

TECHNOWIZE

2020-2021



DEPARTMENT OF INFORMATION TECHNOLOGY

ASSOCIATION OF INFORMATION TECHNOLOGY

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MESSAGE FROM EDITORIAL DESK

“An editor only begins a book ; A reader finishes it!”

The Association of Information Technology is grateful to the contributors for making this magazine a reality. The Editorial Board is represented by the board members of Association with the support and contribution from all the facilitators and juniors.

The Annual Department Magazine of Association of Information Technology “TECHNOWIZE”, presents the hard-work and dedication of our IT students. This magazine gives an insight into the students creativity and various activities involved by them. The main thrust of this magazine has been to achieve human excellence to shape the personality of pupils through a host of extra-curricular and co-curricular activities and instilling them the moral values.

Our budding talents have expressed their thoughts, ideas, hopes, aspirations and convictions in a creative way. In this way they broaden their mental, psychological and intellectual horizons.

Just like the gods and asuras churned the ocean of milk to extract the nectar, we have tried to churn out the creativity from this mess of science. A lot of effort and time has gone into the making of this issue. We heartily thank our Management and our beloved faculty members who have guided us through every stage. We would like to thank the editorial board, design committee, authors of the articles and student members for their cooperation and support and putting in their best in bringing out the issue of our Department magazine. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible.

We hope you enjoy reading this issue as much as we have enjoyed making it! Happy reading!!

- Editorial board

Magazine committee

- Arjun M (3rd Year)
- Surya P (3rd Year)

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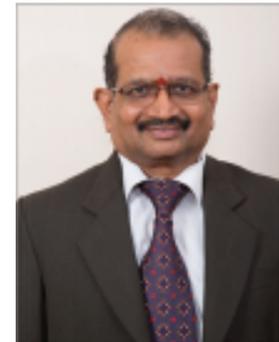
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FOREWORD



Dr . R Prabhakar

Secretary & Professor
Emeritus

“ The Association members of IT are rapidly progressing towards Zenith of Computer Science knowledge. It helps to depart from the existing academic world and to explore the new trends in technology and developments.”

“Technowize is a wonderful journal portrayal of the young logical minds of CIT. This magazine is highly info-bound and initiates the readers to get into a new technological atmosphere. I whole-heartedly congratulate the team for their marvelous efforts”.



Dr . V Selladurai

Principal, CIT



Dr . N.K. Karthikeyan

HOD, IT Department

“I wish to extend my deep appreciation to all those who have so generously volunteered their time and talents for publication of the IT Magazine Technowize. Special thanks go to our Publication Team and Editor who have shared their valuable effort in shaping the magazine and bring out with nice collection of articles, artwork etc., CONGRATS TO TEAM “Technowize ”.

FOREWORD



History has proven that Industrialization and technological development are capable of transforming a society. The development of Information and communications technology (ICT), especially the evolution of the Internet has challenged the concepts and theories of traditional education to the concept of class room as well as teaching and learning. The leap

from red brick universities, to the virtual university evidences the dynamics of education. To withstand the robustness of the generational shifts, education requires all Versatility to parse and interpret information accurately and will be one of the basic requirements of leadership, which should be consistent with the fact or evidence of a study accompanied by a valid reference source.

Learning is not a process limited to schools and colleges only, nor does it end with the conclusion of college career it is indeed a lifelong process. Character creates self respect, which in turn leads to high self esteem. Maturity is reflected in all aspects of character the decisions we make, the friends we choose and the responsibilities we accept. Always remember to uphold the dignity of people. Be always ready to give preference to other. What you are is a gift to you. What you become is your gift to the society. Have something to live for. Bring out the best in you.

DR . N. ANITHADEVI

Faculty - Coordinator,
Department of IT

FOREWORD



As new requirements and innovative ideas emerge, there is a desire for new technology that combines creative and imaginative traits. In this spirit, we are delighted to present the magazine of the IT Association "Technowize". Technowize focuses on cutting-edge technologies that have a profound effect on commercial and research applications.

The creation of this magazine is owed to our students, who are the true champions behind this never-ending endeavor. It's always been a joy working with such passionate people, who never fail to astound us with their novel ideas.

This college life is oriented to the total formation of a student and to adaptations of various methods suiting the dynamics of changing world in order to achieve various goals and objectives. It is further characterized by shared vision responsibility and above all, love and faith in work to achieve these goals. We hope that this initiative will help pave the way for future ventures that will help us establish and meet the standards of developing industry.

S. POORNIMA

Faculty - Coordinator,
Department of IT

ABOUT IT ASSOCIATION

To honor the students every year for their skills and achievements, in addition, the following awards were given away

- Best Programmer Award
- Best Entrepreneur Award
- Best Creative Mind Award
- Best All-Rounder Awards
- Best Facilitator Award

All along, the association, which is by the students for the students, has worked incessantly to shape the students and motivate them to achieve what they seek. The Academic Year 2020-2021 has been a wonderful journey with our beloved faculty members and the facilitators of the association.

NIDARSHANA S,
EVENT MANAGER,
ASSOCIATION OF IT



ANNUAL REPORT 2020 - 2021

A heart filled with aspirations is all that we knew since the very existence of this Association of our department and that's what gave us the ambition of marching forward till excellence is achieved in all our endeavors.

We have great pleasure in presenting to you the Annual Report of Association Of Department of IT for the year 2020-21. The year has been a very eventful one for us. We have made great efforts to transform ourselves completely and have been extremely successful in most of our endeavors. Apart from preparing the juniors to qualify for purely academic demands, special efforts are being made continuously to enable them to face the challenges of the competitive world. It's a matter of great importance to us that the students who pass out from our portals should carry forward the values they have inherited, excel in whatever they do and be role models in the society.

This report is comprised of the achievements made and events organized during the year gone by and at the same time set the path for greater accomplishments in the years to come. On 3rd of May 2021, a virtual inter-college level symposium "Hashtag 3.0", was conducted by the second and third year students comprising of both technical and non-technical events.

On 10th and 11th of January 2021, an intra-department level hackathon called "Hackathon 2021" was conducted. 20+ teams from second and third years participated. The preliminary aim of this event was to bring out the design-thinking ability and coding proficiency of students to channel them into developing an application. The event also acted as the preliminary round for the Greater Smart India Hackathon. Some of the notable projects included Online Classroom using AR/VR, Single Window monitoring of rural development welfare Schemes and Solar powered trash collector. A great number of projects were based on the domain of Web App Development & Machine Learning. Students also made use of IOT devices to develop real-time responsive systems.

On 18th and 19th of January 2021, a mock interview was organized and conducted by the students of final year for the third year students focusing on the three standard rounds of an interview: The Online Coding test, Virtual Group Discussion, Technical and General HR rounds. This helped the students get an insight into the corporate recruitment process and future placements.

On 18th and 25th of February 2021, an intra-department event, “Syllogism 2021” was organized and conducted by the final year students for the second and third year students. The events included were Coding, Debugging, Technical Quiz and Entrepreneurial Thinking which proved to be a brain storming session making the students showcasing their talents.

In addition to the competitions held, various virtual seminars, technical talks, one-day webinars were organized in the pandemic period to educate the students about the industry, in-trend technologies and raise awareness about start-ups. Some of the notable events include:

- Technical Talk on re-inventing project management with agile insights
- one-day seminar on “Emerging Software Tools and Trends for Industrial Applications by industrial Professionals from Bangalore and Chennai.
- Interactive Session on enhance intrinsic motivation to change and achieve
- Webinar on Resume Writing and Career Guidance
- Virtual Session on Study Abroad Webinar

KAVIYASRI A M,
SECRETARY,
ASSOCIATION OF IT



TECHNICAL EVENTS

HACKATHON

The Association of the Department of Information Technology organized an Internal Hackathon for the students of second and third years with the event titled as Hackathon 2021. The event was conducted on February 20th 2021. The mode of conduction of event is through online platform. The ultimate purpose of this event was to bring out the design-thinking skills and coding proficiency among the students. The event thus gave a suitable platform for students to explore their technical skills and thereby develop an application of their own. The event also acted as the preliminary round for the national level Smart India Hackathon. The best teams were selected and their submissions along with their problem statement and prototype were nominated for the National level event. This report gives a detailed view about the various activities and tasks done by the participants, volunteers and the organizing committee.

Initially, teams were formed based on the criteria mentioned by the Smart India Hackathon and the evaluation was done. The teams were asked to choose their problem statements from the Smart India Hackathon website which consists of many real time problem statements. The initial design of the project was verified prior to the event.

