









# SMART SPRINKLERS

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#### **Mr.N.A.S Vinoth**

Presented the content under the section "Student Achievements"

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

Outlined the content for the section "Faculty Upskilling

Department of CTECH Tech Park 8th floor ctechnewsletter@gmail.com

### **EDITORIAL MESSAGE**



Dear Concomitants!

Happy to meet you all in the second Quarter of 2024! Sure, this quarter has invisible credits to the contributors!!!

In today's age of rapid technological advancement, it's fascinating to look back at the roots of computer technology and discover the invaluable contributions made by ancient Indian innovations. The rich tapestry of ancient Indian civilizations was interwoven with scientific and mathematical discoveries that laid the groundwork for modern computing. Here, we delve into

some of the remarkable contributions that echo through the corridors of time.

ALGORITHM 1: Concepts of Zero and Decimal System: One of the most significant and revolutionary contributions to mathematics came from ancient India with the concept of zero (shunya). The concept of zero as a placeholder and its integration into a decimal system were pivotal for the development of arithmetic and mathematics, forming the backbone of modern computer algorithms and programming languages.

ALGORITHM 2: Indian Mathematical Treatises: The Sulba Sutras, ancient Indian texts dating back to 800–500 BCE, contained mathematical principles for constructing altars and religious spaces. These texts laid the foundation for geometry, offering insights into areas, perimeters, and Pythagorean triples. The logical reasoning and mathematical formulas present in these texts served as precursors to algorithms used in computing.

 $ALGORITHM\ 3: A strological\ and\ A stronomical\ Calculations: Indian\ a stronomers\ like\ A ryabhata\ and\ B rahmagupta\ made\ significant\ strides\ in\ a stronomy\ and\ mathematics. A ryabhata\ s\ work\ included\ the\ concept\ of\ trigonometry\ and\ algorithms\ for\ a stronomical\ calculations. Their\ computational\ methods\ formed\ the\ basis\ for\ algorithms\ used\ in\ modern\ computing\ systems.$ 

ALGORITHM 4: Ancient Mechanical Calculating Devices: The 'Yantra' system, a form of mechanical devices used for calculations, emerged in ancient India. Instruments like the 'Astrolabe' were employed for astronomical calculations, showcasing an early form of computational technology.

ALGORITHM 5: Language Structures and Grammar: Panini, an ancient Sanskrit grammarian, developed the foundation of formal language theory. His work on grammar laid the groundwork for language structures and parsing, which are crucial components of modern computer programming languages and compilers.

These remarkable contributions from ancient India weren't merely isolated advancements. They laid the groundwork for critical mathematical and computational concepts that continue to shape the technological landscape today. While these concepts didn't directly lead to the creation of modern computers, they provided the fundamental building blocks and conceptual frameworks that later innovators and scientists built upon. The brilliance and foresight of these ancient minds continue to inspire and shape the digital world we inhabit today and their legacy continues to resonate in the heart of modern computing.

Keeping that in mind, the department of Computing Technologies strive hard to bring excellence in all walks wherever there is no path exists. The verticals are blooming in the subjects of Accelerated Computing, Quantum Computing, Visual Computing, Green Computing, Multilingual Computing and Theory of Computation through various activities for students, research scholars and faculty members by bringing national and international eminents in the field.

"Success s not final; Failure is not fatal; It is the courage to continue the counts" - Winston Churchill Stay Tuned! Sure, You will be autotuned Soon!!

Jr. B. Amutha

SoC-Newsletter—Head
Department of Computing Technologies

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### Message from Head of the Department



Dear Readers.

Seasonal Greetings!

With great pleasure, I commemorate the CTech Department's Best Practices & Pride in The Official Newsletter 'THE SMART SPRINKLERS' Volume 3 Issue 4 for the first quarter of the New Year 2024. Being the middle of the semester, Our nimbleminded team of faculty members and student

fraternity has evolved a lot of exploration in Industry Connectivity, Multi-domain winning streak at National and Global platforms and thereon. Nevertheless, we are bragging about our prowess in the non-academic acquisition through vanquishing moments.

Besides the accreditation season, I appreciate the Team-CTech for the marvellous expedition and Wish for a persuasive Journey.

"Leave a legacy that makes a positive difference in the world."
- Ratan Tata

Dr. M. Pushpalatha
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.Ida Seraphim

Research Supervisor: Dr.E.Poovammal

Title: Design and Development of Intrusion Detection System in Streaming Data Using Machine Learning Techniques

Dr.K. Janani

Research Supervisor: Dr. S. Ramamoorthy

Title: Defensive Model For IoT Based Security Attacks Using Blockchain And Deep Learning Approach

Dr. N. A. S. Vinoth

Research Supervisor: Dr. A. Rajesh

Title: An Automated learning of Unsolicited mail detection using BiLSTM and GFGSC Classifier with GOA to proliferate accuracy

### **New on Board**

We are delighted to have you all among us. Our good wishes on becoming part of our enthusiastic team.



Dr. Shiju Kumar P S
Assistant Professor



Dr. Lubin Balasubramanian
Assistant Professor



**Dr. Mathan Kumar** Assistant Professor



**Dr. Soshya Joshi**Assistant Professor



### ELEVATING EXCELLENCE: FACULTY PROMOTION AND ACKNOWLEDGMENT

CONGRATULATIONS ON YOUR CAREER ELEVATION. YOUR CONTRIBUTIONS HAVE NOT ONLY ENHANCED OUR TEAM BUT HAVE ALSO INSPIRED THOSE AROUND YOU.

#### WISHING YOU CONTINUED SUCCESS!





PROFESSOR

DR. DEEBAN CHAKRAVARTHY V



ASSOCIATE PROFESSOR

DR. C. JOTHI KUMAR



ASSOCIATE PROFESSOR

DR. M. SUCHITHRA



ASSOCIATE PROFESSOR

DR. B. ARTHI



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DR. B. KANISHA



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DR. G. K. SANDHIA



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DR. P. SARANYA



ASSOCIATE PROFESSOR

DR. S. POORNIMA



ASSOCIATE PROFESSOR

DR. C. SINDHU



ASSOCIATE PROFESSOR

DR. J. KALAIVANI



ASSOCIATE PROFESSOR

DR. M. ARUNA



ASSOCIATE PROFESSOR

# SRMIST's Visual Computing Vertical and Madras Mind Works Collaborate for Technological Advancement





A significant Memorandum of Understanding (MoU) was forged between the Visual Computing Vertical, Department of Computing Technologies, SRMIST, and Madras MindWorks, Chennai. This momentous occasion was followed by the inauguration of the Visual Computing Research Community (VCRC) and the launch of Visual Computing Vertical's website by Mr. S. Sathyapriyan, Director of MMW. This collaboration was initiated by Dr. M. Aruna aiming to foster innovation and advancement in the field of visual computing through joint research endeavors and knowledge exchange.

# Empowering Quantum Futures: SRMIST's Quantum Computing Vertical Teams Up with BosonQ Psi



The signing of the MoU between BosonQ Psi and Department of Computing Technologies marks the start of a collaborative effort. BosonQ Psi, a Bengaluru-based Quantum SaaS software startup, specializes in engineering simulation software powered by quantum computing. The MoU aims to enhance academic, educational, and research cooperation. BosonQ Psi offers internship opportunities to SRMIST students, fostering practical learning experiences and strengthening ties between industry and academia

#### **Awards**

Dr. E. Poovammal received an Award of Appreciation on the occasion of International Women's Day 2024 from the India Universities and Institutions Network for Disaster Risk Reduction (IUINDRR), National Institute of Disaster Management NIDM Ministry of Home Affairs, Govt. of India for the Implementation of Best Practice titled "Empowering Women for Enabling Everyone", included in the Compendium on "Women's Role in Disaster Risk Management" on 8th March 2024.





