

# SMART SPRINKLERS

Quarterly Edition | Vol 4 | Issue 2 | December 2024

The Official Newsletter  
of Computing Technologies



# NEWSLETTER TEAM

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# ABOUT OUR TEAM

### Dr.M.Suchithra

*Coordinated with all aspects of Successful Newsletter Release*

### Dr. K. Kishore Anthuvan

*Designed the Newsletter with Creative art*

### Dr. M. Rajalakshmi

*Created the content for the section "Career News"*

### Dr. B. Kanisha

*Proof Reader for the section "Faculty Corner, Research Verticals and Event showcase"*

### Dr. Divya Mohan

*Systematized the complete flow of highlights content*

### Dr. K. Priyadharshini

*Articulated the content for the MoU, Collaboration, and projects*

### Dr. Kandan

*Articulated the content for the section "Domain Verticals"*

### Dr. S. Deepajothi

*Proof Reader for the section "Student Matters"*

### Dr. N.A.S Vinoth

*Presented the content under the section "Student Achievements"*

### Dr. C. Pretty Diana Cyril

*Organized the entire flow of newsletter content*

### Dr. M. Ranjani

*Prepared the content for the section "Event showcase and Association Activities"*

### Dr. Aswathy.K.Cherien

*Outlined the content for the section "Faculty Upskilling"*

### Dr. G. Ramya

*Prepared the content for Outreach activities and Alumni Connect*

### Dr.V. Arun

*Designed the E-mail News content*

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# EDITORIAL MESSAGE



## DEEPFAKE – The Breakthrough of Small Language Models

***"The greatest leader is not necessarily the one who does the greatest things. He is the one that gets the people to do the greatest things." – Proverb***



Dear Accompaniments!

Happy that we are meeting again in the first Quarter of 2025! Let us see the nuances of the foundational models what the countries are interested in with the technological developments in to Transformers!! The term "deepfakes" refers to AI-generated media that can make people—often celebrities or political figures—appear to say or do things they never did. Examples include actor Alden Ehrenreich's face being replaced with Harrison Ford's in Solo: A Star Wars Story or a deepfake of Mark Zuckerberg bragging about his power to rule the world.

Deepfakes are synthetic media created using deep learning algorithms to swap faces, alter voices, or mimic real people in audio and video content. By feeding the AI large datasets of real video or audio of a target, these algorithms can produce highly realistic, fake representations that can fool even the most trained eye or ear. Advanced image and video editing applications, widely available to the public, enable this manipulation, making it difficult to detect visually or through current image analysis and media forensics tools. As the technology continues to improve, detecting a deepfake becomes increasingly difficult.

**Face Swapping:** This technique involves replacing the face of an individual in an image or video with that of another person. Simple apps available online allow users to perform this manipulation with minimal effort.

**Re-enactment:** Re-enactment involves mapping the facial movements and expressions of a target onto a user, allowing for the seamless imitation of the target's emotions and reactions.

**Lip Syncing:** This method synchronizes mouth movements with a target video, potentially combined with audio generation to make it appear as though an individual is saying something they never actually said.

**Motion Transfer:** Motion transfer enables the transfer of body movements from a source individual in a video to another person in an authentic recording, creating a realistic simulation of movement.

**Image Generation:** Users can create entirely new images, including faces, objects, or landscapes, using advanced algorithms to generate content that didn't previously exist.

**Audio Generation:** Synthesized voices can be produced from small audio samples of authentic voices, allowing users to create convincing voiceovers or dialogues.

**Text Generation:** Artificial intelligence can generate text, from short social media comments to long-form articles, mimicking human writing styles and perspectives.

Commercially Available Tools are FaceApp, Zao, Reface, SpeakPic, DeepFaceLab, FaceSwap

While the Department of Computing Technologies are racing to develop detection methods, the forensic tools currently available are neither robust nor scalable enough to address all facets of media authentication. The department also initiate students' startups to work upon deepfake detection, and to develop a comprehensive, automated forensic platform for analyzing. This has prompted the development of new methods to combat this emerging threat. The ongoing battle against deepfakes and fraud detection highlights the importance of transparency, innovation, and collaboration in maintaining the authenticity of digital content in an increasingly complex technological landscape. The department strives hard to find solutions for the unsolved problems with the support of Industry Experts.

Wait for the End! There is a zero trust Foundational Model, which will be ready from Computing Technologies!!

***"Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning." – Albert Einstein***

Stay Tuned! You have Exciting innovative pages to read!!

*Dr.B. Amutha*  
SoC-Newsletter-Head  
Department of Computing Technologies

## INSIDE THIS ISSUE

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# MESSAGE FROM HEAD OF THE DEPARTMENT



Dear Readers,

Seasonal Greetings!

I am delighted to share the remarkable achievements of our students and faculty, whose dedication and innovation continue to bring great recognition to our department.

Our students have consistently excelled in academics, research, and competitions, setting new benchmarks across multiple fronts. We also applaud our students for their commendable contributions to interdisciplinary studies, reinforcing our department's commitment to applied learning and innovation.

Our faculty members, while excelling in their teaching responsibilities, have made significant strides in research and scholarship. We are proud to acknowledge our faculty members for their recent Award/Recognition in Research Area for a groundbreaking achievement that highlights their dedication to advancing knowledge and supporting our academic community.

These accomplishments serve as an inspiration to all of us, reflecting the spirit of excellence that defines our department. Let us continue to uplift and motivate one another as we strive for even greater milestones together.

Wishing you all continued success!

**Dr. G. Niranjana**

**Professor and Head  
Department of Computing Technologies**

## ABOUT THE DEPARTMENT

The Department of Computing Technologies (CTECH) fosters the future of the computing world. The department's mission is to advance, evolve, and enhance Computer Science and Engineering fundamentals to build the intellectual capital of society. The CTECH Department endeavours to be an important regional, national, and international resource centre for the development of Computing and its applications. The department is excelling by keeping up the pace with recent trends and evidence of exponential and exhilarating growth. CTECH boasts a vibrant student fraternity including undergraduates, postgraduate students, research scholars, and a stellar faculty of professors.

### VISION



To become a world class department in imparting high-quality knowledge and in providing students a unique learning and research experience in Computer Science and Engineering.

### MISSION



- To impart knowledge in cutting edge technologies on par with industrial standards.
- To collaborate with renowned academic institutions in research and development.
- To instill societal and ethical responsibilities in all professional activities.



# Doctorate Dynamo: Fostering Academic Excellence

The years of hard work and dedication have finally resulted in the most significant fruit you have ever wanted. Many congratulations on your Ph.D. degree. Family of Computing Technologies wish that all the goals that you have set become more attainable, especially now that the biggest dream of your life has already come true. Best wishes for your achievements.

Dr. M. Ranjani

Research Supervisor: Dr.P.Supraja

Title: Deep Learning Based Optimization Algorithms For Feature Classification Of Depression And Anxiety

## New on Board



**Dr. V. Rajathi**  
Assistant Professor



**Dr. C. Harriet Linda**  
Assistant Professor



**Dr. R. Pavithra Guru**  
Assistant Professor



**Dr. S. Sivasakthi Selvan**  
Assistant Professor



**Dr. S. Pavithra**  
Assistant Professor



**Dr. S. Samsudeen**  
Assistant Professor



**Dr. S. Vinu**  
Assistant Professor

# Welcome to CTECH Department



# HIGHLIGHTS

## CARRER ELEVATION

Dr. E. Poovammal, Professor, Department of Computing Technologies has taken charge as Director (Hostels), SRMIST-KTR.



Dr. Poovammal E

### Professors

Dr. S. Kavitha  
Dr. T. Manoranjitham  
Dr. K. Vijaya  
Dr. G. Usha  
Dr. P. Madhavan  
Dr. M. Uma Devi  
Dr. C. N. Subalalitha  
Dr. B. Baranidharan

### Associate Professors

Dr. K. R. Jansi	Dr. N. Arunachalam
Dr. S. Saravanan	Dr. R. Thilagavathy
Dr. R. Vidhya	Dr. K. Anitha
Dr. C. Santhanakrishnan	Dr. P. Nancy
Dr. K. Deeba	Dr. R. Anto Arockia Rosaline
Dr. M. Gayathri	Dr. G. Padmapriya
Dr. R. Srinivasan	Dr. D. Vinod
Dr. L. Kavisankar	

# DST-SEED/TIDE PROJECT

### DST-SEED/TIDE Project Grant

Dr. E. Sasikala, Professor (PI) from the Department of DSBS, along with Dr. Girirajan, department of Computing Technologies as Co-Principal Investigator (Co-PI), has been awarded a prestigious DST-SEED/TIDE project, 2024.

Title: "Multilingual Stuttering Speech Detection and Transcription Using Advanced Deep Learning Techniques,"

Funding Amount: Rs. 21,48,372/-

Tenure: 2 Years



Dr. Girirajan S

# Congratulations

# HIGHLIGHTS

## Elite Partnerships: Samsung Signs 4 Lakh Consultancy Projects with Our Experts

Our faculty members have secured two prestigious consultancy projects with Samsung, each valued at Rs. 2 lakh, reflecting our institution's commitment to cutting-edge research and innovation:

1. Dynamic PQC Key Update Protocol for Blockchain Wallets  
Principal Investigator (PI): Dr. M. Gayathri, Associate Professor  
Co-Principal Investigator (Co-PI): Dr. G. K. Sandhia, Associate Professor
2. Document Layout Analysis Using Lightweight Graph Models  
Principal Investigator (PI): Dr. N. Arunachalam, Associate Professor  
Co-Principal Investigator (Co-PI): Dr. V. Arulalan, Assistant Professor



Dr. M. Gayathri  
Associate Professor



Dr. G. K. Sandhia  
Associate Professor



Dr. N. Arunachalam  
Associate Professor



Dr. V. Arulalan  
Assistant Professor

## Global Recognition

### Dr. Manoj Kumar Rana Mentors GSoC 2024 Project

Dr. Manoj Kumar Rana, Assistant Professor, achieved a global milestone by mentoring in the prestigious Google Summer of Code (GSoC) 2024. His project, "Enhancement of DHCPv6 Support in ns-3," advanced simulations for next-gen networking research. Congratulations to Dr. Rana for this remarkable contribution!

### Dr. Manoj Kumar Rana Honored at HEXplore 2024 for 6G Innovation!

Dr. Manoj Kumar Rana, Assistant Professor, received a Certificate of Appreciation for his exceptional presentation at HEXplore 2024 – 6G Poster Event, held at Nokia, Bangalore, on November 28, 2024. His research on "Predictive Service Modeling with Digital Twin for 6G Networks" was recognized at the prestigious Nokia Innovation Day, alongside contributions from top institutions like IITs, IISc, and SRMIST. This achievement underscores Dr. Rana's pioneering work in 6G technology and strengthens our department's leadership in cutting-edge research.



Dr. Manoj Kumar Rana  
Research Assistant Professor

# HIGHLIGHTS

## Global Collaboration Shines: Dr. Shanmugam's Research Accepted in IPM Journal (Q1)!

We are excited to announce that Dr. Shanmugam, in collaboration with professors from Italy, has had an article accepted in the prestigious Information Processing & Management Journal (Q1), which boasts an impressive Impact Factor of 7.4. Congratulations to Dr. Shanmugam on this remarkable achievement!

Stefano Cirillo, Domenico Desiato, Giuseppe Polese, Giandomenico Solimando, Vijayan Sugumaran, Shanmugam Sundaramurthy (2025) 'Exploring the ability of emerging large language models to detect cyberbullying in social posts through new prompt-based classification approaches', Information Processing & Management, 62(3), 104043 <https://doi.org/10.1016/j.ipm.2024.104043>



Dr. Shanmugam S  
Assistant Professor

## International Collaboration Drives Innovation

We are happy to announce that the innovative multidisciplinary research by Dr. S. Priya and Dr. T. Manoranjitham, in collaboration with esteemed professors from the Mechanical Department of SRM, Istinye University (Istanbul, Turkey), and Asia University (Taichung City, Taiwan), has been published online in the renowned International Journal of Hydrogen Energy. This achievement is made even more impressive by the journal's Impact Factor of 8.1.



Dr. T. Manoranjitham  
Professor



Dr. S. Priya  
Assistant Professor

## Life-Saving Invention Featured in #BeTheBetterGuy Campaign by Brut India and Hyundai

Congratulations to Dr. Vivek Justus AP/CTECH for his invention, aimed at helping emergency workers reach accident victims faster, has been launched by Brut India in partnership with Hyundai Motor India. They have recognized his efforts to make roads safer and featured the technology as part of their #BeTheBetterGuy campaign



Dr. Vivek Justus

# HIGHLIGHTS

## Post Doctorate Fellowship Completed

### **Dr. L. Kavisankar**

University Name: Indian Institute of Information Technology, Allahabad  
Guide Name: Dr. Venkatesan  
Thesis Title: IoT Security Project - Development of Security Audit Framework for Secure IoT Network



Dr. Kavisankar L

### **Dr. S. Pradeep**

University Name: City University of London  
Guide Name: Prof Thomas M Chen and Prof Mithileysh Sathiyarayanan  
Thesis Title: A Behavioural Pattern based Double Verification Model for IoT Cyber Intelligence



Dr.S.Pradeep with Prof Mithileysh Sathi-

### **Dr. Aswathy K Cherian**

University Name: Virginia common wealth University  
Guide Name: Prof Longest Worth  
Thesis Title: Deep Learning techniques for segmentation of Lung geometries airways from radiological images.