During the first week of the event, the teams were asked to choose their project domain. The students have chosen various future developing domains which comprised of Software Development, App Development, Web design, Data Science and Machine Learning. To coordinate the project, each team was assigned with final year student guides. They mentored them in a right path and helped them in every possible way they could. Initially there were two internal reviews conducted by our Department Staff members. Some of the notable projects presented were Online Classroom using AR/VR, Single Window monitoring of rural development welfare Schemes and Solar powered trash collector. Many of the projects were based on the domains such as Web App Development & Machine Learning. Students also made use of IOT devices to develop real-time responsive systems.

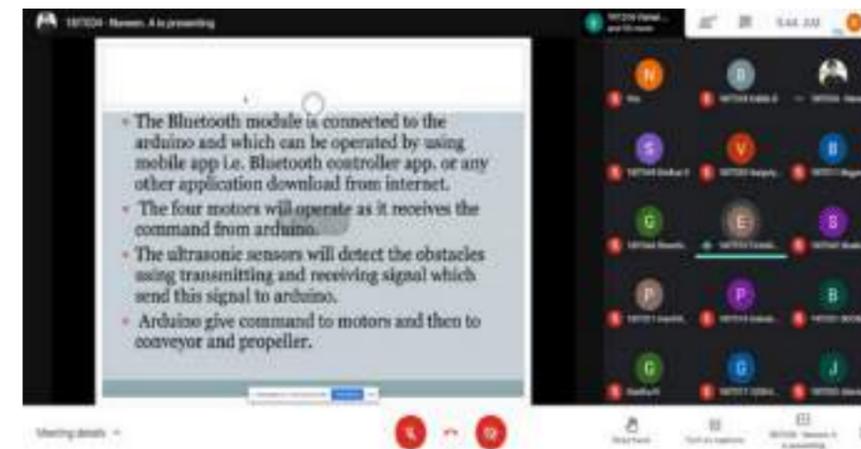
After a week time, during the second week of Hackathon, the applications developed by the students were evaluated by the people who were working in the leading technological industry. The judges invited were,

- Bhuvaneshwari Ramachandran – Software Test Engineer at Altran, Chennai

- Gunalan Pitchaimuthu - Scrum Master & Project Manager at Leica Biosystems, Bengaluru.

This evaluation is conducted through online using GMeet platform. Each of the judges were assigned to a panel along with faculty judges, Dr. Geetha and Dr. Sangeetha from the Department of Information Technology. They evaluated the work of each team in detail. Some of the factors taken into account for the evaluation are design thinking ability, structural development of the application, ease of use, Security Measures, Compatibility & Stability of the project, the quality of the project and soft skills of the project during their presentation.

The projects were analyzed and best of them were awarded. Each participant was awarded with a participation certificate. The Hackathon event proved to be a platform for the students to apply their technical skills thus taking them a step closer to the technological industries.



CAREER GUIDANCE SYSTEM

We, the CreativeMindz Team, designed an application for the Hackathon aimed in guiding the students to choose their careers clearly and the app also serves as a complementary tool for real-life counselors.

PROBLEM STATEMENT:

The objective is to develop a psychometric and aptitude test software for different levels of students like school, graduates, and dropout students applying artificial intelligence tools, which will help to identify the current status of students and help them for future career counseling purposes. Use existing research papers to understand the types of questions to be asked to students and prepare a questionnaire. Then design a software tool to evaluate the aptitude of the students for each discipline. This question needs to be verified by a professional psychometric analyst.

SOLUTION:

A web-based career guidance system for the students for choosing their career path. The contribution of this system is to help such students to be guided by a standard system and to provide the students with various career options based on their preference and skill level. Our project provides a detailed description of pursuing a particular career starting from the courses and colleges available to take a particular career to suggesting similar career options available for the particular person.

The two main modules of the project are the User module and Admin module.

1. In the user module, we have 3 different categories of users: 10th, 12th, and college pursuing/dropout students. The various career pathways for these users are displayed separately. We have built a simple AI chat for conducting psychometric tests. These tests evaluate the students based on their preference of career and their skill level. After the evaluation, it provides 3 best career options for the users and also similar extra options available.

2. In the admin module, the admin will frame the psychometric questions based on various parameters and consultation from the psychometric specialists.

TECH STACK:

- Intelligent tools : Cognitive services(IBM cloud) , IBM Assistant
- Front end : HTML, CSS, JS
- Back end : PHP
- Database : MYSQL

The career guidance system which we have built provides a platform where students can independently choose a career path by interacting electronically with an online career counsellor at anytime, anywhere and on any device (desktop, laptop, mobile phones, smart phones), with the use of student-driven parameters like favorite science subjects combination, career interest inventory analysis result, and intelligent quotient test result for right career path recommendation. This system can prove to be useful for a lot of people who are determined to choose a career of their preference and skill level.

The project can be further developed by training the chat-bot with more data-sets. Our target is to guide students from any place by our application. Further, this system can be improved by taking other parameters like preference of college, workplace, companies etc into account and enhancing the guidance options with more data-sets.

Team Creativeminds,

Naveen Kumar K -1807036 | Akalya V - 1807005

Akash Kumar K S -1807006 | Akshita B P - 1807008

Karthick V - 1807027 | Thriambika - 1907204

STUDENT GRIEVANCE SUPPORT SYSTEM

We, the Tech-freak team, students of third year, designed a web application for the Hackathon 2021 was to manage the grievances reported by the students in the college under various departments. Students can register their grievance under any department and they can also view the status of their registered grievance. Admin has the functionalities like viewing the grievance registered by the students, redirecting it to the appropriate departments and updating the status of the grievances.

Problem Statement: Students Grievance Support System. Expectations from software solution/webapp are: (1) It must be an easy access application, accesible to students, members of Student Grievance Redressal Committees, respective heads. (2) Students should be able to post complaints under different categories, Department Level, Institute/College Level. Again these categories would be subdivided among sub categories such as Admission, Finance, Examination, Lecture Timemable/Learning, Paper Re-Evealution, etc. (3) Members of Students Grievance Redressal Committee should be able to sort complains based on keywords. (4) The Portal should link students with respetive Department/Institutions/College Students Grievance Redressal Committees.

A grievance is a discontent or dispute which could arise at any level in any organization. If the organization is an academic institution, then this issue becomes more sensitive and important. Students are the most vulnerable entities at educational institutions often fail to express and sometimes fail to seek proper support for the issues they face arising at numerous levels. Readdress of the grievances is considered as a parameter to measure the efficacy of an organization. A redressal mechanism would cover complaints of not only a refusal to the return of documents or certificates, any irregularities in the admission process, but also complaints regarding harassment and victimisation. In wake of the above-mentioned problem as an implication, a prototype of grievance redressal has been worked out which could comply well with the solution provision for the arising conflicts for students.

The modelling of proposed Grievance Management system requires a completely automated system, thus helping the user retrieve the information as soon as possible. The backup plans are provided in the form of the database helping avoiding data in case of catastrophic situations. Hence, the system is reliable to perform in adverse situations.

The system is scalable and can be expanded and customized to meet the needs of the firms for which it will be implemented. Moreover, the system provides a user-friendly interface with a realistic view.

The system provides search facilities to search a specific entry matching in the database, and this system consists of an auditor(administrator) as a supreme body to monitor the entire system's performance. The system consists of an administrator within who transfers the grievance to the respective departments, whom the tasks can even be passed at the time of encountering someone not proficient in handling the given task, and thus the system works smoothly without further delays.

In this automated grievance redressal system, a student can register any sort of issues that he/she faces within the college campus and also they can view a list of grievances that are solved earlier which helps them to find a solution before registering a complaint. For the web application development we used HTML,CSS,PHP and the database we used to store user details, grievances is MySQL. We also set maximum time limit of 15 days to solve a grievance that ensures a good relationship among the students and the management.

Since every application has some show stoppers this application also has some dependencies. Good internet connection is required. The system is unable to spot the fake grievances. Once a grievance is submitted it cannot be altered.

Future enhancements with respect to this project is developing a mobile application to address the same. Since Artificial intelligence is prevailing everywhere, a AI-chat bot can be developed which answers the queries of the students instantly and reduces the man power. Developing a notification alert through SMS to the registered mobile number of the student on the status of the complaint registered will also be effective and saves time of the student from constantly logging-into the web page for checking their grievance status.

