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## *About us*

The Department of Computer Science and Engineering was established in the year 1998 with the intake of 40 students initially. It was increased to 60 in 2000 and 120 in 2011. This program is affiliated to Anna University, Chennai. This immense growth is due to the efficient working of staff members and students. The department has the pride in showcasing its 100% of admission. With relentless efforts, the department has accomplished Accreditations by the **Institution of Engineers (IEI)** in the year 2015 and **National Board of Accreditation (NBA)** in the year 2018.

The department library is strategically placed to access all the students. It spreads over an area of 100 sq. ft. It acts as a storehouse of knowledge with over 604 books including books with various domains in Computer Science and Engineering. Reference books are added to the library every year. The department with its cohesive team of faculty members offers a sound program at the UG level. It shapes the students to keep up with the growing demands and changing trends of the software industry and research laboratories.

Apart from curriculum, the active participation of students in inter and intra college technical contests are being encouraged by the department to develop their interpersonal skills and the students have won many Best Project awards, Mobile App, Web Applications and Coder awards. Students are also *actively* participating in Infosys Foundation Programs (FP), TCS campus commune, TATA crucible project competition, and CSI Project Contests, etc.

## *Vision of the Institution*

Impart an inclusive engineering education that beyond being a facilitator for a career and rudimentary skills, equips the students to offer ethically & environmentally conscious solutions to societal issues.

## *Mission of the Institution*

Develop the Institution into a Model Self Financing College of Engineering and Technology. Deliver Professional Training to our students with state-of-the art Laboratories and convert them into Technocrats of international repute.

1. Create a nurturing, holistic environment of engineering education to facilitate every student realize their full potential.
2. Strive to make the students strong in basic concepts armed with appropriate skills to enhance one's ability to apply the knowledge and provide solutions to real time issues.
3. Maintain an ambience that facilitates the students to strengthen their ethical value systems.
4. Actively promote R&D and institute-industry interaction.

## *Vision of the Department*

To evolve as a center of academic excellence and advanced research in Computer Science and Engineering discipline.

## *Mission of the Department*

1. To inculcate in students a profound understanding of fundamentals related to discipline.
2. To inculcate skills, attitudes and their applications in solving real world problems with an inclination towards societal issues and research.
3. To promote research in the emerging areas of computer science and technology

## *Programme Educational Objectives*

PEO1: Acquire strong foundation in the mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze engineering problems.

PEO2: Develop the ability to analyze the requirements of the software, understand the technical specifications, design and provide novel engineering solutions and efficient software/hardware designs.

PEO3: Have exposure to emerging cutting-edge technologies, adequate training & opportunities to work as teams on multidisciplinary projects with effective communication skills and leadership qualities.

PEO4: Have awareness on the life-long learning and prepare them for research development and consultancy.

PEO5: Have a successful career and work with values & social concern bridging the digital divide and meet the requirements of Indian and multinational companies

## ***MESSAGE FROM PRINCIPAL***



It is our effort to make SCE of Computer Science a top educational institution that can create IT professionals, who blend effectively, technological skills with management perspectives and to impart an inherent discipline that will help them face challenges in the future. Consequently, the true education should deepen our insight, widen our horizon and create a meaningful outlook. Equally the students are fortunate enough to have born in a free nation, with all the facilities to shape their career in such a way, that they should be part of a good and healthy society with progressive attitude towards divinity.

Dr. D. Valavan

Principal

## ***MESSAGE FROM HoD***



It gives me immense pleasure to lead the department of CSE. The department has well qualified and eminent faculty. The main objective of the department is to develop the students both personally and professionally to achieve a successful career in Industry, Research and Academics. Consequently, great advances have taken place in the field of computer science and engineering, bringing together the understanding of the scientific and technological foundations of computing, the concepts of software and hardware as well as those of communication technologies. The Department of Computer Science and Engineering endeavors to contribute to these advances through teaching and research in this field. The E magazine attempts to present the Department and its activities for general information to all concerned.

Dr. S. A. Sahaaya Arul Mary  
HoD/CSE

## **FACULTY – STUDENT EDITORIAL TEAM**

### **FACULTY IN-CHARGE**

#### **EDITORIAL DIRECTOR**

Dr. S.A. Sahaaya Arul Mary, Professor & HoD / CSE

#### **EDITOR IN CHIEF**

1. Ms. K Mohanappriya, Assistant Professor / CSE
2. Ms. S. Iswarya, Assistant Professor / CSE
3. Mr. R. Mohankumar, Assistant Professor / CSE

#### **STUDENT REPRESENTATIVES**

#### **CONTENT COLLECTION TEAM**

1. Mr. D Jesuriya (211033), IV CSE A
2. Ms. S Sowmiya (211091), IV CSE B
3. Ms. A R Sanofer Fathima (221084), III CSE A
4. Ms. J Shema Latha (221090), III CSE B
5. Ms. N Aparna Gayathri (231011), II CSE A
6. Ms. H Abdul Wasiv (231121), II CSE B

#### **SCRUTINY TEAM**

1. Ms. C S Moshmi (211055), IV CSE A
2. Mr. P Sonali (211090), IV CSE B
3. Mr. R Hari Dhanush (221033), III CSE A
4. Mr. M D Raksshanna (221074), III CSE B

#### **COPY EDITOR**

1. Mr. K Shuba Shwetha (211085), IV CSE B
2. Mr. S Dheeraj Prakash (221025), III CSE A
3. Ms. A Nihila (221062), III CSE B

#### **COVER PAGE DESIGNER**

1. Mr.S Vykunth (211115), IV CSE B
2. Mr. R Hareesh Krishnan (221032), III CSEA

#### **GRAPHICS DESIGNER**

1. Mr. A N Jeevan Rohith (211032), III CSE A
2. Mr. K Viswanatha Subramanian (221118), III CSE B



# DEPARTMENT EVENTS





# SARANATHAN COLLEGE OF ENGINEERING

Venkateswara Nagar, Panjappur, Tiruchirappalli-620012  
(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Infosys  
Springboard

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
(Accredited by NBA)

## Report on "Infosys - Springboard - Virtual Roadshow"



Infosys has initiated "Springboard", which enable students and associated communities from early education to employment by enabling them on digital and supporting life skills. We as a partner of Infosys Campus Connect program are also a part of it. The Infosys team brings quality content from its partners and leading universities across the world, in its Springboard platform through <https://infyspringboard.onwingspan.com/en/login>.

Base the above note, Infosys has organized a virtual roadshow of its "Springboard" platform which will help students to crack InfyTQ and HackwithInfy. A webex meet was arranged by Infosys on 13.04.2022 between 10.30 am and 12.00 noon through the Meeting link: <https://infosys.webex.com/infosys/j.php?MTID=mb8900d938cdbcf8eb31929f2ca791d8> and nearly 600 students of CIVIL, CSE, ECE, EEE, ICE, IT actively participated. The session covered the basics of Springboard platform with registration, course content available, subscribing for a specific course content and certification.

It offers curriculum-rich platform for students of all communities. The program allows students to prepare themselves for emerging jobs and careers, to enhance advanced digital skills. It is a self tracking platform that keeps track of the learning time, resource accessed, number of quizzes successfully completed, assignment carried out and assessment taken up periodically. It provides a certification as the course gets successfully completed the student within the stipulated time.