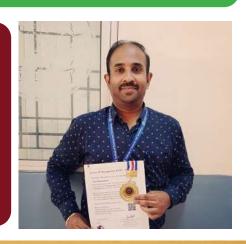


Dr. B. Sowmiya and Dr. B. Ida Seraphim received a one-time incentive of Rs. 2,50,000/- each under the Visveswaraya Ph.D. scheme funded by Miety for completing the Ph.D. under the guidance of Dr. E. Poovammal on 18th March 2024.



Dr. Padmini S, received the Best Patent Award from IEEE Madras Section for the Outstanding Intellectual Property Award on 23rd February 2024.

Dr.V.Arun received Medal of Excellence and titled Best Architectural Photography Award, for the photography excellece during an online talent search event held for photographers from all over INDIA & NRI organized by Innovize Arts & Culture, Registered under M.S.M.E, Government of India.



#### **Post Doctoral Fellowship**

Dr.V.Angayarkanni has received a Post-doctoral Researcher topic on "An Analysis of IoT Based Smart and Secure Surveillance System", one-year term under the supervision of Dr. Tan Kuan Tak, Associate Professor, Power & Energy Lab, Singapore Institute of Technology, Singapore.



Dr.P.Rama has received a Post-doctoral Researcher topic on "The Classification Techniques for Cancer Cell Prediction in the Health Care System using Deep Learning Techniques" one-year term under the supervision of Dr. Tan Kuan Tak, Associate Professor, Power & Energy Lab, Singapore Institute of Technology, Singapore.



Dr.A.Pandiaraj has received a Post-doctoral Researcher topic on "An Analysis of Malarial cell detection in Healthcare Analysis using machine learning Techniques", one-year term under the supervision of Dr. Tan Kuan Tak, Associate Professor, Singapore Institute of Technology, Singapore.



#### Quantum Lab Visit by IISC Professor



Prof.Arindam Ghosh , Department of Physics from IISC, Bengaluru visited Quantum Computing Lab and gave insights on research on Quantum Computing and ideas on how to write and focus on Proposals for National Quantum Mission (NQM)

#### **Samsung PRISM Achievements**

Samsung PRISM stands for Preparing and Inspiring Student Minds. It is a student program initiated by Samsung, offering students a chance to work on real-world projects, interact with Samsung's top technical experts and provide hands-on experience in core technology domains. As part of this program, Students and Professors will form teams. Each team will be assigned a work-let and a mentor from SRI-B.

#### Samsung Collaboration: Empowering Students through Internship



With excitement we announce that internship offered by SAMSUNG R&D with a stipend of Rs 50,000/month for six students from CTECH deptartment and one student from CINTEL department.

Received reward of worth 36,18,000/- from 50 worklets since phase 1 to phase 5.

Remarkable worklets are awarded with Certificate of Excellence with 900 USD for a team of student and faculty mentors.

### Consultancy and Government Funding

Dr. Aruna received consultancy work from RK Builders for a project worth INR 1,05,000/-. Her expertise was instrumental in optimizing RK Builders' operations, contributing to their growth and success. The collaboration exemplified a commitment to delivering high-quality consultancy services tailored to RK Builders' needs.

Dr.S.Kiruthika devi working on the consultancy project titled "Marine Object Detection From The Remote Sensing Images" for the company named Geo-sensing and Imaging Consultancy, Trivandrum, Kerala, worth Rs. 1,21,000/.

Dr. R.I. Minu and Dr. M. Suganya were granted 3.5 lakhs from AICTE-ATAL for conducting an FDP on Precision Health Technology. This initiative aimed to foster expertise and innovation in the field, facilitating advancements in healthcare. The funding underscored AICTE's commitment to promoting research and education in emerging areas of technology and healthcare.

### Apollo Tyres Collaboration: From Visit to Deployment



In November 2023, C-Tech students and faculty visited Apollo Tyres Ltd for collaboration. The 24-member team, including students, industry mentors, and faculty, commenced a 5-month project phase from December 1st, 2023. The first two teams successfully deployed their projects at Apollo R&D, with the rest progressing towards UI design after completing technical implementation.

### Students Achieve Success through PMKVY Skill Certification



The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the premier program of the Ministry of Skill Development & Entrepreneurship (MSDE). This Skill Certification Scheme aims to empower a vast number of Indian youth by providing them with industry-relevant skill training, enhancing their prospects for better employment opportunities. Twenty students from SRMIST have successfully completed their skill training and received PMKVY certificates under this initiative. This certification also opens up various job opportunities for the recipients.

### National Conference on FCOM - Finteeli 24



National Conference on Futuristic Computing Trends in Financial Technology (FCOM- Fintech'24) was organized in association with STTI and **SPRINGER** (CCIS) on 29-30 January 2024. Dr. Tricha Anjali, Founder and CEO, Numberz.ai Lead Software Pine Mr.Jayendra Sudharson. Ac, labs Mr. Raghu Venkat, Chief, Product Officer, IPPOPAY, Mr. Ashfaq Shaik, vice president, Architecture & Engineering, Broadridge financial solution (India) Pvt. Ltd Mr.Srini Sundar, CEO,Unanu Technologies were the guest who witnessed the two day conference.

The conference theme was stated as contemporary FinTech universe and challenges, & Oppurtunities and future trends. The event was convened by Prof., Dr. S.S. Sridhar, and Dr.S. Ramamoorthy.

#### BONGLAVIE



A Mega event titled "Third Regional Conclave of Students' Chapters (Southern Region) on the theme "Shaping the Future: Trends and Insights for Tomorrow" was held on March 13, 2024. in association with IE(I) Head Quarters and IE(I) KTR Local Centre and IE(I) TNSC. It is aimed to foster innovation, collaboration, and knowledge exchange among students and faculty members. The presence of notable personalities such as Shri. APJMJ Sheik Dawood, Co-Founder of the APJ Abdul Kalam International Foundation, and Dr. V. Karthikeyan, Chairman of the TNSC, Mr. Gokul, Hon. Secretary of IE(I) TNSC, IE(I), and Dr. Elango , Chairman of IE(I) Students' Chapter added immense value to the conclave. The event was convened by Dr S. Umadevi., Dr. Jayaparadha, and Dr. Elizer.

### Project EXPO





The Department of Computing Technologies, School of Computing, SRMIST conducted Project Expo'24 - CTECH on March 27th, featuring innovative works by BTECH(CSE) students from all years. The projects delved into various areas such as IoT, Automation, AR & VR, Societal Applications, Smart Agriculture, and projects in healthcare. Winners were rewarded with exciting prizes for their achievements.

# Hobal Logic Forge Partnership for Boosting Student Garcers



A significant Memorandum of Understanding (MoU) signied with Global Logic to facilitate JAVA and Dot.Net training programs for students. This collaboration is intended to secure placements at reputable firms upon completion of their training. Additionally, faculty members involved in the training program have been recognized for their contributions and expertise, receiving certificates of appreciation. Eleven students have witnessed with the palcement through this training program. The collaboration was inititated by Dr. B. Muruganandham.