Team Tech-freak,

AKASHKUMAR. S – 1807007 | CHINMAYA. R – 1807012
INDUJAPRIYA. B – 1807023 | KAMESH. M – 1807025
KAVIN KUMAR. P – 1807028 | LOGESH. V. S – 1807029
SOWMITHRA. M – 1807048

MOCK INTERVIEW

The Mock Interview was held on 18-JAN-2021 and 19-JAN- 2021 by the final year students of Department of IT to train and help the students get an insight into the corporate recruitment process and future placements.

The mock interview was conducted in the Association hour (1.00 PM – 5.00 PM) through virtual mode on both days. Slots (Google Meet link and timings) were prepared by the final year facilitators in google sheets. The sheets were then circulated to the students group.

All the meetings were recorded and in between screenshots were taken by the respective final year facilitator. Google Classroom was created separately for the students and facilitators. The students were asked to upload their resume and the facilitators were asked to upload the evaluation sheet.

On day 1 (18-JAN-2021), Online Coding test was conducted. The Coding was conducted through Hacker Earth Platform along with proctoring feature enabled. The links were mailed individually to the students and a timing of 1 hour was given to solve the problem. Following that, Group Discussion was conducted. The corresponding facilitator and student groups joined in the Google Meet for GD.

On day 2 (19-JAN-2021), Technical and Non-Technical (General and Managerial HR) was conducted. Similar to day 1, the students and facilitators joined in their respective links and the students were asked to dress formally and switch on to video mode.

The evaluation was made at each stage by well-defined criteria which included their appearance, punctuality, technical, managerial and soft – skills. In a nutshell, the mock interview helped the students to acquire some knowledge and a get an overall view about their future placement process. The Mock Interview was held on 18-JAN-2021 and 19-JAN- 2021 by the final year students of the Department of IT to train and help the students get an insight into the corporate recruitment process and future placements.

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SYLLOGISM 2021

The Association of the Department of Information Technology organized a Syllogism for the students of second and third years on 18th and 25th of February 2021.

On 18th, Each event was held for an hour starting from 2.00 PM to 5.00PM through virtual mode. Excel sheet containing the facilitator and Google Meet link was circulated. For the event of Coding, the students were asked to install Code Blocks or any IDE of their choice for coding. They were asked to turn their video and share their screen when asked for monitoring purpose. Two set of questions, each containing 2 different coding questions were assigned randomly to the students to solve and timing of 1 hour was given.

For Technical Quiz, the students were asked to join through Kahoot PIN as teams. The questions were presented through Google Meet and students were asked to select the right options within the stipulated time.

For Debugging, an auto-proctored form was created and the questions were posted in that form. Individual form links were sent to their respective mail ids and asked to submit the form within 30 minutes.

On 25th, both JAM and Entrepreneurial events were held in Offline mode maintaining a proper social distancing. Entrepreneurial situation handling questions were raised to answer. Out of them best answers were chosen based on evaluation criteria like approach, idea, problem solving skills, solution and soft skills.

As an overall view, SYLLOGISM proved to be a brain storming session making the students showcasing their talents. On the 18th, Each event was held for an hour starting from 2.00 PM to 5.00 PM through virtual mode. Excel sheet containing the facilitator and Google Meet link was circulated. For the event of Coding, the students were asked to install Code Blocks or any IDE of their choice for coding.

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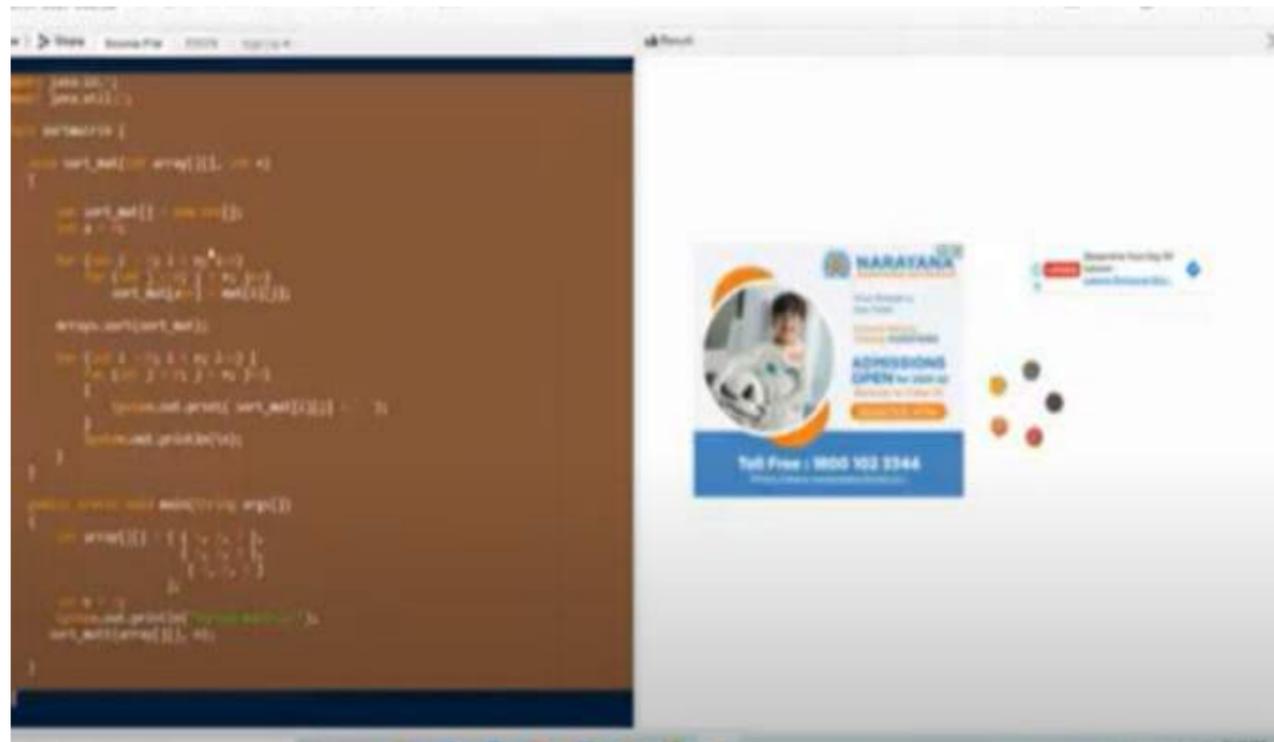
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PLACEMENT DIARIES

PLACEMENT REPORT 2020-2021

"Initiative is doing the right thing without being told."

We the placement team are very much delighted in sharing our experience on coordinating placements for the year 2020-2021, It is definitely a new experience with a new circumstance we were in to take up the initiative to have a change over in the entire placement process "remote", never had it happen it has lot of changes than in the conventional way of coordinating placement process, but without the support of the students, recruiters and the management we could have not made it possible.

Yes, We had the whole placement process online, it could be said as a milestone or as a venture explored. The placement team had to take every decision that is to the likelihood of the students and the recruiters. There was a need to revise the conventional placement policies and protocol to best adapt to the circumstances. Thanks to the Digital Era we live in, it has made us unstoppable. The placement season took off its plight in the early July of 2020 in a hope that it would be a temporary measure, but never did expect it would continue for a whole academic year. The team was anxious about the inadequate facilities provided to the students and unfortunate circumstances in which there was a possibility of havoc over the placement process.

Even Though we stumbled initially, Due to the coordinated efforts and the dynamic workforce, we came up with contingency plans and strategies to handle intricate situations and responses from the students' side as well as from the recruiters. In the due course of time we stretched the elasticity of the protocols to favor the students, management and the recruiters. It was very difficult at the start, like every wave fades towards its surface; we, the students and the recruiters adapted to the new normal. This year we had a relatively good performance as every year. As the placement team, it is our duty and privilege to serve the students and facilitate them with opportunities to set their path in esteemed organizations. We would take this opportunity to thank the department of IT and the institution for placing their invaluable trust in us and providing the opportunity to serve as a part of the placement team. We wish the very best to all the students to pursue their endeavors.