Dr.S.Aswathy with Prof Longest Worth

### **Dr. Bakkialakshmi V S**

University Name: Shinawatra University, Pathum Thani, Thailand  
Guide Name: Dr. Pornpimol Chawengsaksoy  
Thesis Title: Planetary Mental Health: Multi-Modal Personality Detection Using MS-LSTM Prediction Framework Using Amigos.



Dr. Bakkialakshmi V S

## Faculty Abroad Visit

Dr.B.Muruganantham, Dr. R. Jeya, Dr. T. Senthil Kumar and Dr. J. Jayapradha completed their Faculty Abroad visit from Multimedia University Cyberjaya, Malaysia



Dr.B.Muruganantham, Dr. R. Jeya and Dr. J. Jayapradha at Multimedia University Cyberjaya, Malaysia



Dr.T.Senthil Kumar with Prof. Dr. Mardeni Bin Roslee



# HIGHLIGHTS

## 3rd Place at State-Level Badminton Championship

Dr Gokulakrishnan from Department of CTECH participated and won 3rd place in state level badminton tournament representing SRMIST-KTR conducted by Sri Ramachandra Institute of Higher education and Research.



Dr Gokulakrishnan and Team receiving Certificates in the tournament

## “S2S” program

Department of Computing Technologies, SRMIST, Kattankulathur, organized a 5-day Faculty Development Program (FDP) titled “S2S Leadership - Scholastic to Student-Centric” from July to November 2024. Led by Mr. T. Mohandoss, with coordination by Dr. Aswathy K. Cherian and Dr. M.K. Vidhyalakshmi. The “S2S” program was attended by 30 faculty members which mainly focused on transitioning faculty leadership to a student-centric approach. Key takeaways included fostering emotional connections, mentoring, trust-building, and addressing attention deficits, fostering an engaging and effective learning environment.



Prof. T. Mohandoss addressing C. Tech Faculties



Faculty Presentation @ S2S program

# HIGHLIGHTS

## INSA's 90th Anniversary: Catalyzing Innovation and Collaboration at SRMIST!"

The 90th Anniversary General Meeting of the prestigious Indian National Science Academy (INSA), New Delhi, inaugurated at the Dr. T.P. Ganesan Auditorium, SRMIST, Kattankulathur, on 9th December 2024, from 8:30 AM to 12:30 PM. The event featured special talks by distinguished leaders, including the INSA President, ISRO Chairman, and DRDO Director, making it a momentous occasion for the scientific community. As part of the Meeting of INSA, esteemed professors interacted with SRMIST faculty, discussing ongoing research activities and addressing queries about future research opportunities. These engaging discussions provided valuable insights and encouraged collaborative efforts, inspiring innovative approaches within the academic community.



Faculty interaction meeting with Prof. Sankar K. Pal Professor Computer Science Indian Statistical Institute, Kolkata and Dr. M. Tanveer

## Cybersecurity Insights: A Talk by Dr. Arun Balaji Buduru on Safeguarding the Digital Future Collaboration at SRMIST!"

Dr. Arun Balaji Buduru, Head of the Center of Technology in Policing (an initiative of MHA, GoI) and Founding Head of the Usable Security Group, delivered an insightful talk on cybersecurity. Currently serving as Associate Professor in the Department of CSE at IIIT-Delhi, Dr. Buduru also holds the position of Faculty-in-charge for Defence Engagements and is a Visiting Faculty at the Luddy School, Indiana University, Bloomington, USA. His session provided valuable perspectives on the evolving landscape of cybersecurity.



Dr. Arun Balaji addressing C. Tech faculties about safeguarding the digital future

## Internship offers

Internship offered students with Head of the Department: As the outcome of MOU signed with Datayaan Solutions Pvt. Lt., two Consultancy Projects were completed successfully, conducted by Medyaan Healthcare Private Limited, Chennai from 17th June to 16th September, 2024. On behalf of completing the project, students have received an Internship Certificate.



Internship offered students with Head of the Department

# HIGHLIGHTS

## Shastra Aerial Robotic Challenge, IIT Madras

We are thrilled to announce that K. D. J. Harsha Aadharsh (RA2211003011942), a third-year student from the Department of Computing Technologies, has achieved a remarkable milestone by securing 2nd place in the prestigious Shastra Aerial Robotic Challenge held at IIT Madras on 4th January 2025.

Harsha's outstanding performance earned him not only recognition but also a prize of Rs. 50,000. This incredible achievement highlights his innovation, technical expertise, and determination.



Harsha Aadharsh at Shastra event conducted by IIT Madras

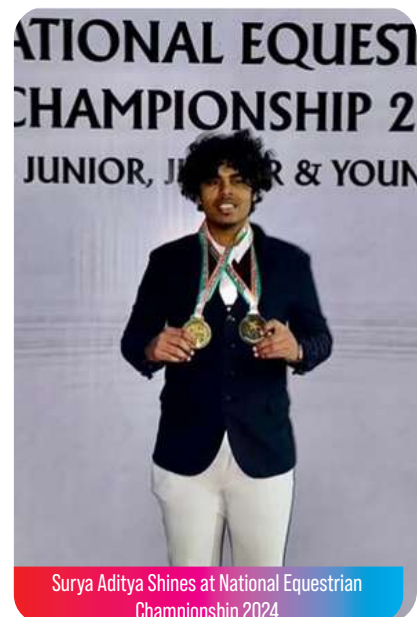
We are thrilled to announce that A. Ashwin Kumar (RA2311003012054), a Second -year student from the Department of Computing Technologies, has 1ST place in the prestigious Shastra Robo Soccer Event held at IIT Madras on 7th January 2025. The outstanding performance earned him not only recognition but also a prize of Rs. 21,000.

## Surya Aditya Shines at Asian Equestrian Federation Youth Cup, Secures Second Place.

We are proud to share that Surya Aditya, an 18-year-old second-year student from the Department of Computing Technologies, SRMIST, KTR Campus, Chennai, has made India proud by securing second place in the prestigious Asian Equestrian Federation Youth Cup.

Surya achieved this remarkable milestone by completing a challenging 11-obstacle, 1.15m show jumping course in an impressive 71.42 seconds, without incurring any penalty points. He narrowly missed the top spot, finishing just 6.22 seconds behind the winner, showcasing his exceptional riding skills, focus, and composure under pressure.

This incredible achievement is a testament to Surya's dedication and hard work, inspiring young equestrians across the nation to chase their dreams and strive for excellence. Congratulations to Surya for this stellar accomplishment—your SRMIST family is proud of you!



Surya Aditya Shines at National Equestrian Championship 2024



# HIGHLIGHTS

## Decoding Complexity: Insights into Data Structures with Prof. Venkatesh Raman

The Department of Computing Technologies, School of Computing, SRMIST, organized an insightful discussion session on "Computational Complexity in Data Structures" led by Professor Venkatesh Raman from IMSc. The session covered trade-offs in operations like insertion, deletion, search, and traversal, selection of optimal data structures, and algorithm optimization strategies. Second-year students actively participated, showcasing their understanding of complexities in arrays, linked lists, stacks, queues, trees, and graphs. The session enriched participants' knowledge of algorithmic design and optimization.



Interaction of student with Prof. Venkatesh Raman

## Students' Chapter of CTECH Shines at the 39th Indian Engineering Congress

We are delighted to announce that the IE(I) Students' Chapter, Department of Computing Technologies, SRM Institute of Science and Technology, has received two prestigious awards at the 39th Indian Engineering Congress hosted by the West Bengal State Center, Kolkata:

Third Best Engineering College Students' Chapter for the session 2023-24.

Appreciation from the Southern Zone for outstanding student enrollment numbers during FY 2023-24.

Congratulations to Dr. M. Umadevi, Dr. M. Eliazar, and Dr. Jayapradha for their exemplary leadership and dedication that contributed to these remarkable achievements!



Receiving awards at the 39th Indian Engineering

## EOMS Surveillance Audit Successfully Completed Under ISO

We are proud to announce the successful completion of the EOMS Surveillance Audit under the framework of ISO 21001:2018. This international standard emphasizes excellence in the teaching-learning process, research, placements, continuous improvement, inclusivity, accessibility, and stakeholder satisfaction in education.



Tech EOMS Core Team



# STUDENT TESTIMONIAL

## From SRM to Success: My Journey to Securing a Dream Offer at Deloitte USI

I am deeply grateful to SRM and the School of Computing for their exceptional support in helping me secure a dream offer at Deloitte USI. The comprehensive foundation laid by the curriculum, coupled with hands-on lab sessions and industry-aligned projects, played a pivotal role in preparing me for placements. The placement cell's training sessions on aptitude, communication, and interview preparation were invaluable in ensuring I was fully equipped for the hiring process. My heartfelt thanks go to my teachers for their constant guidance, doubt-clearing sessions, and unwavering motivation throughout my journey. Their mentorship and personalized support were instrumental in honing my skills and enabling me to achieve this milestone.



R. Amritha  
RA2111003010173

## Gratitude to SRM IST: My Pathway to Success at ZS Associates

I am incredibly grateful to SRM Institute of Science and Technology and Department of Computing Technologies for playing an instrumental role in my placement journey. The institute's rigorous academic programs, expert faculty, and strong industry connections have helped me develop the skills and confidence needed to excel in today's competitive job market. The dedicated efforts of the placement team ensured that I was well-prepared for the interview process, ultimately leading to my successful placement at ZS Associates with a CTC of 17 LPA. I owe much of my success to SRM IST and am thankful for the countless opportunities and support that have shaped my career path.



M. Vaishnavi Prabha  
RA2111003010909

# STUDENT TESTIMONIAL

## Empowered by SRM IST: My Journey to Securing a Role at Societe Generale

SRM IST has shaped my career and prepared me with the necessary skills to excel in the professional world. It provided a supportive environment and abundant opportunities that encouraged me to perform my best and become the best version of myself. The dedication and efforts of the placement cell guided me through each step of this journey, helping me secure the role of SDE at Societe Generale. The constant motivation and guidance from the faculty bridged the gap between academic concepts and real-world applications, enabling me to excel in projects and significantly boosting my confidence. They also provided opportunities to work on multiple projects apart from the regular curriculum. Beyond academics, the college's clubs, activities, and hackathons fostered teamwork and leadership skills. I am deeply grateful for the lifelong friends, memories, and unwavering support that have paved the way for a bright future.



Raunak Sharma  
RA2111003010935

# ALUMNI TESTIMONIAL

Just as in marketing they say, "People don't remember what they got, but how they felt," the time spent at SRM is something everyone cherishes. It's not just the experiences, but the way SRM made us feel that stays with us.

The college's culture of fostering overall development, beyond just academics, gave us a truly enriching education. The faculty and management weren't just teachers of subjects—they were mentors for life. That guidance and support made my time at SRM invaluable.

After earning my degree from SRM in 1995, I went on to co-found an enterprise mobility company, which received funding from Intel and now employs over 300 people. I also serve as the CTO of a U.S.-based Health Tech firm specializing in Conversational AI. I am also grateful to SRM management for recognizing me as a Distinguished alumni in 2024.



Ravi Kiran  
Chief Technology Officer

# Student Achievements

B. Jayasree (RA2411003012558) from first year W2 Section won a Gold Medal in both the Downhill and Alpine events on 20th October 2024, representing the Pondicherry Roller Skating Association.



B. Jayasree (RA2411003012558) from first year W2 Section won a Gold Medal

Anushika Singh (RA2411003010084) from B1 Section, First Year, published a poem in Verses Unbound, the college's poetry book. Among numerous submissions from faculty, scholars, and students, only 40 poems were selected. The launch, attended by novelist Ravinder Singh, poet Priyanshu Modi, and filmmaker Shankhajeet De, on October 24, 2024.



Anushika Singh (RA2411003010084) publication in the college's poetry book "Verses Unbound."

Himanish Srivastava and Annany Mishra (RA2411003010946 and RA2411003010918) from first Year M1 Section, secured 1st place in the Integration Bee Contest at the Intra-Collegiate Mathematics Festival 2024 (IMF'24) organized by the Department of Mathematics and the Ramanujan Mathematics Club on 4th October 2024 at SRMIST KTR.



