

{The Department of
Information Technology}

[PRESENTS]

<IDENTITY>

</A HALF-YEARLY NEWSLETTER>

(VOLUME 10, ISSUE 1)

[JULY 2023]

From the HoD's Desk!

Greetings!

A warm welcome to all of you as we unveil the first issue of IdentITy for this academic year. This newsletter highlights our department's incredible accomplishments between January to June 2023.

Inside, you'll discover a range of activities including ICCSP'23, VIVID 7.0, workshops, IEEE events, and an enlightening alumni talk series. Our alumni and students have also contributed thought-provoking articles on emerging technologies, poetry, and captivating artwork and photographs. We proudly present placement stats, and NPTEL achievements recognizing students' outstanding dedication.

I encourage you all to immerse yourselves in the vibrant pages of IdentITy and witness the extraordinary talent, passion, and accomplishments of our department.

With best regards,

Dr. C. Aravindan

Professor and Head of Department,
Department of Information Technology

Editorial Board's note


The Editorial Board proudly presents you with the latest edition of IdentITy at the half-year juncture!

This edition looks back at the **events held in the past six months** in our department and in SSN, and includes contributions from faculty, alumni, and students in both technical and non-technical spheres.

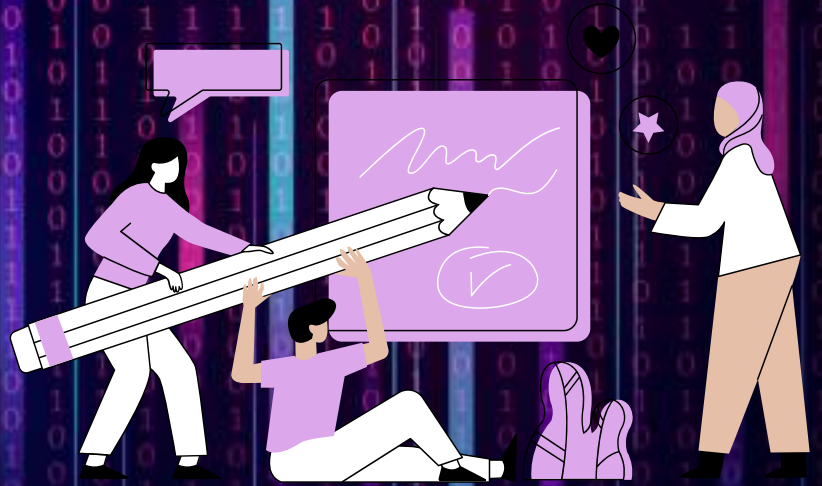
The student editors thank **Dr. A. Shahina, Dr. P. Vasuki and Dr. S. Karthika** for their guidance and inputs in the making of the magazine. This edition wouldn't be possible without the student editorial board's hard work and team effort behind the scenes.

We thank all contributors and look forward to adding similarly engaging content in the future editions of IdentITy.

Wishing you a pleasant read,
Editorial Board

Reach out to us for feedback at:
 team-identity-ssn@ssn.edu.in

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Welcoming our New Faculty Members!



Dr. V. Durgadevi

Assistant Professor

Department of Information Technology
Joined April 2023

Education:

Dr. Durgadevi Velusamy received her B.E. in Computer Science and Engineering with distinction from M.Kumarasamy College of Engineering, Karur, in 2004. She completed her M.Tech. in Computer Science and Engineering with distinction from Bharathidasan Institute of Technology, Bharathidasan University, Tiruchirappalli, in 2008. She completed her Ph.D. in Information and Communication Engineering entitled “Development of Probabilistic-based Evolutionary Fuzzy System for Trusted Routing in Smart Grid Communication Network” from Anna University, Chennai, India, in 2019.

Research Areas of Interest:

Her research interests include security, soft computing, and data mining.

To her credit, She is a recognized research supervisor at Anna University, Chennai. She is presently guiding five Ph.D. scholars in multi-disciplinary domains.

Welcoming our New Faculty Members!



Dr. A. Saravanan

Assistant Professor

Department of Information Technology

Joined May 2023

Education:

Dr. Saravanan Alagarsamy received his Bachelor's Degree in Information Technology through Arulmigu Kalasalingam College of Engineering in Krishnankoil, Virudhunagar, India. In 2009, he earned a Master's Degree in Computer Science and Engineering from the Thiagarajar College of Engineering in Madurai, India. In 2019, he earned a Ph.D. in Computer Science and Engineering from the Kalasalingam Academy of Research and Education in Krishnankoil, India. He has taught for more than thirteen years and has done research for more than five years.

Research Areas of Interest:

His research interests include medical image processing and machine learning.

To his credit, he has published his research papers and journals in various conferences and contributed as reviewer for journals.



DEPARTMENT AND CAMPUS CHRONICLES

ICCCSP'23

International Conference on Computer, Communication, and Signal Processing

The Department of Information Technology organized the **7th edition** of the **International Conference on Computer, Communication, and Signal Processing (ICCCSP 2023)** from **January 4th to 6th, 2023**. The event was coordinated by **Dr. E.M. Malathy (ASP/IT)**, **Dr. K.S. Gayathri (AP/IT)**, **Dr. Sivamurugan (ASP/IT)**, and **Dr. K.R. Uthayan (ASP/IT)**, faculty members of the IT department.



The event was technically supported by **IFIP** (International Federation for Information Processing). The proceedings of the conference will be published in the **Scopus-indexed IFIP AICT Springer series**. The conference aimed to highlight the themes of **AI, Knowledge Engineering, and IoT for Smart Systems**.

The event was organized under the flagship of IFIP TC12, under the leadership of **Prof. Eunika Mercier-Laurent**, University of Reims Champagne-Ardenne, France. The conference chair was shared by **Prof. Xavier Fernando**, Ryerson University, Canada, and **Prof. Chandrabose Aravindan**, HoD, IT, SSNCE.

ICCCSP 2023 received an overwhelming response with **132 paper submissions**, including 8 international papers and contributions from renowned government institutions like IIT and DRDO.

The research papers were meticulously reviewed by internal and external panel members, and **28 participants** had the opportunity to present their innovative work during the conference.

Prior to the main conference, **three pre-conference workshops** were conducted on **January 4th, 2023**, with active participation from **94 enthusiastic individuals**. These workshops delved into essential topics such as **"IoT for Smart Systems,"** coordinated by Dr. V. Thankichalam (ASP/IT) and Dr. J. Sofia Jennifer (AP/IT) and **"Sustainable AI,"** coordinated by Dr. A. Shahina (Prof./IT) and Dr. T. Sree Sharmila (ASP/IT). The workshop titled **"Text Analysis and Information Extraction & Retrieval (TIER 2023)"** was effectively organized by Dr. C. Aravindan (Prof, Head/IT), Dr. D. Thenmozhi (ASP/CSE), Dr. B. Senthilkumar (AP/IT), Dr. N. Sripriya (ASP/IT), and Dr. S. Rajalakshmi (AP/CSE), along with valuable contributions from industry experts and academicians.



The main conference, held on January 5th and 6th, 2023, featured the oral presentation of 26 research papers in a hybrid mode, ensuring engagement from both in-person and virtual participants. The high-quality research presented during these sessions showcased the conference's commitment to advancing the fields of AI, Knowledge Engineering, and IoT for Smart Systems.

One of the highlights of ICCSP 2023 was the series of enlightening keynote sessions. Eminent speakers from various domains shared their expertise and knowledge with the authors and participants:

- **Dr. Xiaoli Li**, Head of the Machine Intelligence Department at the Institute for Infocomm Research, A*STAR, and Adjunct Professor at NTU Singapore, delivered an insightful talk on **"Challenges and Methods for Equipment Remaining Useful Life Prediction."**
- **Dr. Vijay John** from the RIKEN Institute in Japan discussed **"Dealing with Missing Modality in Sensor Fusion for Perception Task,"** shedding light on an important aspect of sensor technology.
- **Dr. Ponnuthurai Nagaratnam Suganthan**, a Research Professor at Qatar University, Qatar, provided valuable insights into **"Randomization-Based Deep & Shallow Neural Networks,"** an emerging area of research.
- **Mr. Vikash Kumar**, a Solution Architect at EY GDS, delivered a session on **"Ontology-Based Knowledge Modeling for System Engineering,"** emphasizing the significance of ontology in engineering practices.



- **Dr. V. Subhashini**, a Research Scientist at Google Research, California, elucidated **the applications of Machine Learning in healthcare and accessibility**, showcasing the transformative potential of ML in these domains.
- **Ms. Soundari Arunachalam**, Director of R&D at Honeywell Technology Solutions, captivated the audience with her talk on **"Building High-Performance Distributed Applications,"** providing valuable insights into cutting-edge industry practices.

The three-day event concluded with resounding success, fostering knowledge exchange and facilitating networking opportunities for researchers, professionals, and academicians.

Revolutionizing User Experiences

A Consultancy Project

In today's digital age, businesses and organizations across industries are striving to deliver **exceptional user experiences** to attract and retain customers. Recognizing the critical role that user experience (UX) plays in driving customer satisfaction and loyalty, many companies are turning to consultancy services to enhance their UX strategies. **Whitechilly Trading & Services Pvt Ltd., Chennai** is a recognized startup company under the Ministry of Industries, Govt. of India and is in the process of launching an e-commerce application called **Spiritual360.com** for specialty products (spiritual and religion products/services) connecting all the stakeholders involved in the ecosystem of spiritual development.

In this regard, the team of SSN faculty members - **Dr. Thiruvengatam T** (ASP/SSN SoM), **Dr. Sasirekha S** (ASP/IT), **Dr. Joe Louis Paul I** (ASP/IT) and **Dr. Nagarajan K K** (ASP/EEE) have been sanctioned with the consultancy project worth **Rs. 1, 25, 000/-** by Whitechilly Trading & Services Pvt Ltd., Chennai for our project proposal titled **“Enhancing the User Experiences of Stakeholders of Spiritual360.com”** under the School of Management, SSN College of Engineering on **February 1, 2023**.

As the technical consultants, our role is to provide a seamless user experience for all the stakeholders of business such as listing all the features/ processes for each module, identifying and classifying the use cases, and carrying out the testing for all the modules with a very well-established testing framework.

Introduction to oneAPI

A one-day workshop

oneAPI (**unified programming interface**), launched in **2019** by **Intel**, is a programming model that provides an interface for developers promising **cross-architecture performance**. oneAPI is a set of tools and libraries that is open, accessible, and standards-based to be used across different computer accelerator (coprocessor) architectures.

Considering the vast benefits of knowing about oneAPI in software development, the Department of Information Technology in SSN had organized a one-day workshop on **23rd February 2023** inviting **Dr. Shriram Vasudevan**, Lead-Technical Evangelist, Intel from Bengaluru as a resource person. The workshop was convened by **Dr. C. Aravindan** (Prof. & Head/IT), **Dr. P. Vasuki** (ASP/IT) and **Dr. S. Karthika** (ASP/IT).

Dr. Shriram is the **author/co-author of 47 books** on various technical subjects. He is well-versed in embedded systems and a vastly experienced industrial expert as well as an enthusiast of technical hackathons and start-ups, having a long list of accolades in many hackathons. He is also a successful mentor to several students and scholars.



He is a **certified instructor from Intel on oneAPI** and enriched the participants with his knowledge of oneAPI's benefits, and steps to use it in **Intel DevCloud** and also provided insights into **Intel's student scheme**, the Intel Student Ambassador program.

The morning session focussed on the **challenges behind programming in different architectures**, how oneAPI provides libraries and tools to overcome these, a look at Intel DevCloud and finished with a promotion of Intel's Student Ambassador Scheme.



In the second half of the day, **oneAPI's core element of DPC++ (SYCL), toolkits, libraries** and their use in AI and data science was explored. The workshop ended with a look at Dr. Shriram's hackathon proposal videos and ideas that inspired participants to listen and solve more real-world problems.

The workshop garnered the attention and participation of at least **40 students** from different departments in SSN, who were interested in learning about the latest market trends through oneAPI, oneAPI's use in data analysis, its toolkits, libraries and development portal.

FDP'23

on Exploring Next Generation Smart Solutions (ENGSS)

With the rise of Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning (ML) and related technologies, smart solutions are becoming increasingly popular and relevant to a wide range of industries. **Next-Generation Smart Solutions (NGSS)** are advancements and innovations in technology that push the boundaries of what is currently possible with smart systems. They are characterized by emerging technologies, novel approaches and enhanced capabilities. Some NGSS that are becoming more and more apparent in our daily lives are **Generative AI tools like ChatGPT**. Other breakthroughs are seen in fields of IoT and Edge computing for data analysis in applications like autonomous vehicles or smart grids, AI in healthcare for accurate diagnostics, smart cities that use real-time smart traffic management systems or in home automation. The most important impact of NGSS lies in its ability to lead to improved efficiency by enhancing resource management and revolutionizing industries by interconnecting transformative technologies and optimized systems.

To provide in-depth understanding of some of these technologies, the Department of Information Technology in SSN organized a **virtual Faculty Development Programme (FDP)** from **March 6th to 8th, 2023**.



The event was convened by **Dr. C. Aravindan** (Professor & Head, Dept. of IT, SSN College of Engineering) and coordinated by **Dr. I. Joe Louis Paul** (ASP/IT), **Dr. S. Sasirekha** (ASP/IT), **Dr. N. Radha** (ASP/IT), **Dr. R. Swathika** (AP/IT), and **Dr. A. Sandana Karuppan** (AP/IT).

The 3-day FDP was open to participation from Faculty, Research Scholars in CS/IT/MCA colleges and Industrial persons. The workshop saw distinguished resource persons from IITDM, IIITH, IITG, Google India, Airtel, CTS, Taylor's University Malaysia and Blockline Malaysia deliver talks and interact with attendees.



The FDP provided a comprehensive overview of the latest trends and technologies in big data, IoT, and AI, and familiarized attendees with the design, implementation and

integration of smart solutions as well as the potential commercial aspects of smart applications. Each day comprised **2 sessions** (morning and afternoon) and the topics chosen were relevant to **self-powered IoT, healthcare informatics, speech processing, digital twins** and related case studies.

On the first day, **Dr. Raja Kumar Murugesan** (Head of Research for Faculty of Innovation and Technology; ASP, School of Computer Science)



from Taylor's University (in Subang Jaya, Selangor, Malaysia) gave an hour and a half's talk into **Generative AI's opportunities and challenges**. This was followed by **Dr. B. Bharathi** (ASP/CSE, SSNCE) talking about recent **advancements in speech recognition**.

The next day, **Dr. Preeth R** (AP, Dept. of Computer Science and Engineering) from IIITDM (in Kancheepuram, Chennai) gave insights into **the role of AIoT** (a combination of AI algorithms and ML with IoT systems' sensors and devices for intelligent decision-making, data analysis and automation). The afternoon session saw VIT Chennai's **Dr. Vetrivelan P** (Professor, School of Electronics Engineering) talk about **AI-driven models and IoT-based cyber physical systems solutions for Industry 4.0**.



On the last day, **Dr. Umarani Jayaraman** (AP, Dept. of Computer Science and Engineering) from IIITDM (in Kancheepuram, Chennai) delivered a lecture on **autoencoders and its applications in image processing**. The FDP ended with an **open discussion on opportunities and research challenges in smart solutions**, hosted by **Dr. N. Bhalaji** (Chief Coordinator, SSN Incubation Foundation; ASP, Dept. of Information Technology, SSN College of Engineering) and expert panels from industries.