NISHOK .N.J

PLACEMENT CO - ORDINATOR



SHARBINIS

PLACEMENT CO - ORDINATOR

SL. NO	REGISTER NO	FULL NAME	COMPANY 1	TYPE	CTC	COMPANY 2	TYPE	CTC (LPA)	COMPANY 3	TYPE	CTC	INTER 1	STIPEND	JOINING COMPANY	NO OF OFFERS	NO OF INTERV
1	1707033	AKSHATHA U	CLOUD ASSET	CORE	25-30 over 4 yrs										1	1
2	1707034	ASHOKKUMAR S	MU SIGMA	CORE	3-4yr										1	1
3	1707035	ASWATH G A	AWASOFT	CORE	3-4yr										1	1
4	1707036	BALAJI B	GRIFFO	CORE	3.25-4.8										1	1
5	1707037	BHARATHKUMAR S	TCS INFIA	NON-CORE	3.5	ZOHO	CORE	4.5							2	1
6	1707038	BHAVATARINI T	ROBERT BOSCH	CORE	5										1	1
7	1707039	ECOPKA A M	AKAMA	DREAM	13.24										1	1
8	1707040	CHRISTY SANGEETHA MARY J	infosys	NON-CORE	3.8							DUN & BRADSTREET			1	1
9	1707041	DEEPIKA P	TCS DIGITAL	CORE	7.5							DUN & BRADSTREET			1	1
10	1707042	DHARSHINI C R	TCS INFIA	NON-CORE	3.5										1	1
11	1707043	GOPI SHANKAR R	TCS INFIA	NON-CORE	3.8	CoralLans	CORE	6				CoralLans			2	1
12	1707044	HARJEE DEV D	ORACLE FSS	CORE	6.4										1	1
13	1707045	HARIRAKASH J	GRIFFO	CORE	3.25-4.8										1	1
14	1707046	INTILAKSHI R	PSG SOFTWARE TECHNOLOGIES	NON-CORE	3.8							PSG SOFTWARE TECHNOLOGIES			1	1
15	1707047	JEEHANVANI B	ROBERT BOSCH	CORE	6										1	1
16	1707048	MAHIMITHA SHASHANKAR	LATEVIEW ANALYTICS	CORE	5.5	CTS	NON-CORE	4.5							2	1
17	1707049	MOHINI M	TCS INFIA	NON-CORE	3.8										1	1
18	1707050	INDRANIL S	AKAMA	DREAM	13.24										1	1
19	1707051	MERKATA J	JVOC	DREAM	15							JVOC	25000		1	1
20	1707052	OMYAD	TVS CREDIT SERVICES	CORE	6	CTS	NON-CORE	4.5							2	1
21	1707053	PRITHVIRISHI V	PSG SOFTWARE TECHNOLOGIES	NON-CORE	3.8							PSG SOFTWARE TECHNOLOGIES			1	1
22	1707054	PRIVANKAR	GAMIT	CORE	6	CTS	NON-CORE	4.5				GAMIT	15000		2	1
23	1707055	RAVITA A	MU SIGMA	CORE	25-30 over 4 yrs										1	0
24	1707056	ROHINI MUTHU PREETHI P	TCS INFIA	NON-CORE	1.5										1	0
25	1707057	SAMPATHA S	JPRO EDUCATION	NON-CORE	8.40										1	0
26	1707058	SHARATHAL P	TCS INFIA	NON-CORE	3.26	MU SIGMA	CORE	25-30 over 4 yrs							2	0
27	1707059	SHARLES S	GRIFFO	CORE	3.25-4.8										1	0
28	1707060	SHARINI S	TCS INFIA	NON-CORE	1.5	CTS	NON-CORE	4.5							3	0
29	1707061	SHOHAN	VIRITI CAPITAL	CORE	9										1	1
30	1707062	SUHANNA TAJA	LATEVIEW ANALYTICS	CORE	5.5										1	0
31	1707063	SNEHA S V	MU SIGMA	CORE	25-30 over 4 yrs										1	0
32	1817200	LAKSHMI NAGARAJAN S P	TCS INFIA	NON-CORE	1.5	AWASOFT	CORE	3-4yr							2	0
33	1817203	RAJITH KUMAR T	AWASOFT	CORE	3-4yr										1	0

PLACEMENT DIARIES

How I became acquainted with my profession

"The only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it".

- Steve Jobs

I would first like to make it clear before sharing my experience that I'm completely new to the work am doing in my internship, but had the interest to explore abundant tech choices and choose the best that suits me best, which ended up being "Front-End Development", As I had done my projects(both my main and mini project) previously which is based on Machine Learning, and learnt some couple of courses online about other "genres of info tech" Nothing sparked me with ideas and curiosity to go in depth of learning than Full Stack Development. Maybe because of the huge community it has or that I have to break in the codebase and get to know how it works (in my internship), it had an impact on me that I had not felt before.

I got placed in Jivox Software India Pvt Ltd which is by the way a successful startup company for 13 years working in Digital Marketing. I have an experience of 3 months of internship and what I got to know about the whole idea of internship awestruck me. Initially I had this impression of internship as something related to training, but it's not just that! It's something that makes someone go to the rhythm of the organization, to fine tune our skill set as well as "self management". During my initial weeks of the internship, (as anyone would) I was overwhelmed by the new environment and had this "Impostor syndrome" which most of the software engineers experience, the people in my organization were so down to earth and were approachable at mostly any time, and reminded me of one thing that "No doubt is considered silly or irrelevant in the process of learning" which made me gain confidence and open to new challenges without a hesitation and acquainted with my colleagues.

I had the opportunity to work and enjoy the culture there, which had these monthly talent competitions and knowledge sharing sessions. I had the chance to interact with other departments(Mostly people working in a department won't always get a chance to work with others) without any bounds.

The Initial months were dedicated to learning the necessary skills(through MOOCs) and about the functionality of the company like exposing us to the codebase and a work around of the studio. After that Interns were given low priority tasks to do, like Unit Testing, We had the freedom to choose our deadlines to complete those and were assigned mentors to guide us. I had the experience to interact with my "Intern Buddies" which is a way in which our company had made us assigned with a colleague who is close to us in terms of region or college.

The company had employees all around India, I had the opportunity to catch up on some new friends as well, a total of 12 interns joined the same day as I did, 3 working in my department, others from Backend, SDET and DevOps who were from different colleges around India including NITs and BITs Pileri and were recruited in this pandemic period. As a temporary measure we are having our internship remote, but still are connected. Sure things would have been different if I had worked in the office but nothing changed related to my working environment and culture. Hope the pandemic ends and people meet in person and work. There is always light at the end of this long tunnel.

NISHOK N J
Final Year B.Tech



PLACEMENT DIARIES

CARATLANE TRADING PRIVATE LIMITED

Computer! Early during my childhood, I was always curious to know how do the computer even works, with all those responses we get whenever we interacted with the big tiny box and its buddies – the keyboard, the mouse, the CPU. I always wanted to know how all those applications gets response from us and replies us with whatever we click. And as time kept ticking itself from my childhood, the rise of computer was an inexorable shift in technology and culture and I slowly learnt that it was the developers who were reason for the functionality – be it the games a user plays, an application a user visits and interacts with. When I was about to finish my high school, that was when my curiosity turned to something I wanted to see myself in 10 years from there – A budding Software Developer. With all those ambitions, I, stepped into Coimbatore Institute of Technology, which certainly was the right place to fulfill my aspirations. And well here I am, 4 years later, doing it the way I wanted.

It was on February 18, 2021 when I received my mail that I got selected in CARATLANE TRADING PRIVATE LIMITED as a Software Developer with an internship offer. Internship is certainly for learning and I have used the chance of learning the basics until now. The most difficult part during my internship was installing all the software that I will be working in the future. But hey, that is how developers would become robust. Despite that, there is StackOverflow, which mitigates the impedance on the developers.

Before we moved to Work From Home from April 2nd week, I had the chance of exposing myself to the work environment – working at the office itself. I was quite overwhelmed the first day I arrived there. It took a week for myself to understand what as a Software Developer I would be doing there. A week later, after my arrival, I had my team, who helped me in helping fix all the transitory software error issues, which I would be working in the future. They helped me more than fixing the errors. They lent their in-depth knowledge on me whenever I raised any doubts on any certain topics. And they made sure they consummated in teaching me everything to make sure I will be ready for any task.

Until now, I have been able to complete the task given to me. I have followed all the steps for which I should follow while analyzing and going through a task. Ending on a high note, I must say that whatever I have learnt for the past 4 years has been helpful.

GOPI SHANKAR R

Final Year B. Tech IT



PLACEMENT DIARIES

An Another Kick Start!!

"The Amateur Software Engineer is always in search of Magic" - Grady Booch

All of us are fascinating about getting placed in a good IT company. There were lot of preparations, practises, coding and what not! But once we got placed, we seldom think about the idea of what we are going to do in a company. In this article I try to equip everyone to have a bit interesting and technical motive when one becomes a Software Engineer.