#### ROBOROAR7Z





SRM Institute of Science and Technology is elated to announce the triumphant success of our robotics team at the prestigious RoboRoarZ Competition in Singapore. Against a formidable field of over 60 teams and 250+ participants from five nations, our CTech students have emerged victorious, securing both 1st and 2nd place titles! Introducing

Team 1 (1st Place):

- Rishit Tandon (C.Tech)
- Ankush Anand (EIE- Automation & Robotics)
- Maulik Dave (C.Tech)
- Arvind Sekhar (EIE- Automation & Robotics)

Team 2 (2nd Place):

- Diptayan Jash (C.Tech)
- Siddhima Singh (DSBS- Big Data)
- Medhir Aryan (NWC- Cloud)
- Vinayak Soni (C.Tech)

Hosted at the esteemed Singapore University of Technology and Design (SUTD), the RoboRoarZ Competition posed a challenging test of coding prowess, robotics engineering, and strategic acumen. Our students demonstrated remarkable teamwork and exceptional problem-solving abilities, showcasing their innovative SMORPHI robots with precision and adaptability that captured the admiration of all.

This monumental victory underscores SRM Institute of Science and Technology's steadfast commitment to nurturing the next generation of STEM leaders. We extend our heartfelt congratulations to our RoboRoarZ champions for epitomising excellence and bringing immense pride to our institution. Their remarkable achievement reaffirms our belief that relentless passion, coupled with dedicated effort, charts the course to extraordinary success.

#### MITARS Hobertak Internsl



We are thrilled to announce that eight of our talented students have been selected to participate in the prestigious MITACS Globalink Research Internship program, which provides opportunities to work on collaborative projects with host universities across the world. This program is highly competitive and offers a unique chance for students to gain global experience in their respective fields of study.

Here are the exceptional students who will be representing our institution on the global stage:

Niloy Nath - Registration No. RA2111003010647
Rohan Sonthalia - Registration No. RA2111003010477
Vanshika Agarwal - Registration No. RA2111003010418
I. Nikhil - Registration No. RA2111003010984
Sai Satya Narayana - Registration No. RA2111003011154
Shashwat Ganesh - Registration No. RA2111003011536
Shashwat Singh - Registration No. RA2111003011659
Pushkar Rajkumar Tuse - Registration No. RA2111003010178

### Sports



Om Nithin first year from SRM University participated in 13th Smt.MANJULA MUNIRATHINAM MEMORIAL CRICKET TROPHY 2024 and scored 118 runs in 2 matches and won the man of series award of the tournament

Sports



Bansod Malvika – RA2011003011385 Won South Zone Inter University Badminton Tournament for the second time in history of SRM University on 5th January 2024



In the four-day international challenge badminton tournament at Baku, Azerbaijan on Feb 11th, 2024. The 22-year-old Malvika clinched the women's singles title. In an interesting final, Malvika defeated compatriot Tanya Hemnath 21-15, 22-20 in 51 minutes

### **World Youth Festival at Russia**

Yashika Arora, a student hailing from our esteemed SRM Institute of Science and Technology, has been selected as one of the 360 delegates to represent us at the World Youth Festival in Sochi, Russia. The opportunity for Yashika to meet with Vladimir Putin is undoubtedly a moment of great honour. She has been offered a position by the SR Space Organization.



### **Testimonials**

Robot Champion

Participating in the Roboroarz Singapore Hackathon was an exhilarating journey. The competition's intensity pushed us to excel, resulting in a second-place finish among participants from 60 countries. This achievement reflects our team's dedication and hard work. Being part of such a dynamic event was truly inspiring, and we eagerly anticipate our next challenge. The experience provided valuable learning opportunities, and we are grateful for the support and guidance from our mentors



Rishit Tandon

### Drome Mester



I extend my heartfelt gratitude to the Head of the Department and the esteemed Professor for their indispensable role in our academic and personal growth. Their continuous support has provided us with diverse opportunities, including participation in competitions, which have contributed significantly to our development. Under their guidance, we have not only broadened our knowledge but also refined skills that extend beyond the classroom. Their unwavering confidence in our abilities has inspired us to tackle challenges and pursue excellence in every aspect of our journey. Competing in various events has undoubtedly been a memorable highlight of our college experience, thanks to their unwavering encouragement and backing

HARSHA AADHARSH K D J

### **Feedback from Samsung Mentors**

"SRM contributions towards the PRISM projects have been invaluable. I really appreciate the endeavours, guidance and the meticulous work with which college teams have elevated the scope of success of all the projects. I am extremely glad that SRM has been a prominent part of our program & it has gone out extra mile taking the time and collaborative efforts towards the betterment of PRISM program. I henceforth, express my gratitude for leaving no stone unturned. We look forward to many such exceptional future collaborations esteemed organization."

Prakhar Chandrakar PRISM Manager Samsung

"SRM's exceptional dedication to the PRISM program has been invaluable, maintaining project success and elevating outcomes. Their unwavering efforts, guidance, and meticulous work have been crucial to our program's success. We deeply appreciate SRM's collaborative spirit and look forward to continued fruitful collaborations in the future."

Vishu Kumar PRISM Head General Manager Samsung

### Feedback from Apollo Tyres

Thank you very much for your kind initiative of collaborative project works between SRM C-Tech and R&D Apollo Tyres. Your students are really enjoying the challenge of application-oriented research in solving our real-time industry problems. As industrial partner, it's a win-win situation for us as well, able to utilize the latest tools & technologies from the academia. We ought to appreciate each of the six teams, comprising of students and their respective faculty mentors along with our scientists as corresponding industry mentors for their keen interest and the progress being made. The incredible monthly milestone review meetings, being co-ordinated by Dr B. Kanisha Associate Professor/ C-Tech also call for a special credit. Going forward, I am confident that next phase of these collaborative projects would be more challenging with wider scope and lead to multi-disciplinary research

Mr. P. Unnikrishnan, Head of R&D at Apollo

### **Student Achievements**

Shubh Kaushik - RA2211003010456, from Second Year CSE G1 section along with his team presented their prototype at IIT Kanpur on 15th March 2024.



Team of three members at IIT Kanpur

Parth Bhargava - RA2211003010254 and Dhruv Bhojaraj - RA2211003010522 from Second Year CSE received Award of Excellence with Cash Prize Rs.4000 and \$480 worth of Axure credits in CAD 2.0 Hackathon held between 14th to 17th March 2024 Organized by Coding Ninja Club, SRMIST.

Jaykumar Patel - RA2111003011218, Chirag Gupta - RA2111003010171, Anand Kumar - RA2111003010170 and Shubh Patel - RA2111003010151 from Third Year CSE won the SOCIO-TECH HACKATHON 2024 held at KPR College of Arts Science and Research, Coimbatore, on 29th and 30th January 2024.

Nitin Nagar - RA2111003010868 from Third Year CSE won the International Rover Challenge at PSG iTech Coimbatore, Tamil Nadu held between 24th to 29th January.

Ayushi Gupta - RA2111003010662 from Third Year CSE won the Technical Talk event titled

Technovate'24 at SRMIST on 7th February 2024.

Shivam Umang Mitter - RA2111003011074 from Third Year CSE won the hackathon titled DS HACKS 2.0 at SRMIST from 1st to 2nd February 2024.

Jay Kumar patel from Third Year CSE won the Hackathon ANVESHAN2023 held at SRMIST from 19th February 2024 to 20th February 2024.

Hanumanth Kumar Motepalli and Eswara Manikanta Chandra Prasad Perumalla from Third Year CSE won the Trinity Hackathon held at SRMIST on 20th February 2024.