# STUDENT ACHIEVEMENTS



## *Students Awarded in Symposiums / Other Events*

<b>S.NO</b>	<b>Student Name</b>	<b>Event Name</b>	<b>From date</b>	<b>To date</b>	<b>Organized by (dept name / org. name)</b>	<b>Conducted at (college name / location)</b>	<b>Prize / Participated</b>
<b>1</b>	Vigneshwaran N	Matheletes	25/3/2022	25/3/2022	SSN College of Engineering Kalavakkam	SSN College of Engineering Kalavakkam	<b>III</b>
<b>2</b>	SubinRaj	Matheletes	25/3/2022	25/3/2022	SSN College of Engineering Kalavakkam	SSN College of Engineering Kalavakkam	<b>III</b>

# OUR RECRUITERS

Infosys

  
**TATA**  
TATA CONSULTANCY SERVICES



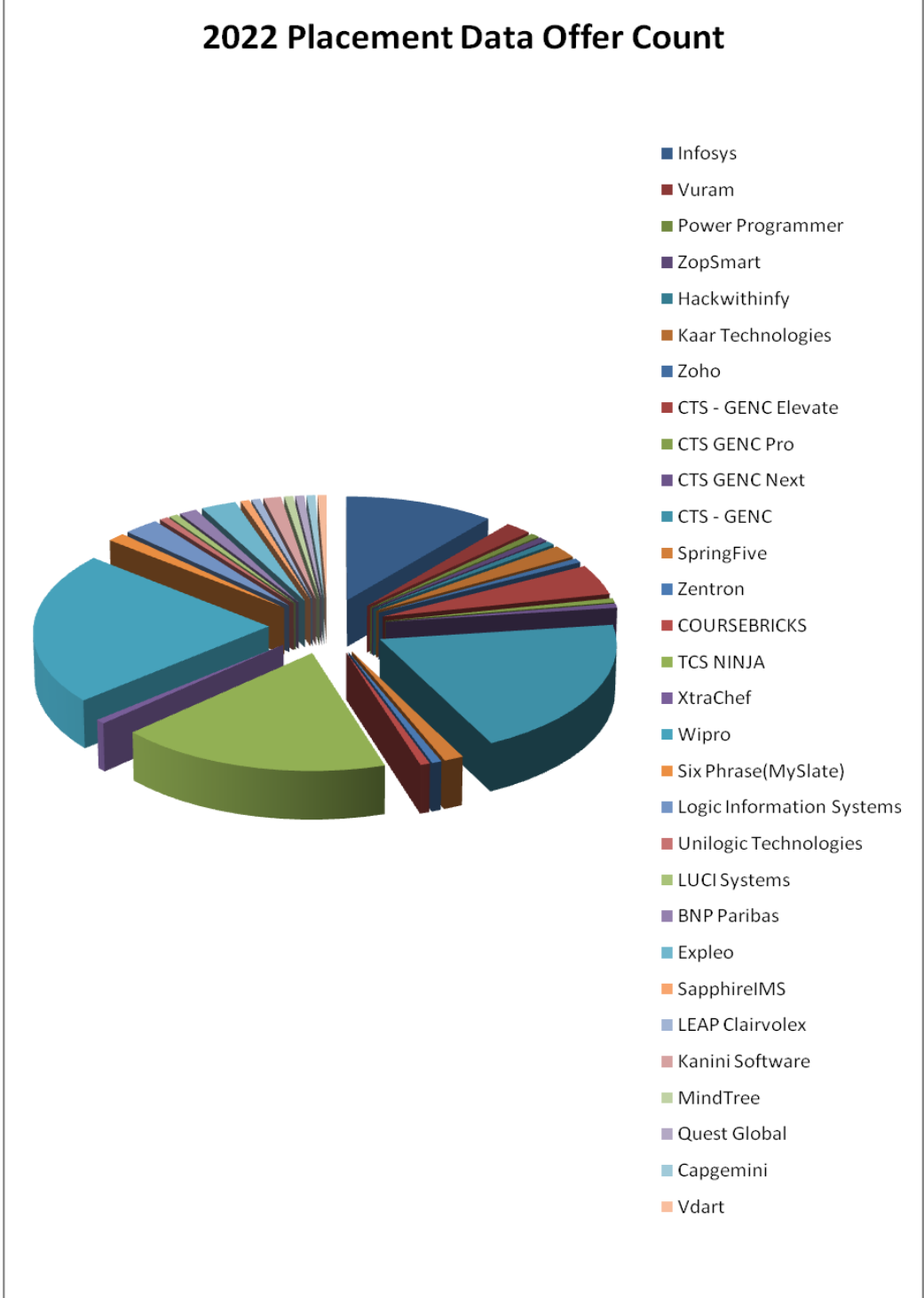
verzen

wipro 

 **NTT**

# PLACEMENT DETAILS

2022 Placement Data Offer Count



<b>S. No.</b>	<b>Name of the Company</b>	<b>Offer Count</b>
1	Infosys	17
2	Vuram	3
3	Power Programmer	1
4	ZopSmart	1
5	Hackwithinfy	1
6	Kaar Technologies	3
7	Zoho	1
8	CTS - GENC Elevate	7
9	CTS GENC Pro	1
10	CTS GENC Next	1
11	CTS - GENC	31
12	SpringFive	2
13	Zentron	1
14	COURSEBRICKS	1
15	TCS NINJA	28
16	XtraChef	1
17	Wipro	35
18	Six Phrase(MySlate)	2
19	Logic Information Systems	4
20	Unilogic Technologies	1
21	LUCI Systems	1
22	BNP Paribas	2
23	Expleo	4
24	SapphireIMS	1
25	LEAP Clairvortex	1
26	Kanini Software	2
27	MindTree	1
28	Quest Global	1
29	Capgemini	1
30	Vdart	1
<b>Total</b>		<b>157</b>

# *Faculty Contributions*





## *Knowledge Enrichment through FDP*

- Mr. S. Venkatasubramanian, Associate Professor has participated in “Inculcating Universal Human Values in Technical Education” conducted by All India Council for Technical Education (AICTE) from 28-02-2022 to 4-Mar-22
- Mr. K.S Chandrasekaran, Associate Professor has participated in “Inculcating Universal Human Values in Technical Education” conducted by All India Council for Technical Education (AICTE) from 28-02-2022 to 4-Mar-22
- Dr. N. Lakshmikanthan, Assistant Professor has participated in Intellectual Property Rights organized by IPR cell and Development of Management Studies, SKIT, Jaipur from 18.01.2022 to 22.01.2022
- Dr. N. Lakshmikanthan, Assistant Professor has participated in Emerging Trends and Advances in Computational Intelligence (ETACi-2022) organized by Dept. of Information Technology, BBAU BANARASI DAS, Lucknow from 02-02-2022 to 05-03-2022
- Dr. N. Lakshmikanthan, Assistant Professor has participated in Research Application in the field of Artificial Intelligence organized by Dept. of CSE, Swami Keshvanand Institute of Technology, Management and Gramothan, Japiur, from 04-01-2022 to 08-01-2022
- Dr. N. Lakshmikanthan, Assistant Professor has participated in National Intellectual Property Awareness Mission organized by Intellectual Property under NIPAM-SKIT, IPR, India on 24-01-2022
- Ms. J. Sathia parkavi, Assistant Professor has participated in Wireless Sensor Networks and IoT conducted by AICTE Training and Learning (ATAL) academy, Delhi Technological university, Delhi from 10-01-2022 to 14-01-2022
- Ms. J. Sathia parkavi, Assistant Professor has participated in STTP on Writing and publishing of Quality Research Articles and Ethics of Research conducted by AICTE Training and Learning (ATAL) academy, Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur from 21-02-2022 to 25-02-2022
- Mr.P.B.Arun Prasad, Assistant Professor has participated in National Workshop on How to use Mendeley Reference Manager conducted by School of Social Sciences and Languages (SSL), VIT Chennai on 12-01-2022
- Mr. P. B. Arun Prasad, Assistant Professor has participated in Intellectual Property Rights organized by IPR cell and Development of Management Studies, SKIT, Jaipur from 18.01.2022 to 22.01.2022
- Mr. P. B. Arun Prasad, Assistant Professor has participated in National Intellectual Property Awareness Mission organized by Intellectual Property under NIPAM-SKIT, IPR, India on 24-01-2022