The FDP succeeded in creating an environment for attendees to exchange ideas and experiences, and develop professional relationships as well as gain awareness and a comprehensive look at next-generation smart solutions' future growth and implications on society.

MAATHARE

Special Women's Day Seminar



SSN IEEE Women in Engineering student chapter organized **IEEE WIE Madras Section** and **Institution's Innovation Council (IIC)** sponsored Women's Day Special Seminar "**Maathare**" on **08 March 2023** at SSN College of Engineering. The event was graced by **Dr. D. Bhuvaneshwari**, Professor and Director, College Governing Council & HOD, Department of International Law, The Tamilnadu Dr Ambedkar Law University, Perungudi, Chennai, and **Dr. A. Kavitha**, Professor & HoD, Department of BME, SSNCE, who were also the speakers for the day. Dr. Bhuvaneshwari exposed the students to various **cybercrime use cases in India against women**. She discussed the limitations of existing cyber laws and gave awareness to the students regarding the need for safety in cyber space.

Dr. Kavitha shared **her journey of leadership as HoD for a decade**. She discussed her ways of balancing her personal and professional life, and the success mantra of team efforts. There were **210 participants** which comprised undergraduate and postgraduate students. Several faculty members also attended the event. The event was coordinated by **Dr. S. Karthika** (Faculty advisor WIE SSNCE, ASP/IT), **Dr. T. Sree Sharmila** (IEEE Student Branch Counselor, WIE Chair, Madras Section, ASP/IT) and **Ms. Santhoshiya TV** (IEEE SB Chairperson & Chair, WIE SB AG, SSNCE).



RSC'23

Research Scholar's Colloquium

Research Scholars' Colloquium (RSC) is an annual event conducted by the Department of Information Technology with the primary motive of **guiding budding researchers** through their basic difficulties like identifying a valid and feasible research problem, penning down the research findings in a simple and understandable manner, and communicating to a suitable journal. RSC also provides a discussion forum for researchers to meet industry experts to have better insights about how the research ideas are realized as societal applications.



The **8th edition** of RSC'23 was organized on **March 14th, 2023** in association with **ACM Chennai, IEEE Computer Society, Chennai and CSI**. Our Department faculty –

Dr. S. Mohanavalli (ASP/IT), **Dr. N. Bhalaji** (ASP/IT), **Dr. S. Chithra** (ASP/IT), and **Dr. S. Karthika** (ASP/IT) formed the organizing committee of the symposium with the primary motive of bringing the latest and most innovative recent areas of research in the field of **quantum computing**. The workshop also aimed to bring people together from various fields having a common interest and passion for research in further advancement in the field of computing using **quantum technology**.

July'23 edition

Dr. Xiao-Zhi Gao (School of Computing, University of Eastern Finland, Finland), **Mr. H.R. Mohan** (IEEE CS, ACM & CSI), **Dr. C. Aravindan** (Prof & Head of Dept. of IT, SSN College of Engineering), **Dr. R. Srinivasan** (Prof./IT, SSN College of Engineering), and **Dr. A. Shahina** (Prof./IT, SSN College of Engineering) formed **the Advisory Committee** of the event.



The symposium included invited lectures and research paper presentations from industries and academia covering key topics in recent trends some of which include, **Quantum Engineering, Quantum Information, Quantum Computation, Quantum Cryptography, Quantum Machine Learning, Performance and evaluation of Quantum Algorithms and Quantum Networking.** **Dr. R. Srinivasan** (Professor, Department of IT, SSN College of Engineering), **Dr. Santhi Natarajan** (Associate Professor, Department of CSE, Shiv Nadar University), **Lavanya T.** (Inside Solution Manager, Elsevier | Research Solutions) were the key speakers of the symposium. The workshop received **31 submissions for the workshop, of which 18 were accepted** after the scrutiny by the reviewer panel.



WiSSCoN 1.0

Winter Summit on Smart Computing and Networks

The Department of Information Technology organized an International Conference titled **Winter Summit on Smart Computing and Networks (IEEE WiSSCoN 2023)** coordinated by **Dr. N. Bhalaji** (ASP/IT), **Dr. A. Sandana Karuppan** (AP/IT), **Dr. V. Arulkumar** (AP/IT) and **Dr. Ashwinth Janarthanan** (AP/IT), distinguished faculty members of the IT department.



WiSSCoN 1.0 served as a significant platform for researchers to present and exchange groundbreaking contributions and ideas in the domains of **Smart Computing, Networks**, and related areas. As an **IEEE conference**, it garnered immense recognition and attracted researchers from around the world. The event was scheduled to take place from **March 15th to 17th, 2023**, in a **hybrid mode**, enabling both physical and virtual participation.

The conference encompassed a diverse range of activities, including a **main technical program**, several **workshops**, **keynote talks** by renowned researchers from India and abroad, engaging **panel discussions**, and enlightening **poster sessions**. WiSSCoN 1.0 fostered an environment conducive to both **theoretical and systems research**, ensuring a comprehensive exploration of emerging trends and innovative solutions.

WiSSCoN 1.0 received an overwhelming response, with a total of **157 paper submissions**, including 5 international papers and contributions from esteemed government institutions such as **IIT, NIT, and Anna University**. The rigorous review process involved internal and external panel members, leading to the selection of **22 high-quality research papers** for presentation.

The conference commenced with **four pre-conference workshops** held on **March 15th, 2023**, attracting active participation from **153 enthusiastic individuals**. These workshops addressed crucial topics in the field:



"Workshop on Open-Source Intelligence & Cyber Security," coordinated by **Dr. Chithra S (ASP/IT)** and **Dr. S. Karthika (ASP/IT)**



"Machine Learning for Building Intelligent Systems," coordinated by **Dr. S. Mohanavalli (ASP/IT)** and **Dr. N. Sripriya (ASP/IT)**



"Building Smart Applications on the Cloud," led by **Dr. I. Joe Louis Paul (ASP/IT)** and **Dr. S. Sasirekha (ASP/IT)**



"Advances in Image Processing," organized by **Dr. N. Radha** (ASP/IT) and **Dr. R. Swathika** (AP/IT)

The second and third days of the conference, **March 16th and 17th, 2023**, featured **oral paper presentations** of **22 research papers** in a hybrid mode, ensuring the participation of both in-person and virtual attendees. These sessions showcased cutting-edge research and novel solutions in **Smart Computing and Networks**.

The conference also hosted a series of captivating **keynote sessions**, enriching the knowledge and insights of the authors and participants:

- **Dr. Joan Lu**, a Professor in Informatics at the University of Huddersfield, United Kingdom, delivered an enlightening talk on **"Computational Modeling in Cancer Research: Impact and Inside Stories,"** shedding light on the transformative potential of computational modeling in cancer research.
- **Dr. V. Mahendran**, an Assistant Professor at IIT Tirupati, shared his expertise on **"Multi-Armed Bandits and Reinforcement Learning,"** providing valuable insights into these important areas of research.
- **Mr. Sriram Nukkala**, Sr. Director of Delivery - AI & Analytics at CTS presented a session titled **"State of AI,"** discussing the progress made in various subfields of Artificial Intelligence and its implications for the future.

WiSSCoN 1.0 concluded successfully, serving as a catalyst for collaboration, knowledge dissemination, and innovation within the research community.

Project Active Learning

The department of IT has participated in the technology-enabled course development in association with **Dr. Praveen Garimella**, Director, Learning Platforms, Indian School of Business, Bangalore, and his team of learning engineers from IIIT Hyderabad. This is an initiative by **Prof. Raj Reddy**, Turing Award Winner, to impart teaching through learning engineering.

The faculty members, **Prof. C. Aravindan**, HoD/IT, **Dr. S. Karthika**, **Dr. P. Vasuki**, and **Dr. N. Sripriya**, Associate Professors of Department of IT, participated in the discovery workshop held on **17th and 18th March 2023** to understand learning engineering and its role in course enhancement. The faculty team is developing active learning materials for UIT2301 - Programming and Design Patterns course offered to 3rd semester UG students. They are associated with **Mr. Deepak**, Learning Engineer from IIITH.

The team has worked for the past three months on **Project Active Learning** which has helped to understand how to make the classrooms more immersive and define the methods (activities) to measure student progress/change the course as they go along. There have been weekly discussions on implementation strategies and logistics of the course development.



IEEE YESIST'12 Prelims

Youth Endeavors for Social Innovation using Sustainable Technology

The SSN IEEE Student Branch, in collaboration with IEEE Photonics Society, Madras Chapter, IEEE Signal Processing Society, Madras Chapter, and Institute Innovation Council, SSN College of Engineering, successfully organized the **IEEE YESIST'12 (Youth Endeavors for Social Innovation using Sustainable Technology) Prelims** on **March 31, 2023**. **Dr. T. Sree Sharmila**, Associate Professor in the Department of Information Technology, served as the Pilot and the Single Point of Contact (SPOC) for the event.



In the initial phase of registration, **62 teams** submitted their abstracts. These proposals underwent a review process, resulting in the selection of **45 teams for presentation**. The shortlisted teams were allocated to **six panels**, consisting of **three virtual and three in-person panels**, accommodating a total of **205 participants and 20 volunteers**.

The IEEE YESIST'12 Prelims witnessed the presence of an esteemed panel of Jury members who played a crucial role in evaluating the participants' presentations and providing valuable feedback.

The Jury comprised professionals from renowned organizations such as M2P Solution, KLA, Sirius Computer Solutions, Freshworks, Alation, DataStax, along with esteemed faculty members from various departments of SSN College of Engineering. The presence of these distinguished alumni, including **Mr. Sai Vignesh**, a Senior Software Engineer at M2P Solution, **Mr. Stalin Kaiser**, an Associate Technical Lead at KLA, **Mr. Nijin Vinod** from Sirius Computer Solutions, **Mr. Akshay Karthik**, a Product Manager at Freshworks, and **Ms. Pradipta Chandra**, the Lead of Customer Support at Freshworks, added immense value to the event. Their expertise and insights provided the participants with valuable perspectives and enriched their understanding of social innovation and sustainable technology.



Additionally, the Jury included professionals like **Mr. R. Srinivasan**, a Software Engineer at Alation, and **Mr. Devosh Mahadevan**, a System Software Engineer at DataStax, who brought their industry experience to

the table. Moreover, faculty members from various departments, such as **Dr. R. Seyezhai**, Professor in the Department of EEE, **Dr. P. Senthil Kumar**, Professor in the Department of Chemical Engineering, and **Dr. G. Satheesh Kumar**, Associate Professor in the Department of Mechanical Engineering, provided their valuable insights and expertise.

Furthermore, the panel consisted of faculty members from the Department of IT, including **Dr. K. R. Uthayan**, **Dr. J. Sofia Jennifer**, **Dr. V. Sivamurugan**, **Dr. S. Karthika**, **Dr. S. Mohanavalli**, **Dr. N. Sripriya**, **Dr. S. Sasirekha**, and **Dr. R. Swathika**.

The collective wisdom and diverse backgrounds of the Jury members created an environment of excellence and ensured that the evaluations were comprehensive and insightful. Their presence and active participation elevated the IEEE YESIST12 Prelims to new



heights, inspiring the participants and nurturing their passion for social innovation using sustainable technology.

Dr. Ramalatha, the YESIST12 program coordinator, graced the event and expressed her appreciation for the participants' efforts. She interacted with the students, reviewed their projects, and even experienced the products developed by the teams.



The first prize was awarded to the team "**Vision Hackers**" from Sri Venkateswara College of Engineering for their exceptional project. The event served as a platform for participants to showcase their innovative solutions, network with industry professionals, and gain valuable knowledge in their respective domains.

The organizing committee, led by **Dr. T. Sree Sharmila** (IEEE SB Counselor & Associate Professor, IT) and **Dr. P. Vasuki** (Associate Professor, IT), ensured the seamless execution of the event. Their dedication, guidance and meticulous planning, along with the support of **20 volunteers** from the IEEE student branch and the Department of IT, played a crucial role in making the event a grand success.



The IEEE YESIST12 Prelims provided a unique platform for students to contribute to **social innovation using sustainable technology**. The event encouraged collaboration, creativity, and problem-solving skills among the participants, paving the way for a brighter and more sustainable future. The event covered various themes, including **Smart Infrastructure and Safe Living, Clean Energy, Sustainable Agriculture - With Prototype, Unsustainable Actions, and Miscellaneous**. Through their innovative projects, the participating teams demonstrated their dedication to addressing pressing societal challenges. By engaging with professionals from industry-leading organizations and esteemed faculty members, the participants received valuable feedback and insights to further refine their ideas.

PY-BUG CODING CONTEST

IEEE CS Techathon

Py-Bug (IEEE CS Techathon), a **three-round debugging contest** was organized by SSN College of Engineering in association with IEEE Student Branch, SSNCE on the **25th of April** at the IT seminar hall as part of the IEEE CS round for the **2023 IEEE Techathon** at SSN College of Engineering. The contest was coordinated by **Nusaiba Afsheen** (Joint Secretary, SSN IEEE CS Student Branch), **Karthikraja** (Core member, SSN IEEE CS Student Branch), **Priyamvadha Pradeep** (Core Member, SSN IEEE CS Student Branch) and **Deepti K** (Core Member, SSN IEEE CS Student Branch).



It was an open-to-all three-round debugging contest wherein the participants were expected to answer a few questions related to python, debug a given code to make it run and finally solve the given problem statement all within the stipulated time. Participants registered online and almost **40 students registered** and attended the event to try and solve the given problems.

SHAPE 2.0

SSN Higher Secondary School Awareness Program in Engineering

The **second edition** of the **SSN Higher Secondary School Awareness Program in Engineering (SHAPE 2023)** was held between **25th April to 5th May**. **Dr. A. Shahina**, Professor, Department of IT, was a part of the organizing team, along with **Dr. Martha K**, Head of the English department, and **Mr. Ananda V Raman**, assistant director, marketing, for this year's edition.

This fortnight-long annual event was a step in nation-building, aimed to expose the chosen, diligent school students to **various disciplines of engineering**, to kindle their curiosity through hands-on projects with experienced professors in happening areas of engineering, foster a team spirit and germinate the idea of 360 degrees all-round development through sports and other extracurricular activities.



Dr. I. Joe Louis Paul, Dr. E. M. Malathy, Dr. S Sasirekha, Dr. Sandanakaruppan, Dr. Arulkumar, and Dr. K. S. Gayathri, faculty of IT department have contributed immensely to the smooth functioning of SHAPE 2023. They were in charge of taking care of things like student-kit and poster presentations, registration desk and closing ceremony, software development, catering hospitality and certificate distribution, respectively. **Dr. S. Karthika, Dr. S. Sasirekha, Dr. I. Joe Louis Paul, Dr. K. S. Gayathri, Dr. S. Chitra** and **Dr. G. Sornavalli**, faculty of IT department ably guided **six of the participating students** in their respective projects in the areas of **artificial intelligence** and **IoT**, which the students thoroughly enjoyed learning from them and running experiments in the lab.



The event, which culminated with a **poster presentation** by the students, was well appreciated by the parents and principals of these students during their demonstration.

