICCCT' 21) organized by Department of Information Technology, Sri Sai Ram Engineering College.
- Dr. AshwinthJanarthanan, AP, reviewed a manuscript for Soft Computing, Springer publication.
- Dr. E.M.Malathy, ASP, reviewed a research article from Waves in Random and Complex Media, Taylor and Francis journal on Dec 21, 2021.

Submitted Funded Projects

- Dr. R. VinobChander, AP, submitted a hackathon project to DevPost's

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SAAI Factory on 30th Aug 2021.

- Dr. T. Sree Sharmila, ASP and Dr. J. Sofia Jennifer, AP, submitted an internal funding project entitled "MaFaR – The Masked Face Recognition System" for a duration of 24 months and with a budget of Rs. 2,81,190/- during August 2021
- Dr. T. Sree Sharmila, ASP as PI and Dr. J. Sofia Jennifer, AP as Co-PI, submitted the project proposal titled MulFaR - A Multi-face recognition and tracking model in surveillance video budgeted for 28 Lakhs to SERB POWER Grant.
- Dr. S. Mohanavalli, ASP, IT as PI and Dr. S. Kavitha, ASP, CSE and Dr. N. Sripriya, ASP, IT as Co-PIs, submitted the project proposal titled "Quantum Computing for Efficient Diagnosis of Breast Cancer using Optimized Search Techniques" budgeted for 25.6 lakhs to SERB POWER Grant.
- Dr. S. Poornima, ASP as PI and Dr. N. Sripriya, ASP as Co-PI, Dr. S. Mohanvalli, ASP as Co-PI submitted the project proposal titled Effective Plant Disease Classification using Deep Learning Techniques budgeted for 25.63 Lakhs to SERB POWER Grant.
- Dr. T. Sree Sharmila, ASP, has applied the following project:
  - Development of NDT technique for quality assessment of cast ingot, PI: Alagiri Govindasamy, Director, PMC Global Systems, Co-PI: Ravishankar Radhakrishnan, PMC Global Systems, Dr. T. Sree Sharmila, ASP, IT, Dr. N. Bhalaji, ASP, IT, for a budget of 72 Lakhs to DRDO.
- Dr. K.S.Gayathri, AP, has applied the following project under the IFP scheme:
  - Supraja S, Saran Gantth K, Manigandan G, Sathya Priyaa R of III year EEE submitted an Internal Student Funded Project titled "Autonomous Electric Delivery System" under the guidance of Dr. Saravanan P, EEE Department and Dr. Gayathri K.S. IT Department.
- Dr. P. Vasuki, ASP, has applied the following project under the IFP scheme:
  - Preetha, Riyaz, Karthika, Shalini, III Year IT have submited the IFP titled "Digital monitor for hostel on unauthorized entry".

Guest Lectures delivered

- Dr. K.S. Gayathri K, AP, acted as a Resource person and delivered a lecture on "Recommender Systems" in Five Days Online STTP on Machine Learning and Data Science organized by the Department of Computer Science and Engineering, Sri Venkateswara College of Engineering from 12th June 2021 to 16th June 2021.
- Dr. T. Sree Sharmila, ASP, delivered a talk on "Solving Problems on FA and Regular Expressions" in the Online Six-Day FDTP - Summer 2021 on CS8501 – Theory of Computations conducted by department of Computer Science and Engineering, SSN College of Engineering on 22.06.2021.
- Dr N. Bhalaji delivered a guest lecture on "Introduction to Ethical

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Hacking" to the students of St. Josephs institute of technology, Chennai

- Dr. K.S. Gayathri, AP, acted a resource person and delivered a lecture on "Design Approaches of Recommender system" in One Week Online Faculty Development Program on Role of Machine Intelligence for Information Retrieval organized by Department of CSE, GMR Institute of Technology, Srikakulam district, Andhra Pradesh on 9 July, 2021.
- Dr. N. Bhalaji, ASP, delivered a talk on "IoT and its applications" in the Faculty development program titled "Advanced trends and applications in Mobile adhoc networks" organised by the Faculty Training center, GCT, Coimbatore.
- Dr. R. VinobChander, AP, delivered a virtual technical Webinar on "Full Stack development with Java Script" at the department of Information Technology, St. Joseph's Institute of Technology, Chennai on Aug. 27, 2021.
- Dr. T. Sree Sharmila, ASP, delivered a keynote address titled "Challenges in Face Recognition during COVID-19" in the International Women in Engineering COVID 19 Congress (WIECOV 2021) conducted by IEEE Bangladesh Section on 21 August 2021.
- Dr. S. Karthika, ASP, delivered a keynote address titled "Handling Misinformation Data during COVID-19" in the International Women in Engineering COVID 19 Congress (WIECOV 2021) conducted by IEEE Bangladesh Section on 21 August 2021.
- Dr. V. Arulkumar, AP, delivered a talk titled 'A Practical perspective on IP and IP addressing' at Sri SAIRAM Engineering college on 28th September 2021.
- Dr. K.R. Uthayan, ASP, delivered a talk on GIT foundations in SCM Workshop, SSNCE, on 24-9-2021.
- Dr. R. Srinivasan, Professor, has delivered guest lecture titled Research Issues in VLSI Design in the Department of ECE, SRM TRP Engineering College, Trichy, on 21-10-2021.
- Dr. K. S. Gayathri, AP, acted as a resource person and delivered a lecture on "Role of AI in Autonomous Vehicle" in a "Five Days Faculty Development Programme on Applications of Artificial Intelligence and Machine Learning in Mechanical Engineering" organised by SRM Institute of Science and Technology, Vadapalani Campus, Chennai, between 04-10-2021 and 08-10-2021.
- Dr K. S. Gayathri, AP, delivered a lecture on "Application of AI in the design of Self Driving Car" in a webinar conducted by the CSE department of Sri Venkateswara College of Engineering on 7th Oct 2021.
- Dr. AshwinthJanarthanan, AP, delivered a guest lecture on 'Algorithm Design and Optimization Techniques' in IES College of Engineering, Thrissur, Kerala on 02/11/2021.
- Dr. S. Chithra, ASP acted as a resource person for AICTE-ISTE Sponsored Induction / Refresher Program on "Cryptography in Quantum Era" organized by Anna University, Kancheepuram on 27.12.21.

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Webinars and Seminars Conducted

- Dr. S. Karthika, ASP, in association with Institution's Innovation Council (IIC) organized the Extra- Mural Lecture titled "Nature and You – Co-existence" delivered by Prof. Srinivas Gumparthi, SSN School of Management on 26-06-2021.
- Dr.J. Sofia Jennifer, AP, delivered a talk titled "Understanding Computer Vision using Deep Learning" in the seminar organized by Dr. S. Karthika, ASP, on 28.07.21 for IInd semester M.Tech, IT, students and research scholars.
- Dr. S. Karthika, ASP, in association with Institution's Innovation Council (IIC) organized the Extra- Mural Lecture titled "Do what you have to do, Use what you get, Get where you want to" delivered by Ms. Avi Natesan, Student, Final Year, Department of CSE, on 30-07-2021.
- Dr.A. Shahina, Professor, delivered a talk titled "Speech Processing Using Deep Learning" in the seminar organized by Dr. S. Karthika, ASP, on 07.08.21 for IInd semester M.Tech, IT, students and research scholars.
- Dr. S. Karthika, ASP, in association with Institution's Innovation Council (IIC) organized the Extra- Mural Lecture titled "Make a difference to make a living" delivered by Mr. Aashik Joel, Student, Final Year, Department of IT, on 28-08-2021.
- Dr. R VinobChander, AP, conducted a Webinar on "Using Prisma for Node TypeScript Projects" on Oct. 30, 2021.
- Dr. T. Sree Sharmila, ASP, conducted a webinar on "Data Analytics" under the banner of IEEE Computer Society on 12.10.2021.
- Dr. A. Sandanakaruppan, AP, Dr. S. Sasirekha, ASP and Dr. I. Joe Louis Paul, ASP, organized a webinar on "Hosting A Static Website In The Cloud Using AWS - Simple Storage Service (S3)" by Mr. Riyaz Rafi Ahmed on 25th October 2021.
- CSWG Team conducted the following cyber awareness workshop during October:
  - An Eye into Privacy by Mr. Andrew David Bhagyam, Global Lead, Privacy Office, Zoho, Chennai on 11-10-20
  - A career in Cyber Security by Mr. Riyaz Rafi Ahmed, Security &DevSecOps Engineer at Hippo Video on 19-10-2021
  - Cyber Security for Women by Ms. R. Santhya, Founder and Director, ABG Cyber Solutions, Coimbatore on 25-10-2021
  - How much you are exposed on Internet? by CSWG Student members on 27-10-2021
- Dr. T. Sree Sharmila, ASP, conducted IEEE Membership Drive under the banner of IEEE Student Branch on 01.10.2021.
- Dr. S. Karthika, ASP, in association with Institution's Innovation Council (IIC) organized the Extra- Mural Lecture titled "It's never too late for anything" delivered by Mr. Yuvan Aravind, Student, Third Year, Department of IT, on 29-10-2021.

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- Dr. S. Karthika, ASP, in association with Institution's Innovation Council (IIC) organized the Extra- Mural Lecture titled "My Learnings and Experience as Naturalist" delivered by Mr. Vikas Madhav, Alumni, Third Year, Department of Chemical Engineering on 20-11-2021.
- CSWG Team conducted the following series of workshop on Quantum cryptography during November and December 2021:
  - Quantum Supremacy and Its Implication to Cryptology by Dr Arpita Mitra, Institute for Advancing Intelligence on 16/11/21.
  - Quantum Cryptography by Rahil Patel, Chief Growth Officer at QuNu Labs Private Limited (also referred to as QNu Labs) on 20/12/21.

FDPs, Workshops and Webinars Attended

- Dr. R. Swathika, AP, completed the online AICTE Training and Learning (ATAL) Academy FDP on "GIS & Remote sensing and its Applications" organized by Punjab Remote Sensing Centre during 07.06.2021-11.06.2021.
- Dr. K.S. Gayathri, AP and Dr. A. Sandanakaruppan, AP, attended Five-day FDP on "System design for Healthcare and Assistive Technologies" organized by the Department of Electronics and Communication Engineering, SSN College of Engineering during 14th to 18th June 2021.
- Dr. I. Joe Louis Paul, ASP, completed AICTE Training and Learning (ATAL) Academy Online Advanced FDP on "IoT in 5G Technology" from 21.06.2021 to 25.06.2021 organized by Silicon Institute of Technology, Bhubaneswar, Odisha.
- Dr. K.S. Gayathri attended the interactive session on "Assessing research productivity and quality through citation analysis" with Professor Prem Vrat, AICTE Distinguished Chair Professor on 10.06.2021 organized by SSN-IIC.
- Dr. I. Joe Louis Paul, ASP and Dr K.S. Gayathri, AP, attended a webinar on "Introduction to V2X, Standards, its Use Cases and Applications in Air Quality Monitoring System", jointly organized by SSNCE and Tata Elxsi Forum on 18.06.2021.
- Dr. N. Sripriya, ASP and Dr. S. Vidhusha, AP, attended the Webinar on "Virtual Reality (VR) and Augmented Reality (AR) for Industry" organized by ASME, India section on 19th June, 2021.
- Mr.V.Sivamurugan, ASP, attended an online FDP on "Machine Learning for IOT applications" organized by Dept of CSE, NIT Warangal , from 7th June, 2021 to 15th June 2021.
- Dr. I. Joe Louis Paul, ASP, completed Online Faculty Development Programme on "Precision Healthcare Technology" from 28.06.2021 to 02.07.2021 organized by Department of Biomedical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chennai.
- Dr. T. Sree Sharmila, ASP, participated & completed successfully

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AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "5 DAY Foundation course on fundamentals of Geomatics (Remote Sensing, GIS, GNSS)" from 2021-7-6 to 2021-7-10 at Jawaharlal Nehru Technological University Hyderabad.

- Dr. T. Sree Sharmila, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Virtual and Augmented Reality for Robotics" from 2021-7-12 to 2021-7-16 at Vimal Jyothi Engineering College.
- Dr. S. Mohanavalli, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online, Elementary FDP on " Deep Learning" from 2021-07-05 to 2021-07-09 at Atal Bihari Vajpayee Indian Institute of Information Technology and Management Gwalior
- Dr. P.Vasuki, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP titled " Deep Learning for Audio and Speech Processing" from July 26- 30.
- Dr. P.Vasuki, ASP, attended Summer School from July 5- 16 on Machine Learning and Deep Learning for Remote Sensing Applications organized by NIT, Suratkal, Karnataka.
- Dr. S. Sasirekha, ASP, completed Online Faculty Development Programme on “Precision Healthcare Technology” from 28.06.2021 to 02.07.2021 organized by Department of Biomedical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chennai.
- Dr. S. Poornima, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online, Elementary FDP on " Deep Learning" from 2021-07-05 to 2021-07-09 at Atal Bihari Vajpayee Indian Institute of Information Technology and Management Gwalior.
- Dr. S. Poornima, ASP, participated and completed successfully AICTE Training And Learning (ATAL) Academy Online, Elementary FDP on "Introductory Data Science and Deep Learning" from 16 to 20th July 2021 at International Institute of Information Technology - Naya Raipur.
- Dr. P. Vasuki, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Virtual and Augmented Reality for Robotics" from 2021-7-12 to 2021-7-16 at Vimal Jyothi Engineering College.
- Dr. N. Sripriya, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online, Elementary FDP on "Deep Learning" from 2021-07-05 to 2021-07-09 at Atal Bihari Vajpayee Indian Institute of Information Technology and Management Gwalior.
- Dr. S. Karthika, ASP, has participated & completed successfully AICTE Training And Learning (ATAL) Academy Online, Elementary FDP on "Data Sciences" from 09-08-2021 to 13-08-2021 at National Power Training Institute (Southern Region)
- Dr. I. Joe Louis Paul, ASP has attended the Faculty Development Programme (FDP) on "IoT for Healthcare Applications" during Aug 5 -

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7, 2021, organized by the IEEE Students Branch, National Engineering College, Kovilpatti, in association with IEEE Madras Section.