Himanish Srivastava and Annany Mishra secured 1st place in the Integration Bee Contest

Jhankar Garg (RA2411003012275) from first Year O2 Section, participated in the prestigious 5G and 6G Hackathon organized by IISc Bangalore in association with the Ministry of Communication of India and the Department of Science and Technology (DST) and Won among 33 teams selected from across India during the preliminary rounds held from 25th to 27th September 2024. The team advanced to the final round, which took place on 17th and 18th October 2024 at Bharat Mandapam, New Delhi, as part of India Mobile Congress (IMC 24), Asia's largest tech fest organized by the Department of Telecommunications (DoT) and the Cellular Operator Association of India (COAI).



Jhankar Garg (RA2411003012275) at 5G and 6G Hackathon organized by IISc Bangalore

Rekala Vikas (RA2411003010491) from first Year G1 Section, won the Cricket, Badminton as well as Table Tennis competition organized by the Directorate of Hostels at SRMIST, Kattankulathur, on 5th November 2024



Rekala Vikas (RA2411003010491) won the Cricket, Badminton as well as Table Tennis

Manasa Mahadevan (RA2411003010080) from first Year B1 Section, secured second prize and a cash award of Rs. 2,000. in the National Convention on Unlocking the Potential of Artificial Intelligence and Machine Learning - Model Competition held on 7th November 2024 at SRMIST, Kattankulathur

Sanjeev TS (RA2411003011796) from first Year H2 Section, won second position in the Marathon held on 14th November 2024 at SRMIST, Kattankulathur. The event was conducted as part of ACE 2024, organized by the Directorate of Student Affairs at SRM Institute of Science and Technology.



Sanjeev TS (RA2411003011796) won second position in the Marathon



First-year students Lavansh Choubey, Rahul Agarwal, and Sistla Sai Haripriya (RA2411003010014, RA2411003010026, RA2411003010060) from first Year A1 Section won the IDEATHON INNING competition held on SRMIST on 7th December 2024.



First-year students Lavansh Choubey, Rahul Agarwal, and Sistla Sai Haripriya won the IDEATHON INNING competition

G. Sanjana Sree, S. Sai Manohar, Fuhad Sanin, Vansh, Viswamurugan, Aditya Anand, Priyanshu Panda, and Ramsha Kainaat (RA2411003011865, RA2411003011863, RA2411003011864, RA2411003011861, RA2411003011867, RA2411003011866, RA2411003011860, RA2411003011862) from first year I2 Section, secured 1st place in the "Reuse and Remodel Product" event conducted by the Department of Mechanical Engineering at SRM Institute of Science and Technology on 24th October 2024 at the Basic Civil and Mechanical Laboratory.

Aksh Garg (RA2411003011369) from first Year B2 Section, successfully completed an ISRO-certified course on 20th October 2024 through an online platform.

Darsh Saraf, Jerish M, Jaswanth N, Harshad Kumar, Prakhar Pandey, Ketki Gonnade, Prakash Awasthi, and Suvarna Jaiswal (RA2411003010731, RA2411003010732, RA2411003010733, RA2411003010734, RA2411003010737, RA2411003010739, RA2411003010736, RA2411003010738) from first year K1 Section, secured 1st place in the "Reuse and Remodel Product" event conducted by the Department of Mechanical Engineering at SRM Institute of Science and Technology on 24th October 2024 at the Basic Civil and Mechanical Laboratory.

Januja (RA2411003012303) from first Year O2 Section, won 1st prize and a cash award of Rs.1000 in the Debate event at ZENITH'24, conducted by the Journalism and Media Club of SRMIST on 3rd October 2024.

Subhasish Debnath (RA2411003011582) from first Year E2 Section, secured the first prize in the NITA Online Hackathon held on 19th November 2024 organized by NIT Agartala.

Prakarsh Awasthi (RA2411003010736) from first Year K1 Section, won the Music Competition held on 20th November 2024 at the SRM Institute of Science and Technology Hostel.

Sanjiban Panda (RA2411003010205) from first Year C1 Section, secured second prize and a cash award of Rs. 5,000 in the National Convention on Unlocking the Potential of Artificial Intelligence and Machine Learning -Model Competition held on 7th November 2024 at SRMIST, Kattankulathur.

ShauryaOjha(RA2411003011565)from first Year E2 section won second place in SEMICOLON 10.0 conducted by Dept. of NWC, SRMIST

Arnav Agarwal(RA2211003010845), Sagalpreet Singh (RA2211003010827), Aryan Mehra (RA2211003010843) from third year CSE M1 Section won prize 300 \$ google cloud credits in Hackrush 1.0 Organized by Quicklabs Developer Club on 30th September to 1st October 2024.

Surya Aditya (RA2311003012327) from second year CSE won a silver medal at the Asian Equestrian Federation Youth Cup held from 11th to 13th October 2024, organized by the Equestrian Federation of India in Bangalore.



Surya Aditya [RA2311003012327] won a silver medal at the Asian Equestrian Federation Youth Cup

Rishika Makhija (RA2411003011816) from first Year H2 Section along with her team won first position in the Fashion Parade at WAVE '24, organized by BITS Pilani, K K Birla, Goa Campus, held from 8th to 10th November 2024.

Aksh Garg (RA2411003011369) from first Year B2 Section, participated in a one-day online workshop conducted by ISRO and IIRS Dehradun on the topic "DL in Ecological Studies."

Nikhil Saxena (RA2411003011325) from first Year B2 Section participated in an online course on Responsive Web Design offered by FreeCodeCamp from 20th July to 20th November 2024 spanning 4 months.

Freya Abbi (RA2311003010253) from second year CSE won the Women in Tech (WIT) Program at NXP India, on 31st October 2025.

Ayushi Dhelia (RA2211003011097) from third year CSE A2 Section won 1st (Winner level) and Rewards Rs 2500 prize money in Hackathon Organized by Qwicklabs on 30th September to 1st Oct 2024.



Iraa Jayakumar (RA2311003010374) from second year CSE ranked in the top 1% of certified candidates in the NPTEL Introduction to Machine Learning course conducted from 22nd July 2024 to 22nd September 2024 by NPTEL.

Aryan Pandurang Sonawane (RA2311003011724) from second year CSE won the Best Delegate Award in the United Nations Economic and Social Council (ECOSOC) at SRM MUN 2024, held from 25th to 27th October 2024 at SRMIST.

Rajdeep Singha (RA2311003011695) from second year CSE secured the First Runner-Up position and won a cash prize of Rs.10,000 at the Hack Duty Hackathon held on 29th October 2024 at SRMIST.

A.Pradeep (RA2211003011321), Samyak Varia (RA2211003011203), Taanisha Sharma (RA2211003011206), Naman Srivastava (RA2211003011232) and Devish Mittal (RA2211003011227) from third year CSE C2 Section, got 2nd Runner Up (EdTech) HackRush 1.0 Organized by Qwicklabs and on 30th September to 1st October 2024.

Chettim Chetty Hemasri (RA2211003011092) from third year CSE A2 Section won 2nd Prize (Runner up) along with Rs.5000 prize money in Altair Data science contest Organized by Altair and Institute of Engineering and Science, IPS Academy (IES IPS) on October 2024.

Amit Tiwari (RA2211003010590) and Priyanshu Kumar (RA2211003010629) from third year CSE got 1st prize along with an Incentive Cash Award of Rs 20,000 in Sanrakshan 2024, a Techfest held at IIT Bombay from 17th to 19th December 2024.



Amit Tiwari (RA2211003010590) and Priyanshu Kumar (RA2211003010629) got 1st prize in Sanrakshan 2024 at IIT Bombay

Chettim Chetty Hemasri (RA2211003011092) from third year CSE A2 Section won 3rd Prize in DoAI-DSA Contest Organized by Sardar Vallabhai National Institute of Science and Technology (SVNIT) On December 2024.

Tamanna Grover (RA2211003010376) from third year CSE got a special prize with an Incentive Cash Award of Rs 25,000 in AI PC Hackstorm conducted by Intel from 13th to 16th December 2024.

Shivnarayan (RA2211003011216), Samyak Varia (RA2211003011202), Devish Mittal (RA2211003011227) from third year CSE C2 Section achieved an incredible milestone by emerging as the 1st Runner-Up at the prestigious IIT Bombay PULSE Hackathon – a Generative AI Hackathon inviting innovative ideas to create impactful tech solutions held 19th Dec 2024.

Aryan Mehra (RA2211003010838), Bharat Kumar Mishra (RA2211003010851), Sagal Preet Singh (RA2211003010827) from M1 section, and Ashmitha Mohan (RA2211003010063) from A1 section, third-year CSE, secured 1st place in the Red Bull Basement Hackathon organized by Cherry Network in September 2024. They won a Red Bull hamper and a potential opportunity to attend the international Tokyo Hackathon.



Aryan Mehra, Bharat Kumar and Sagal Preet from third year CSE won 1st position in Red Bull Basement Hackathon

***“The only way to achieve the impossible is to believe it is possible.”***

***— Charles Kingsleigh***

# Career News

## PLACEMENT OFFERS (2021-2025 BATCH)

The 2021-25 batch placement drive has officially commenced, with active participation from 28 sections comprising 1,677 final-year undergraduate students. This marks a significant milestone in their academic journey, offering unique placement and internship opportunities. Renowned companies have visited SRMIST to conduct recruitment processes, presenting students with remarkable prospects.

Out of this total strength in this cohort, 1,359 have registered for placements, and 62% have successfully secured job offers. This includes 869 unique offers (63.9%), 843 unique placement offers (62%), and 26 unique internship offers. Placement ranking metrics have been developed to provide a nuanced evaluation of students' abilities, enabling them to make strategic career decisions and identify areas for skill enhancement.

## PLACEMENT OFFERS (2022-2026 BATCH)

The placement season for the 2022-26 batch has officially commenced, marking a significant milestone in their academic journey. Our students have secured 42 prestigious internship offers from leading corporate giants, including Mercari, BNY Mellon, Fidelity Investments, Wells Fargo, Microsoft, IBM, Barclays, and others. This achievement reflects their dedication and hard work, supported by a strong industry-institute collaboration.

### Highlights of the Internship Offers:

**Mercari:** Offered an internship with an impressive monthly stipend of 3.6 lakhs.

**Wells Fargo:** Recruited 3 students with a monthly stipend of 90,000.

**Barclays, BNY Mellon, and Citibank:** Collectively extended 13 offers, each with a monthly package of Rs. 75,000.

**Western Digital & Natwest:** Offered internships to 2 students (1 each) with an attractive mo package of Rs.35000 and Rs. 45000 respectively.

**Fidelity Investments & IBM:** Offered internships to 4 and 5 students respectively with a stipend of s.30,000 per month.

**Microsoft:** Selected 2 students with a monthly stipend of Rs. 25,000.

**Adobe:** Hired 6 students with a stipend of Rs. 25,000 per month.

***"The beautiful thing about learning is that no one can take it away from you."***  
**—B.B. King**



## NOTABLE INTERNSHIP OFFERS (2022-2026)

## MERCARI



P Karthik Manikantan  
RA2211003010436  
3,62,225 p.m.

## WELLS FARGO



Samarth Mishra  
RA2211003010659  
90,000 p.m.



Sukanya Singh  
RA2211003010902  
90,000 p.m.



Utsav Jaiswal  
RA2211003012074  
90,000 p.m.



R Preethi  
RA2211003010488  
75,000 p.m.



Namrata Singh  
RA2211003011061  
75,000 p.m.

## BARCLAYS



Anouska Jhunjhunwala  
RA2211003010637  
75,000 p.m.



Aryan Kacker  
RA2211003010244  
75,000 p.m.



Abishek Sonil  
RA2211003011185  
75,000 p.m.



Sukanya Konar  
RA2211003010356  
75,000 p.m.



Neeraj Bandi  
RA2211003010357  
75,000 p.m.



Tuhina Tripathi  
RA2211003010423  
75,000 p.m.



Vrishabh Khurana  
RA2211003010272  
75,000 p.m.

## CITI BANK



Vanguri Naikel Vivek  
RA2211003011860  
75,000 p.m.



Jatin Kumar  
RA2211003010373  
75,000 p.m.



Kavyasri V M  
RA2211003010576  
75,000 p.m.



Sabnam Begum Hazari  
RA2211003011567  
75,000 p.m.

## ADOBE



Manya Mehrotra  
RA2211003010399  
60,000 p.m.

## NATWEST



Aarya Menon  
RA2211003010733  
45,000 p.m.

## DELL



Jayashree Manigandan  
RA2211003012017  
35,000 p.m.



Avula Venkata Kavya  
RA2211003010877  
35,000 p.m.



Aryan Mehra  
RA2211003010838  
35,000 p.m.



Pathina Rohith Kumar  
RA2211003011044  
35,000 p.m.



Sujitha J  
RA2211003011703  
35,000 p.m.



Shreyansh Kumbhare  
RA2211003011495  
35,000 p.m.

## FIDELITY INVESTMENTS



Arpit Kumar  
RA2211003010142  
35,000 p.m.



Abhinav Singh  
RA2211003010293  
35,000 p.m.