VIVID 7.0

National Level Project Competition

The Department of Information Technology organised the **7th Edition** of National Level Project Competition VIVID 2023 on **May 13, 2023**. It was convened by **Dr. C. Aravindan** (Professor & Head / IT) and coordinated by **Dr. I. Joe Louis Paul** (ASP/IT), **Dr. S. Sasirekha** (ASP/IT) and **Dr. R. Swathika** (AP/IT). Students of B.E/B.Tech/M.E/M.Tech belonging to departments like IT/CSE/ECE/EEE from various Institutions were gathered to explore, enhance and exhibit their projects on stage. VIVID 7.0 was co-sponsored by **Rion Insura Insurance Broking Private Limited, Chennai**.



The event was conducted on three tracks, **Track-I (AI/Machine Learning)** at IT Seminar Hall, **Track-II (Blockchain/Cyber Security)** at PG Lab and **Track-III (IoT)** at IT Conference Hall.

Panel Members:

- **Dr. A. Shahina**, Prof./IT, **Ms. Srividhya Narayanan**, AI Solution Architect, Cognizant and **Mr. Arun Baskaran**, Product Manager, Juspay (2013-2017 Batch Alumni of IT Department), acted as the panel of Juries for Track-I.
- **Dr. R. Srinivasan**, Prof./IT, **Mr. Sridhar Annamalai**, Director – IAM & Data Privacy Protection COE Lead, Cognizant and **Ms. Shallini Ramanujam**, Principal Blockchain Architect, Cognizant, acted as the panel of Juries for Track-II.
- **Dr. V. Sivamurugan**, ASP/IT, **Ms. Akshaya Pargunan**, Architect, Commercial IoT Solutions, Cognizant and **Ms. Subasri G**, Software Developer, Citi Bank (2016-2020 Batch Alumni of IT Department), acted as the panel of Juries for Track-III.



Around **29 teams (approximately 80 students)** from various engineering colleges were called for oral presentations cum demos to explain about their projects.

The Chief Guest of the Valedictory Function was

Mr. C. K. Rajnarayanan, Senior Director – Technology & Architecture, Health Sciences, Cognizant, Chennai.



VIVID 2023 was an exceptional event that effectively showcased the outstanding talent and innovative spirit of students in the domains of **AI/Machine Learning, Blockchain/Cyber Security** and **IoT**. By offering dedicated tracks and engaging expert panel members from esteemed organizations, the competition provided an invaluable platform for students to explore, refine, and demonstrate their projects. Beyond celebrating the remarkable ingenuity of the participants, VIVID 7.0 fostered a culture of collaboration and knowledge exchange among students from diverse engineering colleges. This event's resounding success underlines its pivotal role in advancing cutting-edge technology and inspiring the upcoming generation of tech enthusiasts.



ACM

Summer School on Cybersecurity

The Department of Information Technology, SSN College of Engineering hosted the ACM Summer School on Cybersecurity in association with **Cisco** as **Industry Sponsor** between **12th - 23rd June 2023**.

Cybersecurity is the state or process of protecting and recovering computer systems, networks, devices, and programs from any type of attack, hijacking, and injection. Since this is a rapidly growing domain, the summer school has equipped the students with state-of-art skills needed to become an expert in cybersecurity and has explored the roadmap to becoming an ethical hacker. They have learnt comprehensive approaches to protecting infrastructure, including securing data and information, running risk analysis and mitigation, architecting cloud-based security, and much more from the best experts in this domain. The school has exposed the current cybersecurity issues and the best practices adopted by industrial experts. The students have heard about the career prospects and the scope of research in cyber security.





The school received **115 applications, of which 30 students** have been selected. The registered students were from Delhi, Pune, Maharashtra, Bhopal, Chennai, and Coimbatore. The students were addressed by the speakers from **CISCO, Deloitte, RapidQube, KPMG, EC-Council, and academic experts from IIT Tirupati, TIFAC-CORE for Network security, Amrita, VIT, and Anna Universities, to name a few.**

The department of IT thanks SSN Management for permitting to organize the school and financially supporting the event. **The Cyber Security Working Group (CSWG)** of IT department thanks **Prof. Madhavan Mukund** from CMI and **Prof. Chitra Babu** from the CSE department of SSN for their support and presence during the inaugural.

The summer school was organized under the guidance of **Prof. C. Aravindan**, HoD of IT department, SSNCE, **Dr. V. Mahendran**, IIT Tirupati as academic co-ordinator and **Dr. S. Karthika, Dr. N. Bhalaji, Dr. S. Chithra**, Associate Professors of IT department as local co-ordinators.

IEEECS Tech Unplugged 1.0

The SSN IEEE CS Student Chapter organized its **first edition** of **Tech Unplugged**, an engaging tech talk show, on **June 15th, 2023**. The event attracted an impressive turnout of over **72 enthusiastic students** from the first and second years.

The speakers at the event were **Paul Jabez Talakayala**, an IT undergrad who graduated in 2023 and secured the **MITACS internship**, and **Mahalakshmi**, a third-year IT undergrad and a UI/UX designer. Paul shared his journey of transitioning from **Graphic Design** to the thriving **AR/VR industry**, as well as his experiences during the MITACS internship. Mahalakshmi shed light on **UI/UX design** and offered insights on how to succeed in the field. Both speakers provided valuable tips on building portfolios in AR/VR and UI/UX. The event concluded with a Q&A session where the speakers addressed students' questions about AR/VR and UI/UX.

The event was coordinated by **Dr. P. Vasuki** (Professor in-charge, SSSN IEEECS SB, ASP/IT) and by **Karthikraja T.P.** (Vice Chair, SSN IEEECS SB), **Deepak Kumar**, (Secretary, SSN IEEECS SB), **Sanjjit S** (General Secretary, SSN IEEECS SB) and **Sanjai Balajee** (Tech Head, SSN IEEECS SB).



Alumni Talks



SSN ALUMNI COUNCIL OF IT DEPARTMENT

EMPOWERING SSN YOUTH

AN INSIGHT INTO UPSC & BUILDING FINANCIAL ACUMEN.

Date : 23/03/2023
Time : 9:00 AM
Venue : IT Seminar Hall

SOWMYA AMMAIAPPAN
Deputy Commissioner,
GST Policy Wing,
Ministry of Finance.

FACULTY COORDINATORS:
Dr. F. Vasuki
Dr. S. Sathesh

Priyavardha P - 9366064483
Vigneshwaran R - 90021 85827

**Sowmya
Ammaiappan
(2012 – 2016 Batch)**

**Chandra Mohan
(2012 – 2016 Batch)**



SSN ALUMNI COUNCIL OF IT DEPARTMENT

EMPOWERING SSN YOUTH

Journey of the pursuit of MBA – a pivotal walkthrough

Date: 05/04/2023
Time : 10:00 AM
Venue : IT Seminar Hall

FACULTY COORDINATORS:
Dr. F. Vasuki
Dr. S. Sathesh

Chandra Mohan
Investment Associate,
Prasad Invest, Private Equity

Nikhil S - 8124897263
Priyavardha P - 9366064483

**Hari Prasad Mohan
(2011 – 2015 Batch)**



SSN ALUMNI COUNCIL OF IT DEPARTMENT

SPORTS ANALYTICS AND OPPORTUNITIES IN THE INDUSTRY

TOPICS COVERED

- WHAT IS SPORTS ANALYTICS
- DATA CYCLE AND ROLE FOR APPLICANTS
- DATA RETURNED DATA ANALYSIS AND ANALYTICS
- HOW IT IS USED IN DIFFERENT SPORTS
- OTHER OPPORTUNITIES IN THE SPORTS INDUSTRY
- PLACES TO WORK IN SPORTS IN INDIA
- Q&A

Date : 18/04/2023
Time : 10 AM - 11 AM
Venue : IT Seminar Hall

MR. HARI PRASAD MOHAN
Data analyst of the Indian cricket team and T20i

FACULTY COORDINATORS:
Dr. F. Vasuki
Dr. S. Sathesh

STUDENT COORDINATORS:
Abhisharan - 6380888330
Raveen Raj - 8870002306

ProCoDe Events



The Code Kombat
(A Competitive Coding Contest hosted along with IEEE – CS SB)

ProCoDe Cup 2023
(A Competitive Programming Contest)



3 Day Challenge
on Front – End Development

Instincts'23

The **18th edition of Instincts**, the cultural fest of SSN College of Engineering and SNU Chennai, held between **9th and 11th March 2023** was a grand success. Every year, the fest garners participation from state and national level institutions, seeing a footfall of **30,000+ participants**. This year's SSN SNUC Instincts' theme was Lost Continent and it showcased **14 overall event types** from **13 clubs** including **Handila, the Art Club's events for the first time**.

Each club hosted their own flagship event alongside other exciting competitions which were judged by esteemed artists and performers in the fields of cinema, music, dance and literature. Instincts '23 hosted 3 main chief guests—the renowned Tamil actor and director **Mr. M. Sasikumar**, the celebrated actor **Kavin Raj**, and the esteemed **Dr. N. Kannan, IPS**.



Other renowned performers and bands graced the Pro Show events (DJ Night, Celebrity Variety Show, Pro Show, ChoreoNite and Bike Stunt) giving students a wonderful chance to meet and greet as well as enjoy their performances.



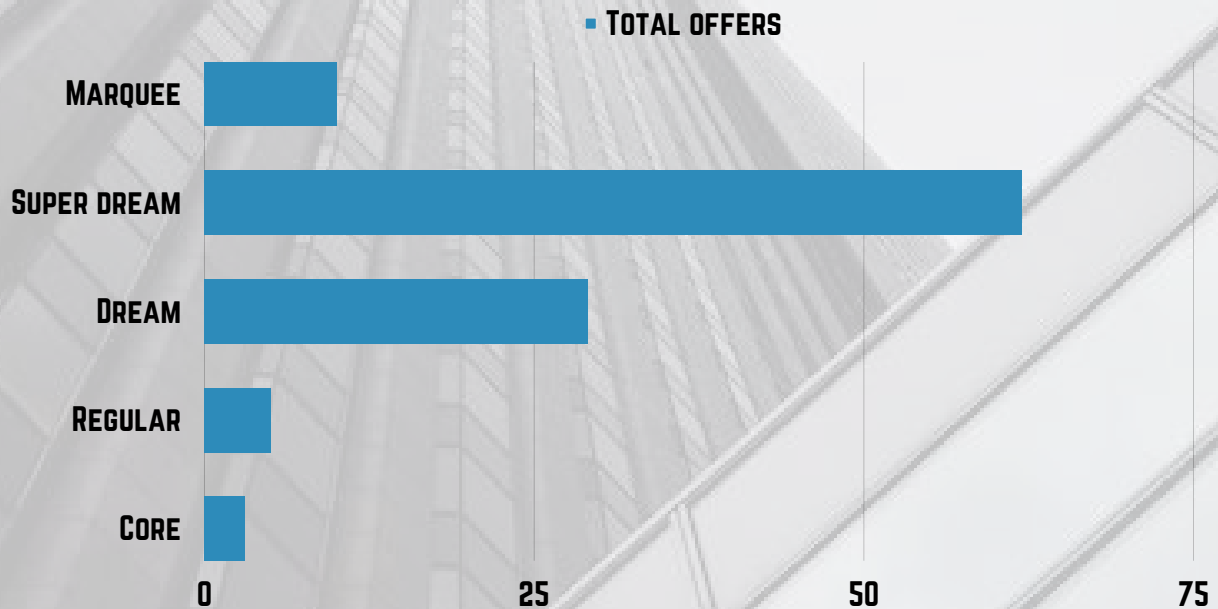
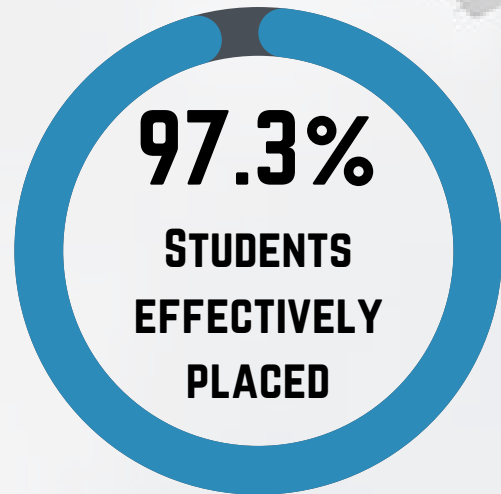
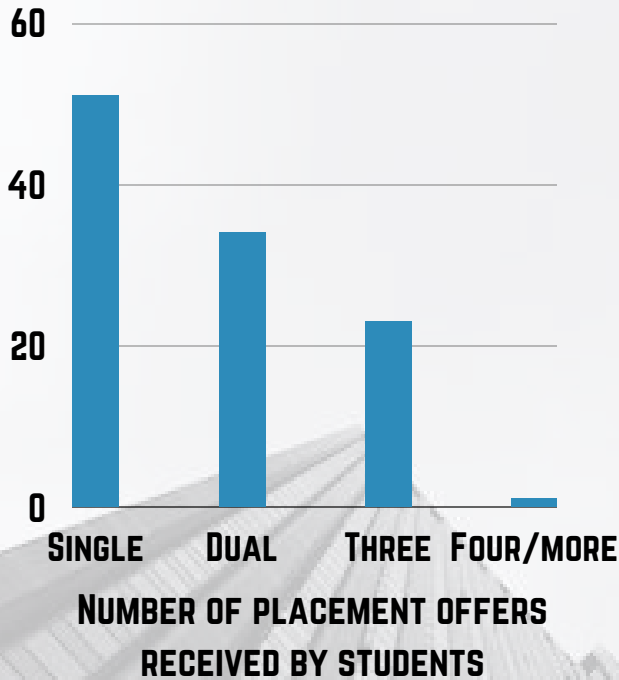
The extensive efforts of organizers collaborating between SSN and SNUC and using digital marketing techniques as well as social media to reach as many students as possible, made Instincts '23 a great hit. The cultural fest, held in the beautiful campus of SSN and SNUC, gave a fun-filled 3 days with extensive opportunities for participants to showcase skills, learn and grow.



PLACEMENT STATS

Placement Trend

Batch of 2023



AVERAGE GROSS CTC = 14.36 LPA

Hiring Companies

Marquee offers	Avalara (1), ChargeBee (2), Equinix (3), Informatica (2), Motorq (2)
Super Dream offers	Amadeus (1), AT&T (1), Citibank (8), Comcast (1), Eurofins (2), Everstage (1), Fidelity (5), Genpact (1), Kinaxis (1), M2P (1), McKinsey (1), Mr. Cooper (2), Natwest (1), Navis (2), Nielsen (4), Optum (23), Rocketlane (3), Tekion (2), Toyota Connected (1), Workato (1)
Dream Offers	ADP India (1), Comcast (3), Deloitte (3), Hewlett Packard (2), Mastech Infortrellis (1), Mindgrove (1), Nokia (4), Sify (2), TCS Digital (1), Verizon (10), Alcatel lucent (1)
Regular placements	Cognizant GenC (4), Qspiders (1)
Core placements	Schneider Electric (1), Tessolve Semiconductor (2)

* Numbers in brackets denote number of students placed in the company

Internships

"Unlocking potential through hands-on experience"

Internships offer invaluable opportunities for students to bridge the gap between theory and practice, gaining real-world experience while contributing to the success of companies.