- Dr. S. Sasirekha, ASP has attended the Faculty Development Programme (FDP) on "IoT for Healthcare Applications" during Aug 5 - 7, 2021, organized by the IEEE Students Branch, National Engineering College, Kovilpatti, in association with IEEE Madras Section.
- Mr. V. Sivamurugan, AP, attended FDP on Deep Learning and AI applications conducted by NIT Warangal from 28-08-2021 to 08-09-2021.
- Mr. V. Sivamurugan, ASP, attended FDP on Current Trends of Deep Learning in Various Research Domains conducted by NIT Warangal along with VIT University from 20-09-2021 to 24-09-2021.
- Dr. S. Sasirekha, ASP, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "MEAN Stack Technologies" from 21/09/2021 to 25/09/2021 at SreeVidyanikethan Engineering College (Autonomous).
- Dr P. Vasuki, ASP, attended ATAL Workshop, "VR/AR Applications in Engineering Education", from Sep 20 to Sep 24 organized by G.Pulla Reddy Engineering College.
- Dr. V. Thanikachalam, ASP, attended Online Faculty Development Program on "Python Programming for Beginners using Artificial Intelligence Machine Learning & Deep Learning " conducted by the department of Computer science & Engineering, National Institute of Technology Warangal from 1.11.2021 to 5.11.2021.
- Dr Swathika R, AP, attended Virtual International Faculty Development Programme on "Strategies on Effective Way to Write Research Papers" conducted by the Department of Chemical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai from 18-11-2021 to 27-11-2021.
- Dr N Radha, AP, attended Virtual International Faculty Development Programme on "Strategies on Effective Way to Write Research Papers" conducted by the Department of Chemical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai from 18-11-2021 to 27-11-2021.
- Dr.Swathika R, AP, attended Virtual International Faculty Development Programme on "Strategies on Effective Way to Write Research Papers" from 18-11-2021 to 27-11-2021.
- Dr.Radha R, AP, attended Virtual International Faculty Development Programme on "Strategies on Effective Way to Write Research Papers" from 18-11-2021 to 27-11-2021.
- Dr. T Sree Sharmila, ASP, participated and completed successfully AICTE Training And Learning (ATAL) Academy Online Advanced FDP on "AR & VR" from 07/12/2021 to 11/12/2021 organized by PSG Polytechnic College.
- Mr. V. Sivamurugan, ASP, attended online FDP on Research Trends in Artificial Intelligence and Blockchain conducted by Dept of CSE NIT Warangal in Collaboration with Dept of ECE KCG College of

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Technology from 29-11-2021 to 03-12-2021.

- Mr. V. Sivamurugan, ASP, attended online FDP on "Deep Learning for time series data" conducted by E & ICT Academy NIT warangal in association with Dept of CSE Pondicherry University from 20-12-2021 to 30-12-2021.

Workshops

- Dr.V.Arulkumar, AP, participated in the Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India sponsored online Workshop entitled "PARALLEL AND DISTRIBUTED COMPUTING" from 19th to 23rd July, 2021 organized by the Department of Computer Science and Engineering, NIT Andhra Pradesh.
- Dr K.S.Gayathri, AP, attended an International workshop on "Mathematical Foundations for Machine Learning and Data Science", organised by IT department of SSN college of Engineering during 13th and 14th August 2021.
- Dr. I. Joe Louis Paul, ASP, attended an International workshop on "Mathematical Foundations for Machine Learning and Data Science", organised by IT department of SSN college of Engineering during 13th and 14th August 2021.
- Dr. S. Sasirekha, ASP, attended an International workshop on "Mathematical Foundations for Machine Learning and Data Science", organised by IT department of SSN college of Engineering during 13th and 14th August 2021.
- Ms. Josephine Julina J. K., AP, attended One-Day Workshop on Genetic Algorithm, Simulated Annealing, ANN and Fuzzy, organized by Department of Mechanical Engineering, SSN CE on 27.08.2021.
- Ms. Josephine Julina J. K, AP, attended an International workshop on "Mathematical Foundations for Machine Learning and Data Science", organised by IT department of SSN college of Engineering during 13th and 14th August 2021.
- Dr. S. Poornima,ASP, attended an International workshop on "Mathematical Foundations for Machine Learning and Data Science", organised by IT department of SSN college of Engineering during 13th and 14th August 2021.
- Dr. S. Mohanavalli,ASP, attended an International workshop on "Mathematical Foundations for Machine Learning and Data Science", organised by IT department of SSN college of Engineering during 13th and 14th August 2021.
- Dr K.S.Gayathri, AP, attended 2nd International Symposium on Data Analytics Risk & Technology presented by the American Express Lab for Data Analytics, Risk, and Technology (DART Lab) at IIT Madras between Sep 23 and 25, 2021.
- Dr K.S.Gayathri, AP, attended Two-day Awareness Workshop on Improving Research & Performance outcomes, Elsevier, Aug 31 and Sep 1, 2021.
- Mr. V. Sivamurugan, ASP, attended the workshop on SCM With Git and GitHib organized by Department of IT, SSN college of

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Engineering during 24-25 September, 2021.

- Dr K.S.Gayathri, AP, attended Microsoft Research Summit 2021 held between 19 Oct 2021 and 21 Oct 2021 organised by Microsoft research.
- Dr S. Chithra, ASP, attended Microsoft Research Summit 2021 held between 19 Oct 2021 and 21 Oct 2021 organised by Microsoft research.
- Dr. V. Arulkumar, AP, attended three-day workshop on "Cloud, Fog and Edge Computing Platforms in Industrial IoT" during October 25 – 27, 2021.
- Dr. S. Karthika, ASP, attended Two Days Virtual International Workshop on Privacy-Preserving Artificial Intelligence Techniques for Machine Learning (IWAIML-21) sponsored by CSIR conducted on 26th and 27th November 2021 in online mode.
- Dr. S. Karthika, ASP, attended workshop titled CO-PO Mapping using PI-CC & Attainment Calculation on 4th December 2021 organized at SSN College of Engineering.
- Dr. E.M. Malathy ASP, attended one day online training titled "NetSim Online Training Session" by Tetcos ,Banglaore on 29.12.2021.

Webinars

- Ms. Josephine Julina J. K., AP, attended ACM India Webinar Series on Education: "Data Science and Astrology: Is There a Difference? on 17.07.2021.
- Dr. S. Karthika, ASP, attended ACM India Webinar Series on Education: "Data Science and Astrology: Is There a Difference? on 17.07.2021.
- Dr E.M. Malathy, ASP, attended a webinar on " Advanced IoT and embedded system" organized by IRTT erode during 16.7.2021 to 18.7.2021.
- Dr. S. Karthika, ASP, attended IC-PACE Fourth Webinar on "Modelling the COVID-19 Pandemic: SUTRA Predictions" on 02-07-2021.
- Dr. S. Chtihra, ASP, attended ACM 2020 TURING LECTURE: Abstractions, Their Algorithms, and Their Compilers - Alfred Aho and Geoffrey Ullman on 24-7-21.
- Dr. Swathika R, AP, has attended a webinar on, "Migrating from Papers to Patents" organized by SSN-IIC on 21st July 2021.
- Dr. K. S. Gayathri, AP, attended webinar on, "Building an Innovation/Product Fit for Market" on 15th July 2021 organised by SSN-IIC speaker Mr.R. KajaBanthaNavas, Founder – Helios Innovation Pvt Limited, Chennai, Assistant Professor School of Mechanical Engineering, Sathyabama Institute of Science and Technology
- Dr K.S. Gayathri, AP, attended ACM India and iSIGCSE Chapter Education Webinar on "Data Science and Astrology: Is there a Difference?" with Jayant Haritsa, of the Department of Computational and Data Sciences, Indian Institute of Science on 17 July 2021.

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- Dr K.S.Gayathri, AP, attended a webinar on, ""Migrating from Papers to Patents" organized by SSN-IIC on 21st July 2021.
- Dr. S. Poornima, ASP, attended a Webinar on "Soft Computing Techniques", organized by Faculty Development Cell (FDC), AICTE, New Delhi, on 15th July 2021.
- Dr. N. Sripriya, ASP, attended a Webinar on "Soft Computing Techniques", organized by Faculty Development Cell (FDC), AICTE, New Delhi, on 15th July 2021.
- Dr. S. Karthika, ASP, attended IEEE organized IC-PACE Webinar on "Leadership and Indian Philosophy" delivered by Prof. Himanshu Rai, Director, IIM Indore, on Aug 9, 2021.
- Dr. I. Joe Louis Paul, ASP has attended the 3 Days Online Short Term Training Programme (STTP) on "Internet of Things and its Applications" during August 25-27, 2021, organized by Department of Computer Science and Engineering, Mepco Schlenk Engineering College(Autonomous), Sivakasi.
- Dr. S. Sasirekha, ASP has attended the 3 Days Online Short Term Training Programme (STTP) on "Internet of Things and its Applications" during August 25-27, 2021, organized by Department of Computer Science and Engineering, Mepco Schlenk Engineering College(Autonomous), Sivakasi.
- Dr. P. Vasuki, ASP, has attended the AICTE Sponsored 6 days online STTP Training Program on "New avenues of Emotion Recognition during 23.08.2021 to 28.08.2021, conducted by Maulana Abul Kalam Azad University of Technology, West Bengal.
- Dr. S. Chithra, ASP, has attended the webinar titled "Research opportunities in Wind Energy and Technology" organized by NIWE on Aug 3rd 2021.
- Dr. S. Chithra, ASP, has attended the Webcast organized by IEEE Spectrum on Multi-Sensor Front End for Wearable Applications, 24th Aug 2021.
- Dr K.S.Gayathri, AP, attended the 5th session of Online Interactive Lecture Series, titled Industry -academia interaction: a fresh perspective, by Professor Prem Vrat, AICTE Distinguished Chair Professor on 25.09.2021.
- Dr. R. VinobChander, AP, attended the Webinar titled "Deploying the SOSA Technical Standard: Benefits & Challenges" organized by Open Systems Embedded Military Webcasts, on September-29, 2021. The speakers were Rodger Hosking (V.P. and Co-Founder, Pentek, Inc., now part of Mercury), Jay Grandin (VP Product Development Annapolis Micro Systems), & Justin Moll (Vice President of Sales & Marketing Pixus Technologies).
- Dr. R VinobChander, AP, has attended the following events:
  - InstructureCon Online Sydney 2021 on October 7, 2021
  - COM-HPC: Bringing Data Center Compute into the Fog webcast on13/10/2021
  - virtual ConnextCon 2021 on October 19-20, 2021

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- Next.js Conf. 2021
- GitHub Universe 2021

- Dr. K.R. Uthayan, ASP, has attended the webinar titled Scopus Introduction and its advantage on 22-10-2021.
- Dr. S. Karthika, ASP, has attended IEEE DeepTech.AI 2021 hosted by IEEE CS Bangalore Chapter on 29-10-2021.
- Dr. P. Vasuki, ASP, has attended the webinar titled Scopus Introduction and its advantage on 22-10-2021.
- Dr. S. Sasirekha, ASP, has attended the webinar titled Scopus Introduction and its advantage on 22-10-2021.
- Dr. T. Sree Sharmila, ASP, participated IEEE HAC Global Summit 2021 on 10 November 2021.
- Dr. T. Sree Sharmila, ASP, participated in the Celebration of Science Festival (Vigyan Utsav) as a part of Celebration of 75th Year of Independence (Azadi ka Amrit Mahotsav) under the theme of "Research & Development Infrastructure" conducted on 18th November 2021 organized by Tamil Nadu State Council for Science and Technology, Chennai.
- Dr. K.S.Gayathri, AP, participated in Virtual National Seminar on "How to start and do a research: An interactive discussion" organized by the Department of Chemical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai, India on 02-11-2021.
- Dr. S. Karthika, ASP, has attended the SSN - IIC Webinar on "Approaches to Patenting in the field of Computer Science" conducted on 20-11-2021.
- Dr V Thanikachalam, ASP, attended state-wise webinar on NEP conducted by National Assessment and Accreditation Council on 16.11.2021.
- Dr. Swathika R, AP, attended Extra- Mural Lecture titled "My Learnings and Experience as Naturalist" organized by SSNCE in association with Institution's Innovation Council (SSN – IIC 3.0) on 20-11-2021.
- Dr. K. S. Gayathri, AP, attended a webinar on Adapting RL algorithms organised by RBCDSAI, IIT Madras on 01 Dec 2021.