Shreya Pal  
RA2211003011887  
35,000 p.m.



Saumya Verma  
RA2211003010250  
35,000 p.m.

## WESTERN DIGITAL



Ujjwal Agrahari  
RA2211003012075  
35,000 p.m.

**CONGRATULATIONS**



## MARQUEE PLACED STUDENTS (2021-2025)

GIGA AI

Tautik Agrahari  
RA2111003010259  
42 LPA

Junglee Games

Anubhav Pathak  
RA2111003010120  
34.4 LPA

BNY Mellon

Aditya Mittal  
RA2111003010351  
26.4 LPAAayush Kumar  
RA2111003010487  
24 LPAAlok Kumar Verma  
RA2111003010917  
21.64 LPA

Paypal

Aparna Singh  
RA2111003010752  
24 LPAAditya Garg  
RA2111003011271  
21.64 LPA

Kuddle

Divyanshu Yadav  
RA2111003010693  
24LPA

JP Morgan

Chirah Thakur  
RA2111003010071  
23.85 LPAManvi Singhal  
RA2111003010711  
23.85 LPA

Baton Systems

Abheelash Mishra  
RA2111003011143  
21.64 LPA

Samsung Prism

Shashwat Ganesh  
RA2111003011536  
21.64 LPA

Plateup

Sarthak Sachdeva  
RA2111003011824  
21.4 LPA

Wells Fargo

Sanskriti Garg  
RA2111003010166  
34.4 LPAAnvit Pawar  
RA2111003010182  
31 LPAShayan Halder  
RA2111003010496  
24 LPADherya Pratap Rana  
RA2111003010571  
24 LPAUtkarsh  
RA2111003010852  
21.64 LPAS. Kaushik  
RA2111003011394  
21.64 LPA

***"Never let the fear of  
striking out stop you from  
playing the game."***

***—Babe Ruth***



**Optum**

 Shivendu Dubey RA2111003010025 20.7 LPA	 Nitya Mohta RA2111003010211 20.7 LPA	 Vanshika Agarwal RA2111003010418 20.7 LPA	 Rohan Sonthalia RA2111003010477 20.7 LPA	 Parnish Sharma RA2111003010503 20.7 LPA	 Vundru Harika RA2111003010545 20.7 LPA	 Sheetal RA2111003010588 20.7 LPA
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 Anurag Jain RA2111003010701 20.7 LPA	 Ashi Gupta RA2111003011925 20.7 LPA	 Samriddhi Singh RA2111003010856 20.7 LPA	 Jayatri Banerjee RA2111003010958 20.7 LPA	 Nitin Agarwal RA2111003011016 20.7 LPA	 Divya Sai Pelluri RA2111003011238 20.7 LPA	 Kasi Viswanathan Kannan RA2111003011777 20.7 LPA
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**FOSS**

 Ansh Arora RA2111003010228 20 LPA	 Shivansh RA2111003010243 20 LPA	 Vanshika Yadav RA2111003010267 20 LPA	 Aryan Khamesra RA2111003010287 20LPA	 Mansi Pandey RA2111003010377 20 LPA	 Om Mukherjee RA2111003011249 20 LPA
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**Oracle**

 Sahil Kumar RA2111003010379 20 LPA	 Ankit Pal RA2111003010796 20 LPA	 Harsh Deep RA2111003011804 20 LPA
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**Booking Holdings India**

 Raghav Khemka RA2111003010867 20 LPA	 Prathamesh M.P. RA2111003010282 20 LPA	 N Manishramar RA2111003010995 20LPA	 Pritesh Agrawal RA2111003011551 20 LPA
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***"You don't have to be great  
to start, but you have to  
start to be great."  
—Zig Ziglar***

# Placement / Career Talks / Mock Interviews / Training Sessions Arranged

The Department of Computing Technologies has arranged a series of placement talks and mock interviews designed to offer students practical experience and valuable insights regarding career opportunities. During October-December 2024, 10 mock interviews and 2 career talks were conducted online.

## CAREER TALKS CONDUCTED

The Career Talks, led by our faculty coordinator Dr. S. Iniyan, Assistant Professor/CTECH, in collaboration with the CTECH Placement Cell, were conducted for final-year students, and aimed to offer valuable guidance and insights into navigating career paths. The sessions highlighted opportunities in emerging fields such as AI-powered full-stack web development and provided valuable insights into effective career preparation strategies.

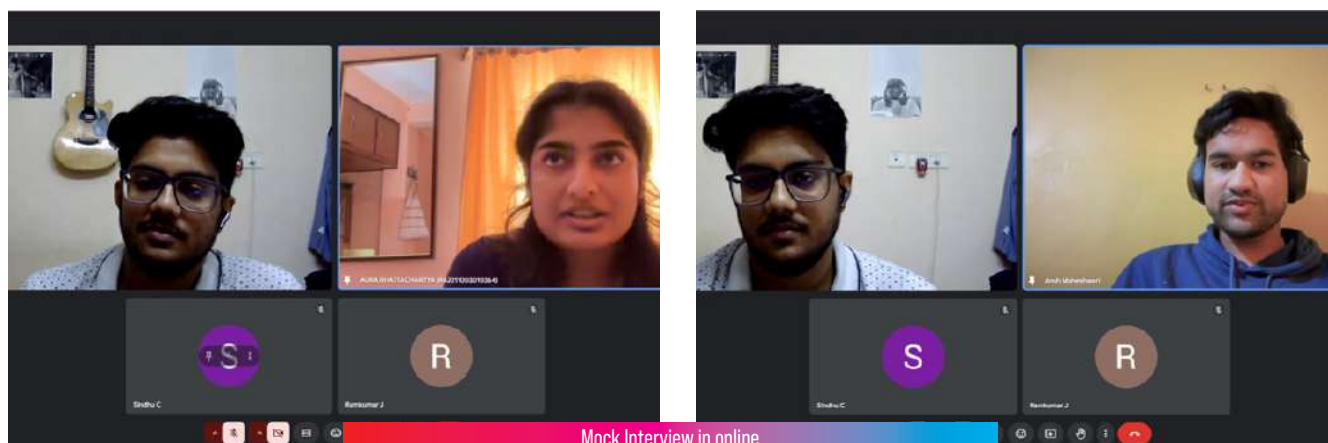
From Backend to Frontend: Navigating a Career in Full Stack Development (October 24th, 2024)  
Career Preparation Strategies and Interview Insights (Nov 8th, 2024).

<p><b>Career Talk on</b> <b>“Career preparation strategies and interview insights”</b></p> <p>Join us: <a href="https://meet.google.com/mbp-xwpc-uir">https://meet.google.com/mbp-xwpc-uir</a></p> <p>08<sup>th</sup> November 2024, 6.00 – 7.00 PM, Friday</p> <p>Organised by Dr. G. Niranjana HOD/CTECH</p>	<p><b>Career Talk on</b> <b>“From Frontend to Backend: Navigating a Career in Full Stack Development”</b></p> <p>Join us: <a href="https://meet.google.com/mbp-xwpc-uir">https://meet.google.com/mbp-xwpc-uir</a></p> <p>25<sup>th</sup> October 2024, 6.00 – 7.00 PM, Friday</p> <p>Organised by Dr. G. Niranjana HOD/CTECH</p>
 <b>Mr. Akshay Anil</b> Software Engineer 2 Mastercard	 <b>Mr. Prakash Velayudham</b> Founder and CEO VPS Codebuilders Pvt Ltd
<p>Dr.J.Briskilal, Assistant Professor, Department of CTech Dr.S.Iniyan, Assistant Professor, Department of CTech</p>	<p>Dr.P.Saravanan, Assistant Professor, Department of CTech Dr.S.Iniyan, Assistant Professor, Department of CTech</p>

Resource Person

## Mock Interview Sessions: Shaping Future Professionals

A total of 10 mock interview sessions were conducted to help students enhance their confidence, communication, and problem-solving skills. These sessions, led by placed final-year students, offered a realistic interview experience. Of the 10 sessions, 7 were organized for third-year students and 3 for second-year students, each focusing on a group of 10 participants. With a duration of at least 6 hours per session, the program provided individual attention, constructive feedback, and guidance to prepare students for real-world job interviews, making them industry-ready.



Mock Interview in online



# Semester Abroad Program (SAP)

Dr. K. Alice and Dr. J. Kalaivani, CTECH SAP Coordinators, interviewed 58 students in the E-Yantra Lab on the 15th floor of TP on October 21, 2024. These students had expressed interest in the Harvard Medical School Project Internship.



# Global Academic Internship Program (GAIP)

Four students from the Department of Computing Technologies have been admitted to the prestigious Global Academic Internship Programme (GAIP) at NUS Singapore, from 14th December 2024 to 4th January 2025. This outstanding accomplishment reflects their hard work and the department's dedication to fostering excellence. The internship offers a unique opportunity for students to gain valuable academic and professional insights, significantly enhancing their future prospects.



# Faculty Corner

## JOURNAL PUBLICATIONS

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## FACULTY UPSKILLING

Dr. G. Abirami, Assistant Professor completed an NPTEL course on Educational Leadership and was awarded the ELITE + GOLD certification in November 2024.

Dr. G ABIRAMI, Assistant Professor, successfully participated and completed AICTE Training and Learning (ATAL) in the Faculty Development Program on Quantum Computing at DHANALAKSHMI SRINIVASAN ENGINEERING COLLEGE from 16/12/2024 to 21/12/2024.

Dr. G. Abirami, Assistant Professor has been awarded a Certificate of Competency by NVIDIA.

Dr Sindhuja M, Assistant Professor has been certified with the Professional Development Programme on "Outcome Based Teaching and Learning" from 21.10.2024 to 25.10.2024 at NITTTR, Chennai.

Dr.G.Abirami, Assistant Professor, completed the online course on "Remote Sensing and Digital Image Analysis," conducted from August 27, 2024, to September 20, 2024. The course was organized by the IIRS Nodal Centre at SRM Institute of Science & Technology (School of Computing).

Mr. Mani Deepak Choudhary, received an Elite Certification in the NPTEL SWAYAM Course – A Self-Paced 8-week course on Google Cloud Computing Foundations conducted by IIT Kharagpur.

Dr.S.Nagadevi Assistant Professor has been recognized as an NPTEL STAR for the categories NPTEL DISCIPLINE STAR and NPTEL MOTIVATED LEARNER during Jul-Dec, 2024

Dr. G. Abirami, completed a three-day workshop on "Deep Learning for Healthcare Image Analysis (DLHIA)" conducted by the Department of Computing Technology, SRMIST, in association with NVIDIA Deep Learning Institute, from 4th to 6th September 2024.

Mani Deepak Choudhry, Assistant Professor, completed a 5-day FDP on Scholastic to Student (S2S) Centric Leadership – hosted by Green Computing Vertical, Department of Computing Technologies from July to November 2024.

Mani Deepak Choudhry, Assistant Professor, completed a One-week International Level Faculty Development program: AI Innovations and MATLAB Solutions, from 23.09.2024 to 28.09.2024 organized by the Department of E&TC under ISF PCCOER in association with Design Tech and MathWork India & Technically cosponsored by IETE Pune Section.

Mani Deepak Choudhry, Assistant Professor, completed a One Week Short Term Training Programme (STTP) on "Hands-on AI Tools for Academic Writing: Elevate Your Research and Publishing Impact" from 21.10.2024 to 26.10.2024 organized by St. Joseph College of Engineering, Chennai.

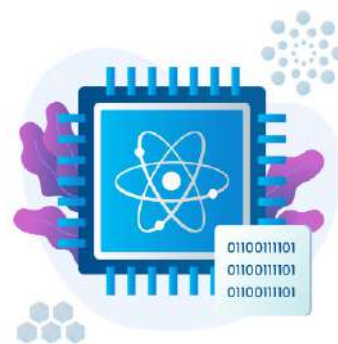
Dr. M.Kandan successfully completed the NPTEL Course on "Computer Architecture" from July to October 2024.

Dr. K Vijaya, Professor, served as an observer for UHV-Introductory FDP at DMI College of engineering from 11-13 December



# Quantum Computing

Incharge: **Dr. M. Pushpalatha**



## OBJECTIVE

The objective of this LAB is to support India's National Mission on quantum and bring SRMIST as one of the leading hubs for quantum Technologies across India.

The vision is to revolutionize computations by the usage of quantum computers by various algorithms to solve intractable problems, achieving quantum supremacy.

The mission is to seed, nurture, and scale up the research and development activities in the quantum ecosystem

## FACULTY UPSKILLING

Dr.Ramesh.S attended ATAL FDP on "Quantum Enhanced Machine Learning and its Applications" at PSNA College Of Engineering and Technology, Dindugul from 16th - 21st December 2024.

Dr.S.Nalini Attended ATAL FDP on "Quantum Neuromorphic Computing for Visible and Sustainable Generative AI" at M. Kumarasamy College of Engineering from 2nd-7th December 2024.