Popular companies in which our students bagged internships:

1. Mr.COOPER
2. Equinix
3. Fidelity Investments
4. Citibank
5. Verizon
6. NielsenIQ
7. Chargebee
8. Motorq
9. Rocketlane
10. Goldman Sachs
11. Avalara
12. Navis
13. Vitae Money
14. Zoho Corporation
15. Comcast

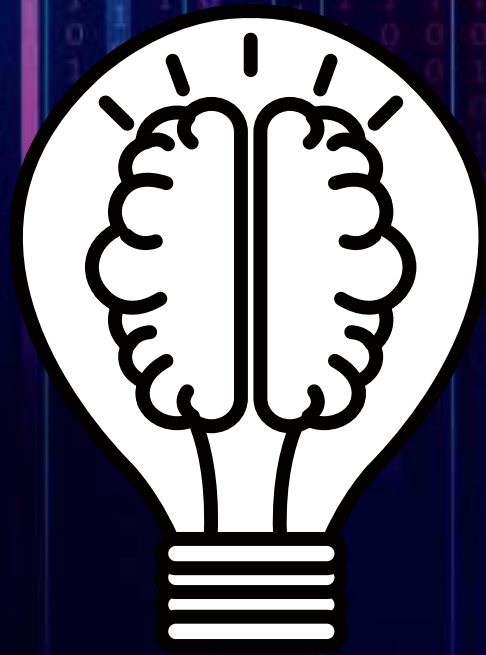
Stipend in the range 10K to 1L

Popular intern roles:

1. Business System Analyst
2. Summer analyst
3. Full Stack Developer
4. AI/ML Developer
5. Software Engineer Intern
6. Data intelligence Intern



"Internships are the launchpad for dreams, where passion meets experience and possibilities become realities."



INTERNALLY FUNDED PROJECTS

Cultivating Innovation:

"Showcasing Breakthroughs from Internally Funded Projects (IFP)"

We thank the SSN management for their extended support and financial aid amounting 1.03 lakh for the budding researchers to realize their dreams.

The following student IFPs have been approved in the year 2022-23:

- P. Prithvi Kiran, III Year IT and Nagavel Rajasekaran, III Year ECE received the internally funded project titled **"Discriminative learning for material recognition"** under the guidance of Dr. T. Sree Sharmila and Dr. R. Srinivasan. Budget: 25,000/-.
- R. Sujay, R. Sridhar, V. Vijay, S. Nandhana, II Year IT, received the internally funded project titled **"Pulse based diagnostic system for siddha and varma treatment"** under the guidance of Dr. T. Sree Sharmila. Budget: Rs. 25,000/-.
- R. Narmatha, M. Padhma Priya, Paechiammal Gandhi, S. Thiruvadhitha, II Year received the internally funded project titled **"Identification of medicinal plants using image analysis and deep neural networks"** under the guidance of Dr. T. Sree Sharmila. Budget: 14,000/-.
- Jovitha Sahayaraj and K. Kaviyapriya (2021-2025 Batch) under the guidance of Dr P. Vasuki have got their IFP titled, **"Voice assist for speech impaired people using ML and IoT"** for Rs 23,000/-.
- S. Selcia II Year IT, N. Arvind Kumar II Year Mechanical, A. Iniyavai Kooral II Year ECE under the guidance of Dr. K. S. Gayathri have got their IFP titled **"Anomaly detection in an intelligent environment using big data analytics"** for Rs.8000
- Anush Rajagopalan, R. Keerthana, M.R. Sahithi, Vineet Kumar Gupta of III Year IT under the guidance of Dr. K.S. Gayathri have got their IFP titled **"DietChef.AI"** for Rs.8000



NPTTEL ACHIEVEMENTS

NPTEL Scoreboard

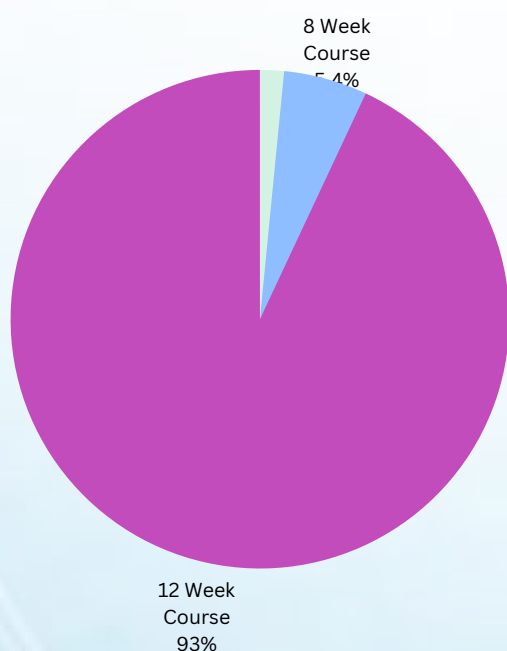
Students' Mastery and Diverse Course Selection
(Jan - Apr 2023 session)

Total number of students who successfully completed courses: **129**

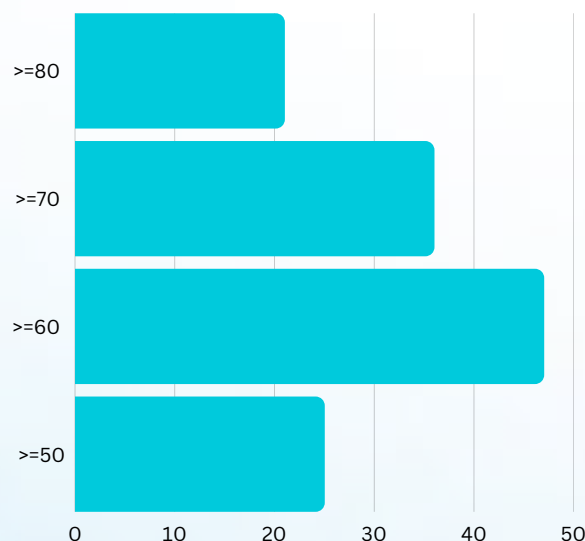
II year - 56

III year - 69

I year PG - 4



DURATION OF COURSES CHOSEN BY STUDENTS (4/8/12 WEEK COURSES)



RANGE OF MARKS (IN PERCENTAGE) AND NUMBER OF STUDENTS

Common courses selected by students:

- Blockchain and its applications
- Data Science for Engineers
- Discrete Structures
- Ethical Hacking
- Enhancing soft skills and personality
- Getting Started with Competitive Programming
- Introduction to Internet of Things
- Introduction to Soft Computing
- Natural Language Processing
- Programming in Java
- Programming in Modern C++
- Social Networks
- Software Testing
- Systems and usable security



FACULTY CORNER

WALKING – TRAVELOGUE

Let me start with an old joke. A doctor advised his patient to walk 10 KM every day. After a month, the patient called the doctor and asked whether it was enough. Doctor replied “OK. Let us meet today”. The patient replied “Doctor! Could you give me an appointment tomorrow? Because I am 300 KM away from your clinic”. So, the lesson is if you walk without return then within few days you would be away from your home ☺.



In the month of December (2022), suddenly I felt that my day to day life was monotonous. Now and then I go for trekking. But that was not enough to break the chain of monotonicity. I needed a long break far away from the work and home. If I take a flight with in a day I would have been far away from the work place. That won't be enough because I'll be clinging to my work and home mentally. A cheaper and efficient way to break the chain is to take a long walk (long implies without return for few days). Once I decided that the next part was the most challenging task i.e. getting permission from the family. Near about a month, I tried all the ways to get their permission (taking them to cinema, hotel, helping in cooking, housekeeping etc.). And finally, I got a green signal.

Day#1

I am staying in SSN staff quarters, and I decided to walk to Palani from SSN. The distance is around 430 KM as per Google. I asked few colleagues whether they would be joining. They hesitated. I announced the date also (i.e. 19th Dec 2022). Before this, I tried walking to Sabarimalai from SSN in Dec' 2015. I was able to cross Manaparai which was about 50% of the distance. My feet and leave did not cooperate. From there, I went by bus. In Dec' 2020, we (I and Dr K K Nagarajan, EEE) walked from SSN to Thiruvannamalai (165 KM) which we completed in five days. Based on those experiences, I planned a 2 weeks trip to Palani.

On 19th Dec' 2023, around 7 O' clock morning, I started alone from my quarters. The dress code is very simple (Dhothi, cotton shirt, and a long cotton towel around my neck). I had a small shoulder bag with one set of dress, one water bottle, torch light, power bank, and safety pins, and one big umbrella (really big). Initially we may think, the bag weight is nothing. In weather report, there is something called "feels like". After a few hours of walk, we'll realize the true weight of the bag. While starting my mom advised me to have Idlis what she prepared. She was bothering that I might not get food on time. Annoyingly I replied her "I am not going to jungle, and I am just going walk on the roads". Finally, she made me to eat 2 Idlis to satisfy her.

And then, I started and visited our Pillaiyaar Temple. At the main gate, the security asked "சார்! வண்டிக்கு என்னாச்சு? ஏன் நடந்து வரீங்க?". I just managed him, and started walking. One or two people on the road looked at me or I imagined so. After one-hour walking, I reached Thiruporur, and that was my first status update (in Whatsapp) during the trip. I bought a mosquito coil and a match box from a shop and continued my walking. After Thiruporur bus stand, I took a right turn and I started walking in Thiruporur-Chengalpat road. Within 500 meters, I took a left turn to Thirukazhukundram. At that point, I felt "Oh! I am really doing it". I thought "In department all would have come". Still I was clinging to work mentally.

And I was walking. Thiruporur-Thirukazhu kundram stretch is really nice. On both the sides, we have the reserved forest. We can see a lot of monkeys. A motor bike stopped and I heard "சார்! எங்க இவ்வளவு தூரம்?" He was one of my friends. I explained him and he wished me. Again, started walking. "How many hours I'll be walking today?" I was thinking to myself. By this time, my stomach was calling. But no shops were around. "Should I have had 2 more Idlis?" I was thinking, "Any way past is past". Around 10.30 AM, I reached Manampathi, a decent village/town. I had dried ginger milk (சுக்குப் பால்) since there was no veg hotel. By this time, sun started its work. I covered my head with the towel and continued walking. "In Thirukazhkundram, I have to eat heavily" I was talking to myself. "If I would have been in the department then by this time I'll start my two-wheeler and go to quarters and have nice lunch" random thoughts in my mind. "How long, How long to Thirukazhkundram?" I was looking at the milestones. But I did not know that time that a big bulb was waiting for me in Thirukazhkundram. It was really difficult walking in the sun with almost empty stomach.

“I should have listened to my mother” I was cursing at myself. Finally, at 2.30 PM I reached Thirukazhkundram which is around 30 KM from SSN. Everywhere there was police, and people told that local curfew was imposed due to some murder. Not even a single shop (of any kind) was open. “I am in big soup” I realized. “What to do! Sit in one place or start walking” I was cursing and talking to myself. I decided to walk and may be - I may get some hotels. From Thirukazhkundram I had to get on to GST road (Trichy road). From Thirukazhkundram if we walk 25 KM, then we get GST road (5 KM before Madhurantakam). My pace was pathetic. I was able to walk 5 more KM from Thirukazhkundram. I was exhausted, and my legs were paining. My stomach was crying. What to do? I saw a temple and its portico (மஶ்டல்லி) with roof. That’s all. I went there and dumped my bag. There was a water tank, and I thought that I had to take a bath. But I dozed off. Around 10 PM in night, four small boys woke me, and enquired me. I was bit irritated. The boys told “Since it is Markazhi, we do Pooja @ 4 AM, and you will have to get up by 4 AM”. I said “OK”, and tried sleeping. Afterwards, I could not sleep due to multiple reasons (hungry, new place, chillness etc.).

I was dreaming that somebody was massaging my legs and it was so real. Suddenly I got up and I saw that a dog was smelling my legs. He was looking at me for some food. I told him “Look! I am also in the same position. Go away”. He understood and lied near by me. I was completely fresh and even thought of walking. In between the random thoughts it flashed to me that my mother would have definitely put some food items in my bag without my knowledge. I started checking the bag - Yes! There was a Good Day biscuit packet. My face was filled with smile and told the dog “You are lucky”. I fed the dog, and I was not in a mood to eat. It was 1 O” clock night. Around 3 AM, I heard some barking sound in my sleep, and got up. The dog was driving away a frog and owl which were very close to me. At that instant, I realized “Why are the dogs revered by the human?”. That’s all. With in half an hour those boys came and rang the temple bell. I was curiously looking at them. They picked up a palm leaf from nearby and started fire. They were just enjoying.

Day#2

With a cold shivering path, I started the next day. Compared to yesterday, both office and home seemed remote.

Around 5 AM, I started walking through the villages. The dog followed me till his boundary and then returned. I just recalled my childhood memory – to send off the guests my father used to go with them to the bus stand and said “Good Bye”. Dogs have the same habit. I was the guest and he was saying Good Bye.

Initially I was not hungry even though I was almost fasting yesterday. Around 7 AM I desperately needed tiffin. But it was too early for any hotel to open. Moreover, still there was a reserve forest and there were no big villages. Around 8 AM, near the Paalaaru bridge (not the one we see in GST) I found a small veg Idli shop selling only Idli and vada. I had 4 Idlis, one vada and a tea paying Rs 35 (20 + 5 + 10). By this time, I had updated my status few times. Few people were following and wishing & commenting. I had to tell one thing here – I put the phone in flight mode after whatsapp status update, and thus avoided the problem of charging. Till end I did not charge but I had a power bank.

After tiffin, I was great and started again enjoying the Paalaaru bridge scenes. Around 11 noon I reached GST (in between Karung kuzhi and Madhurantakam). Now onwards, it's going to be on the big GST road for at least one week. Sun was at its peak pouring heat. I walked some

more distance and I thought I should take some rest. There was a nice temple after Madhurantakam. It was really peaceful and beautiful. I took some rest and saw few blisters on my feet. I applied a lot of coconut oil.

I wanted to reach Tindivanam by evening. But I knew that was not possible. From the morning, I hardly thought about my family or office. That's the beauty of walking. If I would have travelled by car then I would have reached Kanyakumari but still I would be clinging to office and family. Walking makes the order of difference. First of all, there was no time to think about anything else when we go for this kind of walking. I have money but still search for food. I want to eat now but it's available only after 2 hours of walking. 10 KM is nothing by car or bus. But walking demands not only our energy but a time of 2 hours to cross 10 KM. I should take right decisions otherwise like yesterday I would be fasting. The process forced me to be there in the present.

I had my lunch around 3.30 afternoon in some nice veg restaurant. By this time, many people spontaneously started the conversations with me. I used to repeat the same thing every where but I was happy, and observed that the people were also happy. They told their stories.

I met a wealthy x-army man, and he was telling me about his 100 KM jogging within 12 hours in the north east region (in the Brahmaputra basin). Almost everybody advised me to go with companion. I met a Sadhu (சாமியார்/சந்நியாசி) in a bus stop where I was taking rest, and he was going from Rameswaram to Kaasi by walk. I offered him lunch and he politely denied. After a small talk, I started walking again.