Industry Interaction

- Dr N. Bhalaji and Dr C. Aravindan participated in the meeting arranged by the Placement office with the team of Virtusa for the possible setting up of a centre of excellence in cloud computing on 23.06.21.
- Dr N. Bhalaji, Dr C. Aravindan and Dr Albal interacted with the team of EMURGO for the possible collaboration in the vertical of Blockchain Technology on 29.06.21.
- Dr.N.Bhalaji, ASP, and Dr.C.Aravindan, Professor &HoD, IT, participated in a MoU signing ceremony between SSNCE-Center of Excellence in Industry 4.0, SSN-SACE and Future Connect Technologies Private Limited, Chennai on 22-7-21.

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- Dr.N.Bhalaji, ASP, participated in a discussion with Redington CSR held at SSN-SACE regarding offering Skill up programs for undergraduate science students from rural backgrounds on 29.07.21
- Dr.N.Bhalaji, ASP, and Dr.C.Aravindan, Professor &HoD, IT, participated in a meeting with Future connect technologies about offering a two days seminar for industry audience as a part of the MoU signed on 29.07.21.
- Dr.N.Bhalaji, ASP, and Dr.C.Aravindan, Professor &HoD, IT, Participated in a discussion with Dr.N.Prahlad, Professor, NUS, Singapore under the center of excellence in Industry 4.0 on 30.07.21.
- Dr. C. Aravindan, Professor and HoD, attended a meeting with the Governing Council Member, Mr. Sriram, regarding Industry 4.0 promotion on 28.8.2021.
- Dr. C. Aravindan, Professor and HoD, attended a meeting with Chennai Innovation Hub on 11.8.2021 and will be the SSN Single point of contact for all the initiatives to be taken in the future.
- Dr. C. Aravindan, Professor and HoD, attended the Industry 4.0 workshop organized by Future Connect on 26-8-2021.
- Dr. C. Aravindan, Professor and HoD, had a series of discussions with Future Connect regarding the MSME project on 17.8.2021, 19.8.2021 and 24.8.2021.
- Dr. R. Srinivasan, Professor, Dr. S. Chithra, Dr. N. Bhalaji, Dr. T. Sree Sharmila, Associate Professors and Dr. K. Kabilan, AP, had discussion with Future Connect as a part of Industry collaboration - 4.0 on 17th and 19th Aug 2021.
- Dr. C. Aravindan, Professor and HoD, attended an online discussion for Industry 4.0 workshop's follow up actions on 02-9-2021.
- Dr. N. Bhalaji and Dr. S. Karthika, ASPs, attended the meeting with Mr. G. Santhosh, Founder, Custxpert on 29-9-2021.
- Dr N.Bhalaji, ASP and Dr K.Kabilan, AP visited the industries namely Chidambaram Confectionaries (Tiruvallur), Well-done technocrats (Ambattur) and Good Tight Fasteners (Tiruvallur) under the centre for excellence in industry 4.0 on 26.10.21 for possible collaboration.
- Dr N.Bhalaji, ASP, Dr S.Chithra, ASP, and Dr T.Shanmugapriya, ASP, participated in the discussion to launch a Cybersecurity program with Mr I. Thirunavukarasu, Regional head, South India, EC-Council at SSN-SACE on 29.10.21.

Certifications

- Dr. K. R. Uthayan, ASP, attended a course on Overview of Web GIS Technology, organized by ISRO, Dehradun, India during June 2021.
- Dr. S. Karthika, ASP, has completed The Online Training: Introduction to Digital Journalism certification offered by REUTERS and sponsored by FB Journalism Project on 18-06-2021.
- Dr. P.Vasuki, ASP, completed the certification titled, "Neural Networks and Deep Learning" offered by Coursera during July 2021.
- Dr. S. Karthika, ASP, completed the certification titled, "Social

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Network Analysis" offered by Coursera & University of California, Davis on 4th July 2021.

- Dr. S. Chithra, ASP, completed the certification titled, "FinTech Security and Regulation" offered by Coursera on 30th June 2021.
- Dr. S. Karthika, ASP, completed the certification titled, "Python Data Structures" offered by Coursera & University of Michigan, on 22nd August 2021.
- Dr K.S.Gayathri, AP, completed a course titled "Convolutional Neural Networks", an online non-credit course authorized by DeepLearning.AI and offered through Coursera on Sep 7, 2021.
- Dr. S. Sasirekha, ASP, successfully completed the course Reactive Programming in Java using RXJava 3.x - ReactiveX on 15/09/2021 as taught by Basics Strong on Udemy.
- Dr. S. Sasirekha, ASP, successfully completed the courses titled Java Reactive Programming [From Scratch] and Master Reactive MongoDB with Spring WebFlux on Udemy.

MOU Initiated

Dr.N.Bhalaji, ASP, and Dr.C.Aravindan, Professor &HoD, IT, participated in a MoU signing ceremony between SSNCE-Center of Excellence in Industry 4.0, SSN-SACE and Future Connect Technologies Private Limited, Chennai on 22-7-21.

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Scholar Related News

- Dr. S. Sasirekha, ASP, conducted the online doctoral committee meeting for provisional registration and confirmation of her research scholarMr. N. Sundareswaran on 29 July 2021.
- Dr. S. Chithra, ASP, conducted DC meeting for synopsis submission of Mr. Yoganand, Part-time scholar, on 21.10.21.
- Dr. T. Sree Sharmila, ASP, conducted the first DC Meeting for her Part-Time Ph.D. candidate Ms. R. Deepa on 25.10.2021.
- Dr. S. Mohanavalli, ASP, conducted the confirmation DC Meeting for her full-time research scholar Ms. Dhivya S on 26.10.2021.
- Dr. N. Sripriya, ASP, conducted the confirmation DC Meeting for her full-time research scholar, Ms. S. Divya on 29.10.2021.
- Dr. S. Karthika, ASP, conducted DC meeting for synopsis submission of Ms. P. Suthanthira Devi, Full-time scholar, on 16.12.21.

Faculty Corner

Dr. R. Srinivasan, Professor

Technical/ Non-Technical Article

Behavioral Analysis of "Edakku Madakku-21" Virus Using Zero Shot Learning

Abstract:*In this paper, we have used zero shot learning to study the behavior of recent notorious virus, "Edakku Madakku-21". We hypothesis that the "Edakku Madakku-21" virus understands all our languages (irrespective of Indo-Dravidian or Indo-Sanskrit). We also hypothesis that they strictly adhere to the rules of the government. Both the simulation results, and experimental data confirmed our hypotheses. The virus can also do the face detection and pattern recognition like Homo Sapiens.*

1. Introduction

The recent "Edakku Madakku-21" virus have killed 20, 965.2 people in our country. It may be noted that the number is not an integer. This is due to the fact that one of the "Edakku Madakku-21" affected person has already died 20%, as per the "Edakku Madakku-21" specialists (doctors) [1]. Worldwide, the virus has killed 199,000 + j265.55. Once again it might be noted that the number is not only fractional and also complex number [2]. A recent report by NaanumRowdydaan et. al. [3] states that the virus is sensitive to light and should have come from the deeper space, probably from another universe. The work in reference [4] also supports the claim of [3] which concludes that the certain black holes have the capacity to suck and emit the viruses of another universe.
There are certain studies which claims that the Edakku Madakku-21 is a very old virus and not to bother about the same [5]. But they are vehemently opposed by many authors, specialists and medical faculty. So this point of view is not an important one.
We have observed that Edakku Madakku-21 has not been investigated from the engineering point of view, in the literature to the best of our knowledge. In this work, we have studied the behavioral analysis of Edakku Madakku-21 using deep learning technique. Since sufficient data are not available we have applied zero shot learning technique, for our purpose.
Next section explains the procedure and the methodology used in our study. Section 3 presents the results with the relevant discussions, and the conclusions are provided in section 4.

2. Simulation Methodology

As already stated in the introduction section we have used zero shot learning in this study. This can be explained in the following way. Assume that we knew to classify N number of viruses. Among N, there is no Edakku Madakku-21 virus. Based on the previous knowledge on N number of viruses we write down certain rules which fits for Edakku Madakku-21. Even though, the system has not seen the Edakku Madakku-21, the system will be able to identify the same. For some simulation experiments, we had some Edakku Madakku-21 data. Under these circumstances we have adapted few shot learning. Mainly we have used zero shot learning. This is depicted in Fig. 1.

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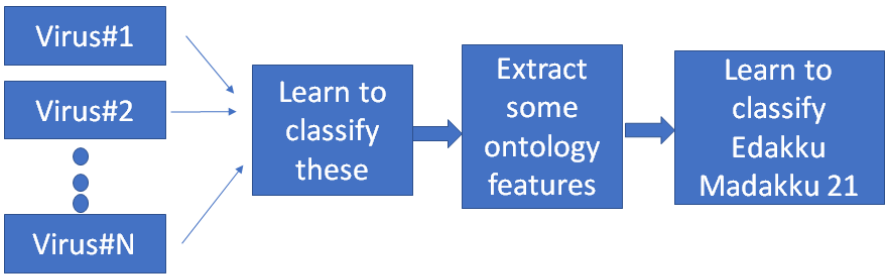

Fig. 1. Identification of Edakku Madakku 21 using zero shot learning

3. Results and Discussions

3.1Mobility based Model

Mobility of Edakku Madakku-21 as a function of time is shown in Fig. 2. The X-axis in Fig. 2. is repeating week days i.e. Monday to Sunday. We can see spikes on Sundays. The lock down on Sundays will definitely be helpful in reducing the EdakkuMadakku 21 propagation. Figure 2 also reveals that the EdakkuMadakku 21 follows mod 7. This result directly can be used to model the virus.

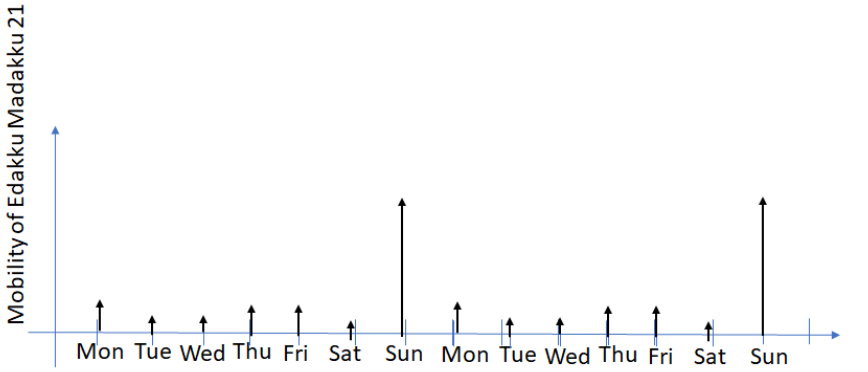

Fig. 2. Mobility versus week days

While Fig. 2 reports the mobility results on a macro level, we have also studied the mobility of virus at a smaller time scale. The result related to this is very interesting and is presented in Fig. 3. We can observe from Fig. 3 that the mobility is at its minimum during the day time, and at its maximum during 10 PM to 4 AM (duration inside the arrow region) in Fig. 3. The same behavior was observed during other days also. A lock down during this duration can suppress the virus propagation rate significantly.

Faculty Corner

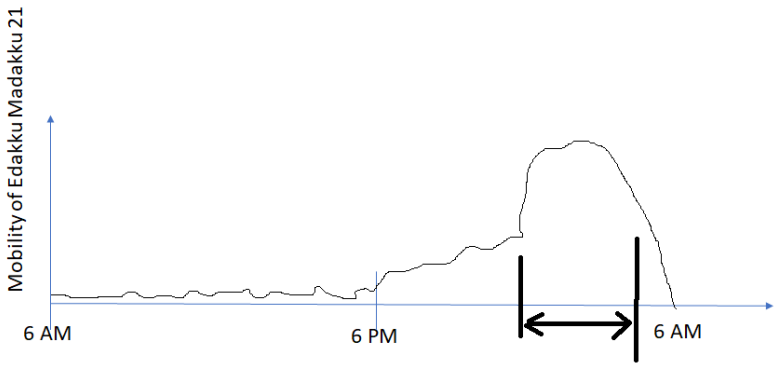

Fig. 3. Mobility versus time

Using zero shot learning we predict that the virus' mobility is higher from 27th December to 13th Jan.
The mobility of the virus is highly locational sensitive. In the roads, the mobility is very high and we need a spacing of at least 6 + j8 feet to avoid the spreading. Inside the buses and trains, our mobility based algorithm predicts a distance of 3 feet. But this reduces to 1 foot in the aero planes. The reduction in air pressure with height may be attributed to the 3 feet to 1 foot decrease.