- Mr. P. B. Arun Prasad, Assistant Professor has participated in Advanced Signal Processing, Communication using AI and ML Techniques conducted by Department of ECE of GMR Institute of Technology, SRI SAI RAM Institute of Technology from 21-03-2022 to 25-03-2022
- Mr. P. B. Aravind Prasad, Assistant Professor has participated in Intellectual Property Rights organized by IPR cell and Development of Management Studies, SKIT, Jaipur from 18.01.2022 to 22.01.2022
- Ms. N. Ramya, Assistant Professor has participated in Introduction to Artificial Neural Network conducted by Dept. EEE, Christ The King Engineering college, Coimbatore on 08-02-2022

## *Publications in Reputed Journals & International Conferences*

- Dr.S.A.Sahaaya Arul Mary, has published a paper titled "Geographical Information System -Aided Landmark Recognition System using Machine Learning" in the proceedings of "5th International Conference on Computer Network and Inventive Communication Technologies" on 01 Apr 2022.
- Dr.S.A.Sahaaya Arul Mary, has published a paper titled "Secure Instant Messaging Service Based on Authentication using data Encryption Algorithm" in the proceedings of "International virtual Conference on Computational Engineering" on 18 Apr 2022.
- S. Venkatasubramanian, has published a paper titled "Correlation Distance Based Greedy Perimeter Stateless Routing Algorithm for Wireless Sensor Networks", International Journal of Advanced Networking and Applications, pp. 4962-4970, Vol. 13, Issue. 3, Dec 2021, ISSN: 0975-0290 DOI :10.35444/IJANA.2021.13303
- S. Venkatasubramanian, has published a paper titled "Ambulatory Monitoring of Maternal and Fetal using Deep Convolution Generative Adversarial Network for Smart HealthCare IoT System", International Journal of Advanced Computer Science and Applications(IJACSA), Vol. 13, Issue. 1, JAN 2022, (SCOPUS and E-SCI (WoS))
- S Venkatasubramanian, R. Mohankumar,has published a paper titled "A Deep Convolutional Neural Network-Based Speech-to-Text Conversion for Multilingual Languages", Computational Vision and Bio-Inspired Computing, pp. 617-633, Vol. 1420, Issue. 1, MAR 2022, DOI : 10.1007/978-981-16-9573-5
- S.VENKATASUBRAMANIAN,has published a paper titled "Cluster Head Selection based on Mapping-Based Cuttlefish Optimization Algorithm for Multipath Routing in Manet" in the proceedings of "5th International Conference on Computer Networks and Inventive Communication Technologies (ICCNCT 2022)", Online on Apr-22.

- S. VENKATASUBRAMANIAN, has published a paper titled "Fruit-Fly Algorithm based Dynamic Source Routing Algorithm for energy-efficient multipath routing in MANET" in the proceedings of "2022 INTERNATIONAL CONFERENCE ON COMPUTER COMMUNICATION AND INFORMATICS" Organized by ICCCI 22 on 27-Jan-2022.
- S.Venkatasubramanian, Dr.PL.RajaRajeswari, has published a paper titled "A Ring Toss game-based optimization-based Routing protocol for Optimal Path Selection in MANET" in the proceedings of "SECOND INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE & SMART COMPUTING" Organized by ICAISC-2022 on 11-March-2022.
- Dr.N.Laksmikanthan ,Dr.S.Mohana & Dr. R SenthamilSelvi,has published a paper titled "Anti Theft Detection and Antilocking System in Vehicles Using IOT." in the proceedings of "International virtual Conference on Computational Engineering" on 18 Apr 2022.
- Dr.S.Mohana & Dr.RSenthamilSelvi,has published a paper titled "Secure Instant Messaging Service Based on Authentication using data Encryption Algorithm" in the proceedings of "International virtual Conference on Computational Engineering" on 18 Apr 2022.
- Dr.RSenthamilSelvi, has published a paper titled "Application of Machine Learning in Healthcare: An Analysis" in the proceedings of "International Conference on Artificial Intelligence and Machine Learning (IAIM-2022)" on 2022.
- Dr.RSenthamilSelvi, has published a paper titled "Virtual Learning" in the proceedings of "International Conference on Computer Science, Engineering and Applications (ICCSEA 2020)" on 2021. ISSN: 978-93-91535-01-8
- Dr.S.Mohana, Dr.R.SenthamilSelvi & Dr.N.Lakshmikanthan, has published a paper titled "Geographical Information System -Aided Landmark Recognition System using Machine Learning" in the proceedings of "5th International Conference on Computer Network and Inventive Communication Technologies" on 01 Apr 2022.
- Dr.N Lakshmi Kanthan, has published a paper titled "Comparative Study on Ontology Matching Tools and Methods" in the proceedings of "Machine Learning Applications in Applied Sciences and Mathematics - IVCMA SM 2022" Organized by Department of Artificial Intelligence and Data Science, Easwari Engineering College on 30-31 Mar 2022.

- P.DINESHKUMAR, has published a paper titled "Comparative Study on Ontology Matching Tools and Methods" in the proceedings of "Machine Learning Applications in Applied Sciences and Mathematics - IVCMA SM 2022" Organized by Department of Artificial Intelligence and Data Science, Easwari Engineering College on 30-31 Mar 2022.
- Vidivelli S & Sathiya Devi S, has published a paper titled "Micro Calcification detection using Ensemble approach" in the proceedings of "2nd International Conference on Information Technology" Organized by Lecturer Notes in Electrical Engineering on 4 Mar 2022. (Scopus Indexed)

## *Publications of Faculty*

<b>S.No</b>	<b>Title of paper</b>	<b>Name of the author/s</b>	<b>Name of journal</b>	<b>Year of publication</b>	<b>ISSN number</b>	<b>Index</b>
1	Cluster head selection and optimal multipath detection using coral Reef optimization in MANET environment	Mr. S.VenkataSubamianian	MECS-IJCNIS	April 2022	2074-9090	
2	Ambulatory monitoring of maternal and fetal using Deep Convolution generative adversarial network for smart health care IoT system	Mr. S.VenkataSubamianian	International Journal of Advanced Computer Science and Applications	Jan-22	2156-5570	Esciscopus
3	Cyber attacks prevention based on modified LVQ in SDN networks using neural networks	Mr. P.B.Arun Prasad	7th International Conference on Computing in Engineering and Technology(I CCET-2022)	Feb-2022	Yet to allocate	Scopus
4	Deep Learning technique for classification of E-	Ms. E. Shapna Rani	Forensic analysis	April 2022	Yet to allocate	

## *Conference attended by Faculty*

S. No.	Name of the teacher	Title of the paper	Title of the proceedings of conference	Name of the conference	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Dr.PL.Rajarajeswari	A Ring Toss Game-Based Optimization based Routing protocol for Optimal path Selection in MANET		Second International Conference on Artificial Intelligence and smart Computing	12 <sup>th</sup> March, 2022	yet to allocate	Saranathan College of Engineering	
2	Dr.R.Senthamil Selvi	Application of Machine Learning in Healthcare: An Analysis	International Conference on Artificial Intelligence and Machine Learning (IAIM-2022)	International Conference on Artificial Intelligence and Machine Learning (IAIM-2022)	2022		Saranathan College of Engineering	
3	Mr. S.Venkatasubramanian	Fruit-Fly Algorithm based Dynamic Source Routing Algorithm for energy efficient multipath routing in MANET	IEEE explorer (to be added)	2022 International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, INDIA	Jan 25 <sup>th</sup> – 27 <sup>th</sup> , 2022	yet to allocate	Saranathan College of Engineering	IEEE explore