A full stack developer is the populous portfolio which we have heard. Let me give just a brief on full stack development. A full stack developer is a person who could work on both client and server side of a software. With wider knowledge on HTML, CSS this person must know how to program a browser, a server and a DB. We often point a term "stack" here. There are quite lot of popular stacks we use in IT industry where each software company is specific to work on one or more stacks in their projects. Some of the stacks are LAMP, LEMP, MEAN, Django, Ruby on Rails. We call it as a framework.

I specifically work on MEAN stack. As the name suggest MEAN refers to M-Mongo DB, E- Express, A- Angular , N- Node Js. To give it in a clear shot, as a mean stack developer, one should be well-versed in Java Script. It's because in a web application, from the client to server and server to db, it is all about Js. MEAN is quite preferable and has a merit of being open source, uniform usage of language, results in rapid development of application.

I am working in a product called Laudea. It is an integrated educational solutions catering to the needs of all the stakeholders involved in Higher Educational Institutions. It leverages all the popular technology in SMAC stack (Social, Mobile, Analytics and Cloud). And regarding the software development process, we follow in my company is Agile. It is basically not of long term process of carrying the work but an iterative approach with the intension being, "always begin with end in the mind". It is of rapid production and constant revision. It is more of close collaboration between all the stakeholders (business, technology & other teams). It requires cross functional teams and self-organisation.

INDUMALINI BASKARAN

Final Year, B.Tech IT



ARTICLES

AGRI - FOOD SUPPLY CHAIN MANAGEMENT USING BLOCK-CHAIN

We, the team Maayon, students of third year, designed an application for the CSI-Chennai Hackathon aimed to make a direct seller-buyer transaction by eliminating the middle-man system using the smart contract as an automated system for validating the transaction and store it permanently in Public Blockchain – Ethereum.

PROBLEM STATEMENT:

Public Blockchain Based E-commerce portal for famers where the famers can able to register/sell there product directly without any middle-man and buyer across the world can able to view the product details and able to buy the product by giving up the price which was decided by the famers/owners of that product. Every transaction within the product cycle will be hashed and store in the blockchain in permanent bases and this detail can be accessed by any one in the world by using the transaction hash address.

Solution:

The application consists of 7 phases such that Login/Registration phase, seller phase, buyer phase, payment phase, delivery phase, resell phase and refund phase.

1: Login/Registration Phase – Unlike other Login/Registration system our application let the user to register in our system without providing any personal details of the user and once user request for registration the system will generate a user profile with unique public key and private key/seed phases, this public key act as user-id and private key act as the password for logging into the system.

2: Seller Phase – Initially the seller/famer will be entering the product details into the system and confirm product details and register the product in the system. After successful registration the seller can able to track the product using the transaction has address. Once the buyer pays for the seller's product the seller will be intimated and seller will hand over the product to the pickup agent. Seller will receive the payment only after verifying the product delivery from both buyer and delivery agent.

3: Buyer Phase – Buyer can able to search for the desire product in the system. After choosing the product buyer confirm the product and pays the cryptocurrency ethers to the blockchain smart contract only if it is same as seller price. Once the buyer places and pays for the product, the product will be delivered within the given period of time. After receiving the product, the buyer can rate and review product and either the buyer can confirm about product delivery or the buyer can request for refund for the product.

4: Payment Phase - For any transaction like register, view etc., the user must be paying a small amount of gas in Ethereum network to authenticate the user. Buyer was only allowed to pay the product price only to the smart contract. Seller will receive the payment for the product from the smart contract once the buyer and delivery agent confirm about the product delivery.

5: Delivery Phase - The physical transport of the product between the seller and buyer will be held by delivery agency. Delivery agency will get notified after every successful transaction between the seller and buyer. Delivery agency will allocate a delivery person for exchanging the product. Delivery agency will get there pay by the equal share from buyer and seller. Delivery person will be confirming about the product which will be helpful for making a payment from smart contract to the sellers account if buyer forgets to confirm the product delivery.

6: Resell Phase - Buyer will hold the ownership after successful transactions, thus buyer can now able to resell the product after modifying it if needed. Resell is just used to invoke the seller functionality after the ownership transfer to the buyer. This resell cycle will work till the product reaches the end consumer.

7: Refund Phase - Once the product is delivered to the buyer then the buyer can able to verify the quality of the product, if the buyer is not satisfied about the product received then the buyer can request for refund. But buyer must make sure not to confirm about the product delivery and request only for refund. Once buyer request for refund then smart contract validates it and refund the buyer with the amount which was hold by smart contract.

Software Requirements:

The software requirements are Remix IDE, Visual Studio 2019 or higher, Truffle React, Ganache and Meta Mask.

Hardware Requirements:

The hardware requirement are distributed systems, INTEL 15 4th Generation Processor / AMD Radeon, 4GB RAM, 500 GB Hard Disk.

This project can be further developed by adding a store/e-commerce portal to for user friendly environment. Make arrangement for delivery agency and security for delivery of the product. Making out the tracking system to track the live location of the product out for delivery. Making global market for exchange of product from local place to international places. Developing a high recommendation system in e-commerce portal.



AJAY .M - 1807004

AKSHITHA .B.P - 1807008

SHIVANI .A - 1807047

NAVIGATING TO THE NEAR FUTURE

The students of Department of Information Technology of CIT organized a National Level Technical Symposium titled “HASHTAG 3.0” on 3rd of May, 2021. With the motive of “Navigating to the better future”, we the young minds of CIT took the participants through a journey filled with knowledge, learning, to showcase their talents, skills and spirit to witness the future IT’ians. Under the guidance of our staff advisers Mrs.S.Rajasree, Mrs.S.Poornima and Dr.M.Sangeetha, this symposium was organized.

We created two google forms one for paper presentation and the other for events so that the participants can register for their respective events before the deadline of 1st of May,2021, in the duration of which we received an overwhelming response from participants belonging to over 30 colleges all over India.

The progressive effort of students has made it bigger and better than ever. This event gave a platform for learning and a stage for exposing. We conducted many online events like photography contest, meme contest and art contest. Over 100 students participated in our online events that were spread worldwide and all colleges came to know about our symposium.

The symposium witnessed the enthusiastic participation of around 300 students in over 7 events that tested their wits and talents to showcase their ability and skills. The technical events that were organized as a part of the symposium were Webflix-a website creation contest, Datatrix- to solve problems on data structures, Ride-your-query- sql-queries were given, Code-contest- a fast coding event, Bug Buster-to find the bugs,

We also conducted some Non-Technical events to refresh them and to have fun. The events were IPL quiz-a cricket event to test participants’ knowledge about the IPL, Fun festa- finding logos, cineworld, finding music. We also conducted Paper Presentation and Project Presentation. Students from various colleges all over Tamil Nadu came to present their paper and project presentations.

Several participants took part enthusiastically in this event. Staffs from our college were the judges and they evaluated the students for their presentations and marks had been provided based on that. Many topics related to technology which are recently trending were presented during our symposium.

Every aspect of the event, from its inception to execution had been the outcome of the culminated efforts of the students and support from the faculty of our department. Finally the symposium was successfully completed and everyone was satisfied with the way how the events were organized. Participants gave a good feedback about the symposium.

The secret behind the success of our Symposium is "Team Work". From this symposium we came to learn a lot of things like how to organize an event, how to advertise our events, creativity, team co-ordination, time management, knowledge, how to approach other colleges and students, and a lot more. It's not about how you start, it's all about how you end it with a mark that matters. A brand- HASHTAG 3.0 has created fame to our department.

JOURNEY OF MACHINE LEARNING TILL DEEP LEARNING

In our day-to-day life, AI is a technology that is transforming every walk of life. AI is already altering the world with its upgradable features in each field. AI is an approach to make a computer, a robot, or a product think how smart humans think. It is the wide-ranging tool used to integrate information, analyze data, and use the results to improve decision-making. AI aims to improve the computer functions related to human knowledge.

“The science and engineering of making intelligent machines, especially intelligent computer programs”.

AI techniques that give the computers the ability to learn without being explicitly programmed to do so is known as Machine learning. It completes the task of learning from data with specific inputs to the machine. This input data is processed and trained by using a selected algorithm. To test whether this developed algorithm works correctly, new input data is fed into the machine.