3.2Empirical Models

We hypothesize that the virus can do some kind of macro level image processing like human beings weather we wear sun glasses or face masks. This is confirmed from our real-world experiments. The virus, we are discussing, measures around 150 nm. We have observed that the masks having an average hole size around 2000 nm is still able to prevent the virus propagation. This leads us to conclude that the virus must be able to detect the faces, and also detects weather masks are present on the faces.
We believe that this unique characteristic of the virus can be used as organic face detection which is going to bring a revolution in the image processing research.
The same experiment performed by Naan Rowdy concludes that the virus propagation is stopped because the virus sees an obstacle irrespective of whether the hole is smaller or bigger than the virus size, and statistically many virus particles are stopped. Some lucky virus particles still can find paths to our noses [4]. But this conclusion is against the observed results i.e. we have observed a complete protection by wearing masks.
Remarks by Middha [5], even though not an important one, is given below. Middha argues that as the virus sees the mask as an obstacle, the air (Oxygen molecules) also sees the mask as an obstacle. Hence, many Oxygen molecules are stopped and only the lucky Oxygen molecules get in to our nose leading to Oxygen reduction in our body. There were many rebuttals to Middha from medical faculty stating that the study is completely baseless. The reduction in Oxygen levels due to the face mask in fact is good for body because we all know that Oxygen free radicals expediate the senescence.
Some of our other studies show that the EdakkuMadakku 21 is a highly evolved virus, comparable to Homo sapiens. Unlike the animal kingdom, the virus favors democracy. We are closely working with

"UnakkuValicchaEnakkena Paramedical" for the lab setup to find out this behavior, and it cannot be disclosed. Even though, we are unable to disclose the lab setup, the reduction in propagation rate during the election (irrespective of time and date) confirms our controlled environment conclusion.

4. Conclusions

We have modelled the behavior of EdakkuMadakku 21 virus based on its mobility. These results will definitely be helpful to control the virus spreading rate. Some of our results are already in use in controlling the virus. We also speculate that the mobility of EdakkuMadakku 21 is highly directional i.e. they travel only horizontally, and we are working on the same.

References

1. Gundakka, Mandakka et. al., "Edakku Madakku-21 Killing Bit By Bit", Special Issue on Edakku Madakku-21", Vol.12, No. 09", Dec 2021
2. Naan Rowdy, "Complex Behaviour of Edakku Madakku-21", Pandemic, Vol. 7+4j, No. 0.1, Jan 2022.
3. NaanumRowdydaan, "Origin of Edakku Madakku-21', Pandemic, Vol. 7+4j, No. 0.01, Dec 2021.
4. NeeyumRowdydaan, "Traces of Edakku Madakku-21 spectral lines in TON-16", Astronomy and Evolution Journal, Vol. 1, No. 10, Jan 2022.
5. Middha, "Oxygen level Reduction Due to Face Mask", Aandi Research Journal, Vol. 20000, No. 2x1010, Dec 2021.

Technical Articles

Machine learning simplified

All of us in primary classes, would have encountered texts stating that, one of the biggest disadvantages of a computer is that it is simply programmed by a human, and cannot take decisions of its own. Well, that statement should no longer be in use. Welcome aboard in the voyage of machine learning!

Let us understand ML with an example.

Say you are a system administrator in a college. You need to keep track of the websites accessed by the students using the college-WIFI. Functional and learning oriented websites can be given access, while other unseemly ones should be blocked. Now, to bring about your work, you could choose a rule-based approach, a simple program, which uses conditional statements to allow/deny access to a particular website, using its URL.

Input(URL) from a student.

```
If URL==’www.wikipedia.com’:
Allow
Else if  URL==’www.ssn.lms.edu.in’
 Allow
Else
 Deny
```

This approach inputs the URL of the website searched by a student and follows an elementary rule of comparing the inputted URL to each and every URL present in a list of allowed websites. Finally, if it is not present in the list, the approach denies access.

Quite evidently, it is nearly impossible to write the URL of all the requisite websites into the list, as internet hosts millions of contents.

Looking forward, if you had to do this work manually, instead of scripting a program, what would you think of?You would think if a website is suitable to be given access to, based on the contents of the website, the images, scripts, links, basically the ‘features’ involved.

A human brain interprets a particular outcome, using the “features” enclosing it. Our response to a particular state is based on our past inputs and interpretations about that scenario. You decide to order food from a restaurant, based on its ‘features’ like cuisine, hygiene, price, time to deliver, and also infer the reviews, ’the past experiences of people’.
Machine learning is simply an automation of this approach.

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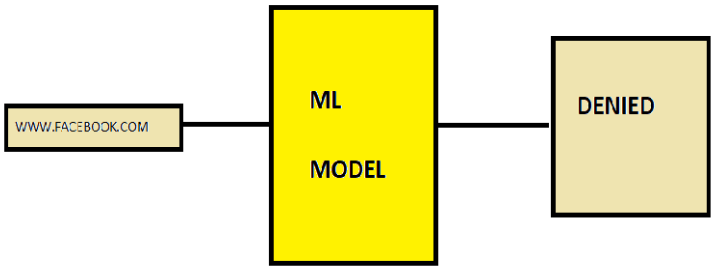
Now, in the website example, instead of scripting a program and making an explicit list of websites to allow, we can simply apply machine learning making our computer 'think' if a website is student friendly or not.



Well, that sums up machine learning , making the computer 'think' like a human , to judge and predict a particular instance's outcome, what should be the next move in a game of chess , what should be the path selected by a self-driving car, video recommendations, everything involves machine learning!

Now, how do we bring about this 'intelligence' to a computer?

Just like how we interpret situations using its 'features' and past inputs, we now feed them to a computer as a huge dataset containing the necessary details enclosing it, allow the computer to look into it, form patterns, calculate numbers, understand the data and finally become ready to interpret new entries. For example, consider a situation, where you want the computer to predict the price of a car, the input feed would a be huge relational dataset, whose attributes would be the 'features' of the car-Name, fuel type, engine location, kmpl, capacity, wheelbase, engine type, car-body type and finally the price. Price here is the target variable, which should be predicted. Each tuple would be an individual car, whose corresponding feature values are given. These tuples act like past inputs. The computer, now understands the data- something like, a tuple/entry with a high kmpl offers more price, while lesser kmpl offers less. This understanding is formed for every feature, using an algorithm and is then ready to interpret new entries. Now, if I enter the details of a car, the computer can predict what its price could be, based on its understanding from the previously encountered dataset.

Let us look into it in a technical way,

Is there a language to implement ML?

Yes, Machine learning is widely implemented using python, due to its ease of usage among programmers. One could understand a python code's functionality by simply looking at it, its purely a high level language. Also, Python offers enormous libraries like pandas, numpy, for

data exploration and analysis, machine learning algorithms like linear regression, can simply be implemented by importing a library, instead of explicitly coding from scratch.

Lets get into a few ML jargons:

There could be various things a computer needs to predict, in some situations, you need it to classify an entry into one of the predefined labels of a variable. It is more understandable with an example.

In the website example, if a particular URL should be allowed/denied, consider this dataset being fed to the computer,

ENTRY_NUMBER	WEBSITE SIZE	IMAGE URL	TEXT	SOCIAL NETWORKING	ACCESS
1	1044X 1234	https://www.import.io/wp-content/uploads/2018/08/Screen-Shot-2018-08-20-at-11.19.44-AM-300x163.png	Abcgvgvhfvbhfd	Yes	denied
2	2903X 4563	https://www.import.io/wp-content/uploads/2018/08/Screen-Shot-2018-08-20-at-11.16.18-AM-300x235.png	Tgrwefscregrrg	No	allowed
3	1234X 3453	https://www.import.io/wp-content/uploads/2018/08/Screen-Shot-2018-08-20-at-11.19.44-AM-234x456.png	Gfhmtkhkmdnjb	Yes	denied
4	4667X334 5	https://www.import.io/wp-content/uploads/2018/08/Screen-Shot-2018-08-20-at-11.19.44-AM-234x456.png	djbjbjebdnvjfnbk nb	No	denied

Here, the variable which should be predicted(in yellow) is 'access' and is called the target variable.All other attributes in the dataset are known as 'features'.The labels here are 'denied' and 'allowed'. every entry is classified into one of the labels.Since we have two labels in this example, it is a binary-classification. if more variables are present, it would simply be an m-ary classification.

In some situations, you would want the computer to predict a variable whose domain is continuous. Like in the example of car price prediction, our target variable does not have pre-defined , discrete labels like 'expensive' or 'economic', instead our motive is to find the actual price of a car in rupees, and it has a continuous domain. Such problems are called 'regressions'.

There could be more than one-target variable, such problems are known as 'multi-target regressions'.There could also be no target variables, I,e you do not have a particular value to predict, instead, you want the computer to understand that a particular entry belongs to one in a set of 'unlabeled' groups.

Say you want to classify colored balls into groups of its own color, but do not exactly know what are all the colors present in the lot. In this case, you do not have 'labels' or a target variable, you just have to classify the entries into 'unlabeled groups'. In simple terms, the computer cannot really understand that the color of a ball is 'red', but it knows that it

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should classify it to the group of similar red balls. Such type of problems is known as clustering.

Based on the presence of a 'target variable', machine learning algorithms are classified as 'supervised' and 'unsupervised'. The ones where target variables exist are known as 'supervised' and where there is no target variable, it is 'unsupervised'.
The problems which require sequential detection, like the next move in a game of chess, or the path to be followed by a robot, is brought about by the third type of algorithms known as reinforcement learning.

Steps in building a ML model:
We first import the whole dataset, into our program, in the form of an excel, CSV file or from a database application and analyze the data, to select only those features which are required for our model. This is known as feature selection.For example, in the above dataset provided for website example, the text feature determines if a website can be allowed or not by checking for any malicious usage of words. Similarly the image URL feature contributes to the classification by checking if the images are relevant or not. But the entry_number feature is of no use to the classification. We cannot say something like more the entry_number is, it is likely to be denied. It makes no sense. Hence, we drop the entry_number feature and provide only the necessary features to the model.

The next step is to split the dataset into two, a horizontal partition into the train set and the test set. Now, as we have seen, predictions done by the computer is using the past inputs and the features provided. We use the train set to train our model initially, providing it as the past inputs and the test set to evaluate it later, predicting values for new entries. How would it be, if the question paper is shown to a candidate before the exam? The candidate is sure to get a cent. This is something similar, if we provide the same dataset to a computer while training and testing as the model has already seen all the entries of the train set during the training time itself.We then model our data into a particular algorithm, chosen as per the needs of the scenario- whether a regression, classification, clustering, etc is required.
Our model is now ready to predict!
We then evaluate our model, using the test set, we hide the target variable of the test set and provide other features to the model. If the model predicts the targets with a good accuracy, then we are good to go! Else we perform better feature selection, and feature engineering and train our model again.
This is just a basic idea of how machine learning works. It still has lot of potential to develop, a lot of work needs to be accomplished, newer and efficient algorithms are the day's need.

-Ashwini,
Third Year

Technical Articles

DISPLAY SPECS-101

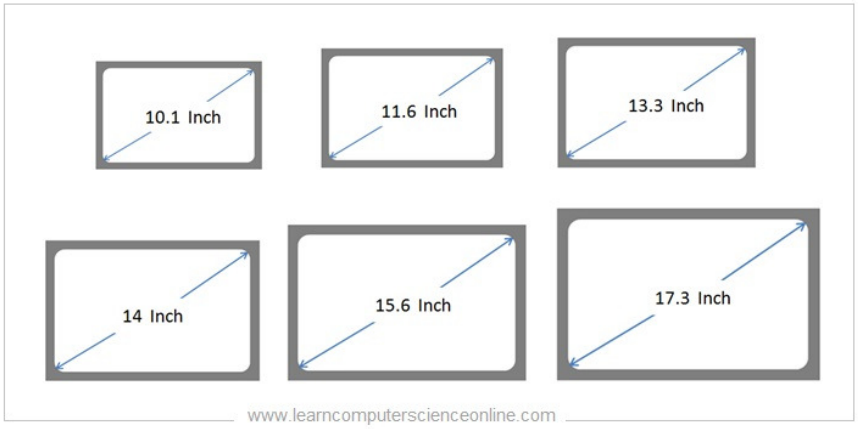
Assuming you are not a PC enthusiast or a monitor/TV salesman, odds are that we've all been in that place where we're looking to buy a new Laptop, Monitor or TV screen and suddenly find ourselves being bombarded with fancy sounding jargon like **4K-60 Rez, 120HZ Refresh Rate, LCD Displays,etc,etc.**

What I aim to do in this piece is to clear the air surrounding some of the more popular display specs, and to try and help you guys understand them in a more intuitive sense .
Most of the discussions will be with regard to laptop screens, but I'll also touch a bit on PC monitors and TV displays to help reinforce the point being conveyed.

Display Sizes

Display sizes are a simple yet crucial factor in choosing the right screen to better optimise your viewing experience . Larger screens are obviously more comfortable for everyday work, but they also mean a heavier and bulkier device to carry around, meanwhile shorter screens will probably seem like a better match if portability is a priority to you.