4	Mr. S.Venkatasubramanian	A Ring Toss Game-Based Optimization based Routing protocol for Optimal path Selection in MANET		Second International Conference on Artificial Intelligence and smart Computing	12 <sup>th</sup> March, 2022	yet to allocate	Saranathan College of Engineering	
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## *Books Published by the Faculty*

<b>S.No</b>	<b>Name of staff</b>	<b>Name of the Book Published</b>	<b>ISBN</b>	<b>Publisher</b>	<b>Academic Year</b>
1	Dr.S.Mohana	Mobile Computing –A Tech Safari	978-1-956102- 73-4	IIP	2021-2022
2.	Mr.S.Venkatasubramanian	Fundamentals of mobile and pervasive computing	978-93-92992- 17-9.	SIPH	2021-22
3	Mr. S.Venkatasubramanian	Software Engineering	978-93-92992- 18-6	SIPH	2021-22
4	Mr. S.Venkatasubramanian	Fundamentals of Python Programming	978-93-92992- 88-9	SIPH	2021-22
5	Mr. S.Venkatasubramanian	Ad Hoc and Wireless Sensor Networks	978-93-94002- 19-7	SIPH	2021-22
6	Mr. S.Venkatasubramanian	Basic Electrical, Electronics and Instrumentation Engineering	978-93-94002- 37-1	SIPH	2021-22
7	Mr. S.Venkatasubramanian	Sustainable Communication Networks and Application Proceedings of ICSCN 2021	978-981-16- 6604-9	Springer	2021-22

# TECHNICAL ARTICLES

## **6G NETWORK**

In telecommunications, 6G is the sixth generation standard currently under development for wireless communications technologies supporting cellular data networks. It is the planned successor to 5G and will likely be significantly faster. Like its predecessors, 6G networks will probably be broadband cellular networks, in which the service area is divided into small geographical areas called cells. It is expected that mobile network operators will adopt flexible decentralized business models for 6G, with local spectrum licensing, spectrum sharing, infrastructure sharing, and intelligent automated management underpinned by mobile edge computing, artificial intelligence, short-packet communication and block chain technologies. This also raises questions on the role of international standards and rise of open software stacks paving the way toward a new telecommunications ecosystem, in which virtualized network functions from different developers and providers can be dynamically orchestrated and integrated in a secure, reliable, and energy-efficient manner.”

**-A. Bhavya Srii**  
**II CSE A**  
**231018**

## **ROLE OF HUMAN-COMPUTER INTERACTION**

The study of how computer technology affects human labor and activities is known as Human–Computer Interaction (HCI). The word "computer technology" currently encompasses a wide range of devices, from traditional computers with displays and keyboards to smart phones, home appliances, in-car navigation systems, and even integrated sensors and actuators like automated lighting. HCI is critical since it will be necessary for goods to be more successful, safe, helpful, and functional. HCI is also necessary to prevent goods or projects from failing completely.

**- Keerthika. E**  
**III CSE A**  
**221046**

## **COMPUTER-ASSISTED EDUCATION**

Computer Assisted Learning (or CAL) has completely modernized the way that students learn, both in the average classroom as well as in language-learning settings. Computer Assisted Learning can make lessons much more interactive and engaging, and can pique the interest of even the most reluctant of pupils. The use of computers and software to assist education and/or training, computer-assisted education brings many benefits and has many uses. For students with learning disabilities, for instance, it can provide personalized instruction and enable students to learn at their own pace, freeing the teacher to devote more time to each individual. The field is still growing but promising, with many educators praising its ability to allow students to engage in active, independent and play-based learning.

**-Vigneshwaran. N**

**II CSE B**

**231114**

## **ARTIFICIAL INTELLIGENCE IN MODERN SOCIETY**

Artificial intelligence is fundamentally intelligence behavior displayed by machines instead of humans. People who have studied computer science are needed in creating AI because they should observe how the machine reacts to certain variables. When focusing more on the workplace and out in the world one version of artificial intelligence that is widespread would be smart cars. Smart cars use sensors to observe their entire surroundings and it then takes those observations and makes decisions from that information.

**-Suja Marshalin. P**

**III CSE B**

**221101**

## **ROBOTIC PROCESS AUTOMATION**

Robotic process automation (RPA) is a form of business process automation technology based on metaphorical software robots (bots) or on artificial intelligence (AI)/digital workers. The hosting of RPA services also aligns with the metaphor of a software robot, with each robotic instance having its own virtual workstation, much like a human worker. The robot uses keyboard and mouse controls to take actions and execute automations. Normally all of these actions take place in a virtual environment and not on screen; the robot does not need a physical screen to operate, rather it interprets the screen display electronically. A principal barrier to the adoption of self-service is often technological: it may not always be feasible or economically viable to retrofit new interfaces onto existing systems.

**-Srivathsan S**

**II CSE B**

**231103**

## **5G (FIFTH GENERATION OF CELLULAR NETWORKS)**

Fifth-generation wireless (5G) is the latest iteration of cellular technology, engineered to greatly increase the speed and responsiveness of wireless networks. With 5G, data transmitted over wireless broadband connections can travel at multi giga bit speeds, with potential peak speeds as high as 20 gigabits per second (Gbps) by some estimates. Unlike 4G, which requires large, high-power cell towers to radiate signals over longer distances, 5G wireless signals are transmitted through large numbers of small cell stations located in places like light poles or building roofs.

**- Nivedha. K**

**IV CSE A**

**211061**

## **THE NEXT CYBERSECURITY POISONED AI**

For the past decade, artificial intelligence has been used to recognize faces, rate creditworthiness and predict the weather. At the same time, increasingly sophisticated hacks using stealthier methods have escalated. The combination of AI and cyber security was inevitable as both fields sought better tools and new uses for their technology. But there's a massive problem that threatens to undermine these efforts and could allow adversaries to bypass digital defenses undetected. The danger is data poisoning: manipulating the information used to train machines offers a virtually untraceable method to get around AI-powered defenses. Many companies may not be ready to deal with escalating challenges. Machine-learning systems require a huge number of correctly-labeled samples to start getting good at prediction. Even the largest cyber security companies are able to collate and categorize only a limited number of examples of malware, so they have little choice but to supplement their training data.

**-Shuba Shwetha. K**

**IV CSE B**

**211085**

## **CLOUD COMPUTING**

Cloud computing is not a new concept. It is originated from the earlier large-scale distributed computing technology. However, it will be a subversion technology and cloud computing will be the rapid revolution in the Computer Science and Information Technology field. Which represent the development trend in the IT industry from hardware to software, software to services, and distributed service to centralized service. "Cloud" is a virtualized pool of computing reusable resources. Cloud computing brings us the approximately infinite computing capability, good scalability, on-demand service and so on, also challenges at security, reliability, and privacy.

**-Aiswarya. S.G**

**III CSE A**

**221008**

## **EDGE COMPUTING**

Formerly a new technology trend to watch, cloud computing has become mainstream, with major players AWS (Amazon Web Services), Microsoft Azure and Google Cloud Platform dominating the market. The adoption of cloud computing is still growing, as more and more businesses migrate to a cloud solution. But it's no longer the emerging technology trend. Edge computing will increase as use of the Internet of Things (IoT) devices increases. And this new technology trend is only meant to grow and nothing less, creating various jobs, primarily for software engineers.