Dr.S.Nalini Participated in the workshop on "Programming with Quantum Computers" IEEE 18th International Conference on Industrial and Information Systems (ICIIS 2024) at IIT Madras on 21st December 2024.

Dr.M.Gayathri attended the Event CII 22nd Connect at ITC Grand chola, topic was on "AI and Quantum Leap" on 18th December 2024.

Dr.M.Pushpalatha, Dr.L.Kavisankar and Dr.Raghavendra.V Visited the SETS,Taramani (Society for Electronic Transactions and Security) to initiate the research collaborations in the area of Cybersecurity, specifically focusing on the rapidly evolving field of Quantum Security.



Dr.M.Pushpalatha, Dr.L.Kavisankar and Dr.Raghavendra.V Visited the Society for Electronic Transactions and Security (SETS),Taramani.



Dr.M.Gayathri attended the Event CII 22nd Connect at ITC Grand chola

***"Nothing can create something all the time due to the laws of quantum mechanics, and it's - it's fascinatingly interesting."***  
***-- Lawrence M. Krauss***



## Honors Degree in Quantum Studies

An honors degree in quantum studies aims to prepare students for advanced research, innovation, and leadership roles in the rapidly evolving field of quantum science and technology. It provides a rigorous foundation in quantum principles, advanced mathematical methods, and hands-on experience with emerging quantum technologies.

Graduates of honors programs in quantum studies are well-positioned for:

Advanced research (Ph.D. programs).

Careers in quantum computing firms (e.g., IBM Quantum, Google Quantum AI, D-Wave).

Roles in quantum encryption, national security, or cutting-edge technology startups.

The objectives of an Honors Program in Quantum are tailored to equip students with advanced knowledge, technical skills, and innovative thinking in quantum science and technology. These objectives ensure that graduates can contribute meaningfully to both academic research and industrial applications. Below are the key objectives:

Train students to design, implement, and test quantum algorithms and computational models using platforms like Qiskit, Cirq, or Rigetti Forest.

Encourage students to undertake independent and collaborative research in cutting-edge areas of quantum science, such as quantum computing, quantum communication, and quantum sensing.

Equip students with the ability to critically analyze scientific literature and contribute original findings to the field.

### EVENT ORGANIZED

#### Quantathon 2.0

Quantathon 2.0, organized by the SRMIST Quantum Computing Club in association with IBM Qiskit Fall Fest, was conducted to promote innovation and collaboration in the domain of quantum computing. The event, designed to explore the frontiers of quantum technologies, encompassed project presentations, expert talks, and a comprehensive hackathon, aimed at advancing the application of quantum computing in solving complex challenges. With a core objective of pushing technological boundaries through creative problem-solving and collaborative efforts, the event underscored the potential of quantum computing to address real-world issues.

Quantathon 2.0 received over 400 applications from five institutions, including 2-3 international applications from Poland. A total of 22 teams participated in the offline event, highlighting the diverse and competitive nature of the event.

The event witnessed the presence of eminent guests who contributed significantly to its intellectual quality: Mr. Jagan Narayan Natarajan, a researcher from the Quantum Support Team at IBM Research Lab, attended as the guest of honor and delivered an address that provided a comprehensive overview of recent advancements and emerging trends in quantum computing.

Mr. Jayakumar Vaithiyashankar, Founder and CEO of Anuthantra, and an IBM Quantum Educator, shared insights on the evolving landscape of quantum technologies and their practical applications in various fields.



Quantathon 2.0

## IRIS 2024

During IRIS 2024 industry leaders Mr. Unnikrishnan from Appollo Tyres and Mahendra Group visited the quantum computing lab. Discussed various industry use cases related to Quantum domain.



IRIS 2024

## GUEST LECTURES

Prof. Amlan Chakrabarti convened the digital water meeting on 7th October 2024 in presence of Prof. Pushpalatha and other experts from the SRMIST-KTR.

Prof. Amlan Chakrabarti delivered an online lecture on "Shor's Algorithm" at SRMIST KTR on 7th October 2024.

Prof. Amlan Chakrabarti conducted an online lecture on "Quantum Phase Estimation with Demo" at SRMIST KTR on 8th November 2024 for about 1.5 hrs. Prior to the talk, he engaged in discussion with Quantum faculty members about their ongoing research projects etc.

Prof. Amlan Chakrabarti delivered an online talk on "VQE" at SRMIST KTR on 23rd November 2024.

Prof. Amlan Chakrabarti Delivered an online lecture on "Quantum Many Body Hamiltonian" at SRMIST KTR on 12th December 2024. He also discussed with Prof. Pushpalatha about the initiation of digital water activities on the campus

## RESOURCE PERSON

Raghavendra. V delivered an expert talk on "Essential Quantum Mechanics for Quantum Computing" at the Atal FDP organized by Rajalakshmi Engineering College on 13th December 2024.



Raghavendra. V delivered an expert talk on "Essential Quantum Mechanics for Quantum Computing"

Dr.M.Gayathri and Thilagavathy served as resource for one week hands-on workshop on "Quantum Computing" at GIET university, Gunpur, Odisha



Dr.M.Gayathri and Thilagavathy served as resource for one week hands-on workshop on "Quantum Computing"

## MOU'S / COLLABORATION

Dr.Thilagavathy.R and Dr.M.Gayathri have established a MoU with Artificial Brain, a quantum startup to initiate research activities in the quantum domain.

Consultancy project worth Rs 2 lakhs with Samsung Elite is signed on the topic "Design and Develop a Dynamic PQC Key Update Protocol for Blockchain Wallets" in the month of November 2024. Dr.M.Gayathri and Dr.G.K.Sandhia are involved in this research worklet.

Dr.M.Pushpalatha and Dr.M.Gayathri have established a MoU with GIET University. We are excited to announce that the Quantum Computing Lab at the Department of Computing Technologies has successfully signed a Memorandum of Understanding (MoU's) with Gandhi Institute of Engineering and Technology (GIET University), Gunpur, Odisha. In accordance with the MoU, we conducted a comprehensive training program for the esteemed faculty at GIET University on the topic of "Quantum Computing". This training session took place from 9th-13th December 2024, with the intention of enhancing their knowledge in this cutting-edge field. As stipulated in the MoU, the training cost is fixed as Rs1,00,000, plus GST. This amount would be credited to the SRMIST Consultancy account under the category of Advisory Consultancy.

Dr.Pushpalatha and Dr.G.Usha established a MNDA between Quantum Research and Center of Excellence (QRACE) and Department of Computing Technologies, SRM Institute of Science and Technology KTR.



. Dr.M.Pushpalatha and Dr.M.Gayathri have established a MoU with GIET University

## RESEARCH PROPOSAL(S) SUBMITTED

Dr.Gayathri and Dr.R.Thilagavathy have applied to Tamilnadu state council of Science and technology for partial financial grant to seminar on "Quantum Cryptography and Secure Communication" in the month of December 2024.

## LAB SETUP

Hardware equipment's for Quantum Cryptography is under progress. Kits included are quantum cryptography analogy tool kit, Quantum information eraser tool kit and gigafast quantum random number generator. These equipment's will be helpful for the project based course.

## RESEARCH OUTCOMES

D.G.Usha presented a paper entitled "Comparative Analysis of Machine Learning, Neural Network and Quantum Hybrid Models for DDos Attack Detection", ECPS&CI-2024, Springer, in BIJU Patnaik University of Technology, Rourkela, 2024.

Dr.G.Usha presented a paper entitled "A Comparative Technique with Credit card based Fraud Detection With Machine Learning and Quantum Algorithm", ICSSAS-2024, IEEE, in M.P.Nachimuthu, M.Jaganathan Engineering College, Erode, 2024.

Dr. M.Gayathri, Dr.M.Pushpalatha and Mohammed Yaqub presented a paper entitled "Quantum Random Number Generation for Network Communication Security with SHA 3 Hashing and AES -GCM Encryption", ICRTAC 2024, Springer, in Vellore Institute

of technology, Chennai, 14th-15th November 2024.

Dr. M.Gayathri and Mohammed Yaqub presented a paper entitled "Quantum Randomness and Key Hashing in SSH Authentication Across Asymmetric Cryptographic Algorithms", GCITC 2024, Reva University, Bengaluru, 25th-26th November 2024.

Dr.M.Gayathri and Mohammed Yaqub presented a paper entitled "Quantum Key Distribution Framework for Securing Encrypted Communications in Address Resolution Protocol Packet Capture" IEEE Asian test Symposium (ATS 2024), Nirma University, Ahmedabad, Gujarat, 17th -20th December 2024.

5 Research papers related to quantum domain have been submitted to A\* Conference, DAC 2025, USA.



# Visual Computing

Incharge: *Dr. S. Sridhar*



## FACULTY UPSKILLING

P. Saravanan attended ATAL FDP (Offline) on "Research Trends and Techniques in Artificial Intelligence and Machine Learning towards Healthcare", at SMVEC, Pondicherry, from 4th - 9th December 2024.

P. Saravanan attended ATAL (Offline) FDP on "Digital Transformation in Manufacturing- Industry 4.0 and 5.0", at SMVEC, Pondicherry, from 9th-21st December 2024.

S. Sivakumar attended FDP on "Programming in Java through NPTEL (IIT Kharagpur), from 1st June 2024 to 30th October 2024.

Dr. M. Kanchana attended 6 days of ATAL FDP on "Generative AI Unveiled: Concepts, Models, and Real-world Applications", at Anjuman Institute of Technology and Management, Karnataka, from 2nd - 7th December 2024.

Dr. M. Kanchana attended 6 days of ATAL FDP on "Generative AI Unveiled: Concepts, Models, and Real-world Applications" at the MNNIT Allahabad from 9th-14th December 2024.

Dr. S. Sivakumar successfully completed "Programming in Java", an online course authorized by IIT Kharagpur and offered through NPTEL during 1st June 2024– 30th October 2024.

Dr. P. Saravanan successfully completed "Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System" through ISRO during 27th August 2024 to 22nd October 2024.

Dr. M. Kanchana successfully completed a 12 weeks NPTEL course "Mathematics for Machine Learning" during 21st July 2024 - 20th October 2024 and Awarded with Elite Silver certification.

Dr. M. Kanchana successfully completed a 12 weeks NPTEL course "Deep Learning" during 21st July 2024 - 20th October 2024.

## TECHNICAL TALK

Dr. S. Sivakumar, Assistant Professor, delivered an expert talk on "Transformer Models Hands on Training" in Faculty Development Programme NLP Using Pretrained Language Models and Transfer Learning at Panimalar Engineering College, Chennai, on 4th December 2024.

## PROFESSIONAL ACTIVITIES

Dr. P. Saravanan, Assistant Professor, Acted as a Reviewer for 2nd International conference on AAIMB 2024, at SA Engineering college, Chennai during 12th-13th December 2024.



## EVENT ORGANIZED

S. Sivakumar organized a workshop on “National Workshop on Large Vision Models (LVM24)” in SRMIST, KTR, from 24th -25th October 2024.

Dr. P. Saravanan Organized a Career Talk on “Front End to Back End” in SRMIST, KTR through Online Mode, 25th October - 2024.

## MOU'S / COLLABORATION

Signed MoU with AllReal (Macheen), Coimbatore for the Visual Computing Lab, SRMIST on 2nd December 2024.



MoU with AllReal (Macheen)

## CONSULTANCY

Dr. R. S. Ponmagal, Dr. B. Amutha, Dr. J. D. Dorathi Jayaseeli, has completed a consultancy project namely Building a Chatbot and Automation of the Printing Industry for Vettroi Notebooks, Sivakasi, worth Rs.90,000/-, duration of the project is three months.

## RESEARCH OUTCOMES

M.Kanchana, Shankar R and Hariharann G, (2024), Brain Stroke Detection Using CT Images In Proceedings of the Third International Conference on Automation, Computing and Renewable Systems (ICACRS-2024) organized by Mount Zion College of Engineering and Technology, Tamil Nadu, India, pp. 1338 – 1343. DOI: <http://dx.doi.org/10.1109/ICACRS62842.2024.10841716>

M.Kanchana, Kamalesh Kumar T G and Arvind Krishna S, presented a paper entitled “Detection of Potholes using Deep Learning and Image Processing Techniques” In 3rd International Conference on Automation, Computing and Renewable Systems ICACIT 2024 organized by ADSRS Education and Research & Indira Gandhi Tribal university Regional Campus, Manipur, India, 2024.

Dr.M.Kanchana, Pranav Arjith Sankar and V Hrishikesh, presented a paper entitled, “Cardiovascular Disease Prediction using ECG Match” In 3rd International Conference on Automation, Computing and Renewable Systems ICACIT 2024 organized by ADSRS Education and Research & Indira Gandhi Tribal university Regional Campus, Manipur, India, 2024.