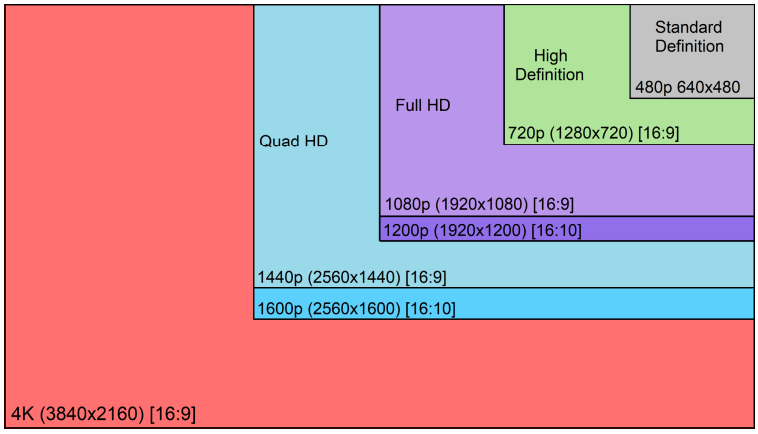
Display sizes on laptops,TVs and monitors in general are measured by their diagonal length in inches. So when a display is said to be 14", it means it measures 14" diagonally.



Pixels and Resolution

This is something that is fundamental to understand regarding modern displays. Before we discuss resolution, let's first understand what a pixel is.
A pixel is the smallest controllable element of a picture represented on the screen.
If you look really closely into the screen of the device you're using to see this webpage, you'll see a square dot emitting color. That's a pixel! Every digital image, or display you've ever known is made up of these tiny color-emitting square dots.
Now the resolution of a display refers to the number of pixels contained

on the screen of the display. Majority of modern day displays are rectangular, so we represent the resolutions of these displays by stating the number of pixels present along their height and width .



But even this naming scheme is shortened for marketing purposes. We ignore the horizontal pixels and just refer to the number of vertical pixels, so they start sounding like 720p, 1080p, 1440p, etc. But this convention, too , changes when we deal with resolutions of 4K and above. Here it's the number of horizontal pixels that are being referred to.

The same display size, can sport different screen resolutions. Which means a 14 inch screen can have a 720p or 1080p or even a 1440p screen. This is achieved by modern technology being able to compress the size of an individual pixel, which in turn makes it possible for manufacturers to fit more pixels into the same size screen, thereby improving the resolution.

There's one more crucial scenario to consider . Say we have 50" TV and a 65" TV both having 4K resolution. The 4K screen on the 50" will be perceived as being significantly better, when compared against the 4K on 65" . This is caused by the pixel of a 65" TV covering more surface area than a pixel of the 50", thereby affecting its perceived quality

Brightness

The brightness of your screen is measured in units of *Candela/metre*^{2} , which is more popularly known as "nits". Brighter panels usually make colors pop (though they can also be washed out) and lead to wider viewing angles. If you are going to work outdoors or near a window, you need a fairly bright panel to see anything in direct sunlight. Most standard monitors have a brightness rating of 200-300 nits which is adequate for regular users as long as they do not use it in a very bright environment.

Panel Types

The most popular choice for Laptops and monitor screens in the current market are LCDs. It's simply because they last longer than the OLED

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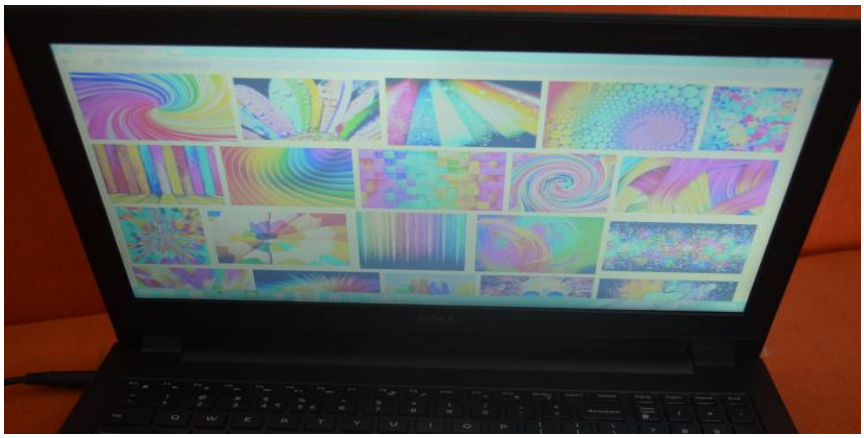
screens which you can find in your TVs .However there are different types of LCD panels, from which you can choose from. The 2 famous types are TN and IPS.

TN(*Twisted Nematic*) panels are one of the oldest types of LCD panels and are still popular for 2 reasons. The first is owing to their cheap buying price, and the second is a result of their impressive response speeds and refresh rates over other LCD screens, which make them preferable for users who can utilise these advantages (like gamers). The disadvantage of these types of panels is, they have a narrow viewing angle, and are not ideal for color grading or photo editing.



Color Inversion in a TN LCD plane,while viewing in a top viewing angle.

IPS(*In plane switching*) panels provide great viewing angles, close to 180 degrees, so pictures on IPS displays look good from any angle. IPS have better color reproduction and viewing angles than TN and are probably the most common non-budget displays out there. Over the years their responsiveness and contrasts have improved and these displays are now great options for casual users,gamers and professionals alike.

Refresh rates

A refresh rate is simply the amount of images shown on a screen per second. It is represented in terms of "Hertz(Hz)", which is a measurement of frequency. It is often confused with FPS(Frames Per seconds), which is the graphical output coming from the processor. But for a smoother viewing experience, both need to work in coordination. But that's usually only a problem for gamers and not a cause for concern for casual users.

So here we are at the end. Positively enlightened with our newfound knowledge about modern displays. I hope you put this knowledge to good use by helping out a friend or family member the next time they're looking to purchase a display, or even sharing the knowledge,and what better way to do it than by sharing this article.

-V Meganathan,

Third Year

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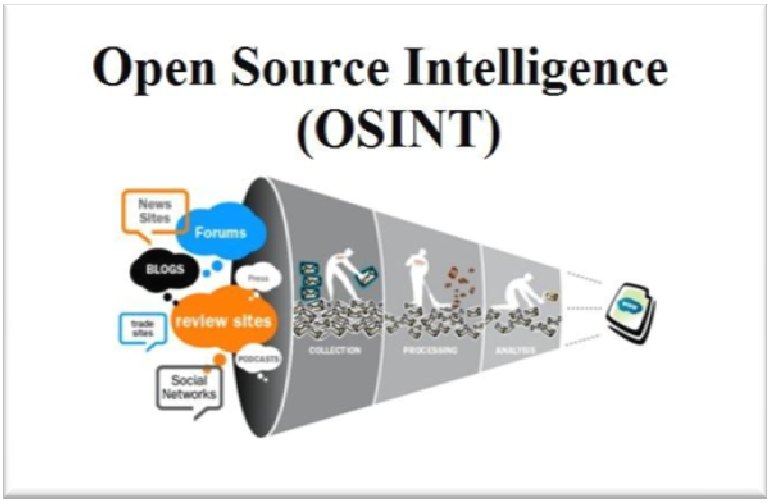
You Too, Can OSINT!

OSINT is a very elegant abbreviation. It stands for Open-Source Intelligence and is the *Methodology of collecting, processing and analyzing publicly available data*.

Simply put, Open-Source means that that particular resource is available on the Internet for free, and anyone is welcome to use it. Intelligence, in a military context would mean vital information about the enemy that one could use to their advantage. When you put those two together to get "OSINT", we can derive the meaning as "openly available information that anyone can look up".



Source: Google

Anyone, literally anyone, can OSINT. If you Googled about a particular person or a company, in order to know about them, what they have done so that you can plan your interactions with them – congrats! You have already done some OSINTing. Tasks like these are relatively simple to perform. When it comes to tasks that require more precision and work, professional investigators use specific tools to aid with OSINTing. Let us see what OSINT Tools are all about.

OSINT Tools and it's Types

You might think that Google has all the information in the world, we just need to search better. For this specific purpose, rather than Google we use something called OSINT Tools. They are exactly what they sound like – Tools that you can use to perform an OSINT Task. Just as there are different types of tools in carpentry, there are different types of tools in OSINTing depending on the type of OSINT you want to perform.

Here are a few types of OSINT to get started with:

- People Search: This pertains to searching about people in any publicly available platforms like social media in order to know any information about them. Possibly what they like, their birthday,

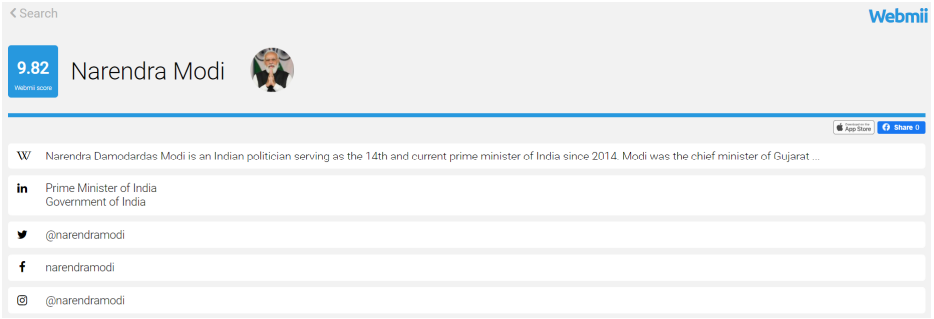
their place of work, etc.

- Phone Number Search: Checking if a number is valid, it's service provider, location, and owner name counts here. Truecaller is a widely used tool for this.
- Reverse Image Search: Ever get that feeling when you see something outside and you think to yourself that you have definitely seen it somewhere before but don't know what it is? You can simply take a picture of it and reverse image search it! Google supports these kinds of searches, and returns relevant results. This way, the identities of items, locations in the background, and even people can be looked up.
- IP Address Search: You can search your own IP Address, or any other IP Address and its related location. There are some services that even let you access any open cameras in that IP Address and monitor activity of people around the area, like Shodan.

Some OSINT Tools are free, and some are paid services. This article will be discussing a few of the freely available tools that YOU can use to OSINT on yourself!

- Webmii

  Webmii is a people search engine that searches for a given First + Last Name of a person, crawls over most of the open internet and compile links within a page. It also has a score rating to show how famous the person is depending on the results available.



- Social Bearing

  This website gives some insightful statistics on the social media handles of people and saves you the trouble of manually going through hundreds of posts.

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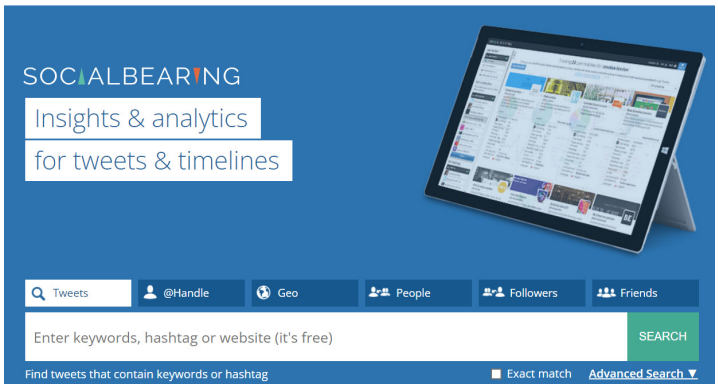

- Email Hippo: This tool lets you verify if an email ID is valid or not
- Duplichecker Reverse Image Search: You can upload an image, and choose which search engine you want to check the results from.

Powers and Responsibilities of OSINT

OSINT is used by investigators to track and find any information on criminals to nab them and bring justice to victims. Whether the criminal has committed a physical crime or a cybercrime, if they have some sort of presence on the internet, OSINT is vital to get information on them, their family, their location and whereabouts, their habits, and any other information that can help law enforcement catch them.

Investigators are trained to use OSINT Tools and catch details that people normally wouldn't find. However, in some cases, OSINTing may return unsuccessful results. This might simply be the case where the target in question has not left any **Digital Footprints**, i.e., *any traces or information about themselves anywhere on the internet.* No matter how hard you try to search, even the 10th page of Google search doesn't have a lead. It feels disheartening. But you can still try and profile the person based on the people around them. Friends would share pictures, and those pictures would reveal a unique story. Most friends would share the same preferences and backgrounds, and you can extrapolate information to create a profile, although it may not be 100% accurate. At the same time, it is important to know when to give up rather than grasping for the proverbial straw.

With all of this information that you have now gathered in this article, you may have noticed – OSINTing almost seems like borderline stalking. There are some ethical problems with OSINTing where information about a person may be used for malicious purposes. Teenagers who regularly post stories about their location may be stalked and kidnapped. All because their location was available. As a person who knows and understands OSINT, it is your responsibility to not use it for malicious purposes, and if you do see cybercrime like cyberstalking happening, make sure to report it to https://www.cybercrime.gov.in.

There is also the case where there is too much information available and it is impossible to distinguish what is true or false and what is necessary and unnecessary. The problem of filtering the needed information has been a longstanding problem in the domain of OSINT.

If you are interested in the world of OSINTing and want to pursue it further, there is only one thing left to do – go and OSINT about OSINT!