Around 4.30 I reached Melmaruvathur, and had coffee. That time I thought about my home. Just yesterday I started but it looked very remote past in my brain (like I was away for many days). In machine travel it does not happen. The blisters had grown in size and I put a status update based on that. Many people advised me to take rest and suggested medicines. My mom advised me to take Palani bus and my son advised me to take Chennai bus ☺. Immediately I put the phone in flight mode and started walking towards Tindivanam which is about 20 KM. The time was 5.30 evening. Around 9, I was at 5 KM to Tindivanam and saw a Kumbakonam coffee shop (we can see many such on the stretch). I requested him for a stay and got the approval. He has a room in the back side of the shop, and he asked me to stay there. He charged me Rs 200. Till 11.30 he was doing his business. When he came, I was in deep slumber. But with in few minutes I got up. I thought he would ask me something and he did not. Rather he started snoring soon. That's not a problem for me. There were mosquitos and I wanted to ask him if I could light the mosquito repellent coil. I lighted it without asking him. I woke up by 2.30 AM, and had a bath in the corporation/municipality water tank which was stating "Do not waste drinking water".

Day#3

Around 3 AM, I started walking towards Tindivanam. I heard foot step sound behind me and saw a person was walking just behind me. When a vehicle passed by I saw his face in the bright head light and recognized him as the Sadhu I met yesterday. I said to him "You are walking in the opposite direction". "No..No..I want to go via Thiruvannamalai", he said. He offered me bunch of bananas and told "you could not have eaten anything in the night. Have some". "How do you know", I asked. "I stayed in the nearby bus stop yesterday night, and I saw you this morning leaving that coffee shop", he said. Still it was wired for me. Anyway, I ate those bananas (of course I needed them). After a while, he wished me, and took a right turn to Thiruvannamalai.

Around 5 AM, I was in the Tindivanam town. No shops were open. As usual a dog gave a signal to other dogs about my arrival. All were inviting me, and accompanying me till the boundary. Again, I was left alone. I wanted to reach Vizhupuram before night which is around 25 KM from Tindivanam. Intentionally I wanted to down play because yesterday I walked more than 45 KM.

“What to do for tiffin?”, I was thinking. I saw a young man was selling tender coconuts besides a petrol bunk. “You are the first one to buy, so please buy two”, he requested. I told “No”. He said, “I am going to give you special ones which are plugged from 100 years old coconut tree. You will definitely request one more”. And he was right and I had two. He charged me Rs 30 for two. I asked him straight away about the low price. He replied, “I was raised by my grandfather because my father was killed in an accident in this road. People told that my father was asking for water during his end time. But he could not. My grandfather ordered me not to sell more than Rs 15. He is also no more. I have 78 trees, and I sell these and go to the school (he showed the nearby school) and clean the school ground and class rooms. I get Rs 6000. This is enough for my life”. I did not know what to talk, and wished him and left.

Around 11 AM, I was crossing Arani river, and had a dilemma whether to go down or not. Finally decided to go down and took a nice bath which was really refreshing. Only drawback is we feel hungry immediately. As usual there was no place to eat (only non-veg hotels were available). Around 1 PM, I reached V. Salai Anjaneyar temple. I knew about this temple during my walking trip to Sabarimalai. Very good place with good water facility. Still it is in the same good shape. Whoever maintains it thanks to them. Here too only non-veg hotels were seen. I was told that the next village or town has good hotels. I rested for two hours and started again. Around 4 PM, I was able to find a good veg hotel. After finishing the lunch and dinner together, I started walking and reached Mundiyaambakkam outskirts of Vizhupuram. There are nice temples suitable for night halt. I was looking for dogs but no one appeared. I slept well in the temple mandapam. There were no mosquitos at all.

Day#4

Since yesterday I underplayed, today I wanted to compensate. I thought of walking up to Ulunthurpettai which is about 45 KM. If I can reach Parikkal Hanuman temple which is at the junction of GST and parikkal, a small village road leading to Parikkal, that would be great. I was on the Vizhupuram bypass road bridge. There was a huge traffic jam.

I was the only person who could move, not affected by the traffic jam. Many people were looking at me (may be with jealous ☺). I felt happy, and was walking tall. Around half an hour walk, I saw vehicles were just piling up one after another. On the way, there was a river (or stream), and I took bath. I was walking and my body was cooperating even though the blisters in the feet were in very bad shape. Around 2 PM I reached the temple I mentioned before, and just before that there was a veg hotel. Since I did not have breakfast I ate like a pig or wolf after 8 hours of almost continuous walking. From here it's just 8 KM to Ulunthurpettai. I was about to sleep and an aged person in his 80's appeared. He started talking and enquiring. He requested me to buy the lemons he had, and offer to the God, Anjaneya. My mind concluded that just to sell his lemons he was talking to me. Any way I bought the lemons and put it on the plate which was there. But I was wrong. He did not leave and kept on talking and asking questions. No one was there, just I and he, and of course Hanuman. I learnt that his wife passed away 22 years before. His son does not respect him. Due to age he could not digest meat. But his daughter-in law and son force him to eat Briyani, fish etc. Even though he loves those items he gets diarrhea and stomach pain. If he goes to hospital again they scold him etc...

Now his son does not speak to him. He has to earn for his daily bread and cook for himself. One of his childhood friends also a distant relative has a farm with a lot of lemon trees. His friend gave permission to plug lemons at free of cost on one condition i.e. he should sell lemons only in temples. . Since the next day was Hanuman Jayanthi he was selling lemons there, and he goes to four or five temples by bus. I asked him "Do you really get enough for food?". He answered "I do not have to pay rent. I should thank my son and daughter in law for that. I have aged person's pass to travel in the bus. He was thanking the government. Lemon is coming at free of cost. I sell for Rs 50/- every day. Because I plug only that much. கரும்பு இனிக்குதுன்னு அடியோட புடுங்க கூடாதுல்ல." He uttered some nice proverb in Tamil. I asked him to come with me to the nearby hotel. But he politely refused. I offered him Rs 50/- and denied that also. Then he suddenly requested "Give me five rupees. That's enough. When a good person is offering some thing we should not refuse." He added, "Today is the day my wife passed away by snake bite. For the last 22 years, I do not eat on this day". It was like a cinema story. Around 4 PM, I resumed walking after saying good bye to him.

Not everybody was like him on the way. Most of the people wanted money. A private bus came and stopped in the bus stop. The bus driver called me, and greeted. “I saw you walking in the traffic jam nearby Vizhupuram”, he said. And the bus left. I thought to myself, “Oh! Some people are noticing me”. Around 8 PM, I was closer to that day’s destination. There was a temple replica of Tirupathi. Nearby there, I took rest, and I needed mosquito coil. Immediately I fell asleep thinking about the stretch from Ulunthurpettai to Veppur.

Day#5

Ulunthur pettai to Veppur stretch is very difficult one (from my previous experience). I wanted to cross this before sunrise. I started around 2.30 AM. The climate was very good. Around 6.30 AM, I reached Veppur. That was really fast. The day was Hanuman Jayanthi. I visited Hanuman temple which was ½KM deviation from the main road. Full day was before me. Except the blisters my body was in good condition. I decided to reach Perambalur (around 32 KM). Luckily, I found a veg hotel for my breakfast. By the time, I reached Thozhuthur, the blisters started busting. I walked further and I was not able to manage. I think in Valikandapuram or some other place I found a medical shop and sought the shop keeper’s advice. He said that half of the people usually would get blisters. He gave me two doses of antibiotics and asked to take good rest for 5 hours before walking. The time was around 2 PM. The shopkeeper also showed me a place for where anna danam was going on the occasion of Sabarimalai irumudi kattu. I went there with hesitation but they happily received me and offered me food. I asked them whether I could sleep some where there. They gave me a nice place with pedestal fan facility. I slept well. Medicine worked well, and I woke up around 8 PM. There was another person who was sleeping besides me. He told me that the irumudikattu was over. He was also like me (walking to Tirupathi from Srirangam). He said, “I am a retired engineer from BHEL and a EEE graduate”. After good bye I started again. Blisters and pain were almost gone. Again, I was walking in night, and by 1 AM I reached Perambalur. Almost everywhere, the dogs were inviting me. Some people do not like them. But I actually needed them. Nobody was there to talk and invite or greet, not even to look at me in the nights. From somewhere, suddenly a dog would come smelling you. They would accompany us up to that village boundary, and handover us to the next village guards. Sometimes they may be aggressive but mostly they are good. But that is the part and parcel of the game.

Day#6

I rested for 3 hours, and took the Amazingly the body was remaining one dose of the medicine. cooperating. Thanks to the modern Allopathy Meanwhile, I was updating my medicine. It did its wonder. My aim status many times. Many people was to reach Paadaalur Hanuman asked me to take rest. My mom and temple before forenoon. I started son were sending messages. My around 3.30 AM, and the 15 KM wife threatened me with a message stretch to paadaalur was a very that she would divorce me if I walk wonderful experience. By 7 AM, I further. Best thing put the phone in was there in Paadaalur Hanuman the flight mode ☺ . I was in Trichy temple. Behind the temple there is a central bus stand around 8 PM. temple at the hill top. I was in There was no place to take rest. dilemma whether to climb or not. Respecting all the messages (I Finally, I decided to climb. I left my received), I wanted to take rest. bag with a lady who was selling There was a lodge and I requested Tulasimalai. It was a 20 minutes them that I would be there for 3-4 short climb, and worth going up. I hours in the verandah. He charged was completely rejuvenated and me 100 bucks for that. But that was bubbling with energy while coming okay. There I met an aged person in down from the hill. Again I resumed his 60s. I learnt that he was walking my walking in the GST, and after 2 to Sabarimalai from KM I had my breakfast. Perambalur Thiruvannmalai; every year he onwards, finding veg hotels were walks and that was his 36th time. easy, in fact I did not have to search. My ego humbled. I decided to go I saw a group of people wearing with him till Ayyalur, from where yellow cloth, and I guessed they he would go to Dindukul and I must be going to Samayapuram. would go to Ottan chattiram.

Yes, I was right. I joined them. I decided to walk with them. As the **Day#7**

sun started showing up in the sky, Around 12 mid night we started, they increased the pace. They were and after one hour walking, we walking madly which I would say were out from Trichy. It was jogging. In some places we even pleasant and by morning 9 O' clock went through the fields. Around we reached Manapparai (40 KM 12.30 PM, we were there in from Trichy to manapparai). I Samayapuram. I was literally on stopped the status update for furnace in Samayapuram but able to obvious reasons. Trichy-Dindukul walk. From Trichy, Palani is 140 KM. road was very pleasant and it was When this thought came to my mind comparable to foreign roads. I decided to complete it in two days.

Adding to this, there was a light drizzle, and we had a complete pleasant walking with nice food and many short rests. Suddenly it started raining very heavily. Luckily, we were there in a toll. We just stood there observing the rain and the wind. A big wind came, and along with it, a steel sheet of the near by hotel also came flying. Almost every body cried, yelled, and shouted. But nobody was hurt. It just hit a bus which was arriving the toll. By 6 PM, we were in Ayyalur. I thanked him a lot because it was a very big moral boost. I had just 70 KM before me. By this time, I saw some people walking to Palani. I took many short rests and kept on walking.

Day#8

I took one big rest (for 3 hours) in a Kaliyamman temple, Eriyodu village. Around 11 AM I reached Ottan chatiram. From here, Palani is 28 KM. Again, I started updating my status. Many people were congratulating me. I was thinking about the person with whom I walked yesterday (not to carried away by the comments lauding me). From Ottan chattiram, food, water, walking - nothing was hard. It was very nice. There were slow moving small vans playing Murugan songs, and people were dancing to the songs with their Kaavadis.

When it was 6 KM to Palani, my chappals were torn into 4 pieces. There were no shoe shops. I walked with bear foot. Around 7.30 PM I reached the steps that takes us to hill top. I worshiped from there. I took a room for Rs 800/-, took bath and slept off.

Day#9

Morning by 3 AM, I climbed the steps and had early morning Darshan of Lord Muruga, and thus completing my travel.

Coming back- Dr Ashwinth Janarthanan, my colleague, was returning from Coimbatore to SSN college. He called me and asked whether I would be able to come to Pollachi. Happily, I got into a Coimbatore bus. I really enjoyed and appreciated the bus travel, after a long walk. You may not believe - I was wondering about the IC engine that time. We started by car around 2.30 PM, and reached SSN by 10.30 PM.

Did I learn anything? - We have taken the nature for granted. Not only the nature, even the technology is taken for granted by us. To appreciate the transport technology, we need to walk at least 100 KM. Like me 50 people are sitting in a bus. One man is pressing something by his leg in the front. Sit for 7-8 hours, and you are in Palani.

Even though, I knew the operation of IC engine, isn't just wonderful? Even after knowing how a magic is performed, it's surprising. Everything is a miracle to me. There are no separate miracles. Life is a continuous miracle and let us appreciate.

Dr. R . SRINIVASAN
Professor, IT





ALUMNI CHANNEL

The Forgotten Artisans: Reviving Traditional Crafts in the Digital Age

In the realm of contemporary society, as the relentless procession of progress ceaselessly surges forth, an inherently disheartening and oft-neglected phenomenon emerges—a poignant narrative steeped in the gradual erosion of time-honoured artistry and the indomitable spirit of traditional craftsmanship.

The present exposition ventures to cast an incisive light upon the plight of the forsaken artisans, their intrinsic contributions to the vast tapestry of cultural heritage, and the commendable endeavours undertaken to resurrect and



revivify these ancient and resplendent crafts amidst the pervasive and all-encompassing dominion of the digital age that currently prevails.

Within the crucible of our modern epoch, wherein the virtuosic strides of technological advancement indubitably monopolize the global stage, a mournful discord emerges—an elegiac resonance that reverberates through the corridors of history, resoundingly underscoring the diminishment of traditional craftsmanship. Woven deeply into the very fabric of humanity's narrative are the redolent threads of indigenous tapestries, painstakingly etched wooden relics imbued with ancestral wisdom, and the exquisite vessels of ceramics that once overflowed with narratives of antiquity.

However, regrettably, in the wake of an insatiable appetite for mass-produced banality and the relentless march towards mechanization, these time-honoured arts have languished, their presence attenuated, and their profound significance obfuscated.

Amidst the relentless maelstrom of digitization that ensnares the collective consciousness of our epoch, traditional artisans find themselves in an undoubtedly precarious predicament—a plight that is only further compounded by the burgeoning tides of modernity. As the world embraces the inexorable pursuit of expediency, convenience, and the seductive allure of cost-effectiveness, the venerated crafts that once embodied the very essence of cultural identity now find themselves marginalized—mere spectres amidst a tempestuous sea of technological uniformity. The rapid strides of industrialization and the unyielding march of mechanization have, undoubtedly, endowed society with the fruits of progress; and yet, the concomitant cost has been the sacrificial altar upon which ancestral wisdom and the inimitable expressions of artistry have been unceremoniously interred.

The artisans, erstwhile guardians of centuries-old traditions, now stand precipitously on the brink of oblivion, their plaintive laments echoing through the corridors of time. Bereft of their rightful place in the pantheon of cultural veneration, they bear witness to the inexorable erosion of demand, the encroachment of inferior alternatives, and the disquieting spectre of intergenerational knowledge loss. The intricate tapestry of their artistry, painstakingly interwoven through the annals of history, now teeters on the brink of unravelling, its delicate threads fraying under the relentless onslaught of modernity's unforgiving tide.

Yet, amidst this ostensibly desolate landscape, glimmers of hope emerge—illuminating a meandering path towards renaissance and redemption.

A coterie of visionary individuals and organizations, cognizant of the intrinsic value and resplendence enshrined within these imperilled art forms, have arisen to champion their cause.



These stalwarts of heritage, audacious and indefatigable, have embarked upon a noble quest to safeguard the evanescent embers of tradition from the merciless onslaught of time.