## PATENT GRANTED

Dr.M.Kanchana, Dr.D.Anandan, Mrs.A.M. Vidhyalakshmi, Dr. Nalavala Ramanjaneya Reddy & Mr.J.V.Rama Kumar has received a design patent grant titled “AI based Skin Cancer Detective Device”, Intellectual Property Rights on 20th September 2024.

# Advanced Multilingual Computing

Incharge: **Dr. C.N. Subalalitha**



## FACULTY UPSKILLING

Dr. R. Anita, and Dr. J. Briskilal, Assistant Professor's has completed Coursera Course on "Natural Language Processing with Attention Models", during 7th November 2024.

## TECHNICAL TALK

Dr.Subalalitha C.N, shared her journey with LLMs in a Entrepreneurship event called, "Sangamam" Conducted by Tamilpreneur, an entrepreneurial community on 16th November 2024.



Dr.Subalalitha C.N, shared her journey with LLMs in a Entrepreneurship event called, "Sangamam"

Dr.Subalalitha C.N delivered an expert talk in an online 5 days FDP on "Generative AI and Prompt Engineering" conducted by SRM, Vadapalani campus on 27th November 2024.

Dr.Subalalitha C.N delivered an expert talk on "Tamil Computing using Large Language Models" for the Tamil Computing Research group, called "Muthirai in Computer Science Department" at Thiagarajar College of Engineering, Madurai on 6th December 2024 in online mode.

Dr.Subalalitha C.N delivered an expert talk on "Fine Tuning Large Language Models" in the 2nd edition of 5 Days FDP on Advanced AI: Tools and Algorithms (AATA-2024) conducted by Department of Computer Science and Engineering, SSN College of Engineering on 16th December 2024.

Dr.Subalalitha C.N delivered an expert talk on "Advanced Data Science & NLP: Elevate your Research and H-Index" sponsored by AICTE Training And Learning (ATAL) Academy organized by SRM Valliammai Engineering College, Chennai in online mode on 20th December 2024.

Dr.Subalalitha C.N delivered an expert talk on "Tamil Computing Using Large Language Models" today in Tamil Computing Workshop which is part of International Conference on Natural Language Processing (ICON '24) at AU-KBC RESEARCH CENTRE, Anna University-MIT Campus, Chennai on 23rd December 2024.



Dr.Subalalitha C.N delivered an expert talk on "Fine Tuning Large Language Models"

## RESEARCH OUTCOMES

H. Maithani, A. G. Goswami, R. Anita, J. D. Dorathi Jayaseeli, S. Tiwari and R. T. Shankarappa, (2024), Innovations in Real-Time Speech Translation: Leveraging Griffin-Lim Algorithm In Proceedings of the 15th International Conference on Computing Communication and Networking Technologies (ICCCNT), Kamand, India, pp. 1-7, doi: 10.1109/ICCCNT61001.2024.10725517

# Accelerated Computing

Incharge: **Dr.B.Amutha**

## FACULTY UPSKILLING

D. Malathi attended 14 days FDP on "Innovative Teaching Strategies and Tools in the Digital Age" organized by Scrollwell, from 2nd – 15th December 2024.

R. Kavitha attended FDP on "Advances and Innovations in AI&ML: Hands-on" at SRM Institute of Science and Technology-Analytics Society of India, IIMB, from 19th – 23d August 2024.

Dr. B. Umamageswari attended FDP on "Semiconductor Technologies for 5G/6G Wireless communication" at New Prince Shri Bhavani College Bhavani College of Engineering and Technology, from 18th – 23rd November 2024.

Dr. B. Umamageswari and Dr. Ishwarya.K attended an online FDP on "Generative AI and It's Applications with Computer Vision" at Lalbhai Dalpatbhai College of Engineering Ahmedabad, from 16th – 21st December 2024.

Ms.S.P.Kanmani attended FDP on "The Future of Quantum Computing and High Performance Computing" organized by ATAL Academy at PSV College of Engineering and Technology from 23rd – 28th December 2024.

Dr, B. Umamageswari and Dr, Ishwarya.K, Assistant Professor has attended the National Workshop on "Advances and Innovations in AI & ML" conducted by SRM-ASI Student Chapter, Dept. of Computing Technologies, SRMIST from 19th August to 23rd August, 2024.

## TECHNICAL TALK

Dr Ishwarya.K Assistant Professor, delivered an expert talk on "Mastering Network Simulations: A Hands-on Cisco Packet Tractor Workshop" at Adhiparasakthi College of Engineering, Kalavai, on 18th October 2024.



Dr.R.Kavitha successfully completed the "AI/ML on Geodata Analysis" an online course authorized by IIRS, Dehradun, during August 2024.

Dr. B. Umamageswari and Dr. Ishwarya.K successfully completed the "Generative AI" course offered by GUVI Geek Networks in October 2024.

Dr. B. Umamageswari and Dr. Ishwarya.K successfully completed the "Python Zero to Hero" course offered by GUVI Geek Networks in October 2024.

Dr. R. Kavitha, Asst. Professor has completed "Full Stack Development", during December 2024 by Brianovista-SRMIST.

Dr.K.R.Jansi successfully completed two NPTEL course, "Introduction to Machine Learning" and "Introduction to Internet of Things" offered through NPTEL and received Elite certificate during November 2024.

Dr.K.R.Jansi has been recognized as NPTEL Discipline star in the domain Computer Science and Engineering for Jul-Dec 2024.

Dr. B. Umamageswari, successfully completed the SQWIT "Fundamentals of Generative AI" offered by GUVI Geek Networks in September 2024.



Dr Ishwarya.K delivered an expert talk on "Mastering Network Simulations: A Hands-on



## EVENT ORGANIZED

Dr. B. Amutha and Dr. D. Malathi organized a workshop on "AI Intensified Scientific Accelerated Computing (AIISAC) in Interdisciplinary Applications" organized by SRMIST, KTR, from 23rd – 27th September 2024.



D. Malathi organized as a co-convenor in a workshop on "AI Intensified Scientific Accelerated Computing (AIISAC)"

Dr. B. Amutha and Dr. D. Malathi organized a 6-days Skill Development Program on "High-Performance Computing using AWS Services and HPC Tools" in SRMIST, KTR, from 16th – 21st December 2024.



D. Malathi organized as a co-convenor in a 6-days Skill Development Program on "High-Performance Computing using AWS Services and HPC Tools"

Dr R Kavitha is one of the organizing committee member of a workshop conducted on "Large Vision Models" in SRMIST, KTR, from 24-25 October 2024.



Dr R Kavitha is one of the organizing committee member of a workshop conducted on "Large Vision Models" Tools

Dr R Kavitha is one of the organizing committee member of a workshop conducted on "HPC-AWS" in SRMIST, KTR, from 16-21 December 2024.



Dr R Kavitha is one of the organizing committee member of a workshop conducted

## RESEARCH OUTCOMES

Manas Shetty, Saksham and Dr. R. Kavitha, (2024), Indian Food Classification and Dietary Recommendations using CNN In Proceedings of the International Conference on Computational Intelligence and Communication Networks (ICCICN-24) organized by NIER on 23rd November 2024.

### Book Chapter

Dr.K.R.Jansi.,Dr.A.L.amutha.,et.al. (2024). Plant Disease Classification using Deep Learning for Agricultural Applications. In Professor Dr. Froilan D. Mobo (Eds.), Harnessing AI in Geospatial Technology for Environmental Monitoring and Management (pp. 213-238). IGI Global. DOI: 10.4018/979-8-3693-8104-5.ch010

***"Technology is nothing. What's important is that you have a faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them."***

***-- Steve Jobs***

# Theoretical Computing

Incharge: **Dr. K.Vijaya**



## OBJECTIVE

Upskilling faculty members to carry out research in theoretical aspects of computer science. Collaborate with Institutes of repute and carry out collaborative research in core domains like Algorithms, Programming, Compilers, Computation, and Logic. Introduce new Programs, Courses, and Certification courses to enhance the student's ability to develop optimal solutions.

## FACULTY UPSKILLING

Dr. K. Vijaya successfully completed the NPTEL course on "Problem Solving through Programming in C", during November 2024.

Dr. P. Nancy successfully completed the NPTEL course on "Data Structures and Algorithms", during October 2024.

## MOU'S / COLLABORATION

An MoU was signed between the Theoretical Computer Science Vertical, Department of CTECH, SRMIST Kattankulathur, and Aero Knotz Drone India Private Limited on December 19, 2024. This collaboration aims to facilitate research and development activities focused on advancing drone and AI technologies. Faculty Incharge (Initiator): Dr.M.Kandan, Assistant Professor, Department of CTECH, SRMIST KTR



MoU was signed between the Department of CTECH, and Aero Knotz Drone India Private

## RESEARCH PROPOSAL(S) SUBMITTED

A new elective course titled NP Completeness and Beyond (Code: 21CSE324P) was offered to the 5th Semester B.Tech. Computer Science and Engineering students from July 2024 till November 2024. Visiting Professors from IMSc namely Prof. Venkatesh Raman and Prof. Saket Saurabh handled the course and Dr. Indhumathi Raman, Professor, Department of Computing Technology was the course coordinator. Inspired by the content and delivery of the course, a student of 5th Semester named Nishant Sheoran has written an article on the importance of NP Completeness in today's scenario and the article will soon be published.

# Green Computing

Incharge: **Dr. E. Poovammal**

## OBJECTIVE

Exploring approaches to reduce power consumption, improve electronic waste recycling, and enhance the overall sustainability of computing systems.

Offering training programs, workshops, and educational materials to raise awareness about the environmental impact of computing.



## FACULTY UPSKILLING

Dr.S. Nikkath Bushra Completed the "Hyperledger Fabric" training program offered by Kerala Blockchain Academy at SRM Institute of Science and Technology, KTR Campus, Tamil Nadu from 9th to 14th September 2024.

Mrs. R. Madhura attended FDP on "Including Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 12th – 16th June 2024.

R. Madhura has completed the Hyperledger Fabric training program offered by Kerala Blockchain Academy at SRM Institute of Science and Technology, KTR Campus, Tamil Nadu from 9th to 14th September 2024.

Dr.Priya.S, attended ATAL FDP on "Recent Trends in Artificial Intelligence and Cloud Technologies Towards Agriculture" at Saveetha Institute of Medical and Technical Sciences from 18th – 23rd November 2024.

Dr. G. Abirami and Dr. M. Suresh, attended FDP on "Harnessing Green IT: Transforming Tomorrow's Challenge to Innovation" at SRM Institute of Science and Technology, From 27th Sep – 3rd. Oct 2024.

Dr. G. Abirami, attended three days workshop on "Deep Learning with Healthcare Image Analysis" at SRM Institute of Science and Technology, from 4th to 6th September, 2024.

Dr. R. Lavanya, Dr.D.Viji and Dr.M.Vijayalakshmi attended FDP on "Integrating SDGs into Business and Engineering: Leveraging Professional Communication for Global Impact" organized by IEEE PCS Madras chapter & IEEE CS Madras chapter in association with CSE S.A. Engineering College from 16 – 21th December 2024.

Dr. R.Deepa, attended FDP on "Software Security: 24 Deadly Sins of Software Programming" at IIITD&M Kancheepuram, from 15th- 19th December 2024.

Dr. M. Suresh, attended FDP on "Google Cloud Foundations "by NPTEL/AICTE from Aug – Oct 2024.

Dr. M. Suresh and P. Robert, attended ATAL FDP on "Enhancing Cyber Threat Detection Through Incorporating Digital Technologies" at Vel Tech Ranagarajan Dr.Sagunthala R&D Institute of Science and Technology from 9th – 14th December 2024.

Dr. M.K.Vidhyalakshmi attended ATAL FDP on "Immersive Technology Exploring Augmented Reality & Virtual Reality" at Panimalar Engineering College from 21st -26th October 2024.

Dr. M.K.Vidhyalakshmi attended ATAL FDP on "Green Material and Methodology for Sustainable Development" at Mohamed Sathak A.J College of Engineering from 09th -14 th December 2024.

Dr. S. Nikkath Bushra completed NPTEL online certification in "Software Engineering" on October 2024

Dr.S.Priya has received the certificate of competency from NVIDIA for completion of course "Applications of AI for Anomaly Detection" on 2nd December 2024.

G. Abirami, successfully completed the NPTEL course on "Educational Leadership" awarded the ELITE + GOLD certification in November 2024.

Dr. R. Lavanya and Dr. B.Sowmiya, successfully completed the NPTEL Course on "Educational Leadership" during November 2024 with Elite Gold.



Dr.B.Idaseraphim, Dr.M.Vijayalakshmi and Dr.D.Viji successfully completed the NPTEL Course on "Educational Leadership" during November 2024 with Elite Silver.

Dr. M. Suresh, Successfully completed the "Google Cloud Foundations" an online course authorized by the Indian Institute of Technology Kharagpur and offered through Swayam NPTEL from Aug – Oct 2024.