**-Kishore Kumar H**

**II CSE B**

**231119**

## **CYBER SECURITY**

Cyber security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic information security. Cyber security might not seem like an emerging technology, given that it has been around for a while it is evolving just as other technologies are. That's in part because threats are constantly new. The malevolent hackers who are trying to illegally access data are not going to give up any time soon and they will continue to find ways to get through even the toughest security measure. As proof of the strong need for cyber security professionals, the number of cyber security jobs is growing three times faster than other tech jobs. As long as we have hackers, cyber security will remain a trending technology.

**-Kiruthika. J**

**III CSE A**

**221047**

## **TOP TECHNOLOGY TRENDS**

Technology today is evolving at a rapid pace, enabling faster changes and progress causing an acceleration of the rate of change. Artificial Intelligence of AI has already received a lot of buzz in the past decade. AI will be used further to analyze the interactions to determine underlying connections and insights, to help predict demand for services like hospital enabling authorities to make better decision about resource utilization, and to detect the changing patterns of customer behavior by analyzing the data in near real time. Machine learning the subset of AI, is also being deployed in all kinds of industries.

**-Priyadharshini P**

**II CSE B**

**231085**

## **INTERNET OF THINGS(IOT)**

Another promising new technology trend is IoT. Many “things” are now being built with WiFi connectivity meaning they can be connected to the internet-and to each other. Hence, the internet of things is the future. As consumers, we are already using and benefiting from IoT. we can look our doors remotely if we forget to when we leave for work and preheat our ovens on our way home from work, all while tracking our fitness on our fitbits. However, businesses also have much to gain now and in the near future. IoT devices will be in use around the world, creating a massive web of interconnected devices spanning everything from smartphones to kitchen appliances.

**- Varshini. M**

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**211106**



## **ROBOTIC PROCESS AUTOMATION (RPA)**

Robotic Process Automation, or RPA, is another technology that is automating jobs. RPA is the use of software to automate business processes such as interpreting applications, processing transactions, dealing with data, and even replying to emails. RPA automates repetitive tasks that people used to do McKinsey finds that less than 5 percent of occupations can be totally automated but about 60 percent can be partially automated. For you as an IT professional looking to the future and trying to understand latest technology trends, RPA offers plenty of career opportunities, including developer, project manager, business analyst, solution architect and consultant. And these jobs pay well.

**-K. Harini**

**II CSE A**

**231036**

## **GENERAL DATA PROTECTION REGULATION**

The general data protection regulation [GDPA] is a regulation in Europe law on protection and privacy in the European Union (EU).With the GDPR, Europe is signaling its firm stance on data privacy and security at a time when more people are entrusting their personal data with cloud services and breaches are a daily occurrence. While GDPR and India's Personal Data Protection Bill (PDP) are similar in many ways, the differences between them mean that a company which is compliant in Europe may not necessarily be compliant under the PDP. The GDPR is an ambitious and pioneering attempt to create a comprehensive, unified standard for digital privacy and data protection.

**-Sowmeya V**

**II CSE B**

**231102**

## **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Artificial Intelligence, or AI, has already received a lot of buzz in the past decade, but it continues to be one of the new technology trends because of its notable effects on how we live, work and play are only in the early stages. AI will be used further to analyze interactions to determine underlying connections and insights, to help predict demand for services like hospitals enabling authorities to make better decisions about resource utilization, and to detect the changing patterns of customer behavior by analyzing data in near real-time, driving revenues and enhancing personalized experiences. With AI spreading its wings across sectors, new jobs will be created in development, programming, testing, support and maintenance, to name a few. On the other hand AI also offers some of the highest salaries today ranging from over \$1, 25,000 per year.

**-Samvarthini. C**

**III CSE B**

**221081**

## **DATA IS THE NEW SCIENCE**

Data holds the key of today's world and is unfolding dynamics for critical decisions business, marketing, etc. These data-based decisions are proving to be more accurate; they minimize human errors and maximize the efficiency expected in the industries. At this point in time, there is sufficient data that can help people to derive the result they are looking for. Almost 3 million terabytes of data are generated by a single cross country flight. If we look around, data analytics is almost everywhere and companies are continuously making their attempts to make its efficiency use.

**-Nithis Kumar.P**

**II CSE B**

**231071**

## **CONTENT PERSONALIZATION WITH MACHINE LEARNING**

Content personalization with machine learning, also called predictive content personalization is an advanced AI-driven approach to dynamically display the most relevant content to each user. Machine Learning (ML) is used in web development to provide an improved experience to users. Developers use ML to enable software to analyze incoming data, detect patterns and personalize content. Many leading companies use this technology to enhance user experience. For instance, Air on band Netflix uses ML to customize search results for their users. ML helps you to personalize content without targeting a whole segment of users. You can identify each user particularly, and cater to their interests. The algorithms provide tailored content based on user intentions. Content personalization with ML is an amazing trend that allows you to adjust your content by analyzing visitor behavior.

**-Surya.N**  
**I CSE B**  
**231106**

## **EVERYTHING-AS-A- SERVICE AND THE NO-CODE REVOLUTION**

An increasingly powerful driver will be the ongoing democratization of data and technology. In recent years an entire industry has emerged which aims to put the skills and tools necessary for tech-led innovation in the hands of as large a proportion of society as possible, regardless of their expertise or experience. Cloud solutions for storage, network and processing mean costs, and risks of setting up expensive infrastructure in order to try out new ideas are heavily mitigated.

**-Gurupramodh. R**  
**II CSE B**  
**231034**

## **ELECTRONIC CAD TOOLS**

Electronic Computer Aided Design (CAD) tools, which are essential in design of the chips that are the driving engine of a computer system. As the number of components on the chip increases the need for modeling activity rises and clearly there is more to simulate. In addition, the increasing complexity of VLSI chips makes the verification task much tougher, mainly because complex designs require more test vectors and each vector must run for a larger number of clock cycle to cover for the extra levels of chip functionality. These high-end applications can tolerate greater costs due to their low volume. Also, the driving engines for these high-end computer systems are likely to tolerate some reasonable higher power consumption, for the sake of higher speeds.

**-M. Shabarish**  
**II CSE B**  
**231092**

## **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Organizations and researchers are now using all their data and computing power to provide advanced AI capabilities to the world. One of the key trends in the AI world is machine vision. We now have computers that can see and recognize objects on a video or photograph. Language processing is also making big advances, so machines can understand our voices and speak back to us. Low-code or no-code will also be a huge trend this year. We will be able to build our AI using drag-and-drop graphical interfaces, so we can develop extraordinary applications without being limited by our coding skill

**-Susmitha.T**  
**II CSE B**  
**231107**

## **BLOCK CHAIN**

Block chain can be described as data you can only add to, not take away from, or change. Hence the term “chain” because you’re making a chain of data. Not being able to change the previous blocks is what makes it so secure. In addition, block chains are consensus-driven, so no one entity can take control of the data. With block chain, you don’t need a trusted third-party to oversee or validate transactions. Several industries are involving and implementing block chain, and as the use of block chain technology increases, so too does the demand for skilled professionals. If you are intrigued by Block chain and its applications and want to make your career in this trending technology, then this is the right time to start. To get into Block chain, you need to have hands-on experience of programming languages, the fundamentals of OOPS, flat and relational databases, data structures, web app development, and networking.

**-Thirisha Helen J**

**II CSE B**

**231109**

## **5G TECHNOLOGY**

In the past, information was secured from robbers by metal vaults and security guards. Today, digital information is secured from hackers by cyber security. Network security ensuring computer networks or cloud networks are only accessible by the correct users and applications. The next technology trend that follows the IoT is 5G. 5G Networks will cover 40% of the world by 2024, handling 25% of all mobile traffic data making it an emerging technology trendy must watch out for, and also save a spot in.