S Sujith Kumar - RA2211003011243

from Second Year CSE Won the Best delegate with cash prize Rs. 6000 and best delegation team trophy in SOELMUN 2024 hosted by Tamil Nadu Dr. Ambedkar University on 1st to 3rd March 2024.

B. Naveen - RA2211003010352 Won Silver Medal in Research Day 2024 held on 6th March 2024 Organized by Directorate of Research, SRMIST.

Krishna Jain - RA2211003010429 from Second Year CSE G1 section along with his team secured First place in the Ideathon ThinkTank conducted by Microsoft Learn Student Ambassadors at SRMIST on 2nd March 2024.

Anouska Jhunjhunwala - RA2211003010637 and Hardik Malani - RA2211003010334 from Second Year CSE Secured first Position with Cash Prize Rs.10,000 in Innofusion 2024 a hackathon held on 22nd and 23rd February 2024 organized by Department of data science and business systems.

Rakesh Kanneeswaran Maravar - RA2211003010573, Rohit Kumar - RA2211003011044 and Tedla Haneesh - RA2211003011066 from Second Year CSE Secured First Position with Cash prize Rs.15000 in Pentathon a Webathon event organized by Next Gen Al club CINTEL and Bajaj FinServ held on 14th to 15th February 2024.

Krishna Jain - RA2211003010429 from Second Year CSE Secured First Position in Ideathon ThinkTank held on 2nd March 2024 Organized by Microsoft Learn Student Ambassadors, SRMIST.

Kristen Talukdar - RA2211003010419 from Second Year CSE Secured First Position in TechTrek hackathon held on 25th January 2024 Organized by IEEE students' chapter, SRMIST

Maulik Dave - RA2211003010549 and his Team from Second Year CSE II Section Secured First Position in Roboroarz 2024 Organized by the Singapore University of Technology and Design, Singapore.

Kristen Talukdar - RA2211003010419 and Suyash kumar - RA2211003010516 from Second Year CSE GI section along with her team secured First place in the TechTrek event organized by IEEE SRM on 25th January 2024.

Harsha Aadharsh - RA2211003010942 from Second Year CSE Secured First Position with Cash Prize Rs.5000 in Drone Race hosted by MIT Chrompet held on 16th March 2024.

K D J Harsha Aadharsh - RA2211003011942 from Second Year CSE Secured First position in FPV drone race Organized by Chennai Institute of Technology held on 29th February 2024.

Harsha Aadharsh - RA2211003010942 from

Second Year CSE Secured First Position in Kanchipuram Drone event with cash prize Rs.16000

Akarsh Ghildyal - RA2211003011111 from Second Year CSE secured First position with a Cash Prize of Rs.15000 and an Award of Winning and Excellence in HACKNOVA held on 11th and 12th March 2024 organized by NSCC SRMIST.

Rakesh Kanneeswaran - RA2211003010573 from Second Year CSE Secured first Position with Cash Prize Rs.3000 in Leap 2024 organized by Department of Computing Technologies and IEEE Computer Society of SRMIST on 1st March 2024.



A Team Secured First Prize at LEAP 2024, SRMIST

Anouska Jhunjhunwala RA2211003010637 and Hardik Malani RA2211003010334 from Second Year CSE secured first Position with a cash prize Rs.25,000 in DevsHouse'24, a 36 Hours Hackathon held between 15th March 24 – 17th March 24 organized by GDSC VIT Chennai.

N. Subramanian - RA2211003010465 of II-year G1 section along with his team has secured second prize in the Ideathon 4.0 event organized by SRM Hackathon Club on 2nd March 2024.

DEVANAND K - RA2211003011171 from Second Year CSE Secured Second position in CODE CLASH "CYBERFEST 2K24" conducted by IT & BCA of DDGD Vaishnav College on 29th February 2024.

Anouska Jhunjhunwala - RA2211003010637, RA2211003010622, Bansal Ashiv Gupta - RA2211003010635, Varun RA2211003010632, Prakash Krishna RA2211003010651, Agarwal Nipun Dhiman - RA2211003010626, Hardik malani - RA2211003010334 and Diptayan Jash Secured Second Position with Cash Prize Rs.10000 in Pentathon a Webathon event organized by Next Gen AI club CINTEL and Bajaj FinServ held on 14th to 15th February 2024.

Rakesh Kanneeswaran Maravar - RA2211003010573 from Second Year CSE Secured Second Position with Cash Prize Rs.6,000 in Innofusion 2024 a hackathon held on 22nd and 23rd February 2024 organized by the Department of data science and business systems.

Tanmay Agrawal - RA2211003010361 and Jatin Kumar - RA2211003010373 from Second Year CSE Secured Second Position with Cash Prize Rs.10,000 in Hacknova held on 12th March 2024 organized by Newton School Coding Club, SRMIST.

N. Subramanian - RA2211003010465 and Samarth Mishra - RA2211003010659 from Second Year CSE Secured Second Position in Ideathon 4.0 held on 2nd March 2024 organized by SRM Hackathon Club, SRMIST.

Shyam Kaarthikeyen - RA2211003011237 from Second Year CSE Secured Runner Up in Coding Event at Whimzial XP organized by SIMATS Engineering, Chennai held on 15th March 2024.

Anouska Jhunjhunwala, Devanshi Agarwal from Second year CSE along with her team secured Second Runner-up at the Pragyan Hackathon, held during NIT Trichy's annual international techno-managerial festival conducted at Virtusa, Navalur Campus,

Chennai on 27th and 28th January 2024.

The Team Secured Second Runner-up at the Pragyan Hackathon

Dev Pratap Singh Jadaun - RA2211003011888 from Second Year CSE Secured Second RunnerUp in Coding Premier League held on 14th Match 2024.

Om Arora - RA2211003010120 from Second Year CSE secured Third Prize including reward Wio Terminal, Tryhackme 3 months voucher and goodies in Pecan+ CTF, a cyber challenge held on 5th March 2024 organized by PALS along with Edith Cowan University Australia, at IIT Madras.



A team Secured secured Third Prize in Pecan+ CTF at IIT Madras

Ishit Dandawate - RA2211003011143 from Second Year CSE secured Third position with Cash Prize of Rs.5000 and Award of Excellence in HACKNOVA held on 11th and 12th March organized by NSCC SRMIST.

Atharv kumar - RA2211003010337 and Tanishq Pokharia - RA2211003010342, from Second Year CSE Secured Third Position with Cash prize Rs.5000 in Pentathon a Webathon event organized by Next Gen Al club CINTEL and Bajaj FinServ held on 14th to 15th February 2024.

Mayurathvajaa V - RA2211003010941 and his team from Second Year CSE Secured Third Position with Cash Prize Rs.5000 in Hack Fest 2024 organised by the department ECE, SRMIST held on 28th Himal Chaudhary - RA2311003012323 from First Year CSE Secured Second Prize in International students sports week organized by International relations Department at Dental Ground, SRMIST on January 19th 2024.



Aditya Coomar - RA2311003010908 from First Year CSE Secured Second Prize in Genesis Organized by The Product House, SRMIST on January 30th 2024.



Pratistha Acharya - RA2311003012314 from First Year CSE Secured Second Prize in International Students Day 2024 Organized by International Relations Department, SRMIST on January 31th 2024.