Initiatives, as diverse and multifaceted as the kaleidoscopic hues of artistic expression themselves, have burgeoned forth—a testament to the indomitable human spirit's unyielding resilience. Collaborations between seasoned artisans and intrepid contemporary designers have given rise to a veritable renaissance—a union of ancient techniques and modern aesthetics. In this harmonious amalgamation, the timeless artistry breathes anew, reinvigorated and infused with a vibrancy that defies the fetters of obsolescence.

Simultaneously, these artisans, consigned to the periphery of societal consciousness, now find solace and succour within the nurturing embrace of supportive networks—networks that proffer the sustenance of training, resources, and platforms to showcase their intricate creations to a world clamouring for authenticity and the ineffable essence of substance.

In the ever-advancing landscape of the digital age, the plight of forgotten artisans and the erosion of traditional crafts stand as poignant reminders of the need to preserve and revive our cultural heritage.

Amidst the relentless march of progress, a dedicated cohort of individuals and organizations emerges as beacons of hope, championing the resurrection of ancestral artistry.

Through collaborations, training, and the harmonious fusion of ancient techniques with contemporary aesthetics, these endeavours breathe new life into fading crafts, honouring the past while fostering sustainability, economic growth, and a profound appreciation for the authentic and the enduring. By embracing and supporting the revival of traditional crafts, we ensure the preservation of cultural identity and the continuation of a timeless legacy for generations to come.



**Jayaram
Hariharakrishnan**
(2015-2019 Batch)

Digital Twin

A digital twin is an up-to-date representation, a model, of an actual physical asset in operation. It reflects the current asset condition and includes relevant historical data about the asset. Digital twins can be used to evaluate the current condition of the asset, and more importantly, predict future behavior, refine the control, or optimize operation.

A digital twin can be a model of a component, a system of components, or a system of systems—such as pumps, engines, power plants, manufacturing lines, or a fleet of vehicles. Digital twin models can include physics-based approaches or statistical approaches. The models reflect the operating asset's current environment, age, and configuration, which typically involves direct streaming of asset data into tuning algorithms.

How Digital-twin works :

A Digital twin of a asset is known as Model . Digital twin model will include the required components, behaviors, and dynamics of the asset. Modeling methods generally can be grouped into two types: **first principles or physics-based methods** (e.g., mechanical modeling) and **data-driven methods** (e.g., deep learning). A digital twin can also be a composite of various modeled behaviors and modeling methods and is likely to be elaborated on over time as more uses are identified.

Digital twin models are commonly used in several areas:

1. **Operations optimization :**

In what-If situations to evaluate readiness or necessary adjustments to current system set-points. This enables system operations to be optimized or controlled during operation to mitigate risk, reduce cost, or gain any number of system efficiencies.

2. **Predictive maintenance:**

In industry 4.0 applications models can determine remaining useful life to inform operations on the most opportune time to service or replace equipment.

3. Anomaly detection:

Digital twin model runs in parallel to the real assets, and immediately flags operational behavior that deviates from expected (simulated) behavior.



Harish Sharma
(2018-2022 Batch)

A Conversation with GenAI about GenAI

So, in recent days, I have been repeatedly hearing about the Buzz Word - Generative AI. Interested to know more about it, I asked more about Generative AI to itself, with a few examples. This is what it came up with :

“Generative AI is a type of artificial intelligence that can create new content, such as text, images, or music. It is based on the idea that machines can learn to generate new patterns by being exposed to a large amount of existing data.

Examples:

- **Generating text:** Generative AI is also being used to generate text that is indistinguishable from human-written text. This technology is being used in a variety of industries, including customer service, marketing, and journalism.
- **Generating music:** Generative AI is also being used to generate music. This technology is being used to create new and innovative music that would be difficult or impossible to create by human musicians.”

Sounds good. But, I wanted to explore more. As a person with a good amount of exposure to Machine Learning and Deep Learning Domains, I wanted to dig deeper into what is special about GenAI and GPTs (Generative Pretrained Transformer). A little bit of exploring gave me 2 attributes that were special about Generative AI - Context-setting and One-shot Learning. But still, I wanted consolidated information, so I asked again and got this :

“Context setting is the ability of a generative AI model to understand the context of a prompt or query. This allows the model to generate more relevant and accurate responses. For example, if you ask a generative AI model to write a poem about a beautiful day. The model will need to understand the context of the prompt, such as the meaning of a beautiful day and the different ways that a beautiful day can be described. The model will then use this understanding to generate a poem that is relevant to the prompt.

One-shot learning is the ability of a generative AI model to learn a new task from a single example. This is in contrast to traditional machine learning models, which typically require a large dataset of examples to learn a new task. For example, if you show a generative AI model a single image of a cat, the model will be able to learn to identify cats from then on. This ability is important for generative AI models because it allows them to learn new tasks quickly and easily.

Both context setting and one-shot learning are important abilities for generative AI models. These abilities allow generative AI models to be more flexible and adaptable, which makes them more useful for a wider range of tasks.”

Interesting. So, Generative AI models are much better at getting the statistical relationships between words and phrases, which gives them a better understanding of the context of a prompt or query. Also, generative AI models are able to learn from a single example, which makes them more adaptable to new tasks. This is a big advantage as we need much less data to train and don't need separate models for separate tasks as a context can be set.

My use case was more to do with Natural Language Processing so I explored further. It seemed, I needed to read about large language models (LLMs). Here you go, said Gen AI

“LLM stands for Large Language Model. It is a type of artificial intelligence (AI) that is trained on a massive dataset of text and code. This allows the model to learn the statistical relationships between words and phrases, which enables it to generate new text that is both grammatically correct and semantically meaningful.

One-shot learning is the ability of a generative AI model to learn a new task from a single example. This is in contrast to traditional machine learning models, which typically require a large dataset of examples to learn a new task. For example, if you show a generative AI model a single image of a cat, the model will be able to learn to identify cats from then on. This ability is important for generative AI models because it allows them to learn new tasks quickly and easily.

The four models for text embedding in GPT 3.5 are:

Ada: This model is designed for general-purpose text generation. It is good at generating different creative text formats, like poems, code, scripts, musical pieces, email, letters, etc.

Babbage: This model is designed for generating factual text. It is good at summarizing factual topics and answering your questions in an informative way.

Curie: This model is designed for generating creative text that is also factually accurate. It is good at generating different creative text formats, like poems, code, scripts, musical pieces, email, letters, etc., while also ensuring that the content is accurate and factual.

DaVinci: This model is the most powerful of the four. It is designed for generating text that is both creative and factual. It is good at generating different creative text formats, like poems, code, scripts, musical pieces, email, letters, etc., while also ensuring that the content is accurate and factual.”

From this interaction, I learnt a lot about the depth of generative AI. If used well, it can make us learn a lot about anything, by giving proper condensed information, without the need of going through a lot of resources. I am sure the people reading this would also have learnt a lot about GPT.



Keertivaas S
(2018-2022 Batch)



STUDENT ARTICLES

MY FIRST EVER HACKATHON

Recently, I participated in **Zenith**, a hackathon hosted by the **TechClub of the ECE department**. It was an incredibly interesting and overwhelming experience. This hackathon taught me a multitude of things in a very short time. My teammate and I received a special mention in this hackathon, and that was a truly proud moment for us. However, I would describe this experience as bittersweet.



Initially, when I came across this hackathon, I wasn't particularly interested, and I wasn't keen on exploring new opportunities. Later on, I'm not sure what came over me, but I had an instant idea and decided to approach my friend about it.



The main reason I chose to collaborate with him was that we often argue over trivial matters, and I felt that this was a golden opportunity for us to channel our arguments into something constructive and productive. He was enthusiastic about the idea and contributed more ideas to enhance our project. We were highly motivated to bring our vision to life. Our idea was to create an automated parking system. We had approximately a month to work on this project.

Initially, we faced challenges due to poor coordination as we had different opinions and perspectives. Nevertheless, we made a conscious effort to work on it together. Eventually, we got the hang of it and started working collaboratively. We had about three reviews within that month, and we made significant progress during that time. Although we encountered setbacks and had to learn many new things, there were moments when I felt like giving up because it was challenging to learn multiple things simultaneously and implement them. However, I motivated myself to achieve the targets we had set earlier. The final outcome was truly remarkable. I was quite confident that our team of two would secure a place.

We were able to deliver a compelling presentation, which included a PowerPoint presentation, a video of the working model, and a website. I had high hopes of winning this hackathon because I knew the effort we had put into it. Unfortunately, we lost by a narrow margin. I felt disappointed for a few minutes, and I wanted to identify the drawbacks of our team's performance. I personally contacted the organizers, and they were more than willing to provide feedback on areas where we could improve.



Therefore, even though we didn't win this hackathon, it was still a beautiful journey to cherish. I had one request for the organizers in general: it would be greatly appreciated if participation certificates were provided. Overall, the prize I take home from this hackathon is improved communication skills, increased confidence, enhanced presentation and delivery abilities, stronger teamwork, expanded knowledge, and the motivation to participate in future hackathons. Stay motivated and keep exploring!



K.V.SWETHA
1ST YEAR

JUICE JACKING

The term “**juice jacking**” was first coined in **2011**. It is a form of **cyberattack** where a **public USB charging port** is tampered with and infected using hardware and software changes to steal data or install malware on devices connected to it. The attack is used by hackers to steal users’ passwords, and other sensitive data stored on the targeted device.

Hackers infect USB ports or charging cables in public areas before the users connect to them. Most attacks target both Android and iOS mobile devices. USB ports have multiple pins, but only one pin is used for charging while the other pins are used for data transfers.



When users connect their devices to compromised USB ports, hackers use the connection to hack into mobile devices and steal personal data or deliver malware.

In a *disabling attack*, hackers use juice jacking to lock owners out of their devices so that the user can't access them anymore.

In a *multi-device attack*, threat actors use the connected device to spread malware to other devices they may connect to in the future.

The different attack forms include data theft, malware installation, disabling attack, and multi-device attack.

In a *data theft attack*, hackers use juice-jacking to steal data from a device. The process is typically fully automated, and hackers often use crawlers to search the mobile device for personally identifiable information.

In a *malware attack*, hackers use charging ports to install malware or viruses on connected devices, which are then used to perform ransomware attacks.

How common are juice jacking attacks?

Though it is not the most prevalent attack today, authorities have repeatedly warned against the use of untrusted free charging stations in airports, hotels, and shopping centers. Contrary to government communications, a vast majority of cybersecurity experts do not believe juice jacking to be a threat unless users are a target of nation-state hackers, with no documented cases being reported.

How can users protect their devices against juice-jacking attacks?



Modern Android and iOS devices disable transfer capabilities when plugged into a USB charging port. Users may see a prompt asking them to “trust” the connected device. Trusting the host device enables data transfers; therefore, users should only grant access to known devices. However, this may not be foolproof as public charging stations can silently enable data transfer once a device is connected. Users, should disable the option to automatically transfer data when a

charging cable is connected to the device. Users can also turn off their devices before connecting to an untrusted charging port. Additionally, users can use AC power outlets, carry external power banks, and consider using a charging-only cable while travelling to ensure security.



MYTHREYA KESAVAN
2ND YEAR

EXISTENCE OF 6G NETWORK IN 2030

We can easily advance to the next stage of networks because network technologies are developing more quickly than communication technologies.

Although 5G is still being implemented to replace the outdated 4G standard, 6G is already under construction. The 6G network is anticipated to be faster than its predecessors and capable of handling more bandwidth with fewer latency.



In comparison to their predecessors, 6G networks are anticipated to **offer more capabilities**, and they are very likely to support applications besides those for mobile devices, such as those for artificial intelligence (AI), the Internet of Things (IoT), and virtual and augmented reality (VR/AR).

Every ten years, new wireless communication standards are created, and 6G is anticipated to be operational by **2030**. The wheel begins with a vision of specific scenarios or applications that address issues and their specifications. Then businesses begin conducting research to identify and patent various inventions that satisfy those requirements, and they create models to test them.

With theoretical speeds up to **1 Tbps**, or **roughly 100 times faster than 5G**, 6G is anticipated to have significantly faster speeds than 5G. The 6G evolution cycle is still in its infancy, and no technology has yet been developed to meet the standards set for 6G. So, this relates to the **"Vision Stage"**, which is when a need or problem is determined and all the requirements are established.

The "Invention Stage" would be the following stage:

- Artificial intelligence and machine learning will play a major role both in the link and system-level solutions of 6G wireless networks.



- A shift in user devices from smartphones toward wearable devices (particularly lightweight glasses) having virtual, augmented, or mixed reality capability.
- Advances in wireless networks, distributed AI, and sensing enable autonomous vehicles. In a future network, every vehicle will be fitted with a variety of sensors, such as cameras, laser scanners, and possibly THz arrays for 3D imaging, odometry, and inertial measurement units.
- In addition to the terrestrial networks, infrastructures based on satellite and unmanned aerial vehicles (or similar aerial platforms) will be needed to support the coverage and capacity requirements.

The developing companies in 6 G:

- **Samsung.** Samsung kicked off 6G research in June 2019.
- **Ericsson.** Like 5G, Ericsson is aggressively researching 6G as the company is one of few companies that manufactures next-gen network infrastructure.
- **Nokia, Huawei, LG.**

In conclusion, the fields of artificial intelligence, mechanics, electronics, and electrical engineering are those that are currently creating new jobs. This realistic future is what is advancing human intelligence to the next stage of its evolution.

SANJITH VIKRAMAN
2ND YEAR



MOTIVATION – A THIN LINE

Motivation is the reasoning behind that which drives us to perform the actions we perform. It can be classified as – *intrinsic or extrinsic*.

Extrinsic motivation is a lie. Intrinsic motivation is what builds discipline.

Why does one need motivation in order to reach great heights in a job, an activity or a field he/she genuinely loves?

Why is it that we notice pages and pages of printed – out motivational quotes adorning the walls of youngsters’ rooms nowadays? Desktop and mobile phone wallpapers, social media profiles are no less a victim to the same. A few decades back, ‘motivation’ was a word rarely spoken. Motivational speakers are earning in billions of dollars, with the sale of a new book or with a pep talk that they perform on stage, yet the consumers of these talks and books do not seem to be advancing so much with respect to the clarity in their life.

Here’s the catch. **Does it not defile the purpose of leaning when one has to require an external dosage of motivation in order to pursue it? Great leaders and successful personalities have always been driven by the love and passion they have had for their respected fields of interest.** Noticing the speeches of such personalities, it is most certain that there would be a good mention of factors that have helped them, such as time management, hard work, faith, belief etc., that helps you to grow to the next level. Yet, *motivation* is a term nobody has spoken about. *It is very necessary to be driven from the inside than from an outside force. It is only when you are pursuing something that you are not very much interested in, that you will seek motivation and fall in love with pasting such quotes in every blank wall of your room.*

Of course, there is a flip side to any coin. In our education system, particularly in India, there is a great deal of importance given to academic results. This brings an exception. One has to mandatorily pass the sphere of academics whether or not he/she has any interest in it.



A student studying for a particular degree/ course with genuine interest may also find himself/herself losing interest in that course if the beauty of the subject has been degraded by overloading the student with work (assignments, exams etc.) beyond a certain limit. **There would be no time for thinking and creativity, ultimately killed during the rat race.**

Yet so, one should strive to pursue what one's heart feels, regardless of what society, family and peers would think. Regardless of where the world seems to be heading. Regardless of how many digit figures you would be earning in future.