Dr. M. Suresh, successfully completed the "Google Cloud Foundations " an online course authorized by " Overview of Global Navigation and Satellite Systems" authorized by the Indian Space Research Organization and offered through the Indian Institute of Remote Sensing, Dehradun from 23rd Sep – 4th Oct 2024.

Dr.S.Padmini and Dr.M.K.Vidhyalakshmi successfully completed the NPTEL Course on "Educational Leadership" during July to October 2024 with Elite Gold.

Dr. S.Padmini successfully completed the NPTEL Course on "Computer Architecture" during July to October 2024.

## RESEARCH OUTCOMES

S. Mohana, T.M. Nithya, Sardar Khan Nikkath Bushra, Ramakrishnan Vasanthi, K.S. Guruprakash and Sudha Rajesh,(2024),"Clustering-assisted Privacy Perseveration Model for Data Mining", International Journal of Ad Hoc and Ubiquitous Computing, 47 (2), pp. 108-125. DOI: <https://doi.org/10.1504/IJAHUC.2024.141961>.

Priya S, C. Feenita, Uday Goel, Manoranjitham T, Boopathi Duraisamy, Balaji Subramanian, Kavitha Ganeshan, Femilda Josephin JS, Mohammed F. Albeshr, Arivalagan Pugazhendhi, Edwin Geo Varuvel, (2024), "Comparative Analysis of Regression Models to Predict the Performance of the Dual Fuel Engine Operating on Diesel and Hydrogen Gas", International Journal of Hydrogen Energy, In Press. <https://doi.org/10.1016/j.ijhydene.2024.12.238> (IF: 8.1)

Geetha G, Manjula, Purnachand, K, (2024), "An Intelligent Hybrid Model for Cyber Attack Classification with Selected Feature Set", Intelligent Decision Technologies, 18 (3), pp. 2191-2212. DOI: 10.3233/IDT240362

R. Deepa, V. Jayalakshmi, K. Karpagalakshmi, S. Manikanda Prabhu, & P.Thilakavathy, (2024), "Survey on Resume Parsing Models for JOBCONNECT : Enhancing Recruitment Efficiency using Natural Language Processing and Machine Learning", International Journal of Computational and Experimental Science and Engineering, 10(4). <https://doi.org/10.22399/ijcesen.660>

### Conference Publication

R. Madhura, S. Nikkath Bushra, Devi. P, Sasigresa. P, (2024), Virtual Palette: An Efficient Object Tracking Tool In Proceedings of the 2nd International Conference on Sustainable Computing and Smart Systems, ICSCSS 2024 - Proceedings, pp. 642–645. doi: 10.1109/ICSCSS60660.2024.10625149.

R. Madhura, S. Nikkath Bushra, A. Syed Ismail, & PK. Haleema, (2024), Oil Spill Detection Using CNN and GAN In Proceedings of the 4th international Conference on Expert Clouds and Applications, ICOECA 2024, pp. 785–791. DOI: 10.1109/ICOECA62351.2024.00140.

V Jayalakshmi; R Deepa; R Ganesan; N Sriram & Surendran, R. (2024), Deep Learning Empowered Natural Language Understanding Voicebot's for Farmers: Kissan Samvaad Initiative In Proceedings of the 2024 First International Conference on Innovations in Communications, Electrical and Computer Engineering (ICICEC). DOI: 10.1109/ICECA63461.2024.10800864.

Dr. M. Xavier Suresh, Prathik A, Dr. V. Arun and R.Venugopal, (2024), Cloud-Powered Neural Networks for Sustainable Fishing Practices and Stock Management System In Proceedings of the International Conference on Sustainable Expert System (ICSES-2024), Pokhara University, Nepal, pp. 597-603. DOI: 10.1109/ICSES63445.2024.10763057.

L. Ramalingam, Raveendra N Amarnath, V. Arun and N.C. Sendhilkumar, Rupavathy Ravi and C. Srinivasan (2024), Enhancing Wound Care in Healthcare Systems with Logistic Regression for Infection Detection, In Proceedings of the First International Conference on Innovations in Communications, Electrical and Computer Engineering (ICICEC). DOI: 10.1109/ICICEC62498.2024.10808487.

Bhargavi, G., Das, M., Banumathi, S., Malarvizhi, E., & Surendran, R. (2024), Leveraging NLP and Quantum Computing for Advanced Agricultural Solutions In Proceedings of the 2024 8th International Conference on Electronics, Communication and Aerospace Technology (ICECA), pp.900-906. IEEE. DOI: 10.1109/ICECA63461.2024.10800767.

Krishna, B.B.S.M., Gupta, A., Reddy, K.J., Vidhyalakshmi, M.K. (2024). Colorizing Images with Split-Brain Autoencoders and Convolutional Neural Networks In Proceedings of the Deep Sciences for Computing and Communications, Second International Conference, IconDeepCom 2023, Communications in Computer and Information Science, vol 2176. Springer, Cham. [https://doi.org/10.1007/978-3-031-68905-5\\_39](https://doi.org/10.1007/978-3-031-68905-5_39).

Dr.M.Vijayalakshmi, Presented a paper in IEEE Conference entitled Enhancing High Density Fish Farming in a Biofloc System through IoT Driven Monitoring system in the month of November 2024. E.Afreen Banu and P.Robert, (2024), Evaluating the Performance of an Incremental Classifier using Clustered-C4.5 Algorithm for Processing Big Data Streams Presented paper in 5th International Conference on Communication, Computing, and Industry 6.0 (C2I6-2024) and received best paper award.

Dr.D.Viji, Presented a paper entitled "Enhancing Electric Vehicle Energy Conservation through ML Algorithms" in the 2024 IEEE flagship international BIT conference Theme: Next Generation Applications in Green Energy Technology, Department of Electrical Engineering, BIT Sindri, Dhanbad on December 2024.

Nirujogi Nandan, Sanjay, R.Manjula, Presented a paper entitled "Low Visibility Pedestrian Detection using Spectral Fusion" in the Fifth International Conference on Sustainable Communication Network and Applications (ICSCNA 2024), 2024.

Rithika S, Manjula R, Presented a paper entitled "Weather-Based Energy-Efficient Building Design for Sustainable Development" in the International Conference on Green Energy Innovations for Sustainable Development (ICSDG 2024), 2024.

## Patent Granted

Dr.S.Priya, Dr.P.Mahalaksmi, Dr.S.Thenmalar has received a design patent grant titled, "IOT Based Agriculture Health Monitoring System", Intellectual Property Rights on 3rd October 2024.

Dr. R. Lavanya and Dr.M.Vijayalakshmi has received a design patent grant titled, "IOT Based Hydroponic Solar Gardening Equipment", Intellectual Property Rights on 19th September 2024.

Dr. S. Nalini, Dr.M.K.Vidhyalakshmi Dr.Ajanthaa Lakkshmanan have received a design patent grant titled "Smart Rf To Bluetooth Converter", Intellectual Property Rights on 25 th October 2024.

## Book Chapter

S.Padmini, D.Siddharth, M.Prabhu (2024), Detecting Pneumonia and COVID-19 by using chest X-ray with ResNet Algorithm, Lecture Notes in Networks and Systems, (pp. 43-51). DOI: [https://link.springer.com/chapter/10.1007/978-3-031-70789-6\\_4](https://link.springer.com/chapter/10.1007/978-3-031-70789-6_4)

***"What ever you do, do it well. Do it so well that when people see you do it they will want to come back and see you do it again and they will want to bring others and show them how well you do what you do."***

***— Walt Disney***

# e- Yantra

Incharge: **Dr.R.I.Minu, Professor**



## EVENT ORGANIZED

A three-day workshop on Digital Twin was held from 21st October to 23rd October 2024, focusing on the application of Digital Twin technology in collaboration with ACM-W, e-Yantra, and IIT Bombay. The workshop was led by Mr. Ashokkumar Mani Sekaran, an entrepreneur, founder, developer, and trainer at Praya Labs. A total of 69 participants, including faculty members, students, and research scholars from SRM Institute of Technology and Hindustan Institute of Science and Technology, actively participated in the event.



A three-days workshop on Digital Twin

## JOURNALS PUBLISHED

Veeraputhiran Angayarkanni, Muthukumar Balamurugan, and Varun P. Gopi. (2024), "Investigation of Deep Learning Image Fusion Techniques for Medical Imaging", Songklanakarin Journal of Science & Technology, 46(4), pp. 347–354. DOI: missing

Kavitha Kamatchi, Kavitha Pillappan, Angayarkanni. V and Prabu Krishnan (2024), "SLIPT Enabled Ground-to-UAV FSO Communication for SAGNET in 6G-IoT Systems", IEEE Transactions on Green Communications and Networking, 14 (8), PP.1-12. DOI: 10.1109/TGCN.2024.3514689

## EVENTS PARTICIPATED

### eYIC'24 – 25 an innovation challenge

eYIC'24 – 25, an innovation challenge by E-Yantra, IIT Bombay, features nine evaluation stages. During the first stage (1st - 30th September 2024), four teams from our e-Yantra lab registered.

In the second stage, one team attended a one-day Ideation Workshop held across five regional centers from October 1 to October 11, 2024. This workshop guided participants through brainstorming and problem identification for project proposals.

Subsequently, seven students from the four teams completed the e-Yantra Online Course on Innovation and Entrepreneurship (MOOC) as part of the challenge.

The third stage, the Ideation Sprint (October 14 - 28, 2024), required teams to select a problem statement and develop a solution, submitting technical and business proposals. One team from our lab advanced to the next stage.

The fourth stage, Impulse Sprint 01, occurred online on November 22, 2024. E-Yantra mentors reviewed projects from all regions, providing insights and an overview of hardware components for the upcoming offline Impulse Sprint 02.

### IRIS'24-Expo

On 22nd November three projects were demonstrated in the Industry Research and Innovation Summit '24 Expo (IRIS'24-Expo). Two projects were kept under Mobility category and one project on Emerging IT category

1. Quick Pick - Virtual Queue Management System
2. Auto Parkuino Automated Parking Management
3. Rescue twin



IRIS'24-Expo



# DEPARTMENT EVENTS

## A Three days Training program on Empowered: Professional Development for Non-Teaching faculties

**Dec 05, 2024**

The Department of Computing Technologies organized a three-day training program titled Empowered: Professional Development for Non-Teaching Faculties to enhance administrative and technical skills. The event was inaugurated by conveners Dr. Santhanakrishnan C, Dr. G.K. Sandhia, Dr. M. Karthikeyan, and Dr. S. Girirajan, with Mr. Ajay Ranganathan as Guest of Honour. Expert-led sessions focused on communication, technology integration, and workplace efficiency. The program concluded with enthusiastic participation and positive feedback, reflecting its success in fostering professional growth.



Professional Development for Non-Teaching faculties Dr.C.Santhanakrishnan addressing the speaker

## INN-ING 2K24

**Dec 07, 2024**

The contest was graced by the presence of Mr. Harish Damodaran, Senior Associate Consultant, Infosys, Mahindra City, who served as the Chief Guest and evaluator. His expert insights and constructive feedback added great value to the competition. After a rigorous evaluation process, two teams emerged victorious, securing the Winner and Runner-Up positions. Their outstanding ideas and presentations set a benchmark for innovation and collaboration.



Distributing certificate to students along with organizer

## Faculty Interaction Meeting

**Dec 10, 2024**

The Department of Computing Technologies hosted a faculty interaction meeting with Prof. Sankar K. Pal, Indian Statistical Institute, Kolkata, and Dr. M. Tanveer, Professor, Mathematics, IIT Indore. The session fostered insightful discussions on emerging research trends and interdisciplinary collaboration in computing and mathematical sciences.

## Cybersecurity Session

**Dec 23, 2024**

The Department of Computing Technologies organized an engaging session with Dr. Arun Balaji Buduru, Head of the Center of Technology in Policing (an initiative of MHA, GoI), Founding Head of the Usable Security Group, Associate Professor, Dept. of CSE at IIIT-Delhi. His valuable insights on technological advancements in policing, cybersecurity, and defense engagements, inspiring students and faculty with his extensive expertise and global academic experience.

## Discussion session on Computational Complexity in Data Structures

**Nov 23, 2024**

The Department of Computing Technologies, School of Computing at SRMIST organized a discussion session on Computational Complexity in Data Structures, led by Professor Venkatesh Raman from IMSc. The session focused on providing analytical insights into the computational complexity of various data structure operations.



Speaker addressing the participants

## Workshop on Academic Oasis Empowering Student

**Nov 20, 2024**

The Long Drive organized a workshop, "Academic Oasis: Empowering Student Wellness," focusing on students' holistic development. The event addressed mental, emotional, and physical health, aiming to help students thrive both academically and personally. It featured expert-led discussions, interactive activities, and practical sessions on stress management, emotional resilience, and balanced living. Key themes included mindfulness, self-awareness, and positive habit formation to support long-term success.