Various Machine learning algorithms are in use but the majorly classified algorithms are Supervised Learning, Unsupervised Learning, Reinforcement Learning. In supervised learning, we use known or labeled data as the training data. The most popular algorithms in supervised are linear regression, logistic regression, decision trees, K-nearest neighbors, Naïve Bayes. When it comes to unsupervised learning, the training data is unknown and unlabeled. without the aspect of known data, the input cannot be guided to the machine learning algorithm, which is where the unsupervised term originates from. The popular algorithms in supervised are Fuzzy means, Apriori, K-means clustering, Partial least squares.

Then finally in reinforcement learning, the algorithm discovers data through a process of the trial-and-error method, and rewards were given to the machine based on the decision and then it decides the result based on the higher rewards.

ML is a subset of AI that uses statistical learning algorithms to build smart systems. When it comes to DL- Deep Learning is inspired by the functionality of our brain cells called neurons which lead to the concept of artificial neural networks.

DL uses multi-layered artificial neural networks with many hidden layers to deliver high accuracy in tasks like object detection, speech recognition, language translation, etc.

ML is a subset of AI that uses statistical learning algorithms to build smart systems. When it comes to DL- Deep Learning is inspired by the functionality of our brain cells called neurons which lead to the concept of artificial neural networks. DL uses multi-layered artificial neural networks with many hidden layers to deliver high accuracy in tasks like object detection, speech recognition, language translation, etc. The advantage of DL over ML is that they can automatically learn/extract/translate the features from the data set such as images, video, or text, without introducing traditional hand-coded code or rules. DL are specially designed computers with high-performance GPUs or CPUs. There are five major components are included in DL they are input node, connections, weighted sum, transfer or activation function, output node. Deep-learning networks are distinguished from the more general single-hidden-layer networks by their depth. It helps the computer model filter the input data through layers to predict and classify information. DL network architectures are classified into Convolutional Neural Networks, Recurrent Neural Networks, and Recursive Neural Networks. Nowadays, Deep learning algorithms also upgrading to improve the features, accuracy in real-time applications than Machine learning which paved a new way for the technologies to eval.

“...what we want is a machine that can learn from experience”

INDUJAPRIYA B
THIRD YEAR B.TECH IT



WHAT IS ARTIFICIAL INTELLIGENCE?

Artificial Intelligence refers to the imitative representation of human intelligence in machines that are programmed and trained to think and act like humans. This term is also applicable to machines whose characters are similar to the human mind such as learning and problem-solving.

The supreme feature of artificial intelligence is its ability to defend and take actions that have the finest chances of attaining a particular goal. We all think that machine learning, deep learning are different from artificial intelligence but what we think is not right. Both are subsets of artificial intelligence. Machine learning is nothing but the idea that computer programs can customarily learn from and modify new data without the need for any assistance by humans. Deep learning is also known as deep structured learning which extracts a large number of unstructured data and transforms those data into different levels of representations.

WHAT IS A NEURAL NETWORK?

A neural network is a simulation of the algorithm, in the same way, our brain uses it to analyze and process the information. It also has self-learning capabilities which make them produce better results as we get more data to process and analyze. It has three layers such as an input layer, one or more hidden layers, and an output layer. A neural network is one of the most widely used algorithms in both machine learning and deep learning problems. It is used to process the data which helps machines learn different concepts like our human brain without explicit programming being involved. We can see this on YouTube, if I search for videos related to Artificial Intelligence projects, sooner or later in my recommended videos I could see videos related to Machine Learning and deep learning projects. As time passes, it automatically learns to confess the type of videos that you watch regularly. The same network can process any kind of data.

Neural networks are designed to work just like a human brain does. Now let us see some examples. In the case of facial recognition, our brain starts with analyzing whether it is male or female, white or black, old or young, is there a scar or not? And so forth.

There are more intricate problems in the world like autopilot systems, autonomous cars, speech recognition (SIRI on iPhone), pattern recognition in codes, numbers, handwriting recognition, facial recognition, etc. which uses neural networks. There are some inconceivable applications of this even in the field of astrophysics as some of the astronomers use it to find structure in planetary systems like stars, Milky Way, asteroids, etc.

NEED FOR NEURAL NETWORKS

Neural networks have an extraordinary ability to retrieve meaningful data from inaccurate data, which is used in detecting patterns that are difficult to understand either by computers or humans. A well-trained neural network can be made an EXPERT in the information which is given to it for analysis.

There is much more to neural networks as we have seen only some simple ideas behind them. It is predicted by a bunch of deep learning scientists that this could be the key to someday creating truly intelligent systems like J.A.R.V.I.S, which is smarter than us, can process any form of data by watching us, hearing us, learning from our behavior, and interacting with us like just another human. Though it is just fictional artificial intelligence that appeared in Marvel Cinematic Universe, soon we can see this in reality. We all have watched Marvel movies like Iron man, Avengers, etc. In all these movies we saw J.A.R.V.I.S which is an excellent machine that interacts with us and does whatever we need. It also provides a better view of understanding all doubts and concepts. This will be our FUTURE-THE ARTIFICIAL INTELLIGENCE.

SNEKHA.C
Final Year B.Tech IT



COMPUTER HARDWARE - HARDWARE COMPONENTS & INTERNAL PC CONNECTIONS

Power Supply:

The power supply can convert current into an alternating current (AC) from your mains (110V input or 220V input) to the direct current (DC) needed by the computer. The power supply is the checker box usually found at a top of the case. The power supply is can be district visible from the back of many systems because it contains the sudden cord receptacle cooling fan. Power supplies - often referred to as switching current supply, use switcher technology to convert the AC input to lower DC voltages.

The typical voltages produced are: •4 volts •6 volts •10 volts

A Typical ATX 1.2 power supply. From left to right, the are they can be connector can be the device is 20-pin motherboard 3, 4-pin "P4 connector", fan RPM monitor, SATA power current cab be connector (black), "they can be used Molex connector", and floppy connector; middle and right: shows the power supply with on every three small transformers (yellow) in the top. To the left, they can be are 2 cylindrical capacitors. A large number of pieces of they can be aluminum are heat sinks. The left heat sink has transistors attached to it. These are the transistors in charging that can be defined as doing the switching current,they can provide high-frequency power to the transformers. Attached to the right heat sink can be decided are three diodes must have that rectify AC signals and turn them into DC signals.

A power supply schematic showing the AC input, fan, EMI filter (yellow), transformers, cylindrical capacitors, filters, aluminum heat sink, rectifying diodes, and 3 outgoing DC voltage lines. (White, 2008)

The 4-volts and 6-volts are typically used by digital circuits into AC, while the 12-volt is used to power fans they can be and motors in drives. The main overview of specification power supply i watts. A watt is the product of the voltage in volts and the current in amperes or amps.The factor power supply refers to general shape and dimensions. The form factor of the power supply must of the case that it is to go into, and the motherboard power.

Power Supply Wattage:

A 400-watt switching power supply more power than a 300- watt supply. A larger amount of supply needed available slot on the motherboard or every available in the personal computer case.

It is proper a good to have a 250-watt supply if you have 250 total in devices since the supply should not be loaded to 50 percent capacity. The form factor of the power supply refers to its general shape and dimensions. The form factor of the power supply must match that of the case that it is supposed to go into power.

Power Supply Wattage:

A 400-watt switching power supply not necessarily more powerful than a 250-watt supply. A larger supply is needed if you use the available slot the motherboard or every available drive personal computer case. It is not a good idea to have a 250-watt supply if have 250 watts in devices, the supply should not be to 100 percent of its capacity proper.

Serial ATA (SATA):

Serial ATA was designed to replace the older parallel ATA (PATA) standard (often called by the old name IDE), offering several advantages over the older interface:

1. reduced cable size (7 conductors compared to 40 with the wider PATA ribbon cable) – which facilitates a more efficient airflow inside a form factor and also allows for smaller chassis designs as well as a reduced cost,
2. native hot-swapping,
3. faster data transfer through higher signaling rates, and
4. more efficient transfer through an (optional) I/O queuing protocol.

The SATA standard defines a data cable with seven conductors (3 grounds and 4 active data lines in two pairs of conductors) and 8 mm wide wafer connectors on each end. The three grounding wires dampen any crosstalk. A SATA cable can have a length of up to 1 meter (3.3 ft) and connects one motherboard socket to one hard drive.