To dream is one thing, and to protect that dream is another.

That is the only true way one can feel content in life.



**R. ARVIND ALAGAPPAN
3RD YEAR**

HIGHER STUDIES VS PLACEMENTS: THE DILEMMA OF A STUDENT

As a student nearing the end of my undergraduate studies, I found myself at a crossroads that many of my peers could relate to. The decision between pursuing higher studies or opting for placements seemed daunting, and I found myself swinging between the two options. It is a stage where students are highly influenced by the opinions of those around them, often making the decision-making process even more challenging.

Various factors contribute to this dilemma. The allure of placements offers immediate financial stability and professional growth, making it a tempting choice for many. On the other hand, higher studies open doors to advanced knowledge, specialized expertise, and increased career prospects. It is a choice between immediate gratification and long-term investment.



Within the realm of higher studies, there are distinct paths to consider. The field of technology offers the opportunity to pursue an M.Tech from prestigious Indian Institutes of Technology (IITs) or a Master of Science (MS) degree from renowned universities abroad. Alternatively, the management path leads to coveted institutions like the Indian Institutes of Management (IIMs). Each option presents its own advantages and challenges.

The decision-making process involves careful consideration and elimination. Students often evaluate their personal aspirations, career goals, and financial situations. They analyse their strengths, weaknesses, and interests, attempting to align them with the opportunities each path presents. Elimination helps narrow down the possibilities and provides clarity.

If there are many opportunities, instead of deciding the best choice directly, use the method of elimination to eliminate the options which you don't think is suitable for you and narrow down the options. You would conclude at the best decision possible. This may be time-consuming and pressure you, but the quality of the end result will be good, and you would have much more clarity on your decision. I am telling this from my personal experience.

The influence of peers, family, and society plays a significant role in this decision-making phase. Conversations with seniors, interactions with professionals, and opinions from mentors can sway students towards a particular choice. It's important, however, to remember that ultimately, the decision should be based on personal aspirations and interests.

In conclusion, the higher studies versus placements dilemma are a crucial phase for students like me. It requires careful thought, introspection, and the ability to filter through the noise of external influences. Whether one chooses placements or higher studies, it is vital to consider individual aspirations and long-term goals. By employing the method of elimination, one can navigate through the numerous options and arrive at the best decision possible. It's a decision that can shape one's future and pave the way for success.



B. GOKULAKRISHNAN
3RD YEAR

OPEN SOURCE WEB DEVELOPMENT 101: ESSENTIAL RESOURCES FOR BEGINNER

If the world of creating and managing websites and web applications intrigues you, then you're likely familiar with the concept of web development. Web development surrounds a diverse range of technologies and tools used to construct and maintain websites and web applications. Notably, some of these tools fall under the category of open source, granting users the freedom to access, modify, and distribute their source code without restrictions (under a license). This article delves into the fundamentals of web development and open source, their interconnectedness, and offers guidance on how you can actively participate in both realms.

Web development is a dynamic and exciting field that offers many opportunities for learning, creativity, and collaboration.

These are some resources that can help you get started with web development:

- **Blogs:** Blogs are websites that provide articles and tutorials on various web development topics and technologies. Some popular blogs for web development are CSS-Tricks(<https://css-tricks.com>), freeCodeCamp(<https://www.freecodecamp.org/news/tag/blog>), Smashing Magazine(<https://www.smashingmagazine.com>), DigitalOcean Community(<https://www.digitalocean.com/community/tutorials>), etc.
- **Podcasts:** Podcasts are audio or video shows that discuss various web development topics and trends. Some popular podcasts for web development are Syntax(<https://syntax.fm>), The Changelog(<https://changelog.com/podcast>), CodeNewbie(<https://www.codenewbie.org/podcast>), etc.
- **Newsletters:** Newsletters are emails that provide curated links and resources on various web development topics and technologies. Some popular newsletters for web development are JavaScript Weekly(<https://javascriptweekly.com>), Frontend Focus(<https://frontendfoc.us>), Web Development Reading List(<https://wdrl.info>), etc.
- **Courses:** Courses are online or offline programs that provide structured and comprehensive learning on various web development topics and technologies. Some popular courses for web development are The Odin Project(<https://www.theodinproject.com>), The Web Developer Bootcamp, CS50's Web Programming with Python and JavaScript(<https://cs50.harvard.edu/web/2020>), etc.
- **YouTube Channels:** There are several YT channels that provide amazing tutorials on various web development concepts and frameworks, here are some of the channels from which start learning web development WebDevSimplified(<https://www.youtube.com/@WebDevSimplified>), developedbyed(<https://www.youtube.com/@developedbyed>), Fireship(<https://www.youtube.com/@Fireship>), freeCodeCamp.org(<https://www.youtube.com/@freecodecamp>), The Net Ninja(<https://www.youtube.com/@NetNinja>)

One of the best ways to learn web development and improve your skills is to contribute to open source projects. Open source projects are software projects that are freely available to the public, allowing anyone to view, modify, and distribute the code. By contributing to open source projects, you can:

- Gain practical experience with real-world web development challenges
- Learn from other developers and mentors
- Share your knowledge and skills with the community
- Build your portfolio and reputation
- Have fun and make an impact

Open source is a philosophy that promotes collaboration and sharing of knowledge and resources. Open source software is software that has its source code available for anyone to inspect, modify, and improve. Open source software can have many benefits for web development, such as:

- As opposed to purchasing proprietary software or creating everything from scratch, developers can use existing open source software to decrease costs and boost security.
- It encourages innovation and creativity because developers can contribute their own concepts and solutions while also learning from other open source initiatives.
- As open source software is frequently reviewed and tested by numerous users and developers who can report and solve problems and flaws, it can enhance quality and dependability.
- Because open source software can operate with a variety of platforms and standards, it can increase compatibility and interoperability.

Some examples of open source tools and frameworks that are widely used for web development are:

- **NodeJS:** a JavaScript runtime, was developed on Google Chrome's V8 JavaScript engine. This runtime environment is open source cross-platform and used for the development of server-side web applications. It utilizes an event-driven, non-blocking I/O model making it much faster and more efficient. The original author of Node.JS is Ryan Dahl, and it was initially released on 27, May 2009.
- **WordPress:** WordPress is a popular content management system (CMS) that allows users to create and manage websites and blogs without coding. WordPress is powered by PHP and MySQL, and has thousands of plugins and themes that extend its functionality and appearance.
- **Bootstrap:** Bootstrap is a framework that helps developers create responsive and mobile-friendly websites using HTML, CSS, and JavaScript. Bootstrap provides a set of predefined components and layouts that make web design easier and faster.

- **React:** React is a library that helps developers create user interfaces for web applications using JavaScript. React allows developers to create reusable components that can handle data changes and user interactions efficiently.
- **Django:** Django is a framework that helps developers create web applications using Python. Django follows the model-view-template (MVT) pattern, which separates the logic, presentation, and data of a web application. Django also provides many features that simplify web development, such as authentication, database management, caching, testing, and more.
- **XAMPP:** XAMPP is a cross-platform and open source tool, which makes it an ideal choice of web developers. It is the acronym of X-Cross Platform, Apache, PHP, MariaDB, and Perl.
- **MongoDB:** an open-source document database built on a horizontal scale-out architecture that uses a flexible schema for storing data.

Open source is not only beneficial for web development, but also for the society at large. Open source fosters collaborative innovation, which means that people from different backgrounds, skills, and interests can work together to create something new and valuable. Collaborative innovation can solve complex problems, generate new ideas, and improve existing solutions. Collaborative innovation can also empower individuals and communities, as they can have more control over their own technology and data. If you are interested in contributing to open source projects related to web development, you may wonder how to get started. Here are some steps that you can follow:

1. Find an open source project that matches your interests and skills. You can browse various websites that list open source projects, such as GitHub, SourceForge, CodeTriage, or Open Source Friday.
2. Learn about the project's goals, guidelines, code of conduct, license, and community. You can read the project's documentation, website, blog posts, forums, chat rooms, mailing lists, or social media accounts.
3. Choose a task that you want to work on. You can look for issues or bugs that need to be fixed, features or enhancements that need to be added, documentation or tests that need to be written or updated, or translations or designs that need to be improved.
4. Fork the project's repository to your own account. A fork is a copy of the project's code that you can modify without affecting the original project.
5. Clone the forked repository to your local machine. A clone is a copy of the forked repository that you can edit on your computer.
6. Create a branch for your changes. A branch is a separate version of the code that you can work on without affecting the main branch.
7. Make your changes in the branch. You can use your preferred editor or IDE to edit the code files. You can also use various tools to test your changes locally before committing them.
8. Commit your changes to the branch. A commit is a snapshot of your changes that you can save to the repository.

9. Push your changes to the forked repository. A push is an action that uploads your changes from your local machine to your online account.

10. Create a pull request to the original project. A pull request is a request that asks the project's maintainers to review your changes and merge them into the main branch if they are accepted.

You can learn more about contributing to open source projects here:

-<https://opensource.guide/how-to-contribute>

-<https://www.freecodecamp.org/news/how-to-contribute-to-open-source-projects-beginners-guide>

-<https://hackernoon.com/how-to-find-open-source-projects-for-beginners>

Some examples of simple and beginner-friendly web development projects that you can start contributing to are:

- **FreeCodeCamp:** FreeCodeCamp is an online platform that teaches web development through interactive lessons and projects. You can contribute by fixing bugs, adding features, improving documentation, or creating new challenges.
Github Link: <https://github.com/freeCodeCamp>
- **Gatsby:** Gatsby is a framework that helps developers create fast and modern websites using React and GraphQL. You can contribute by fixing bugs, adding features, improving documentation, or creating plugins or themes.
Github Link: <https://github.com/gatsbyjs/gatsby>
- **Coronasafe Care:** Care is a Digital Public Good enabling TeleICU and Decentralised Administration of Healthcare Capacity across States. You can start contributing by picking up issues with “good-first-issue” labels and start working on them. If you know react and typescript this is a good project to start contributing to.
Github Link: https://github.com/coronasafe/care_fe
- **Next.js:** Next.js is a framework that helps developers create server-side rendered and static web applications using React. You can contribute by fixing bugs, adding features, improving documentation, or creating examples or tutorials.
Github Link: <https://github.com/vercel/next.js>

If you want to participate in open source competitions and events, you can check out these opportunities:

- **Hacktoberfest:** Hacktoberfest is a month-long celebration of open source that encourages developers to contribute to open source projects in October. You can earn a limited edition T-shirt or plant a tree by making four valid pull requests to any public repository on GitHub. You can learn more here: <https://hacktoberfest.com>
- **Google Summer of Code:** Google Summer of Code is a program that offers students the opportunity to work on open source projects with experienced mentors during the summer. You can apply for a project that interests you and receive a stipend for your work. You can learn more here: <https://summerofcode.withgoogle.com>

- **Outreachy:** Outreachy is a program that provides internships for people from groups that are underrepresented in tech to work on open source projects. You can apply for a project that interests you and receive a stipend and mentorship for your work. You can learn more here: <https://www.outreachy.org>

In conclusion, open source has become the backbone of modern web development, offering a collaborative and inclusive environment that fosters innovation, flexibility, and cost-effectiveness. Open source projects have revolutionized the way websites and applications are developed through cooperation and information sharing, enabling developers to build reliable, secure, and feature-rich solutions. The strength of open source will surely play a crucial role in determining the future of the web development business, propelling developments and empowering professionals all over the world. Anyone can contribute to open source projects and learn new skills, make new friends, and have fun along the way.



GOKULRAM A
3RD YEAR

HOW MUSIC HAS AN IMPACT ON MY LIFE

“Where words fail, Music starts”. It means that anyone can give advice or comfort with words, but these words can sometimes fail to express one’s intention, while music on other hand, can help soothe in such circumstances.



Music is not just some sort of sound which people hear and enjoy; it is something beyond that. I have also experienced it. When I do some work or while travelling to college, music would accompany me till the end. It sometimes lightens up my mode in the start of the day or sometimes motivates me. Not just me, everyone who loves music would agree to it.



In my life, music has taken my journey into a different path. The time when I came to know that I can sing and have it as my hobby, it changed my life in several ways. I tried to improve myself from correcting the pitch to singing along with the beat and not going faster.

Now, I have improved a lot and I teach some of my friends who would love to learn music. When I sing, people would enjoy listening to it and also appreciate me.



That has actually increased my self-confidence. This change happened when I entered my college life. Here I got the opportunity to showcase my talent. Once I started and people appreciated it, I continued to sing and compete in many singing competitions which happened in our college.

The SSN Music Club, the music club of our college, would conduct Got a Minute (GAM), in which people who like to sing or play any instrument, can send their videos and that would be posted in their official Instagram page. Through these platforms, we can showcase our singing talent to the college.



Research suggests that music can influence us a lot. It can impact illness, depression, productivity and our perception of the world. There are different genres in music. Each has a different impact on ourself. For example, Classical music soothes your soul while Pop or Jazz would make you dance. Sometimes, while I study, to improve my focus and brain power I use music. There are songs that have no lyrics, just a soothing music playing, this would eliminate the noise outside and helps from getting distracted. With this, my productivity has also increased. Studying engineering is not that easy. We have to take different directions at each point of our journey, this really brings stress to us, students. So, in this situation music helped me a lot. After exams or project presentations, I would take a walk with my favourite playlist and relax. These kind of small things or changes in my life has actually made me a person who can handle something difficult and go through it. There are lot more outside the campus which is even more difficult than this, but even in that situations I hope music helps and it will.

"The impact music has created in my life is something great and I am always thankful for it. To anyone who needs to cope with their life, I would suggest them to listen to their favorite music and take a walk. By bringing these small changes, we can live our lives with ease. "



**K. HARSHSHINI
3RD YEAR**

SOLAR SYSTEM APP TRIUMPHS AT APPLE'S WWDC23

I am Karthik Raja from IT A, 2024 Batch. Every year, Apple organizes its highly anticipated **Worldwide Developers Conference (WWDC)**, and in the lead-up to the event, they host a captivating competition known as the **Swift Student Challenge**. In April of this year, the challenge was unveiled, inviting students to unleash their creativity by crafting an interactive scene within a Swift Playground, all to be experienced **within a concise three-minute timeframe**.

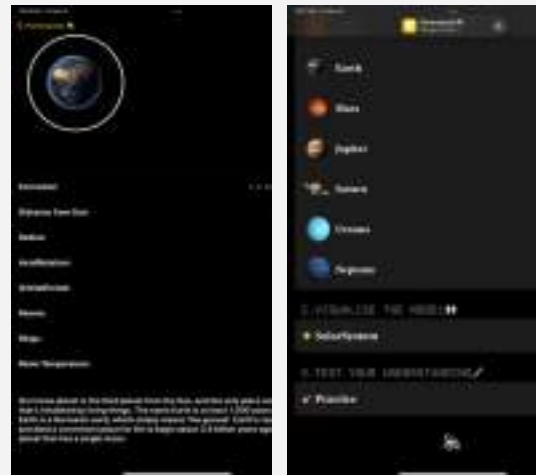


I'm delighted to share the exciting news that my submission for the WWDC23 Swift Student Challenge has been accepted, alongside an exceptional group of talented students from around the globe.

My submission for Apple's WWDC 23 Swift Student Challenge is **an app focused on the planets**, comprising three engaging sections.