Wellness Program

## OBE Awareness Session

**Nov 22, 2024**

An awareness session titled "Elements of Outcome-Based Education" was conducted on November 21-22, 2024, at iMac Lab and Ramanujam Hall. The session featured esteemed speakers, Dr. M. Eliazer, Dr. K. Vijaya, and Dr. K. Anita. A total of 134 faculty members from the Department of CTECH attended, gaining valuable insights into the principles and implementation of Outcome-Based Education to improve teaching effectiveness and enhance student learning outcomes.



Dr.K.Anitha addressing the participants

## "Workshop on Academic Oasis Empowering Faculty

**Nov 18, 2024**

Smart Guruz recently hosted a unique workshop, "Academic Oasis: Empowering Faculty Wellness," aimed at promoting educators' holistic well-being. The event focused on physical, mental, and emotional wellness to help faculty excel professionally and personally. It featured expert talks and interactive sessions on stress management, work-life balance, and mental resilience. The program highlighted the importance of self-care and mindfulness as essential elements of an educator's daily routine.



Faculty members of SRM Institute of Science & Technology at the Workshop on Academic Oasis: Empowering Student & Faculty Wellness

## Computer Organization Architecture course expo

**Nov 14, 2024**

Project Expo'24 provided a platform for budding engineers, with 89 students from the Computer Organization and Architecture course participating in teams of up to three. After departmental evaluations, 25 teams advanced to the final round. Industry judges Mr. Prem Sasi Kumar (PWC) and Mr. Sarathy Ranganathan (Accenture) assessed projects based on novelty, presentation, demonstration, and societal impact. The top three teams received prizes.



CQA Project Expo'24 group photo

## OBE Awareness Session

**Oct 20, 2024**

The Department of Computing Technologies at SRMIST successfully hosted SRISHTI'24 Product Expo, a premier platform showcasing innovative, environmentally sustainable products poised to revolutionize the future. The expo highlighted advancements in key areas: Agriculture (sustainable farming and resource efficiency), Healthcare (accessible and efficient health tech), Environment (pollution reduction and ecosystem preservation), Green Energy (renewable energy solutions), and Mobility (eco-friendly transportation).



Left: Students participation in Project expo, Right: Dr.G.Nirajana, HoD Providing the

## Vision Screening SDG - 3

**Oct 25, 2024**

A vision screening camp, organized by the Department of Computing Technologies in collaboration with the Department of Ophthalmology and the NSS, benefited around 60 participants, including teaching, non-teaching staff, and elderly individuals. The camp featured a two-level screening process for thorough evaluation. This initiative supported Sustainable Development Goal 3 (Good Health and Well-Being).



Organizers celebrating an event achievement with an award presentation

## 8th Patent School Workshop

**Nov 15-17, 2024**

The Department of Computing Technologies, in collaboration with CIAP and Knowledge Partner Lexorbis, hosted the 8th Patent School Workshop from October 15-17, 2024. The event offered an in-depth exploration of Intellectual Property Rights (IPR), covering patent filing, search strategies, and IP management. With expert sessions, hands-on workshops, and interactive discussions, it attracted students, researchers, and industry professionals. Participants gained practical skills in patent drafting, filing, and analytics. The workshop successfully promoted innovation and IP protection awareness.



Patent School workshop Guest addressing the Participants



# Professional Society and Student Club Activities

## Software Quality Assurance Club

**Nov 09 & 10, 2024**

The Software Quality Assurance Club (SQAC) organized the "Hack and Time" hackathon from October 9-10, 2024, bringing together talented individuals to innovate and collaborate. Participants formed teams and worked on assigned tracks, tackling unique challenges to develop creative solutions. The competition was intense, with teams judged on the quality, feasibility, and impact of their projects. The event highlighted the power of teamwork and innovation, showcasing practical, real-world applications.



Speaker addressing the participants

## Bureau of Indian Standards (BIS)- Outreach

**Nov 08, 2024**

The Bureau of Indian Standards (BIS) and SRM Institute of Science and Technology (SRMIST) conducted an outreach program on November 8 at Government High School, Rathinamangalam, Tamil Nadu. The event aimed to raise awareness about safety standards and BIS certification marks like the ISI mark and Hallmark. Around 100 students and faculty participated, learning about BIS's role as India's national standards body. The program featured a presentation on BIS's establishment and importance, along with activities and quizzes to reinforce the concepts.



Chennai, Tamil Nadu, India  
Yandakur, Chennai, 600127, Tamil Nadu, India  
Dr.Arunchalam addressing the School Students

## CSI SRM KTR Branch Inauguration 2024

**Nov 09, 2024**

The CSI SRM KTR Student Branch was inaugurated, marking a key step in technological and professional growth. The event began with a lamp lighting and speeches, including one by Dr. M. Murugan, who highlighted innovation and CSI's role in shaping future professionals. Dr. M. Pushpalatha emphasized society's impact on student development and initiated the branch. Dr. Madhumitha K and Dr. J.D. Dorathi Jayaselli welcomed attendees and shared the branch's future plans.



CSI Inauguration Dr. Pushpalatha lighting the kuthuvilaku

## Gen AI Event 2024

**Nov 09, 2024**

The event began with 28 teams, where Round 1 challenged participants to create visuals from text-based problems using Gen AI tools, judged on creativity, relevance, and clarity. 25 teams advanced to Round 2, where they built websites integrating their images using Gen AI or no-code platforms, evaluated on aesthetics and user experience.



Students Involvement in event

## House of Coders Hackathon

**Oct 24 & 25, 2024**

The House of Coders hackathon, organized by the Computer Society of India (CSI) at SRMIST on October 24-25, 2024, featured 224 participants across 62 teams from SRM and Pondicherry colleges. This 24-hour coding marathon encouraged collaboration and innovation in tech solutions. Dr. Senthil Kumar, Chairperson of the CSI Kancheepuram Chapter, inaugurated the event with a motivational speech and the ceremonial lighting of the lamp.



CSI Student Branch - Hackathon event

## IEEE-Computer Society hosted a Tech Talk

**Oct 24, 2024**

SRMIST IEEE-Computer Society hosted a Tech Talk on "Bytes of Wisdom: Exploring Data Science Path" at Turing Hall, Tech Park. The Chief Guest provided an overview of data science, emphasizing data collection and analytics. The session highlighted the impact of new technologies on data-driven fields with real-life examples. Attendees gained valuable insights into data science's evolving landscape and how to apply these concepts to real-world challenges.



CSI Inauguration Dr. Pushpalatha lighting the kuthuvilaku



# IEI Student Chapter

## Hackathon

**Nov 6, 2024**

IE(I) Student Chapter, Computing Technologies organized a 36-hour hackathon with whirlwind of creativity, challenges, and breakthroughs in the National Convention on Unlocking the Potential of Artificial Intelligence and Machine Learning, on 6th and 7th November 2024. Mr. Tanay Agarwal, Senior Software Engineer, Volante Technologies and Adhithya Prasanna M, Senior Software Engineer, Volante Technologies judged the event. Totally 35 incredible teams presented their inspiring projects and ideas. Winners were awarded with cash prizes.



CSI Student Branch - Hackathon event

## Poster Presentation

**Nov 6, 2024**

Our department is delighted to share the success of the National Convention on Unlocking the Potential of Artificial Intelligence and Machine Learning, held on November 6-7, 2024, at the T.P. Ganesan Auditorium, organized by the IE(I) Students' Chapter, Computing Technologies. The event featured a Poster Presentation on November 7, 10 AM – 12 PM at Mini Hall 2, where teams of 2-3 members showcased innovative ideas. Esteemed industry experts, including T. Ganesh Kumar (CEO, Sysout Solutions) and Adhithya Prasanna M and Tanay Agarwal (Senior Software Engineers, Volante Technologies), shared valuable insights into the transformative potential of AI and ML, making the convention a grand success.



Poster Presentation



## Model Competition

Nov 6, 2024

Our department is pleased to share the success of the National Convention on Unlocking the Potential of Artificial Intelligence and Machine Learning, held on November 6-7, 2024, at the T.P. Ganesan Auditorium, organized by the IE(I) Students' Chapter, Computing Technologies. A key highlight of the event was the Model Competition, conducted on November 7, 10 AM – 12 PM, at Turing Hall – TP 816, where teams of 2-3 members showcased their innovative AI and ML models. Esteemed industry experts, including T. Ganesh Kumar (CEO, Sysout Solutions, Chennai), Adhithya Prasanna M, and Tanay Agarwal (Senior Software Engineers, Volante Technologies), shared their expertise, inspiring participants and making the event a resounding success.



Model Competition

## Individual HQ Award Appreciation

The IE(I) Students' Chapter, under the Department of Computing Technologies at SRMIST, earned recognition at the 39th Indian Engineering Congress in Kolkata. The chapter was praised by the Southern Zone for Outstanding Enrollments (FY 2023-24) for its significant contribution to increasing student memberships. This recognition highlights the growing enthusiasm and active participation of SRMIST students in professional activities. It reflects the hard work and collaborative efforts that make the IE(I) Students' Chapter a center of growth and innovation.

Proud Moment for IE(I) Students' Chapter and the Department of Computing Technologies at SRM Institute of Science & Technology! The IE(I) Students' Chapter, under the Department of Computing Technologies, has achieved remarkable recognition at the 39th Indian Engineering Congress, hosted by the West Bengal State Center, Kolkata! . Appreciation from the Southern Zone for Outstanding Enrollments (FY 2023-24).



Southern Zone for Outstanding Enrollments

# ACM Student Chapter

## SRM University ACM Student Chapter *Dec 20 & 21, 2024*

The ACM Summit India Chapter 2024 held on the 20th and 21st of December, was a vibrant space for innovation, knowledge sharing, and collaboration with over 120+ participants from around 70+ student chapters all across India. Centered around the theme "Sustainable Computing," the summit emphasized the importance of environmentally conscious advancements in technology. Bringing in computing professionals, academicians, and students of diverse backgrounds, the summit was a platform to discover the latest advancements and interact with the ACM community. It was a moment of pride being a part of such an event, which brings unprecedented opportunities to engage with the world's thought leaders in order to exchange ideas for furthering the future of computing.

The days were filled with insightful and very captivating speeches, delivered by truly remarkable people, interactive discussions and networking with professionals, innovators and other chapter members of the ACM family from all around India.

Our team of representatives consisted of our faculty coordinator Dr.Suchithra M, along with student coordinators, Ms. S Sembon Surakshitha and Mr. Nihal Sivapuram.





## Alumni Activities

### Mock Interview **Dec 07, 2024**

The Mock Interview session for 3rd-year B.Tech CSE students was a valuable experience, helping students improve their skills and gain confidence with expert guidance from alumni. The event prepared students for real-world job interviews and strengthened alumni-student connections. The department plans to continue such events to enhance students' employability and professional growth.

### Bridging Generations: Alumni Insights for Future Innovators **Dec 09, 2024**

On Nov 09th, 2024, SRMIST Computing Technologies department in association with Alumni Affairs hosted an Alumni Talk titled "Bridging Generations: Alumni Insights for Future Innovators" by Ms. Abhinav. Mr. Abinav unanimously agreed that in today's fast-paced world, the ability to innovate and adapt is crucial. Technological advancements and globalization have reshaped industries, and future innovators

### Mock Interview

**Oct 26, 2024**

On October 26th, 2024, SRMIST's Department of Computing Technologies, in association with Alumni Affairs, hosted an Alumni Talk and Mock Interviews with industry professionals. The panel included Mr. Ayush Bharathi (NatWest), Mr. Ujjwal (Deloitte USI), and Mr. Praful Mishra (TCS Digital), who shared valuable insights and evaluated participants. A second round of mock interviews took place on November 26th with Mr. Yarkam Vivek Reedy and Mr. Sailesh Sridhar (TCS). Their expert feedback bridged academic knowledge and industry expectations, enhancing the students' learning experience.

***"Writing is a skill, not a talent, and this difference is important because a skill can be improved by practice."***

***— Robert Stacy McCain***



## Saraswathy Pooja Celebration

The Saraswati celebration was a vibrant cultural event honoring the goddess of knowledge, music, and arts. It featured captivating performances of traditional dances, music, and literary recitations. The beautifully decorated venue embodied wisdom and creativity, creating an inspiring atmosphere for all attendees. This enriching celebration fostered a deeper appreciation for learning and the arts.



## SCO Christmas Celebration

The Christmas celebration was a joyous event filled with festive spirit and laughter. Attendees enjoyed a variety of activities, including carol singing, gift exchanges, and a delicious feast. The beautifully decorated venue created a warm and inviting atmosphere, fostering a sense of community and togetherness. Overall, it was a memorable celebration that brought people together for the reason for the season.





குறள் 973:

மேலிருந்தும் மேலல்லார் மேலல்லர் கீழிருந்தும்  
கீழல்லார் கீழல் லவர்.

maelirundhum maelallaar maelallar keezhirundhum  
keezhallaar keezhal lavar

Though (raised) above, the base cannot become great;  
though (brought) low, the great cannot become base.



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