**-Aparna Gayathri. N**

**II CSE A**

**231011**

## **HYPERAUTOMATION**

Hyper Automation involves the use of multiple technologies like Artificial intelligence (AI), Machine Learning and Automation technologies such as Robotic Process Automation (RPA) to automate as many business processes as possible. According to business wire, Seventy percent of RPA professionals say their organization will hire more developers in the next year. Hyper automation is a framework and set of advanced technologies for scaling automation in the enterprise; the ultimate goal of hyper automation is to develop a process for automating enterprise automation. The aim of hyper automation is not only to save costs, boost productivity and gain efficiencies through automating automation, but also to capitalize on the data collected and generated by digitized processes. A hyper automation practice involves identifying what work to automate, choosing the appropriate automation tools, driving agility through the reuse of the automated processes, and extending their capabilities using various flavors of AI and machine learning.

**-Nithya.C S**

**II CSE B**

**231072**

# PROJECT WORKING MODELS

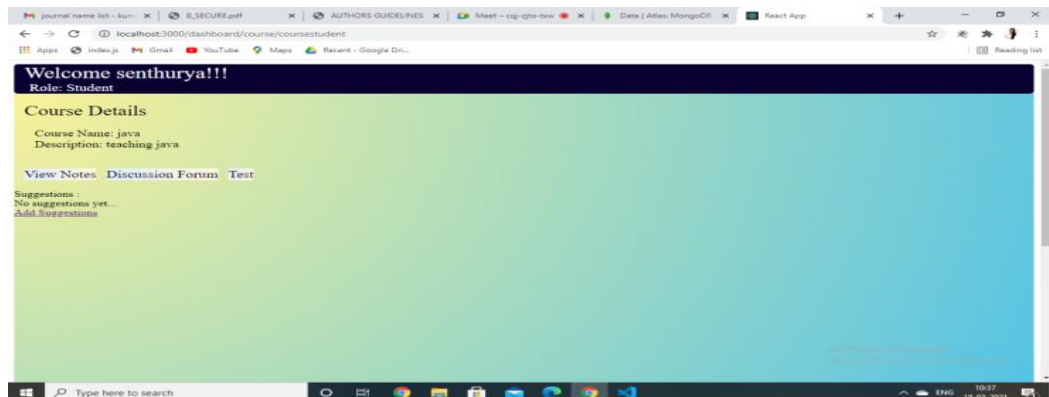
# PROJECT TITLE: COURSE MANAGEMENT SYSTEM

## TEAM MEMBERS

1. SENTHURYA.S
2. RAGAVI.R
3. SHRIHARINI.S

## ABSTRACT

Course Management System (CMS), as an advancing instrument and development, is progressively used to advance the quality, effectiveness and adaptability of instructing and learning. Its main motto is “anywhere, anytime, any pace”, all can learn. The focal point of a CMS is to oversee students, monitoring their advancement and execution across a wide range of preparing exercises. It can help user to focus on their different exercises rather to focus on record keeping. Thus it will help in better association of assets.



## STUDENT LECTURE PAGE



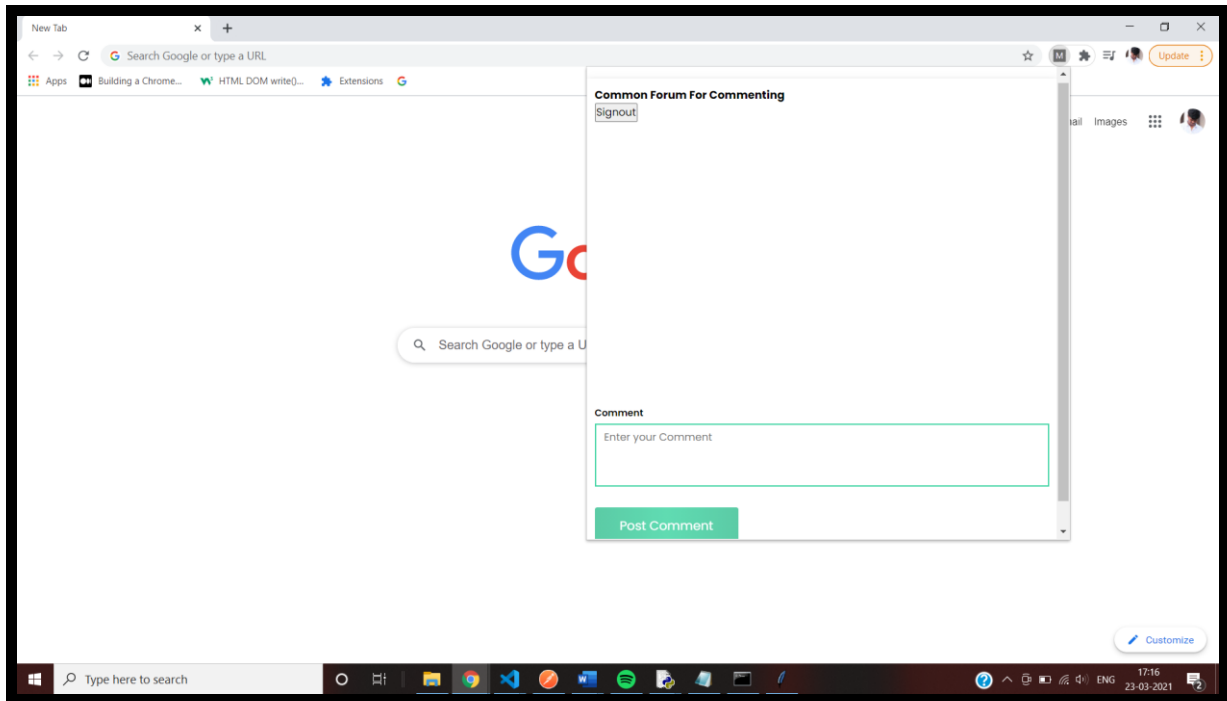
# PROJECT TITLE: COMMON FORUM FOR COMMENTING

## TEAM MEMBERS

1. INFANT REMI
2. RAJARAM
3. SHAILAJA M
4. VEDHA K

## ABSTRACT

‘Comments’-It has the overall ability to judge any content. For instance, Facebook users create 3.2 billion likes and comment every day, User reviews are the key component for any kind of information. Generally, this feature of commenting is available only on social media platforms. Why limit such an obliging feature only to social media?. To get the user reviews about different kinds of mediums, we need to go to the specific kind of website to get to know about their opinions.



## ADD COMMENT USER INTERFACE

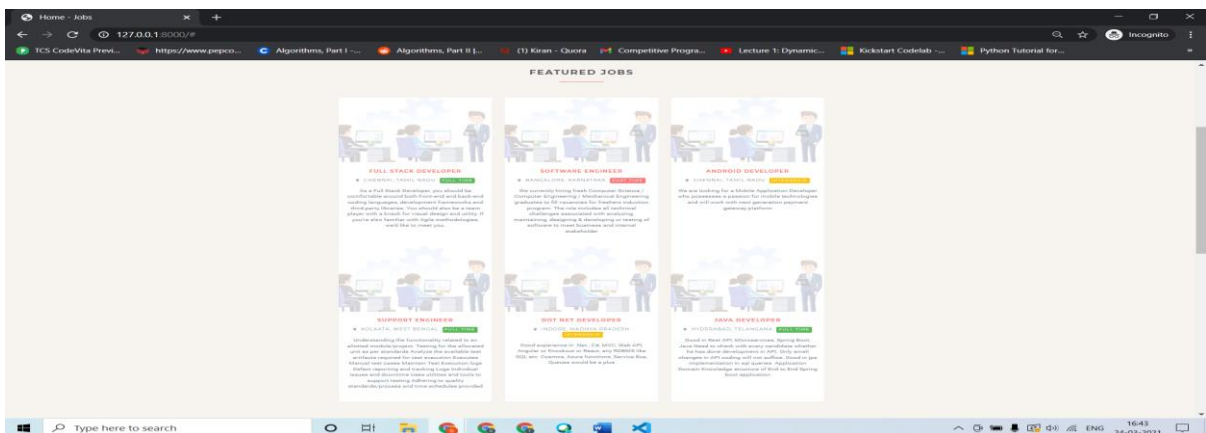
# PROJECT TITLE: ONLINE RECRUITMENT SYSTEM