R.Kamalendran
Fourth Year B.Tech IT



FOG COMPUTING

Fog computing is a technology that refers to a network fabric that extends from the point where data is generated to the point where it will be stored, whether in the cloud or a customer's data center. Fog is a layer of a distributed network environment that is linked to cloud computing and the internet of things (IoT). Fog bridges the gap between data that must be pushed to the cloud and data that can be processed locally at the edge. This term applies to a new generation of data processing and analysis of software and services. For example, if a consumer with a hand-held computer wishes to review the most recent CCTV footage from a locally located IoT security camera, he must request the stream from the cloud because the camera lacks storage. This can take some time, but it can be removed with fog computing, which allows a local fog node to be accessed for much faster video streaming. The term "fog node" is used in fog computing. These fog nodes are closer to the data source, and they have more processing and storage power. When compared to sending the request to the cloud for centralized processing, fog nodes can process the data much faster. Because of the large number of devices connecting to the internet, the cloud is being clogged.



Fog computing has become important for IoT devices because cloud computing is not feasible in some cases. It is capable of handling the massive amounts of data produced by these devices.

Connecting the cloud to things.

When fog-powered devices are deployed, they analyze time-critical data such as alarm status, system status, fault alerts, and so on locally. This reduces latency and protects the system from significant damage.

Fog computing will significantly reduce the amount of bandwidth needed, allowing communication with the cloud and various sensors to be sped up.

Because of the advancement of fog computing frameworks, businesses today have more options for data processing. For example, some applications, such as connected computers, require fast responses in the event of an incident. So, Low-latency network connections are created between analytical endpoints and devices.

Data can be sent to analytical endpoints even if the network link is sluggish, which is not true with a data center. An extra layer of security firewall can be applied to the network as a bonus. Some of the applications of fog computing include connected cars, smart cities, smart grids, and real-time analytics.

R.NAGALAKSHMI
Third Year B. Tech IT



THE NEW ERA OF APPLICATIONS

“One of our big goals in search is to make search that really understands exactly what you want, understands everything in the world. As computer scientists we call that artificial intelligence.” Says Larry Page , Google Co-founder. With the boom and development of technologies like Artificial Intelligence, Blockchain, Data Science, the apps which is a primary element in our every day life has emerged smarter with the use of those technology as foundation. These Intelligent apps can examine and learn from users whos’ need are considered as a great deal. Now you is probably curious to understand what are intelligent apps, so let’s see below.

Intelligent apps(i-apps)are applications that use historic and statistical data from the user interactions and different reassests to make predictions and suggestions, handing over customized and adaptive consumer experiences.

These Intelligent Apps can constantly learn the behavioural , contextual and emotional styles of a user in real-time . Intelligent Apps leverage user’s information, AI-powered algorithms, predictive and prescriptive analytics, product insights , and operational imaginative and prescient to expect consumer’s wishes and supply them as applicable and beneficial data as viable accordingly.

To provide decisions to the user, I-Apps takes advantage of the user’s historic and statistical data with the assist of an Artificial intelligenc e-powered algorithm. For example , google ada providing medical advise to the user by using the users current health conditions.

The benefits of Intelligent apps are what makes it so useful, in terms of understanding the customers and providing a better environment. These i-apps literally acts as a assistant to the user. By learning users’ choices and behaviour these apps are capable of making contextual predictions thereby provides a better decision to the user. While the i-apps mainly works on Users’ data they can process data to quickly and identify which data is suitable for the user and contrariwise thereby providing the user a better sence of reliability.

I-Apps powered by artificial intelligence and machine learning are set to restore different perspectives in various sectors mainly Industrial sector, media, healthcare, e-commerce. ML and AI based stand alone I-apps have facilitated a uniquely extraordinary attitude of this sectors via numerous recommendation algorithms.

These Intelligent apps are touching almost all regions of our lives – Media, Technology, Healthcare, Finance, Lifestyle, etc.. To meet our demand, smart mobile applications continue to undertake the advancements in the Artificial Intelligence capabilities to stay prepared for its position in handing over future-prepared solutions. Let's be patient and see how smart apps are going to make everything smart around us .

CLIFFORD LEBO.J
Second Year B.Tech IT



MIND BLOWING FUTURE TECHNOLOGIES

Like the world never stops rotating and revolving , technologies never stop updating and improving. The technologies which were available a decade ago are extinct today , while many have been updated and some have been totally revamped. In the current world , we use ,learn and fascinate about lots of technologies and gadgets,but some of us are still unaware of some extremely cool technologies which , I think, would surely play a vital role in our future.

Lightyear:

Provided as a solution in the World Solar Challenge , this is a solar - powered car born with the ideology of Lex Hoefsloot , who created this as just an idea for the World Solar Challenge by team Eindhoven. This car would surely make a revolution in the automobile industry. It is sustainable , non polluting ,safe ,fast and what more, it has all the wonders of technology . Its top is covered with 5 sq.m of solar panels which harness solar power to cover the range of about 70 km / day. So we don't need to charge the car's battery for months , or even never!. It is the most aerodynamic 5 seater to date with a drag coefficient of 0.20. The in wheel motors are controlled independently with a 97% efficient drivetrain and has a peak torque of 1920 Nm.

The residual heat produced is also reused and the body is lightweight but extremely safe. Such an automobile is essentially in need in the current scenario where the world is crumbling due to vehicular pollution and even electricity for running electric cars comes from burning fossil fuels. But placing a solar panel on it makes this Lightyear One extremely self sufficient , while not altering its external structure, and providing much more technologies than a conventional 4 wheeler nowadays never provides. I think lightyear would be conquering the roads soon. What about you?

Neuralink:

Neuralink is a neurotechnology company , which is developing implantable brain - machine interfaces. Firstly we should get to know what a Brain-Machine Interface (BMI) is.

A BMI is a methodology or technology which allows controlling of a machine or computer or any gadget simply, by just thinking of it . It may seem it is not possible , but Elon Musk , along with a powerful team is keenly working on creating a human BMI . They create minute implantable devices called ‘links’ , which are placed in the human brain to read, transmit and create signals.This works on the basis that the information between the neurons in our brain is transmitted in the form of electric signals. These links would have small ,flexible neuron signal detectors like wires , termed ‘neural threads’. The links placed in the skull can be easily charged without intervention with an inductive charger. These devices would initially be available to paralysed patients to help them communicate with others and manipulate necessary actions by using the computer , by simply thinking of what it should do. They are building a mobile app which could play a song or type a paragraph , or do anything by just thinking of it . Cool right??

BOOM SUPERSONIC:

Boom supersonic is a supersonic passenger aircraft startup founded by Blake Scholl.. This aircraft facilitates us to travel faster than sound and reach our destinations faster than ever. They are designing a supersonic passenger aircraft called ‘Overture’ which is in testing currently and would be rolled out for public usage only in 2030. Also the testing process is going on for years and millions of dollars are being continuously invested into this company , even though their product has not reached the market yet and would not reach until 2030. It sparks a question on why would investors invest millions in a company which would not be available for public use for about 10 years from now. The answer lies in its powerful technology and the partners who are backing up Boom , namely Rolls Royce, US Air Force, aws, Japan Airways ,etc. Next we would be interested to know how a startup company got this powerful partners. This was because of Boom’s promise to create the world’s fastest passenger airliner , which is 100% carbon neutral , maximized fuel efficiency , emission and noise reduction ,all with the speed faster than sound. They also created a complete prototype to prove it . That is why it is continually backed by large investors and companies . Lets soon travel faster than sound , Just wait until 2030.

KAUSIK SUBRAMANIYAM G

Second Year B.Tech IT



THE PAST,PRESSENT AND FUTURE OF VIRTUAL REALITY

Everyone of us have heard the term VR or Virtual Reality. But you would possibly have thought it's a fun part for the gamers twiddling with VR games or VR applications.So,what exactly virtual reality is????Virtual reality (VR) refers to a computer based simulation through which a person can interact within an artificial three-dimensional environment using electronic devices, such as special goggles with a screen or gloves that are fitted with sensors. Virtual reality is something which helps the users feel like they are actually experiencing various activities in real time .So, how does this incredible technology works??We need a VR Goggles or a virtual reality headset and a compatible mobile phone or a suitable virtual reality device for the real time experience of this technology.This will immerse us into the virtual world. Now,for diving into the world of fantasy the device has to be fitted into our face we need a mount often termed as VR cardboard sets. These VR Headsets will create a screen around our face.Unlike watching a TV or a phone, as you turn your head and move up and down, your eyes should stay within the virtual scene.The virtual experience includes 3D images which will appear as real to the user. The device tracks the user’s head and eye movements and adjusts the on-screen display in order to respond to the change of perspective.Virtual reality is not just about the visual experience. It’s augmented by sounds and device movement.