Vijay Bala Mahalingam- RA2311003010079 from First Year CSE Secured First Prize in Saankethika 2024 Organized by R.M.D Engineering college on February 05th 2024



Yukesh Khadka - RA2311003012318 from First Year CSE Secured First Prize in International Students Day 2024 Organized by International Relations Department, SRMIST on February 05th 2024

Shivam Kumar sah - RA2311003012382 from First Year CSE Secured Second Prize in International cricket day Organized by International Relations Department at Dental Hospital Ground, SRMIST on January 18th 2024



Sonu yadav - RA2311003012380 from First Year CSE Secured Second Prize in International students cricket program Organized by International Relations Department at Dental Hospital Ground, SRMIST on January 18th 2024 Mayank Sharma- RA2311003011118 from First Year CSE Secured Third Prize in YLGC MUN 2024 Organized by YLGC at PSG College of Technology Coimbatore Tamil Nadu on February 02nd 2024



P Siva Murugan RA2311003010457 from First Year CSE Secured First Prize in ERSMERONZ24 Organized by Bannari Amman institute of technology on March Olst 2024



Y Sai Siddartha - RA2311707010026 from First Year CSE Secured First Prize in 14th CADO FIESTA Organized by SRM NCC at Dr Ambedkar law University, SRMIST on February 09th 2024



Ashwamedh RA2311003012156 from First Year CSE Secured Third Prize in MUN Organized by School of excellence law, Perungudi, Chennai on March O1st 2024



MILIND SHANDILYA - RA2311003010028 from First Year CSE Secured First Prize in CADOFIESTA Organized by SRM NCC at Dr Ambedkar law University, SRMIST on February 09n 2024



Akshit Ohri RA2311003010138 from First Year CSE Secured Second Prize in Hack Nova Organized by NSCC (Newton School Of Coding ) at Srm TP Ganesan Mini Hall.1 on March 11th 2024



ATHIRA R KRISHNAN RA2311003010857 from First Year CSE Secured Second Prize in NAKSHATHRA 2024 Organized by SRM Faculty of Management at Hippocrates Auditorium SRM Medical College on March 06th 2024.



RAHUL S NAMBIAR RA2311003012078 from First Year CSE Secured First Prize in CADOFEST Organized by DG VAISHNAV NCC at Dwarka Doss Gowardan Doss Vaishnav College on March 13th 2024



Harshvardhan Singh Shekhawat RA2311003011797 from First Year CSE Secured Third Prize in 42nd Cadodest Organized by Dwarka Doss Govardhan Doss College on March 13th 2024

Nipun Vatsya RA2311003011214 from First Year CSE Secured First Prize in NCC Cadofes Organized by DGV College, Arrumbakkam on March 12th 2024

Tanay Patel RA2311003011812 from First Year CSE Secured First Prize in NCC Cadofest Organized by Dwaraka Doss Goverdhan Doss College, Arumbakkamon March 12th 202

Nipun Vatsya RA2311003011214 from First Year CSE Secured First Prize in NCC Cadofes Organized by DGV College, Arrumbakkam on March 12th 2024.

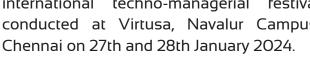
Devanand K - RA2211003011171 from Second Year CSE secured Second Position in the National level Technical Symposium held on 14th and 15th March 2024 organized by Saveetha Institute of Medical and Technical Sciences Chennai.

Vidhi Singh - RA2211003011772 from Second Year CSE Secured Second Place with Cash Prize Rs.1,00,000 in Rajasthan Police Hackathon 1.0.

Shyam Kaarthikeyan - RA2211003011237 and Devanand K - RA2211003011171 from Second Year CSE Secured Second place in the Coding and Debugging event at Cyberfest organized by Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai



Anouska Jhunjhunwala, Devanshi Agarwal from Second year CSE along with her team secured Second Runner-up at the Pragyan Hackathon, held during NIT Trichy's annual international techno-managerial festival conducted at Virtusa, Navalur Campus,



K.D.J Harsha Aadharsh from Hexadynamics Club won many Drone racing, Model Planes, and Model Boat Events. He has won 83K rupees by participating in various colleges all over India.



K.D.J Harsha Aadharsh and his team won third place (Prize amt: 20K) in inline-of-sight flying with obstacles, a drone race hosted by NIT, Trichy on 15th August.



K.D.J Harsha Aadharsh and his team won third place (Prize amt: 5K) in inline-of-sight flying with obstacles, a drone race hosted by SSN, Chennai on 7th October 2023.



K.D.J Harsha Aadharsh and his team won first place (Prize amt: 10K) in inline-of-sight flying with obstacles, a drone race hosted by NIT, Surathkal on 14th October 2023.

K.D.J Harsha Aadharsh and his team won third place (Prize amt: 15K) in inline-of-sight flying with obstacles, a drone race hosted by

Newton School of Technology, Delhi on 21st April 2024







K.D.J Harsha Aadharsh and his team won third place (Prize amt: 5K) in inline-of-sight flying with obstacles, a drone race hosted by Vishnu Institute of Technology, Chennai on 29th December 2023.

K.D.J Harsha Aadharsh and his team won fourth place in inline-of-sight flying with obstacles, a drone race hosted by New Horizon College of Engineering, Bangalore on 23rd January 2024.

K.D.J Harsha Aadharsh and his team won first place (Prize amt: 2K) in a time-bound FPV drone race hosted by Chennai Institute of Technology, Chennai on 29th February 2024.

K.D.J Harsha Aadharsh and his team won first place (Prize amt: 5K) in inline-of-sight flying with obstacles, a drone race hosted by MIT, Chrompet, Chennai on 17th March 2024.

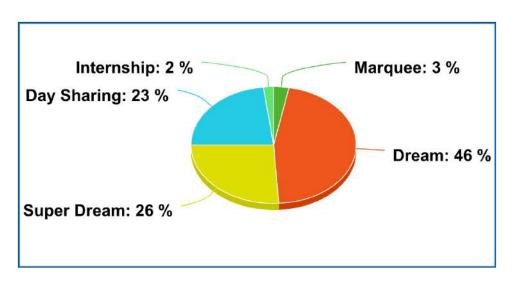
K.D.J Harsha Aadharsh and his team won first place (Prize amt: 16K) in inline-of-sight flying with obstacles, a drone race hosted by IIITDM, Kancheepuram, Chennai on 16th March 2024.

K.D.J Harsha Aadharsh and his team won third place (Prize amt: 5K) in the model plane event hosted by IIITDM, Kancheepuram, Chennai on 16th March 2024.

#### **CAREER NEWS**

The placement season for the 2020-24 batch has commenced smoothly, with active participation from 40 sections of undergraduate final-year students. Esteemed companies have visited SRMIST to conduct recruitment processes, extending placement and internship opportunities to our students. Among the 1219 students in this cohort, CTECH students have obtained 764 offers, comprising 82 double offers and 9 triple offers, along with 611 unique offers and 602 unique placement offers. Placement ranking metrics have been crafted to evaluate and convey students' performance across different dimensions, aiding them in making informed choices and enhancing their skills.

#### Palcement Offers as on Date



# PRE-FINAL YEAR INTERNSHIP OFFERS [2021-25] BATCH

Third-year students received overwhelming appreciation and Internship offers from the MNC viz.JP Morgan , Natwest, BNY Mellon, Wells Fargo, Fidelity, Barclays, Microsoft, Western Digital, Swiggy, IBM.