## TEAM MEMBERS

1. SRI KRISHNAN M
2. SUVISHESIYAB
3. VAISHNAVI M
4. VISVAS ALEX J

## ABSTRACT

Recruitment process is a process of identifying the job vacancies, analyzing the job requirements, reviewing applications, screening, short listing and selecting the right candidate. We consider a company that we can automate its recruitment process and this company is currently using a manual system to recruit employees. Therefore, we have come up with the solution to recruit employees through online. This Online Recruitment System provides online help to the recruiters. It is a process of filtering the candidates based on their abilities and attitude, which is required for achieving the objectives of an organization. This Recruitment application is designed to do a whole work and it reduces paperwork.



## JOB OPENINGS

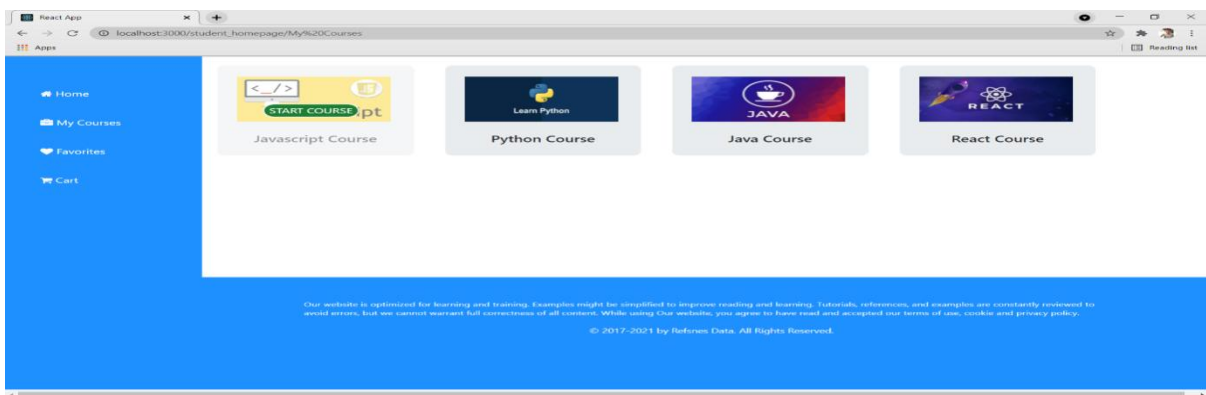
# PROJECT TITLE: E – LEARNING PLATFORM

## TEAM MEMBERS

1. SHEIK ABDULLASHA.B
2. SIVAKRISHNAN.S
3. SRINATH.M
4. VIJAYABHASKAR.S

## ABSTRACT

The purpose of E-learning management system is to automate the existing manual system by the help of computerized equipment's and full- fledged computer software, fulfilling their requirements, so that their valuable data or information can be stored for a longer period with easy accessing and manipulation of the same. The required hardware and software are easily available and easy to work with. E-learning management system, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping, thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.



## STUDENTS COURSE PAGE 2

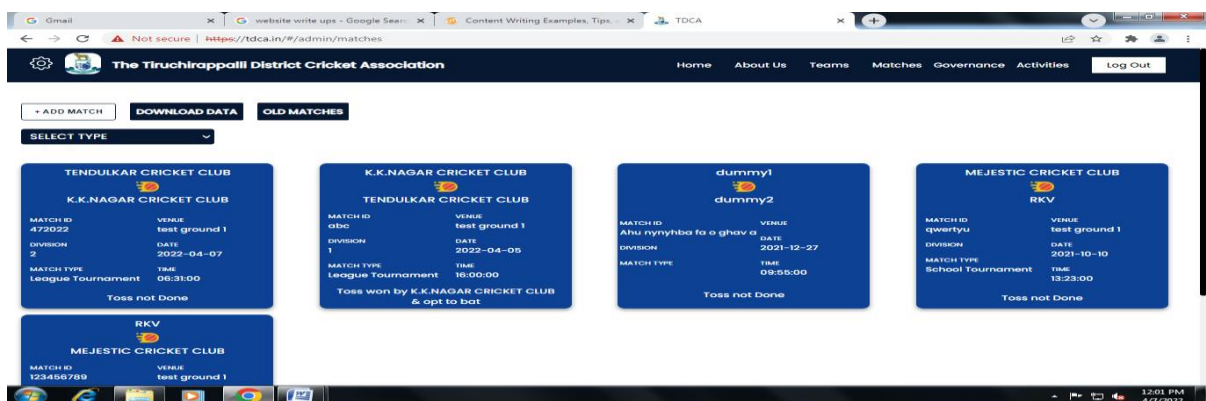
# PROJECT TITLE : WEBSITE AND MOBILE APPLICATION DEVELOPMENT FOR TDCA

## TEAM MEMBERS

1. HARIHARAN A.T.
2. KARTHIKEYAN S.
3. ASWIN VISVESWAR S

## ABSTRACT

The requirements of the TDCA committee were to make data digitalized and to present in automated format such as 1. Player registration with unique id generation, 2. Team registration with all players registered, 3. Segregating of matches into League Team, School Team and Knockout Team with divisions under League Team, 4. Segregating of teams into League Tournament, School Tournament and Knockout Tournament with divisions under League Tournament, 5. Details of Umpires and Scorers. The Mobile App can fetch data from the website were the team registration with Playing11, Umpires and Scorer will be initiated for the current match that include ground details.



## REGISTERED LIST

## **PROJECT TITLE : TARGET BRIGHT**

### **TEAM MEMBERS**

1. ASWIN VISVESWAR S
2. AISHVARIYAA B
3. RAJARATNAM KAWSHIKA
4. SANTHOSH S
5. NITHIN T
6. HARIDHANUSH R

### **ABSTRACT**

Due to non-functioning streetlights, many lives are being risked in the dark. The main idea of our project is to detect those non-functioning streetlights and provide sufficient service support in rural areas. As a solution, “TARGET BRIGHT” is invented that helps to detect these non-functioning streetlights. Light-dependent resistor(LDR) and GPS are integrated with ESP32 to detect the fault streetlights and provide the exact location to the nearby service station. Initially, the intensities of the light are identified by LDR. Those intensities are compared with the mentioned values.