-**Badri MSV,**
Third Year

VIRTUAL REALITY

The future of technology is an idea that is forever expanding as time passes by. As of 2018, there are over 4.2 billion active internet users across the world along with about 3.8 billion active internet users using some form of social media. Additionally, new technologies such as virtual reality and robotics are slowly making their way to becoming normalised in today's technological era. Studies show that majority of purchased goods will be through cryptocurrency, a virtual currency designed to be used as a medium of exchange. All of these reveal the growing nature of technology becoming a strong influence on today's society as well as the future's. This raises the question of whether or not our reliance on technology will make us better as humans or make our lifestyle less efficient. Although the future of technology holds a lot of advantages in our daily lives, further technological advancements can leave humans oblivious since it'll be hard for us to adapt to the changes.

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VR Technology

Commonly abbreviated as VR, Virtual Reality is an interactive computer-generatedexperience that takes place within a simulated environment in three-dimensional image. The experience is generated by a blend of interactive softwareand hardware and then presented in a realistic fashion such that the user interacts andaccepts the simulated environment as if it were real. The immersive environment can either be real or artificial and is usually produced in 3D modelling software before being fed into the VR system. Current VR technologies utilise multi-projected environments, VR headsets, or a combination of props to generate realistic sounds, images, and sensations that physical presence in a simulated environment. A VR user can not only look around in the simulated world but also move and interact with objects within it. Presently, VR systems are used in gaming, medical, military, aviation, education, entertainment, architecture, and tourism, among other industries.

VR technology exists in three main categories namely fully-immersive, semi-immersive, and non-immersive simulations. Each of these

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categories represents a distinct level of immersion. As the name implies, fully-immersive simulations provide the highest level of immersion. A fully-immersive VR system utilises head-mounted displays and motion detection devices to simulate all senses of the user. As a result, the user is able to get very real experiences that are delivered through increased update rates, a wide field of view, high resolutions, and high levels of contrast. Semi-immersive simulations provide a less immersive experience than fully-immersive systems. These systems resemble and use technologies such as those used in flight simulation where users receive experiences through a high-performance graphical computing system coupled with multiple television systems or large screen projector systems. Non-immersive simulations provide the least immersive experiences. In a typical non-immersive VR simulation, only several of the user's senses are implemented. This allows for the awareness of peripherals outside the VR simulation. Users of a non-immersive simulation can access the system via a portal or window by utilising high-resolution monitors powered by a conventional desktop application.

As we speak about this there is another pressing issue, the fate of human kind which was addressed by world leaders at the the Cop26 summit. Interestingly there is a connection, a question was raised can tech help solve this issue?

Lets take an example from the movie ready player one I don't know how many of you would have seen that movie but it is a movie directed by Stephen Spielberg which is directed in the near future where everyone is immersed inside a virtual world so much so to an extent where if you lose money in the virtual world it is as if though you lose money in the real world is that where the world is headed? With Meta and the Meta verse maybe so

Meta, the social media company formerly known as Facebook, is clear it wants to be a part of the meta-verse. The meta-verse, where the physical and digital worlds come together, is key to Meta's future. The company imagines the universe that will centre around virtual reality, a digital world that users can already enter through its Oculus VR headsets.

The Microsoft Cloud for Sustainability, announced in June 2021, aims to help companies understand and improve their climate footprint. Just this week, Nvidia CEO Jensen Huang ended his keynote at the company's annual tech conference with a commitment to creating an E2 (Earth 2) supercomputer capable of creating a digital twin of the entire Earth. By modelling the planet at unprecedented resolution, E2 is meant to accurately predict the climate decades into the future and guide efforts to mitigate global warming.

The concept of a digital twin — a simulation so exact that it can serve as a stand-in for the real thing — holds some of the greatest potential

because digital twins make it possible to test large-scale changes in industrial processes before they are implemented in hardware and concrete.So who knows maybe in the near future all our classes and meetings will all happen in a virtual world and at the rate in which technology is advancing we can even bring senses into the virtual world like the new haptic gloves which are being developed by Meta.

I find the future extremely exciting.I don't know why but there are many people who might find what I am saying a bit scary and confusing and the questions will rise why do you want to be stuck inside a 'fake' world? Don't you want to go out and get a breath of fresh air? Smell the roses? Now I'm going to ask a really big question which I will want all of you to really think about; Will we be happier in the meta-verse?

Some tech and mental health experts say every new technology, from radio to television to video games, has raised concerns that it may detach users from reality, isolate them or make them violent. Since I was a kid I have heard stories about people saying don't play any violent video games, don't always be stuck on your phone, e.t.c .Those concerns were largely unfounded, they say, indicating that research shows that genetics, socio-economic backgrounds and other factors influence people's well-being more. The meta-verse, they say, is no different from all these technologies – it's only a matter of time before we integrate it seamlessly into our lives. Others, however, argue that the Meta-verse is so revolutionary that it will alter the fabric of society, with profound consequences for our mental health.

Does this mean the meta-verse is going to be a "perfect world" where we can be whoever we want to be?
What no one is studying are the types of long-term impacts on people spending time in an all-perfect world. You have people who have difficulty in their daily life, who look at social media platforms, and they compare themselves to others. But at least in social media, it has to match who you are in the world. In VR, you lose this constraint. There is less ability to create a precise version of oneself in the meta-verse than on social media platforms, and where the bias is towards more beautiful and idealised avatars. The challenge is going to be when people spend a lot of time there, and they're in a world where everyone is just perfect, beautiful, and ideal. How does this downstream affect his own self-esteem? No one knows the answer to this.

So let us say we want to live in this world all the time is it actually the new trend? In terms of research out there, the internet is not a place of isolation, generally speaking. The activities we do on the Internet, whether it's social media or online games, are very social, even if you don't interact directly with other people. I don't expect it to be any different in the Meta-verse. But there is a concern about a lack of balance. It is possible to begin to prefer to engage in virtual spaces

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because of the amenities they offer. As an avatar I can be tall and lean, I can be whatever I want. And if we start to prefer a virtual life, then it can negatively impact our ability to engage in a non-virtual life, be it self-confidence, belonging, or social anxiety.

There is something to the idea that virtual reality can improve mental health. Giuseppe Riva, Director of the Applied Technology for Neuro-Psychology Laboratory at the Italian IstitutoAuxologico, has been studying the use of virtual reality in mental health for 20 years. "We know very well that for any form of anxiety—from simple phobias to post-traumatic stress disorder or social anxiety and so on—virtual reality is effective," he says.

The reason virtual reality works so well has to do with the way the brain makes memories in relation to physical space. Just as tastes and smells can form and trigger a cascade of remembrances, so too can our movements. Neuroscientists know that location—and how we navigate it—plays an important role in how we store memories. In 2014, Edvard and May-Britt Moser and Joseph O'Keefe were awarded the Nobel in Physiology or Medicine for discovering the brain's so-called GPS system. More recently, researchers have found that virtual reality can trigger that GPS system, enabling memories to form in a different way than when we are just tooling around on our computers.

My personal experience

I have got an oculus quest 2 and from the unboxing to using it was a surreal experience. I have my own virtual apartment and I attend virtual meets, concerts and play online games with friends. I think the key plus point to this is the fact that during lockdown and when in isolation I was able to meet people and still get a feel of the outside world which was a great experience and made me still feel connected.From medical field to the gaming field everything is changing and becoming more digital and being integrated with either virtual or augmented reality and is just making our day to day duties easier. I do believe in the meta-verse and the way things are going with everything being digital we can expect a lot of change to occur in the coming years. So I guess I hope to see you all in the meta-verse soon!

-Vedh Vijay
Third Year

Blockchain

Blockchain is the underlying technology that many cryptocurrencies like Bitcoin and Ethereum operate on. Although Blockchain technology and cryptocurrency are inseparable, its unique way of securely recording and transferring information has broader applications outside of cryptocurrency.

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A blockchain is a type of distributed ledger. The distributed ledger technology (DLT) allows for maintaining records across multiple computers. These computers are known as 'nodes'. Anyone withblockchain access can run a node, but it requires a lot of processing power. Nodes verify, approve, and store data within the ledger. This is different from traditional record-keeping methods which store data in a central place, such as a computer server. The essence of blockchain technology is point-to-point transactions with no third party being involved.

A blockchain organizes information added to the ledger into blocks, or groups of data. Each block can only hold a certain amount of information, so new blocks are continually added to the ledger, forming a chain.

Each block has a unique 'cryptographic hash'. In addition to protecting the information within the block, the hash also identifies the block that came before it, thus protecting its place in the chain.
Once information is added to the blockchain and encrypted with a hash, it's permanent and unchangeable. Every node maintains a timeline of data going back to its inception. Even if someone hacked or tampered with one computer and manipulated data, it wouldn't alter the information stored on other nodes. Since it is not in agreement with the majority, it can easily be recognized and corrected.

How it Works

Here's an example of how blockchain is used to verify and record Bitcoin transactions.

- A consumer buys Bitcoin.
- The transaction data is sent across Bitcoin's decentralized network of nodes.
- Nodes validate the transaction.
- After approval, the transaction is grouped with other transactions to form a block, which is added to an ever-growing chain of transactions.The completed block is encrypted, and the transaction record is permanent; it cannot be removed or altered on the blockchain.

Bitcoin's blockchain is public, which means anyone can view the transaction record. Although it can be difficult to trace an account's identity, the blockchain log shows which accounts are transacting.

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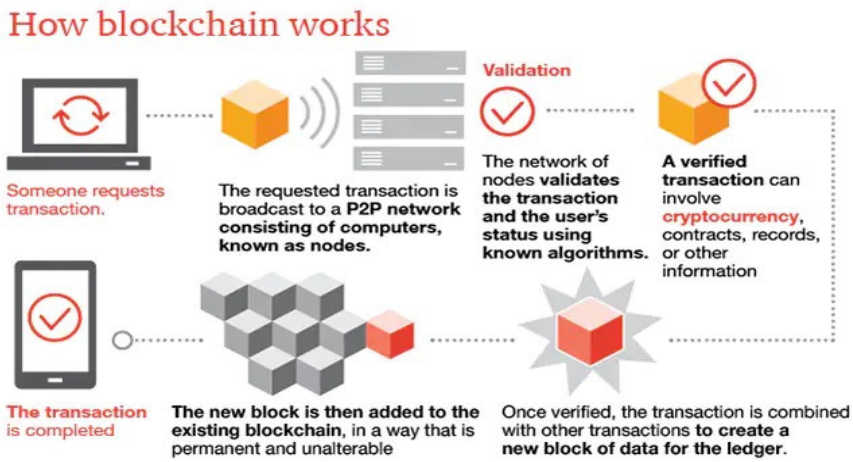
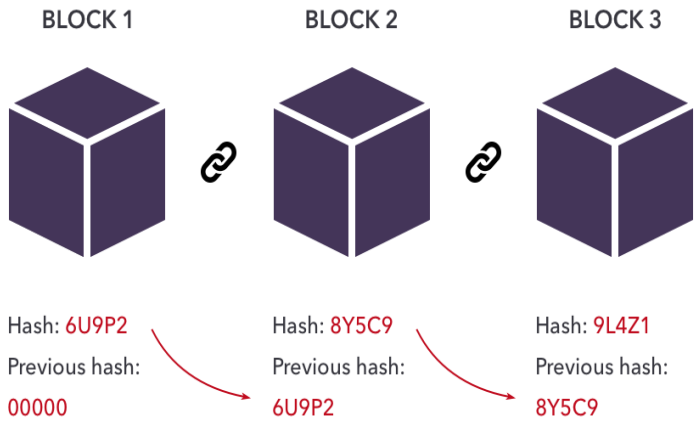
In openblockchains, users with the necessary computing power can also approve and record transactions onto the blockchain and they are called 'validators'.
However, not all blockchains are public. Blockchains can also be designed as private ledgers, so an owner can limit who can make changes or additions to the blockchain. While the pool of participants may be smaller on a private blockchain, it's still decentralized among those who participate. By using the same encryption methods as the public blockchain, private blockchains ensure the security of any data stored within the database.



The idea of a secure, decentralized permanent record of information has drawn interest across several industries, and potentially holds solutions for many security concerns, record-keeping processes, and data ownership issues we face today.

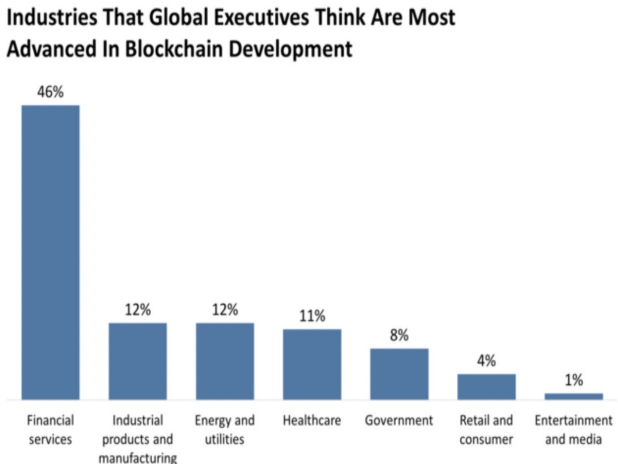
Features of blockchain technology

From a technical point of view, blockchain technology has four features: Decentralization, Traceability, Immutability, and Security.
Decentralization refers to the processes of data verification, storage, maintenance, and transmission on a blockchain. As opposed to centralized ledgers that are maintained by a small number of institutions such as central



governments, open distributed ledgers are maintained by thousands or millions of nodes. The failure of a single node does not affect the operation of the whole network. This avoids the single point of failure and ensures the high reliability of the applications built on blockchain technology. With decentralized ledgers, the blockchain acts as a trusted bearer. These ledgers are shared among a network of tamper-proofed nodes.