# SECOND YEAR STUDENT'S INTERNSHIP DETAILS [2022-26] BATCH

Second-year students at our institution are excelling in their professional journeys, securing various high-profile internships across the tech industry. Notable placements include Python development at **Techplement**, Chennai, web development virtual internships at **BHARAT INTERN**, and digital marketing at **KS Softech**, Maharashtra. Students are also involved in specialized areas like Al-ML and cloud computing, supported by AWS Academy, showcasing their diverse skills and the quality of our academic programs. These opportunities are pivotal in enhancing their practical skills and increasing their future job prospects.

#### MARQUEE PLACED STUDENTS (JANUARY - MARCH 2024)

Imbrace the moment of achievement as you secure Marquee placements, for it is a testament to your perseverance and determination."



# FIRST YEAR STUDENT'S INTERNSHIP DETAILS [2023-27] BATCH

First-year students are making impressive strides early in their academic careers with notable internship offers. Mr. Aashin C Anil and Mr. Harish Bharadwaj Putrevu have secured a 4-week online internship in MERN Stack development at WebStack Academy, Bangalore. Additionally, Saanvi Mahika has embraced a virtual internship role as a Full Stack Developer Intern at Bharat Intern, contributing from February to March 2024.

#### SEMESTER ABROAD PROGRAM



Bhargav Reddy Yedla (RA2211003012038) has gone to SAP to UNIVERSITY OF CALIFORNIA, BERKELEY on a sponsorship of 30000 USD for the duration of 5 Months from January to May, 2024.

# **Enhancing Career Opportunities: Department of Computing Technologies Initiates Placement Talks and Mock Interviews**

The Department of Computing Technologies at SRMIST is committed to prepare its students for successful career paths in the ever-evolving tech industry. As part of this commitment, the department has organized a series of placement talks and mock interviews organized by Facuty Advisor aimed at providing valuable insights and practical experience to its students. These talks cover a wide range of topics including industry trends, career opportunities, skill development, and professional growth strategies. By attending these talks, students gain valuable insights into the expectations of the industry and learn how to align their skills and aspirations with market demands.

### **Faculty Corner**

#### **Journals**

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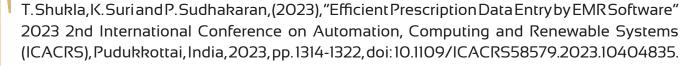






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#### Awards

Dr. K. Sreekumar got a certificate for the Lifetime Achievement National Award from the "Human Rights Council" on February 20, 2024.

Dr. K. R. Jansi, Ms. S. Kanmani, and Dr. R. Subash have been certified as academic instructors to deliver the Application Development Fundamentals course via the Academic Integrated Curriculum offering.







#### **Book Chapters**

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#### **Faculty Upskilling**

Dr.V.Angayarkanni, Dr.P.Rama, Dr. R. Brindha, Dr. R. K. Pongiannan, Dr. V. Arun, Dr. S. Nikkath Bushra and Dr. R. Madura attended DLD Master Training Workshop on "Student Career Guidance" at SRM Institute of Science and Technology, Kattankulathur from 5th - 7th March 2024.

Dr.P.Rama attended DLD Master Training Workshop on "Faculty Induction Training Module 1 & 2 (Guru Dakshta)" at SRM Institute of Science and Technology, Kattankulathur from 18th – 22nd March 2024

- Dr. G. Balamurugan attended Workshop on "Edge Computing for Autonomous Vehicles" at the Department of NWC, SRMIST, from 7th 8th February 2024.
- Dr. C. Vijayakumaran, Dr. S. Kiruthika Devi, and Dr.P.Saranya attended FDP on "Essentials of Cyber Security in Blockchain Technologies" at Vidyavardhaka College of Engineering, Mysuru. Karnataka, India, from 19th 29th February 2024.
- Dr. V. Arulalan attended FDP on "Delivery of Design and Analysis of Algorithms with Mathematical Perspective" at Theoretical Computing Research Group, Department of Computing Technologies, SRM Institute of Science and Technology, Kattankulathur, from 18th 24th January 2024.
- Dr. B. Arthi, Dr. M. Aruna, Dr.V.Angayarkanni and Dr. P. Madhavan attended Workshop on "Creators of Metaverse" at Metaverse and Extended Reality Technologies, from 23rd 24th January 2024.















Dr. B. Arthi & Dr. M. Aruna attended ATAL FDP on "Academy Faculty Development Program" SRM Institute of Science and Technology, Kattankulathur, from 5th – 10th February 2024.

Dr. M. Kanchana, Nithyakani and Dr. K. Sreekumar P has completed the 3-day Face-to-Face FDP on the theme "Inculcating Universal Human Values in Technical Education" (UHV-I) from 20th January to 22nd January 2024. (F.No AICTE/FDP-SI/SRO/264/210824).

Dr.M.Kandan, Assistant Professor has attended FDP on "Emerging Research Trends in Engineering and Technology" at Department of Computer Science and Engineering, Kings Engineering College, Chennai from 4 th – 11 th January 2024.

#### **Patent Published**

Dr. Pongiannan R.K, Dr. Geetha A, Dr. Pushpalatha M, Dr. Malathi D, Dr. Brindha R, Dr. V Megala V, Dr. Ramya G has published a patent titled, "A Low-Cost Indigenous Patient Monitoring System and a Method Thereof", Intellectual Property Rights on 12th January 2024.

Dr. Uma Devi M, Dr. Jayapradha J, Ms. Saniya Sharma, Ms. Bhaavya Naharas has published a patent titled, "System and Method for Automated Timetable Generation", Intellectual Property Rights on 9th Feburary 2024.

Ms.Vidhyalakshmi A.M, Dr.M.Kanchana has published a patent titled, "Classification of Skin Cancer using Deep Learning Techniques with Dermoscopic Images", Intellectual Property Rights on 2nd Feburary 2024.

Dr.S.Gnanavel and Dr. G. Balamuruganhas published two Indian Patents entitled "Oxygen Concentrator with Filter" and "Blockchain Enabled Device for Computer Network Safety" Intellectual Property Rights on 11th February 2024.

#### **Design Patent**

Dr. Malathi D, Dr. Jayaselli J.D. Dorathi has received a design patent grant titled, "An Internet of Things(IoT) based Air Quality Detection System and a Method Thereof ", Intellectual Property Rights on 14th Feburary 2024.

Dr. Kandan M, Mr. Narender Chinthamu, Dr. Sujata V Mallapur, Dr. Saurabh Kumar, Dr. Bhagyalakshmi A, Dr. Kazi Kutubuddin Sayyad Liyakat, Dr. G.Vennira Selvi, Dr. Rajesh Kanna S K has received a design patent grant titled, "IoT Based Health Indicator Band for Old-age Person", Intellectual Property Rights on 19th January 2024.

Dr. Selvaraj A, Dr.Swamy G.M, Mr. Saurabh Sanjay Sankar, Dr. Padmapriya G, Mr. Mohd Esa, Dr. Javed Akhtar Khan has received a design patent grant titled, "Al Based Husk Removing Device", Intellectual Property Rights on 18th January 2024.

#### **Certificate Courses**

Dr. G. Balamurugan completed "Design Thinking," an online course authorized and offered by NPTEL, from January to April 2024.

Dr. G. Balamurugan completed "Product Engineering and Design Thinking," an online course authorized and offered through NPTEL, during January-April 2024

Dr. M. Kanchana completed "Machine Learning for Engineering and Science Applications," an online course authorized and offered through NPTEL from January—April 2024.