In today’s modern world,Virtual reality and Augmented reality have attracted the interest of large number of investors and the general public ,especially after Mark Zuckerberg bought Oculus for two billion dollars. Currently, many other companies, such as Sony, Samsung, HTC, and Google are making huge investments in VR and AR.Whilst Sony launched its PlayStation VR (PSVR) game console in 2016, but the reach has been not as big as it was anticipated. Facebook has announced Oculus Go, a standalone headset that will be released in 2018.This would be the most accessible VR experience ever and they intend, eventually, to have one billion people into VR.“Wild Within” used VR to promote tourism in Canada’s British Columbia, giving users the ability to feel the sensation of real-time hiking, visiting rainforest or seeing the stunning coastlines. Boeing, who developed manned spacecraft declared that in September they would introduce Virtual Reality programmes to train astronauts for spacecraft operations.

VR headsets are a great aid in classrooms where kids are taken on virtual field trips in order to explain concepts in ways that were quite impossible until now. This is quite interesting and we would have never thought that the classrooms would become virtual. This takes visual learning to a whole new level by making the learning process not only restricted to textbooks. Furthermore, entire virtual worlds are being created today in order to prepare university students to face the challenges of the real world, where their skills are first tested and also analyzed by the business sector for better employment training.

Future of Virtual Reality

It's a trend that retailers are keen that Walmart's e-commerce CEO Marc Lore said that "in the next decade he sees a future where consumers can experience in-store interactions via VR in their homes".

IKEA has already started building a virtual test kitchen and Mastercard and Swarovski have put their efforts into a VR shopping app that lets shoppers browse, and know about the purchase items.

The future of immersive technologies are bright. As of now, we need to carry a computing device with us for using these headsets. Also the headsets looks kind of odd. You can easily find someone using a MR or AR or VR headset in the large crowd. But now, with the emergence of 5G technology, the latency has been reduced and the speed has been increased to a great extent. So now it is now possible for us to have the processing on cloud. So now, we can have less bulkier devices Mixed Reality headsets, it will resemble a normal eyeglass to a greater extent. And now, we have glasses by a brand called Nreal which produces smart glasses that looks similar to the normal glasses.

SUSITHA A
Third Year B.Tech IT



RECOMMENDATION SYSTEMS

"Data are becoming the new raw material of business," says Craig Mundie, the Senior Adviser to the CEO at Microsoft and its former Chief Research and Strategy Officer. A tremendous amount of data has started flowing through the digital world by the early start of the 21st century. The propellant for any digital company has shifted from the customers who require the services to the data that is generated by them. This change has forced several business institutions to put in their time and resources to maneuver techniques and systems that can take in this whole stream of data, analyze, interpret and provide inferences. One such application is the Recommendation System.

During the last few decades, with the growth of the currently popular web services such as Amazon, YouTube, Netflix, etc the recommendation systems have been introduced and seeded deep into our lives. From e-commerce where related suggestions cloud your screen to an online advertisement that pops up, recommendation systems have made themselves inevitable throughout our online journey.

Recommender systems in a very general way, are nothing but algorithms that tailor searches/recommendations based on the user preferences such that the results rendered are relevant (results can refer to movies to watch, text to read, or things to buy). They are among the most powerful machine learning systems that online retailers implement to drive sales. Data required for recommender systems stems from explicit user ratings after watching a movie or listening to a song, from implicit search engine queries and purchase histories, or other knowledge about the users/items themselves.

The benefits of recommender systems are what makes them so useful, in terms of both garnering customers and profit for the institution. Being personalized they can provide bespoke suggestions to users and thus they are algorithms that can understand users that in turn is a display of a company/business that understands its customers. While the base of the recommender system involves a lot of work that commences at Data collection, Filtering, gathering, etc and various technical details that go into each step of the mentioned processes it is the simplicity that these systems put forward through the abstraction of underground processes that gives the user a feeling that his preferences are understood.

So, when there are right suggestions generated by a system that is capable of understating user needs the customer satisfaction is increased manifold, providing the customer a sense of reliability. With the landscape of the digital world constantly under change with running time, any technology needs to update itself which brings us to the question of what is recommendation systems doing to suit the current trends. Various scientists have now turned their focus to yet another way of optimizing the recommendation systems using deep learning techniques. Recommended systems can be a very powerful tool in a company's arsenal, and future developments are going to increase the business value even further. Some of the applications include being able to anticipate seasonal purchases based on recommendations, determine important purchases, and give better recommendations to customers which can increase retention and brand loyalty.

DHAKSHESH. T
Second Year B.Tech IT



MOTHER'S LOVE

When you cry, I will be there as your tissue

When you taste success, I will rejoice with you

When you boil with anger, I will calm you down

When you are happy, I will be the joyful

When you never want me in your life

I will still give you my unconditional love

Let us travel through thick and thin

And show this world that

No one can ever replace a mom's love



HARSHITHAA P V
Third Year B.Tech IT



SUNRISE TO SUNSET

We are not alone,

*Diligent life, Hidden shame,
Unsaid words, Mission left undone,
Dreams shattered, Wasted life time,
Unfamiliar surroundings, Undetermined abilities,
Foundation of tomorrows, Block and twist of words,
Struggle we wear, Misdirected intentions, Unkind observations,
Frustration creeps, Suffering needlessly, Heart skips a beat,
Many reason for tears as laughter, Alone with thoughts & words,
Glory of a moment gone forever with the blink of an eye,
Some answers ever unknown, Everything needed is buried inside,*

But we are here, for a reason,

*Time on this walk is short,
Take a journey on paths unknown,
No guarantees for the length of stay,
Orange sunrise, Pink sunset-yet we are here for a reason.
Many lifetimes exist within one,
See the light beyond the darkest clouds,
Fight for the light, Shine, Swipe the clouded mirror,
Talents are needed, Unique talents gifted to us,
Reach the sky, feel the energy,*

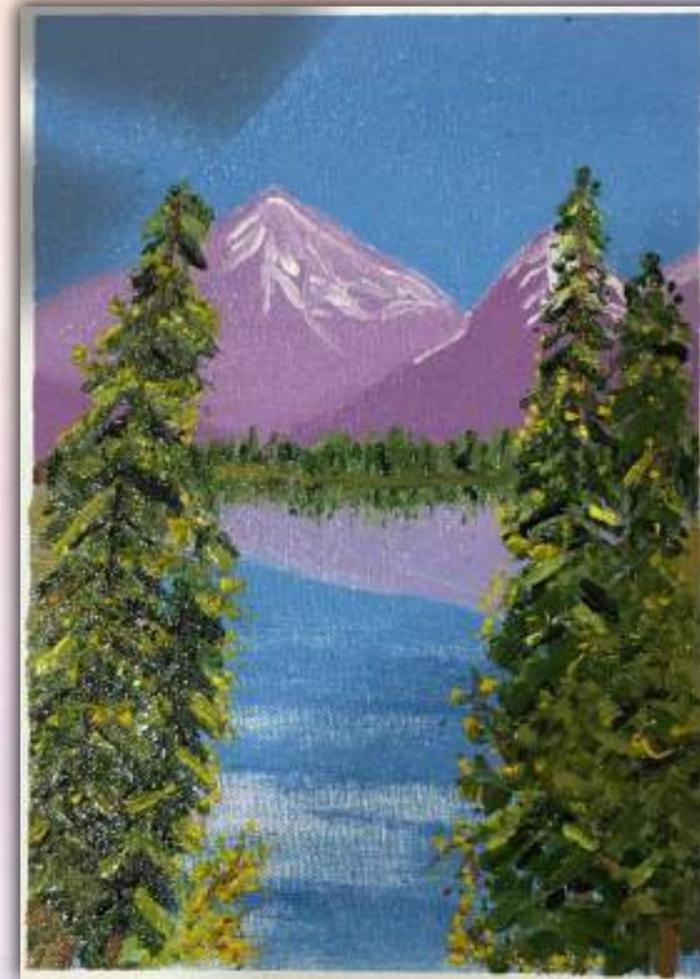
***"Gift your words to others,
We are here, for a reason"***

SWETHA

Final Year B.Tech IT



ARTWORK



SAMYUKTHA S

Third Year B.Tech IT



B.Tech IT 2017- 2021