Traceability means that all transactions on the blockchain are arranged in chronological order based on timestamps, and a block is connected with two adjacent blocks by the cryptographic hash function. Therefore, every transaction is trackable by examining the block information linked by hash keys. Even though the identity of the user remains pseudonymous



without being compromised, the history of the transaction(s) made by the user can be tracked.

Immutability of blockchain technology is attributed to two reasons. Essentially, all transactions are stored as blocks within which one hash key links to the previous block and the next hash key points to the next block. Tampering with any transaction in one block would result in different hash values and would thus be detected by all the other nodes running. On the other hand, blockchain is a shareable public ledger stored on thousands of nodes. Successful tampering of data would require a change in over 51% of the ledgers stored in the network.

Security of the blockchain network is ensured with the use of a one-way hash function which is a mathematical hashing function that takes a variable-length input string and converts it into a fixed-length binary sequence. The output bears no apparent relationship to the input. The process is hard to reverse because, given just the output, the input is impossible to determine. Furthermore, the concept of Public-Private keys strengthens the network and provides authenticity to the data on the blockchain.

-Rajeev Krishna E,
Third Year

Technical Articles

Non - Technical Articles

The Unseen Fervour

Through the thunderous, cataclysmic land of the unseen
Thou shall be the light that gleam the unilluminated
The zephyr of thei firmament
The resonance of thou bind us though revelation
Where we thou forthwith be in accord.

Ashuthosh R
Second Year

Looking at Growth

Young babblers with their yellow sweet-songed bills,
fly about in silent trees hyped by shrill speech,
there's one on the ground
disinterested in calling among the branches above,
I notice it sitting in peace and
the curious myna comes along to question why,
I have no idea what their exchange could be but
many things tested and trounced–the babbler believes
the farthest thing from obsessive doing
Is growth, because
There's room for you to tumble, go on to undiscovered auroras,
fall and sit on the ground
for a moment
to wonder what happened,
there's a short break for the easing and stretch
of a cat inside growth
and you'll always have a hidden myna who'll
keep asking why you haven't gone about again
to the appealing rained-on brown branches clouded by
awaiting happy kin

Poet's note:
Yellow-billed babblers are regular visitors to my house, especially after rains and they chitter-chatter so much that I'm simply stuck listening to and spotting them in the trees.
This poem deals with taking breaks and how they're essential for growing.

Vaishnavi Anand
Second Year

Non - Technical Articles

Baby crows

Baby crows
Write about life like it's the freshest
tourist attraction, one far-away ticket zone
for everyone, custom-made, tailored and fit to size
and then the other crows fly away
leaving them to learn flying on their own and
life's experienced all over again,
Like washing down cold tonic down your throat.
Warm nests with kindly kin
are rarely found anymore
In this lone wolf, all-for-their-own omnivorous world,
what you do find are some
free-size, will-fit-anyone hearts,
that take
you to higher levels in the sky,
making you see views of the world,
a real crow can never see.
Everything in this accidental life
relies on those worn-out shoes
which change themselves to
glass slippers
and those old rags that make something
Pretty of themselves.
No one can
stay a crow; we store it away in a corner of
our house-hearts, get lost in making other doors
and open that door hidden behind clouds once in a while,
to feel what we truly are,
to a room we can sit in
In total peace with the cool rustling of salt water
Waves with which we've made
Special soaps to lather,
Sculpt out a figure to rise from the foam, like Aphrodite once did,
to others' envy, no matter our flaws.
The baby crows sit there always young,
Being in the company of surety and the sun.

Poet's note:
Aging (or more precisely, becoming matured) is mostly about knowing how to adapt and respond to situations we could or have experienced. This poem is about holding a small piece of innocence from childhood that seems a gift to remember after gathering more experience about life.

Vaishnavi Anand
Second Year

Non - Technical

Articles

Hard work beats talent when talent doesn't work hard

As the famous saying goes "Hard work beats talent when talent doesn't work hard", this line stays true in every aspect of life, including my squashing journey. As the pandemic took the world by storm in early 2020, I was one of the few fortunate ones to have access to sporting facilities even in the time of crisis.

Regular squash helped my mind stay fresh, which in turn helped in my academics. Following a proper schedule helped me give time for practice every day. Having a strong work ethic made sure I was undeterred from my goals. I was also blessed to have the backing of my department and Dr. Balaji when it came to sports. On several occasions when squash tournaments clashed with tests, I was allowed to take up the testsat a later date. As a result of the trust the teachers had in me, I was obligated to fulfill my academic expectations.

With consistent efforts I was able to see overwhelming results in a short period of time. Earlier this year, I reached the semi-finals of the SRFI Karnataka State Closed Championship. I had one of my proudest moments when I played my first international tournament in September and got a world squash ranking. Shortly after, I was the runners-up in the November and December editions of the prestigious Padukone Dravid CSE Men's Squash Championship. With the same efforts and backing from my teachers, I hope to extend my good run into the year 2022!

Adithya Sriram R
Third Year

Dr. P. Vasuki, ASP

Alumni Corner

Dr. S. Sasirekha, ASP

Alumni Corner

- Sushmita Raj Tilak (2020), Murugappan (2019), G. Krishna (2017) shared their video testimonial for the preparation of the Department of IT open house preparation.
- Dr. Saranya (2011-2013), Dr. Thomas (2011-2013) and Ms. Ragavi (2018-2020), PG Alumni, shared their video testimonial for the preparation of the PG Open house.
- Mr.Malaikannan, Alumni and founder of Saama AI Research Lab, was featured and interviewed by Behind Wood for his research work to identify the Covid infection based on the cough sound.
- Mr. Riyaz Rafi Ahmed, Alumni and Security &DevSecOps Engineer at Hippo Video delivered the talk titled A career in Cyber Security on 19-10-2021 for Cyber awareness workshop.
- Mr. Riyaz Rafi Ahmed, Alumni and Security &DevSecOps Engineer at Hippo Video delivered a webinar titled "Hosting A Static Website In The Cloud Using AWS - Simple Storage Service (S3)" on 25th October 2021 for IT students.
- Prashanth G of 2004 Batch has been selected to act as a BOS - Alumnus Member.
- Devosh and Stallin (2014 batch), founders of Dixsoft have extended an opportunity to hire their juniors as interns and employees for building products related to Textile ERPs and Accounting. Ten third year students have applied for the same.

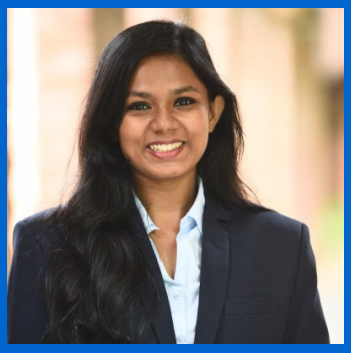
Dr.P.Vasuki, ASP and **Dr.S.Sasirekha**, ASP, conducted the following Alumni talk series for **UG students**:

- 27.09.21 - Tips and Tricks to get a good intern and placement - M. S Vignesh (Software Engineer @ PayPal) & HariniPriya (Software Engineer @ Mr. Cooper)
- 30.09.21 - Challenges and drive in creating our own future - Mr. Mohit AK (Vice President Software at Buffalo Automation)
- 31.09.21 - Exploring the avenues towards higher studies - Mr. Hemang Shah (SDE at Amazon) & Mr. M. Vignesh (CS Graduate Student at NCSU)

The following Alumni talks for **PG Students** were coordinated by Dr. P. Vasuki, ASP and Dr. S. Sasirekha, ASP:

- J. S. N. Spandana delivered a hand-on training on "MEAN Stack App Development" to II M.Tech Students
- K. Rajesh (Software Engineer at Ally.io) delivered a session on "Introduction to React JS and Creating a PWA using React"

Alumni Corner



How to Plan Your FUTURE?

Future Pangs? Don't worry, we've all been there

With the next batch of eager Engineering students streaming in to college, being enamoured by the hustle-bustle of campus life is easy. There is just so much to explore, so much to see. The sports Complex. The hostel rooms. The intimidating tall racks of books in the library. In the midst of all that let's not lose track of building our career plans.
Someone of realise we have the aptitude to pick up technical skills with ease. These are typically those students, around whom you'll find a swarm of students learning the important concepts on the eve of the exams. To them, I'd like to say, Congrats on finding out what you not only excel at but are also passionate about. In the long run, you will do well to stay in the technical domain of your choice. From your third year, I would urge you to consider taking up higher education and seriously start preparing for entrance exams like GATE (if you aspire to get into an IIT) or GRE(to apply abroad). Take care while applying to colleges, ensure that the college/university has professors of repute in the field you intend to apply for, have ample research publications/patents etc.
Some of you would be high on energy, always finding new avenues to explore. Just not the ones mentioned on the textbooks or in class. You may often question yourself if this was what you were supposed to do. Well, don't worry a lot of us have been through that. The good part is, the SSN Brand name is something that can open doors for you. Explore alternative career options. I can name 5 of my batch mates off the top of my head, who have established successful entrepreneurial ventures. Network. Network.Network. And don't restrict yourself to any one domain. Branch out. Don't worry about spreading yourself thin. It will all be for the best!
Then there are some who are really good academically, not a topper or anything, but definitely above average. But somehow textbooks and exams don't motivate you. You are just not passionate enough about this. I was one of those. I remember feeling lost and not knowing what to do. Took a job from campus, didn't join there joined an unconventional company, worked for a few years before finding my true calling. You don't necessarily have to take the same route. But take the time out to figure out what you really want to do. Even if it is something radically different from what you read, even if it's something that requires a lot of hardwork, don't worry. You guys made it through to SSN! I'm sure you have the acumen needed to master something new. Just don't be afraid to take that leap.

I wish all of you a very bright future. And may you all live up to your potential.

Don't hesitate to reach out to me. You can find me at the below handles.
Kamalikapoddar@gmail.com
https://in.linkedin.com/in/kamalika-poddar Kamalika Poddar,

Kamalika Poddar,
(2008 – 2012 Batch)

Alumni Corner

Astute leadership

Recently I attended a lecture by Prof L Prasad from IIM Bangalore and I felt that it was a great session with a lot of takeaways for us as students of today's life. He spoke of an interesting aspect of leadership called astute leadership. An astute leader is a manager or small-business owner who has the insight to recognize opportunities and challenges and the ability to realign employees and company resources to deal with change. Astute leaders are acutely aware of the business environment and know when change is necessary. They form good relationships with stakeholders, such as employees, suppliers, and investors, so that they can draw on their support when they need it. The combination of insight, shrewd judgment and flexibility enables astute leaders to build and maintain a successful business, even in difficult circumstances.

Key aspects to be an astute leader would be getting the right insights, act upon the right employees, grow their strengths and make the aligned goals work between the organization and personal efficacies. By talking to your sales team, you can monitor what is happening in the market so that that you are aware of any threats to your customer base as well as opportunities to introduce new products to meet customers' changing needs. Meeting journalists, market analysts and other commentators to discuss their views on the market will also improve your market insight. Arranging meetings with your most important customers will help you assess levels of customer satisfaction and strengthen relationships at a senior level. The size of the business involved would not matter, be it an educational society to a business empire actitation of astute as a culture must be developed. In a small business, you could meet employees face to face and discuss how they feel the business could change. Giving employees the responsibility to contribute motivates them to perform at a high level. By involving your employees in decisions, rather than issuing orders in an autocratic way, you can build a committed workforce that will help you meet your goals.

Ultimately we all are part of a greater fabric of society. Thus one must recognize that their business is part of the larger community. By

Alumni Corner

maintaining good relationships with local government agencies, community leaders and local journalists, you can raise the profile of your business. Good local relationships are important if you are planning a recruitment drive or want to expand your business in a way that impacts the community. These may be intuitive and simple yet often lacking in many leadership decisions of our times impressing that an astute leadership mentality must be cultivated all along from an undergraduate stream well into founding and building stages of one's career paths.

Another aspect to focus would be socially astute in nature. Social astuteness is the art of understanding people. It is a skill that enables one to accurately read and respond diplomatically to organizational trends and norms. Social astuteness also allows people to deal effectively with company politics, making it an indispensable skill for anyone who finds themselves in a position of leadership. Office politics is necessarily not a bad brush to be sent below the carpet. Actively engaging in the right practice to create a better organization is crucial and the following are indicative of how we can align ourselves better to a common goal.

In assessing your level of social astuteness, ask yourself the following questions:

I. Am I able to accurately read others' thoughts and emotions?
II. Do I respond diplomatically in social and workplace situations?
III. Am I comfortable and confident networking with others?
IV. Can I build and maintain a reputation for myself, my team, and my organization?
V. Am I aware of trends and norms in my company and the industry?
VI. Do I understand organizational politics and how it plays out in my company?
VII. Am I able to engage in organizational politics in meaningful and productive ways?

This evaluation would help one to align and move in the direction that's intended.