Dr. C. Vijayakumaran completed the online course "QCourse 101-1 Fundamentals of Quantum" Computing and Programming," which the University of Latvia authorized and offered through Coursera from January to April 2024.

Dr. J. Jayapradha, Assistant Professor, has completed a certification titled "Basics of Remote Sensing, Geographical Information Systems, and Global Navigation Satellite Systems"

conducted by ISRO. She was also awarded the Best Performer award for the certification.

Dr. Nithyashri J., Assistant Professor, completed a Diploma course in "Educational Psychology" through Alison Online Certification (Open2Study) on March 12, 2024.

Dr. Nithyashri J, Assistant Professor, has completed the online course on "Geospatial Analysis using Google Earth Engine" conducted by the Indian Institute of Remote Sensing, Dehradun, from February 19-23, 2024.

Dr. M. Kandan, Assistant Professor, completed the Udemy Course on "Object-Oriented Programming in C++" in March 2024.

#### **Faculty External Activities**

Dr. S. Ganavel delivered an expert talk on "Decoding the Cryptography for Blockchain" at SKP Engineering College, Tiruvannamalai, on January 2, 2024.

Dr. S. Ganavel delivered an expert talk on "Applications of Artificial Intelligence in Cryptography and Blockchain Technology" at Madanapalle Institute of Technology & Science, AP, on March 1, 2024.

Dr. S. Ganavel delivered an expert talk on "Cryptocurrency, Blockchain Technology, and NL Generation" at SKP Engineering College, Tiruvannamalai, on March 14, 2024. lda Seraphim and Dr. B. Sowmiya delivered an expert talk on "Human Factors in Cyber Security Addressed Using SET" at Pondicherry University on February 19, 2024.

Dr.M. Suchithra was a reviewer for the 5th IEEE International Conference on Computing, Power, and Communication Technologies (IC2PCT 2024), held from February 9th to 10th, 2024, organized by Galgotias University & IEEE Uttar Pradesh Section, Greater Noida, Uttar Pradesh, India

Dr.V. Angayarkanni was a reviewer for the International Conference on Wireless Communications, Signal Processing, and Networking (WiSPNET2024) organized by the Department of Electronics and Communication Engineering, Sri Siva Subramaniya Nadar College of Engineering, Kalavakkam, India, and technically co-sponsored by the IEEE during March 21–23, 2024.

Dr.M.Suchithra and Mrs.Divya Mohan acted as session chairs in the 4th International Conference on Artificial Intelligence, 5G, Communications, and Network Technologies (ICA5NT 2024), conducted by Velammal Institute of Technology, Chennai.

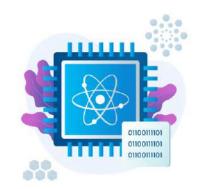






#### **DOMAIN VERTICALS**

## Quantum Computing



Incharge: Dr. M. Pushpalatha, Professor

The objective of this research vertical 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

#### **UPSKILLING ACTIVITIES**

Dr, Manju. A successfully completed the "Fundamentals of Quantum Computing" short-term course at National Institute of Technology Rourkela from 15th – 19th January 2024.

Dr.R.Thilagavathy, Dr.P.C.Karthick, Dr.S.Nalini,Dr.A.Manju,Dr.Swornakokila.M.L Dr.G.K.Sandhia attended Five Days National Level Seminar on "Quantum Artificial Intelligence for Renewable and Sustainable Energy" at Department of Computing Technologies, SRMIST from 12th – 16th February 2024.

Dr. M.Gayathri and Dr.R.Thilagavathy attended the International Workshop on "Engineering and Integration Challenges in Quantum Communication and Quantum Computing" at CDAC, Pune from 21st - 22nd March 2024.

Dr.M.Gayathri, Dr.P.C.Karthick and Dr.Raghavendra.V successfully completed the "Introduction to Quantum Communication and Machine Learning" short term course at Indian Institute of Technology (BHU ) Varanasi from 8th – 12th January 2024.

Dr.P.C.Karthick registered an NPTEL course titled "Basics of Computational Complexity" as a prelude to understanding Quantum Computational Complexity.

#### **RESEARCH PROPOSALS**

Dr.G.Usha, Dr.M.Pushpalatha along with CDAC Noida, QRACE, NewDelhi, Jawaharlal Nehru University, Delhi and Georgia Southern University applied for a proposal entitled "Quantum Security and Adaptive Control in IOT based Intelligent Transportation Systems(QSATITS)" for 4.5 cr to NSF-Meity.

### INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH SPONSORED SEMINAR

Dr.A.Devipriya & Dr.V.Vinod Conducted Indian Council of Social Science Research (ICSSR) Sponsored 5 Days National Seminar on "Quantum Artificial Intelligence for Renewable & Sustainable Energy" from 12th February 2024 to 16th February 2024.

#### External Resourse person:

Dr. Santu Sardar, Scientist-B Director, DYSL-QT, DRDO

Dr. Bhupendra Singh, Scientist F, Project Director, PQC project of DRDO

Dr. Jayakumar Vaithiyashankar, IBM Quantum, QiskitAdvocate Mentor, Bangalore

Mr.V.Chandran, Data Scientist, NVIDIA Instructor, Bangalore

Mr.Karthiganesh Durai Chief Quantum Architect, Boson Psi(BQP), Bangalore

Mr. Arun Pandiyan R Senior Data Engineer, Siemens, Bangalore

Mr. Sagar B Dollin Lead Educational Specialist at Educational Initiatives (EI), Bangalore

Mr. Raghuraman, Project Manager, TATA Consulting Services, Chennai



Dr.M.Pushpalatha Professor / Head, CTECH, SRMIST

Dr. Gayathri M Assistant Professor, CTECH, SRMIST

Mr.V.Ragavendra, Assistant Professor, CTECH, SRMIST





Resource person at Five Days National Level Seminar on Quantum Artificial Intelligence for Renewable and Sustainable Energy, SRMIST

#### CONSTITUTION OF NATIONAL WORKING GROUP

Telecommunication Engineering Center (TEC), Department of Telecommunications has constituted the "National Working Group" on Quantum Technology. 12 faculties from the Department of Computing Technologies, SRMIST has been considered as a part of the Working Group.

#### INDUSTRY COLLABORATION

MoU with Bhumi iTech, Delhi is in progress for launching a "Quantum Computing 3 Level Certification Courses" on their e-learning educational platform. (Ulearnix.com)





#### **Hackathon Winner**

Amit. Karan and Tanishque from Quantum club secured 3rd position in IEEE CS HACKATHON conducted by Department of Computing Technologies, SRMIST on 1st March 2024



#### **Research Outcomes BOOK PUBISHED**

Dr.G.K.Sandhia, Dr.M.Gayathri, Dr.R.Thilgavathy and Dr.P.C.Karthick published a book titled " Quantum Computing", GLOBAL AASAN RESEARCH, ISBN:9788196945039, February 2024.

#### **BOOK CHAPTER PUBLISHED**

Dr.P.C.Karthick, Dr.G.K.Sandhia, Dr.M.Gayathri, Dr.Thilagavathy.R 8 Dr.M.Pushpalatha. (2024). Quantum Computing Principles: Harnessing the Potential of Quantum Mechanics, Principles and Applications of Quantum Computing, IGI Global Publisher, pp.14. DOI: http://dx.doi.org/10.4018/979-8-3693-1168-4.ch005

Dr.Thilagavathy.R, Dr.M.Gayathri, Dr.G.K.Sandhia, Dr.M.Pushpalatha. (2024). Quantum-Inspired Optimization for Enterprises. Applications and Principles of QuantumComputing,IGIGlobalPublisher,pp.11.DOI:http://dx.doi.org/10.4018/979-8-3693-1168-4.ch018.