The first section showcases **individual pages dedicated to each planet**. Within these pages, users can navigate to access detailed information, including text, images, and customized image cards specific to each planet. Users can immerse themselves in fascinating facts and captivating imagery about our solar system's celestial bodies.



In the second section, users are presented with **an augmented reality (AR) view of a virtual solar system**, allowing them to immerse themselves in a simulated planetary environment.



Finally, the app concludes with **a quiz session** based on the preceding information, enabling users to assess their knowledge and engage in self-checking.



The complete project is built using **SwiftUI** and **Augmented Reality is been incorporated using ARKit and RealityKit frameworks**.

I have been given **access to one-year free membership of Apple's Developer program**, along with some goodies. This extraordinary privilege offers me access to the exclusive beta releases of their software. I would like to thank **Sabesh Bharathi, 2023 Batch - IT** for helping me throughout my tough times and to mention he has also won this year.

Reality Composer and **Reality Converter** were used for building and editing 3D models. Additionally, sounds were been added to match the theme using AVFoundation.

Writer's note:

Karthik's app has also been recognized in the news article published on CNBCTV18. The article highlights his participation in the WWDC23 Swift Student Challenge and mentions his app focused on planets in the Solar System. Here's what the article conveyed:

Similar to Jain, Karthikraja is also a 20-year-old student, based in Chennai. He started coding on Python in college when a previous Swift Challenge winner introduced him to iOS app development. He started with SwiftUI tutorials and learnt the basics of coding to get started on his project. His project focuses on Planets in the Solar System.

The app involves three key aspects – learning about planets, visualising planets (through ARKit) and testing users on their learnings. He extensively used ARKit to develop 3D models on the app. His aim was to create an interactive app that not only gives out information but also takes feedback. He is really fond of developing kids learning apps. He is also working on developing apps focusing on bedtime stories and mathematics learning apps. For the upcoming WWDC, he is looking forward to the announcements in the AR-VR space.

“I can't contain my excitement for the potential release of Apple's new AR/VR headset. My interest in Augmented Reality has been steadily growing, and I hope to soon be developing apps that will seamlessly integrate with the AR/VR headset,” he adds.

News Article Link:

<https://www.cnbctv18.com/technology/apple-wwdc23-swift-student-challenge-winners-code-16820701.htm>

Karthik's profile on the WWDC Community winner's page:

<https://www.wwdc23.com/s/F74D553B-9530-4A75-AB29-84A8D00DFE81/2023>

YouTube video link for app review:

https://www.youtube.com/watch?v=JC_JmjQsOQo



KARTHIK RAJA T.P.
3RD YEAR

A JOURNEY OF PASSION & CREATIVITY

From the captivating visuals on Instagram, the informative content on YouTube, and the immersive narratives of movies, videos have mesmerized us all. However, my fascination extended beyond watching them; I wanted to be the one creating them.

My initial foray into video editing started during my school days, when I dabbled with basic mobile apps like **Alight Motion**. It was all in good fun, but it sparked a curiosity within me.



In my first year of college, I decided to explore professional video editing softwares. This led me to **Adobe Premiere Pro**, a tool that would become my creative playground. Eager to unravel its intricacies, I delved into the software's interface, spending hours on self-learning and experimentation.

I soon realized that self-learning had its limitations. I turned to the vast expanse of YouTube tutorials, absorbing every ounce of knowledge they offered. These tutorials became my mentors, guiding me through the nuances of video editing. I watched countless videos, analyzing their techniques, effects, transitions, and cut patterns, striving to recreate them in my own projects. This relentless pursuit of improvement propelled me forward.

As my skills grew, I ventured into editing videos for our college clubs. However, I hungered for more significant challenges. I had the chance to meet **Aashik Joel**, an alumnus of our IT department and a professional video editor. Aashik recognized my passion and helped me secure an internship at the studio where he worked. This opportunity exposed me to projects such as "**Discover Tamilnadu**" and "**Big Short Films**".

During my internship, I encountered the arduous task of working with extensive amounts of footage. I vividly remember the **40-second video** that consumed **my first five days as an intern**. My senior editor challenged me to make numerous changes, pushing me to enhance my storytelling abilities. Armed with over **200 GB of raw files** in that particular project.

Through my experiences, I realized that video editing is more than just technical expertise. Its core lies in the **ability to weave a compelling story**, one that captivates the audience and conveys the intended message. No matter how mesmerizing the effects or flawless the transitions, if the story lacks clarity, everything else falls flat.



As my passion grew, I ventured beyond video editing, embracing the world of graphic design. I honed my skills in software like **Adobe Illustrator** and **Figma**.



With each freelancing project and internship experience, my love for video editing and design has only deepened. The journey has been rife with challenges, yet it has filled me with a sense of purpose and fulfillment.

My journey as a video editing enthusiast has taught me that passion knows no boundaries. It has shown me that combining technical skills with creativity can forge a path to personal and professional growth.

Instincts aftermovie - https://bit.ly/Instincts_aftermovie



Watch video

Proshow Music band reveal - https://bit.ly/Proshow_promo



Watch video

Pattamadai Paai documentary teaser - https://bit.ly/PattamadaiPaai_teaser



Watch video

Chettinad instagram reel - <https://bit.ly/ChettinadReel>



Watch video

**NAVEEN RAJ A
3RD YEAR**



UNITY IN DIVERSITY: BRIDGING THE GAP

Gauri Pujan, also known as **Gauri Ganpati** or **Gauri Visarjan**, is a vibrant and deeply significant Hindu festival that celebrates the divine feminine energy, represented by Goddess Gauri or Parvati. This auspicious occasion is observed with immense fervor and devotion in various parts of India, particularly in Maharashtra and Karnataka. Gauri Pujan, an ancient celebration deeply rooted in tradition, resonates with the spirit of today's generation in unique and meaningful ways.



As a member of this vibrant era, I find myself captivated by the essence of Gauri Pujan and its ability to bridge the gap between ancient wisdom and the modern mindset. Gauri Pujan holds a powerful message of unity, which resonates deeply with today's generation as we strive for a more inclusive society. Regardless of our diverse backgrounds and beliefs, this celebration unites us in a shared expression of devotion.

It teaches us to celebrate our differences, promoting a sense of acceptance, empathy, and harmony, thereby forging deeper connections within our communities. Gauri Pujan reminds us that by blending the wisdom of the past with the spirit of today, we can create a future filled with reverence, unity, and joy.



RENUKA
M.TECH - 1ST YEAR

3D PASSWORDS

Passwords are an integral part of the digitalized society we live in today to the extent they are now considered to be an **“internet etiquette”**. The notion of a good password is generally very confusing. They say a good password is one that is hard-to-guess, but easy-to-remember. This whole concept makes it hard for us to come up with a good password to protect our accounts on the internet. Unfortunately, due to the constantly developing technology it is now imminent to have highly complex passwords as it has become a child’s play for third parties or hackers to gain access into our systems.

Generally, passwords must be memorable to be useful. Our passwords are only as strong as our ability to remember them. It has been found that when remembering sequences, humans are temporally limited and can only remember on average seven characters at once. However, 7 characters from our keyboard don’t get us anywhere close to an acceptable level of security. The idea of randomly generated passwords being sufficiently entropic and uncrackable no longer holds any value as we humans cannot remember them. In general, there is an inverse relationship between password strength and memorability. There are other authentication schemes such as biometric scanning, tokens or cards (such as an ATM) etc. However, they also have their drawbacks as many people hate the fact that they carry their cards around and few others refuse to undergo strong IR exposure to their retinas (Biometric scanning). This led experts to have been in search of a better and safer password scheme for years. Therefore the idea of **3D passwords** has been proposed.

“A 3D Password is a memorized secret based on 3D, visual cued recall that provides easier to remember “something you know” based authentication, encouraging user compliance, and significantly more security when compared to passwords ”

The concept of 3D passwords is based on the fact that human memory cognitively operates by encoding information in previously recognizable ways. Typically by itemizing sequences into familiar pieces in a process known as **“chunking”**. In addition, humans are highly capable of recognizing information which is redundantly encoded. Various research sources support the notion that human memory is sufficiently “chunked” or “redundantly encoded” when information is introduced visually rather than alphanumerically. While many long-term memories have previously been thought to include only the gist of the object, it is now known that relatively detailed visual representations of objects in scenes can be stored over extended periods of time.

This visual dominance is specifically relevant to passwords, and the addition of a third dimension to any graphic environment only multiplies its entropy and possible password space, further increasing security. The 3D environment essentially creates a virtual memory palace for users.

The 3D password is **highly secure** as it is **an authentication scheme** that is a culmination of –

3D PASSWORD = RECOGNITION + RECALL + TOKENS + BIOMETRICS

The 3D password presents a virtual environment containing various virtual objects. The environment reflects the administration needs and the security requirements. It is designed to simulate real-life scenarios as best as possible. The user walks through the 3D environment and interacts with the objects. The 3D password is constructed using the combination of the sequence of user interactions that occur in the virtual environment.



User interacting with various objects in the virtual environment

The 3D password has been found to be highly secure against most of the cyber attacks. It is widely being used in applications such as – Critical servers , nuclear reactors , military facilities , air planes and missile guiding etc.

In summary, a memory palace made virtual for the purpose of authentication capitalizing on our natural talents of memory would definitely revolutionize the world of security. It would especially play an important role in banking services sectors such as the ATM and other business organizations to safeguard their data.

S.AMRITHA
M.TECH - 2ND YEAR





POETRY

WILL

The will to make it through
Is buried inside you
Deep within the folds of the heart;
A tiny flame waiting for you.

Fear clouds judgement
And makes it hard to see
But the will to make it through
Is always there for you.

You must change again
And again and again but
Don't worry, the will to make it through
Will never leave you.

Try once more, breathe once more
Confusing times will end;
Believe in yourself
And will yourself to make it through.

This poem is about self-motivation. Even when we feel like we can't go on, the will to make it through is there within us. Have courage and don't be afraid to try. When you feel like giving up, don't forget why you started in the first place.

DREAMS

Clear goes my mind
 When I look at a heavy sky,
 For the grey looks so kind
 And pleasing to the eye.
 Then the water falls
 Holding in its centres
 A thousand dreamers' calls
 To which I surrender.
 And how lovely it feels
 To bask in dreams,
 To see the body as it heals
 From the world's cruel extremes.
 Can you feel a smile tug at your lips?
 As rain fills your mind anew
 As you trail the falling drop that slips
 Down the window onto you.



THE JESSWINI
1st year

This poem is inspired by rain. Rain holds a special place in my life and I've always found it calming. Rain nourishes and rejuvenates us. A scenery with plants dressed in raindrops and glittering under the shy sunlight reminds one of a fantasy; a dream come to life.

Oil Lamp

A temple's bronze cup
holds some oil

infused and smelling of
jasmine

oil and fire
held together in a metal case.

In bhajans sang to the cup,

holy oil brought light to the inexplicable,
the packed prayer room moved as one like a
busy train,

a large white thread
soaked yellow burns

to light the night in orange.

the thread is interlaced like rails
till the lines are indistinguishable,
ash lies in its wake

and the oil lamp
falls short of day.

As I sat staring at the wick,
 the final fire pieces had careened off,
 some holy oil remained
 in the cup
 that fell on the stone floor
 splattering light everywhere.

Wind carried the acrid wick,
 as I hushed
 the embers
 shrouded in sweet jasmine,

The prayer room was quiet.



**VAISHNAVI
 ANAND**
 3rd year

Written on the Odisha train disaster in India. Though I was nowhere close to the crash and sat in Chennai—the start point of the Coromandel Express, the events and subsequent reports trying to explain the crash, made me want to write this. In India, I believe the oil lamp is significant in prayer and is often symbolic of showing the path or throwing light on the inexplicable. This I drew from and also compared the lamp with a train set on a background of remorse that leads us to prayer.

News story URL: <https://www.bbc.com/news/world-asia-india-65793257>

Follow Vaishnavi's Instagram page for her creations:

<https://www.instagram.com/thevariegatedpen/>



PHOTOGRAPHY

SIRUMALAI FOREST



This was a very rejuvenating and refreshing experience. I had to trek for about 1 hour to reach this place, and all the bruises and scars I got on the way were worth what I saw there.

It was nature in its purest form, filled with greenery, sounds of water and birds, away from all the hassle and chaos of city life.

*Madhumitha
Chandrasekaran*
2nd Year





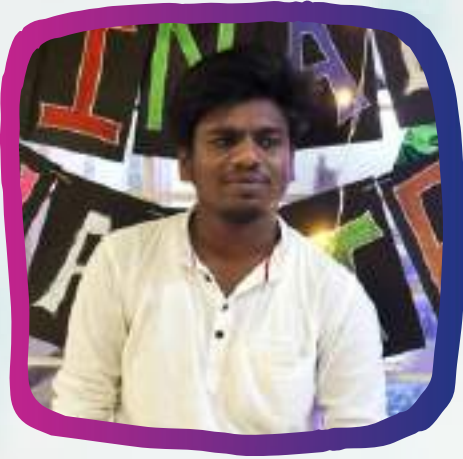
Sangeetha
2nd Year





R. Arvind
Alagappan
3rd Year

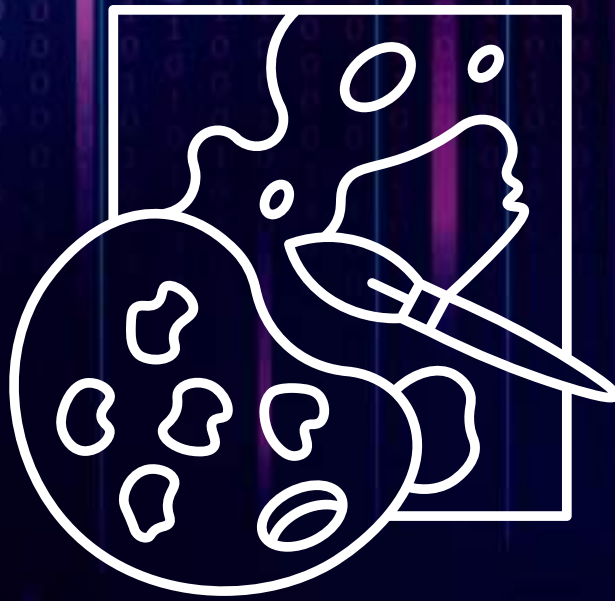




Naveen Raj A

3rd Year





ARTWORKS



“DO WHAT YOU LOVE”



SUGUMAR
1st year



TEJSHREE
2nd year



I discovered that I was good at art when I was in the fourth grade. I learned how to draw all by myself. My uncle and aunt were really nice and gave me lots of art supplies as presents. Every time I draw something, I try to add new things or make it different from what I usually do. But sometimes, even after I finish a drawing and make it look really good, I have a bad habit of destroying it.



N. PRITHIK
2nd year



For the first time in my life, I drew this drawing completely using my left hand.

#black_pen #bee

I tried an encaustic type of painting. It was completely new for me, but somehow, I managed and brought a satisfying output.

#lemon #painting





I tried something new by using colour pencils, drawing, and painting all at once in one picture.

**#spider-man #sketching
#painting #colour_pencil**

I drew this drawing using different shades of pencil and blending techniques.

**#mother_teresa
#pencil_shading**



I used the Nail Art Dotting Marbleizing tool for the first time in this drawing, to give a realistic effect.

#cat #pencil_shading

Follow **_.colour_pencil._** on Instagram to witness his upcoming artworks!



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