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https://www.sigmaassessmentsystems.com/great-leaders-are-socially-astute/
https://repository.iimb.ac.in/handle/2074/15033

Jayaram hariharakrishnan
(2015-2019 Batch)

Alumni Corner

- Veeramani Murugesan,
(2017-2021 Batch)

Alumni Corner

BIRDS EYE VIEW OF CIVIL SERVICE EXAM PREPARATION

Union Public Service Commission(UPSC) conducts civil service exam in 3 phases-Prelims,mains and Interview.Civil service exam synonymously called as **IAS exam** ranked number 1 in toughness second to none because of varied reasons like mammoth syllabus,comprehensive nature of the subjects,arbitrary nature of the questions and lastly improbability of success.

The entire process of preparation can be segregated as Pre-Preparation phase and Preparation phase.

Pre-Preparation Phase

It's inevitable for you to have rigorous knowledge of the syllabus,pattern of the exam,exam calendar.Prepare yourself mentally for a rollercoaster ride that will leave you a changed person.Then comes the challenge of choosing the optionals and coaching center.The ideal way is to shortlist a set of optional subject based on your interest,availability of study material,ease of scoring.Shortlist the coaching institutes based on the first hand information about the coaching through a friend or acquaintance.Enrolling yourself in the study center is not mandatory in this era of Internet education.But the centers help you in streamlining the overwhelming information,channelising the strategy.

In general Delhi is considered to be the Mecca of civil service preparation but civil service exam preparation is neither religion norlife to seek enlightenment in a far away desert.Given the eclectic nature of the subject involved,coaching centers can’t teach you everything that's needed to crack the exam.So its ok to choose the study center at city of your preference.

Preparation phase

1.Understanding the Timeline

In general at least 10-12 months of preparation is needed prior to appearing for the exam.The method of preparation has to be holistic (ie) Prelims and mains preparation has to be comprehensive and simultaneous.Before the UPSC prelims examination, you should have completed at least 80% of your mains syllabus both in General Studies(GS) and optional subject.

2.Decoding the news

Current affairs are perhaps the trickiest part of the civil service examination considering the vastness and questions can be anything under the banner. But don’t fret. The UPSC might be unpredictable, but

Alumni Corner

there is a method in this madness. When you read your daily newspapers (which is your No. 1 source for current affairs), you should be able to relate everything in the newspaper to the UPSC syllabus. You should also be able to compile current affairs notes as and when you read the papers. Dig into the current affairs and understand the scenario and not the news.

Example:

(Prelims 2019-SetA)

Q92. The word 'Denisovan' is sometimes mentioned in media in reference to

(a) fossil of a kind of dinosaurs
(b) an early human species
(c) a cave system found in North-East India
(d) a geological period in the history of Indian subcontinent

Answer: Option B

Difficulty: Medium to Tough depending on how keenly you have followed the newspaper for science technology, as this topic was not covered by most of the current affairs compilation and study materials.

2019 February IndianExpress: Denisovan culture was discovered in 2010 and still awaits taxonomic classification. Aboriginal Australians have significant Denisovan genetic material.
2019 January The Hindu: Denisovans — a cousin of Neanderthals — were discovered in 2010 in Altai caves in Siberia.

(Prelims 2019-SetA)

Q96. 'RNA interference (RNAi)' technology has gained popularity in the last few years.why?

1. It is used in developing gene silencing therapies.
2. It can be used in developing therapies for the treatment of cancer.
3. It can be used to develop hormone replacement therapies.
4. It can be used to produce crop plants that are resistant to virtual pathogens.

Select the correct answer using the code given below.

(a) 1, 2 and 4
(b) 2 and 3
(c) 1 and 3
(d) 1 and 4 only

Answer: Option A

Difficulty: Tough.

2010 September The Hindu: Using RNAinterference technology, Tamil Nadu Agricultural University (TNAU) scientists have made major

breakthroughs in introducing resistance to many viruses in various crops. So, #4 is right and we are left with option A or D. In both options, #1 is correct so we need not check its validity, everything boils down to #2's validity.

Britannica: RNAi is being explored as a form of treatment for a variety of diseases, including hepatitis, AIDS, Huntington disease, and cancer. So, #2 is right, therefore answer is A.

3.Embracing the basics

To start with, you de-dust those schooltime NCERT books to brush the basics.Being the most basic books and written in very simple language, neutral perspective.This NCERTs acts as the base for the entire preparation.

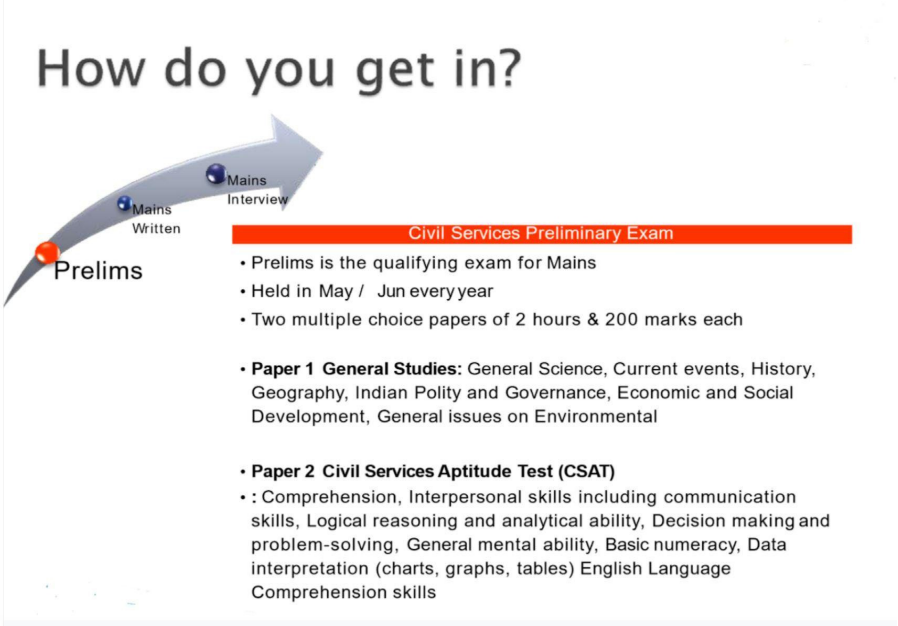
4.Limit the resources

The market is flooded with an innumerable number of coaching materials and test series which might push you into **Analysis-Paralysis** and so make sure you select the one which suits you.Always prefer quality over quantity as wealth of information might lead to poverty of attention.

5.Revise Revise Revise

In the sea of information available it's easy to get carried away and so the best way for retention of knowledge is through revision.Henceforth, it's best to revise current affairs immediately after you read the concerned static part of any subject. For example, if you are preparing for your optional test, right after you finish the subject part, revise that relevant current affairs segment. This will help you subconsciously link the static and the current and helps you write a good answer when you take the test.

Exam pattern -Level 1 or Prelims



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- **Prelims** mainly focuses on the objectives and so your main agenda is to pick up the most accurate option from the given options.
- Beware of the -⅓(minus 1/3rd) negative mark and so it's not advisable to answer the question unless you are aware of the topic.
- Paper 2 in prelims is qualifying in nature.UPSC rolled out this new policy of making paper 2 mere qualifying in 2015 to make it a level playing field for all the aspirants.Before this policy roll out there were more number of Engineering graduates and Maths Majors who qualified the prelims.

Level 2 or Mains

CIVIL SERVICE MAINS EXAMINATION		TOTAL 1750 marks
Qualifying Paper	**Paper A**-Language **Paper B**-English	300 each
Paper 1-Essay	English	250
Paper 2	Indian History,culture,Geography	250
Paper 3	Governance,schemes,Constitution, Polity, Social Justice and International relations	250
Paper 4	Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management	250
Paper 5	Ethics, Integrity and Aptitude	250
Paper 6 & 7	Optional Paper	500

- Mains Examination focuses on essay writing and critical analysis.So merely knowing the facts alone won't fetch an edge to clearing the examination.
- Deep understanding of the subject with ability to write it analytically within the stipulated amount of time is crucial.
- Answer writing practice is crucial to clear the mains mainly because the entire paper has to be finished in around 3 hours (ie) You will have roughly around 7 to10 minutes to complete a single question.
- Roughly only around top 10 percentile candidates from Prelims will be selected for Mains.

Alumni Corner

Choosing the right optional

- UPSC expects you to have a masters level of expertise in the optional subject and so it's better to choose the one which interests you the most.
- UPSC is the master of erratic change.The pattern of questions change drastically year on year and so expect the unexpected especially when it comes to optionals.
- Unfortunately there are very few technical optional subjects available to Engineering graduates.
- Optional selection is pivotal because weightage of optionals score as compared to the overall score.

Paper VI & VII
Optional Subject List

{Agriculture/Animal Husbandry & Veterinary Science/Anthropology/ Botany/Chemistry/Civil Engineering/ Commerce & Accountancy/Economics/ Electrical Engineering/Geography/ Geology/History/Law/Management/ Mathematics/Mechanical Engineering/ Medical Science/Philosophy/Physics/ Political Science & International Relations/Psychology/Public Administration/Sociology/Statistics/ Zoology/Literature of any one of the following languages: Assamese/Bengali/Bodo/Dogri/ Gujarati/Hindi/Kannada/Kashmiri/ Konkani/Maithilli/Malayalam/Manipur/ Marathi/Nepali/Odia/Punjabi/Sanskrit/ Santhali/Sindhi/Tamil/Telugu/Urdu/ English}

Level 3 or Interview

- Interview takes place at Dholpur House-New Delhi under the supervision of 4 UPSC members.
- Interview Questions can fall into a wide category like your UG subject matter to Hobbies to Geopolitic to anything under the sky.
- Apart from your impartial and unbiased answering skills, the interviewer also ascertains your critical thinking ability,attitude,self confidence,assertiveness,body language,and moral integrity.Be truthful in whatever you state.
- According to UPSC 'The interview test is not intended to be a test either of the specialized or general knowledge of the candidates

Alumni Corner

which has been already tested through their written papers' .So don't beat about the bush and play bluff if you aren't sure of the answer.The Interview panelists go through the final candidates resume at least 2 weeks in advance and so they will already be ready with questions to be asked.

- There has been a candidate who has been asked to sketch any art of his choice as he had mentioned drawing as his hobby.
- Statistics state that approximately only the top 2 to 3 percentile of aspirants appear for the interview.But appearing for the interview doesn't guarantee your posting as an average of your mains and interview score is used to calculate the final rank list.

So now is the right time to Start where you are,Use what you have & Do more than what you can.If you can crack the exam in 1st attempt its well and good but otherwise make sure you wear the failure as a badge of honor and appear for other exams like State Service Exams ranging from Group 1 to Group 4,Indian Engineering Service,CISF,SSB,PF commissioner,ED,RBI,Bank PO exams etc.

All the questions are not limited to the book alone as the syllabus is **Everything under the sky and Beyond**.So,real key is to improve the efficiency and reduce the number of errors.Its about time to understand the process,embrace your ability and Pat yourself in the back and march to the door of success.You can build the castle brick by brick if you can devote 6 to 8 hours of study per day.

Even after reading and revising, you may not be able to recollect all the static data and current affairs in the exam hall. That’s ok! No one really does.Perfection is not attainable, but if we chase perfection we can catch excellence.Trust your intuition and have that unflinching courage and self belief. You will outperform your own expectations.

Priyanka,
(2006 – 2010 Batch)

Photo Booth

Photo Booth

San Francisco downtown

Lower antelope canyon, Arizona

Photo Booth

Horseshoe Bend, Arizona

Napa Valley

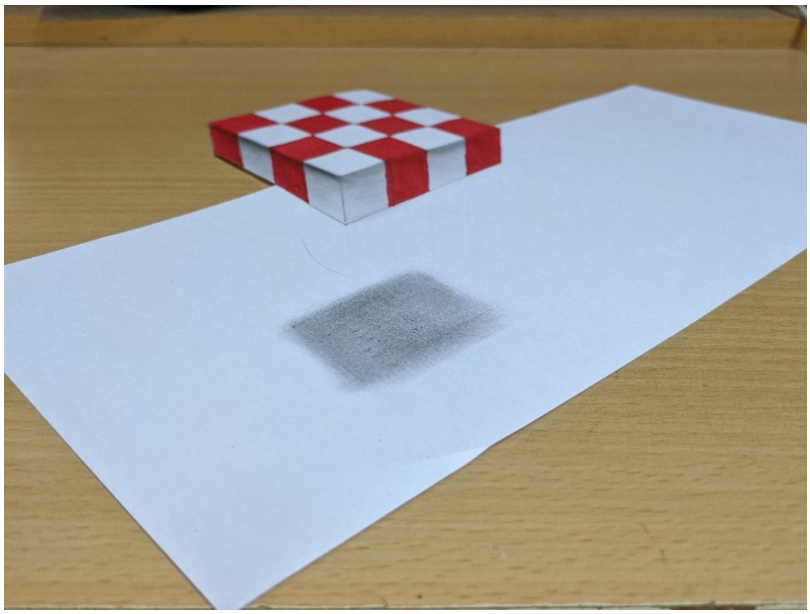
Jerold Jacob,
Batch of 2014-18

Photo Booth

Photo Booth

Painted by:

Bhagyashree,III Year



SupriyaAbirami,
II year

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