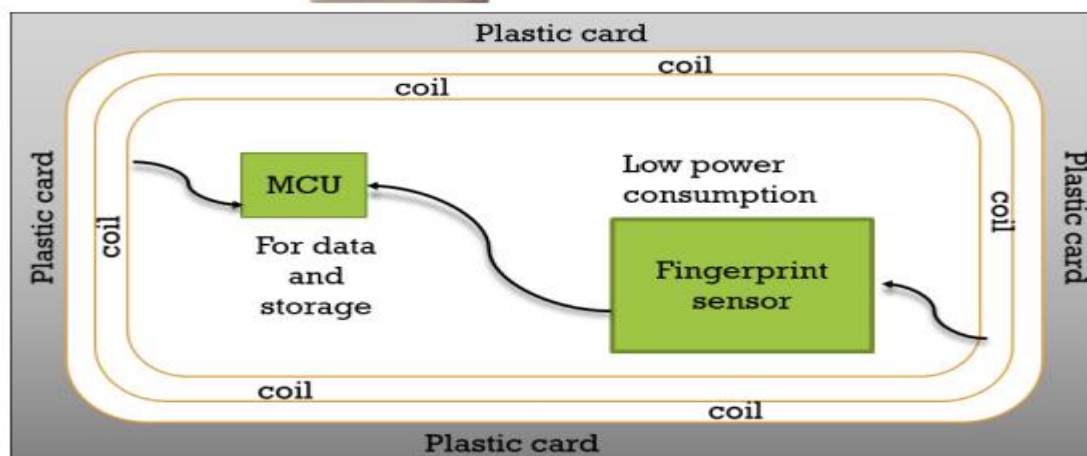
# PROJECT TITLE : Dominatrix

## TEAM MEMBERS

1. VIGNESHWARAN N
2. VARSHINI N
3. SOWMEYA V
4. THIRUVENKADAM S
5. SUBIN RAJ P
6. SHYAM SUNDER S

## ABSTRACT

To create Biometric Contactless Identification Card (BCID). Fingerprint sensor and Micro-controller (low power consumption) is embedded in the RFID card. At the time of registration, fingerprint of the user is enrolled, reference template is created and stored in the card itself. Fingerprint registration requires specific module (or) software maintained by the Admin. At the time of verification, fingerprint is compared with the reference template. Once the verification completes, unique data present in the card is transferred through RFID-reader and the attendance will be marked.



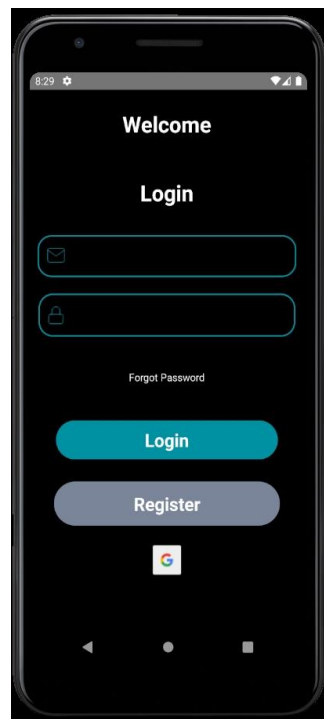
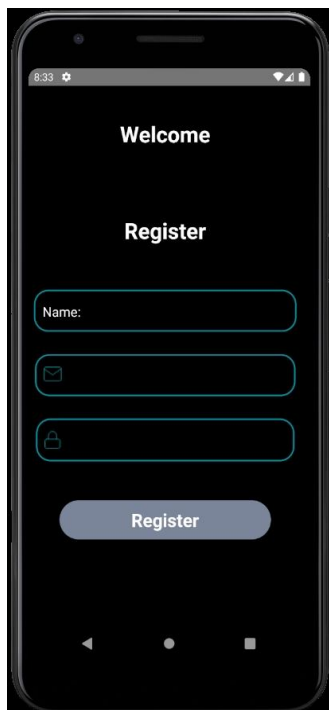
# PROJECT TITLE : SAGAA

## TEAM MEMBERS

1. VAISHNAVI DEVI
2. SHIFA SHUJAUDDIN
3. SHUBA SHWETHA. K
4. PRIYANKA. S

## ABSTRACT

Visually Impaired people had a terrible experience during COVID as they were not supposed to touch any person or thing, maintain social distance. People started treating them as a highly vulnerable category because they were the ones who could be the carriers. So we thought of leveraging technology to make them independent”. We came up with a new project called ‘SAGAA’, which will be the great solution for the above-mentioned problems. The initiative is to create a device with the help of artificial intelligence that will make visually impaired people completely independent.



# ART WORK



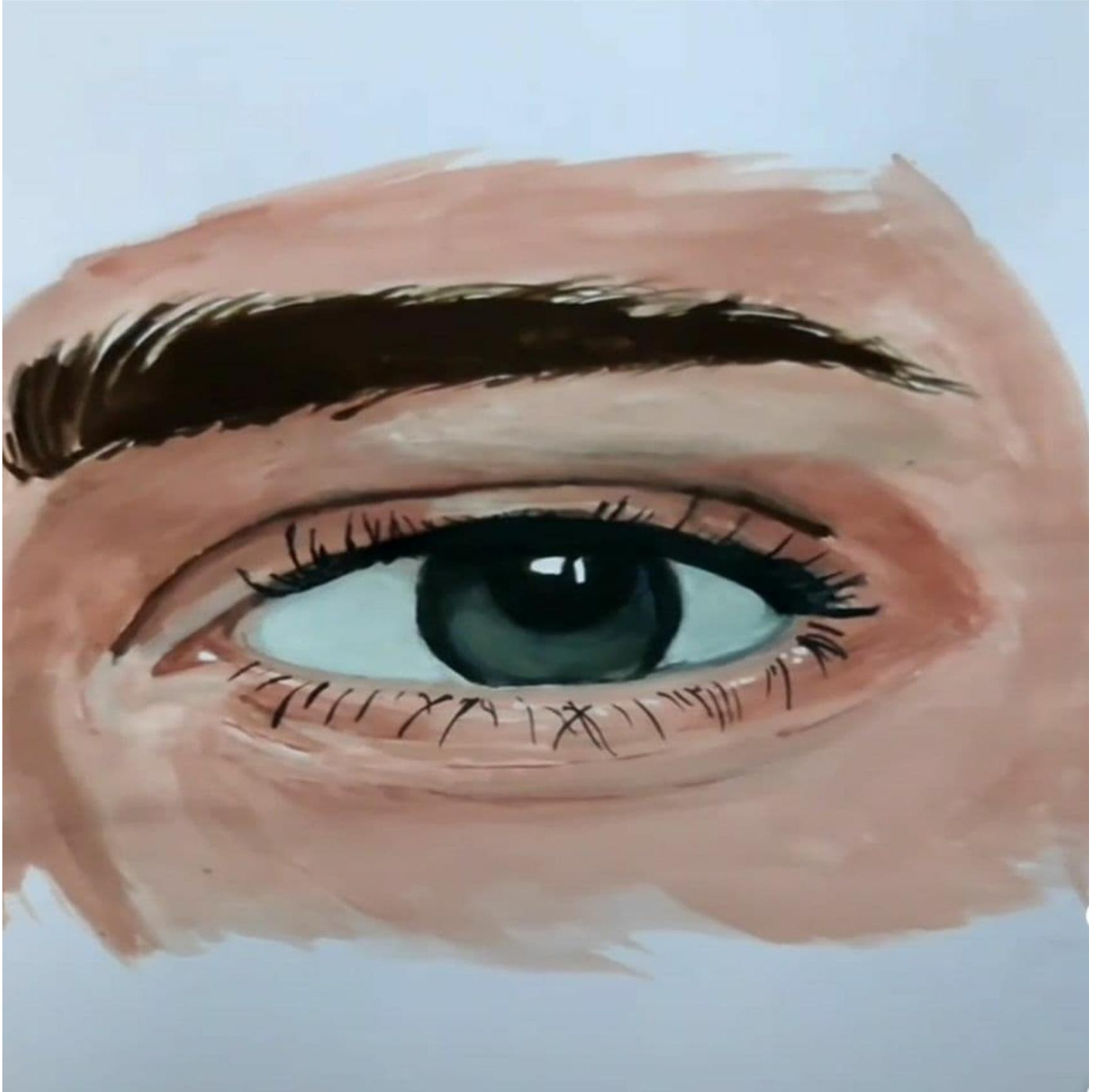




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**THANK YOU!!!**