#### BOOK CHAPTER ACCEPTED

Dr.G.Usha abstract of the book chapter proposal entitled "Transportation and Logistics using Quantum computing: Futuristic Approach" got accepted to publish in Quantum Computing and Supply Chain Management: A New Era of Optimization from IGI GLOBAL Publishers.

Dr.G.Usha book chapter manuscript entitled "A Revolutionary Approach of Quantum Computing with its Future Applications" got accepted to publish in The Quantum Evolution Application of Al and Robotics in the Future of Quantum Technology, CRC Press, Taylor and Francis Group.

Dr.G.Usha book chapter manuscript entitled "Quantum Computing Cybersecurity - Exploring the Potential of Quantum Machine Learning Techniques in Intrusion

#### TARGETS FOR NEXT THREE MONTHS

Pilot projects with use cases (Publications for Sci Journals) Aiming the consultancy work from Quantum startups Quantum computing certification (Three level ) Course launching Planning for a research summit or conclave, seminar and workshop in the next

## **Visual Computing**

Incharge: Dr. S. Sridhar, Professor



#### **Upskilling Activities**

Dr. M. Kanchana attended ATAL FDP on "Data Analysis Techniques for Qualitative and Quantitative Research" at B S Abdur Rahman Crescent Institute of Science & Technology, Chennai, from 3rd – 10th January 2024.

Dr. M. Kanchana attended FDP on "Emerging Trends in Data Analysis" at Saveetha College of Liberal Arts and Sciences, Chennai, Tamil Nadu, from 22nd – 26th January 2024

Dr. S. Sivakumar attended FDP on "High Performance Computing in Health Care and Big Data Analytics: Hands-on" Department of Computing Technologies, SRM Institute of Science and Technology, Kattankulathur, from 5th – 10th February 2024.

Dr. M. Karthikeyan attended Seminar and presentation of a paper titled "Covid Outbreak Prediction Using Machine Learning" In National Conference on Futuristic Computing Trends in Financial Technologies (FCOM-Fintech'24) at Department of CTECH from 29th – 30th January 2024.

Dr. Geetha K successfully completed the "Geospatial Analysis using Google Earth Engine" an online course authorized and offered through ISRO-IIRS during February 2024.

#### **Events Organized**

Dr. C. Vijayakumaran organized an Outreach on Training "MS-Office Tools for School Children" at Govt High School, Pulipakkam, Chengalpattu, on 11th January 2024.



Dr. C. Vijayakumaran organized committee members in "National Conference on Futuristic Computing Trends in Financial Technologies (FCOM-Fintech'24)" Department of Computing Technologies, SRMIST, from 29th – 30th January 2024.

Dr. S. Sivakumar rendered service in two days National Conference on Futuristic Computing Trends in Financial Technologies (FCOM-Fintech'24), Department of Computing Technologies, School of Computing, SRMIST, Kattankulathur, 29th – 30th January 2024.

Dr. S. Sivakumar organized 6 days FDP on "High Performance Computing in Health Care and Big Data Analytics: Hands-on" Department of Computing Technologies, School of Computing, SRMIST, Kattankulathur, from 5th – 10th February 2024.



## Research Outcomes Conference Publication

R. Udayakumar, K. Sreekumar, C. S. Nivedha, S. Sivasubramanian and V. Umadevi, (2024), A Predictive Analysis of Autism Spectrum Disorder Using Ensemble Techniques of Machine Learning In Proceedings of the 3rd International Conference on Technological Advancements in Computational Sciences (ICTACS), Tashkent, Uzbekistan, pp. 558-565.

D. Surendran, V. Arulkumar, M. Aruna, K. Sangamithrai, N. Thangadurai (2024), Improving the Quality of Education through Data Analytics and Big Data Contributions In Proceedings of the AIP Conference.

G. Balamurugan, Karthiganesh Durai, S. Dhamotharan, A. S. Aravintakshan, Amal Salilan, M. K. Aabid, (2024), Remote Sensing Of Urbanization Using Machine Learning And Variational Quantum Regression In Proceedings of the AIP Conference. DOI: https://doi.org/10.1063/5.0181855

Dr. M. Kanchana, Rahul Harikumar A and Tanay Grover (2024), Deep Learning for Crime Pattern Recognition: A Study of Crime Hot Spots and High-Risk Areas In Proceedings of the 2023 International Conference on Recent Advances in Science and Engineering Technology (ICRASET), B G NAGARA, India, IEEE Xplore, pp. 1-6. DOI: https://doi.org/10.1063/5.0181855

Dr. M. Kanchana, K. P. Kakarla and D. C. S. Kiran (2024), Car Lane Detection using Deep Learning Techniques In Proceedings of the 2023 International Conference on Recent Advances in Science and Engineering Technology (ICRASET), B G NAGARA, India, IEEE Xplore, pp. 1-6. DOI: https://doi.org/10.1109/ICRASET59632.2023.10420401

Dr.M.Kanchana (2024), "Review of Deep Learning Framework for Automatic Detection and Classification of Tomato Leaf Disease Prediction", In Proceedings of the 6th International Conference on Communication and Computational Technologies (ICCCT 2024), Rajasthan Institute of Engineering and Technology, Jaipur, India during O8th-O9th January 2024.

Dr.M.Kanchana (2024), "Harnessing Deep Learning for Public Health: Face Mask Detection Using Advanced Convolutional Neural Networks" In Proceedings of the FCOM-Fintech'24 National conference organized by Department of Computing Technologies, School of Computing, SRMIST, Kattankulathur on 29th -30th January 2024.

#### **Journal Publication**

Kishore Anthuvan Sahayaraj K, G. Balamurugan (2024), "Faster Region Based Convolution Neural Network with Context Iterative Refinement for Object Detection", Measurement: Sensors, vol.31, pp. 1010-1025. DOI: https://doi.org/10.1016/j.measen. 2024. 101025.

Arulalan, V, Premanand, V, Kumar, D (2024), "Object Detection and Tracking Using Tsm-Efficientdet and Js-Km in Adverse Weather Conditions", Journal of Intelligent & Fuzzy Systems, (Preprint), pp. 1-15. DOI: 10.3233/JIFS-233623

Anand, M, Babu, S (2024), "Multi-class Facial Emotion Expression Identification Using DL-Based Feature Extraction with Classification Models", International Journal of Computational Intelligence Systems, 17(1), pp. 25. DOI: https://doi.org/10.1007/s44196-024-00406-x.

Dr. M. Karthikeyan, Dr. T.S. Subashini, R. Srinivasan, Dr. C. Santhanakrishnan (2024), "YOLOAPPLE: Augment Yolov3 Deep Learning Algorithm for Apple Fruit Quality Detection", Signals, Image and Video Processing, 8(1), pp. 119-128. SCIE Indexed, IF: 2.73. DOI: https://doi.org/10.1007/s11760-023-02710-z

Dr. S. Ushasukanya, Dr. T.Y.J. Naga Malleswari, Dr. M. Karthikeyan, Dr. C. Jayavarthini (2024), "An Intelligent Deep Learning Based Capsule Network Model for Human Detection in Indoor Surveillance Videos", Soft Computing, SCIE Indexed Journal, Vol.28, pp. 737-747. DOI: https://doi.org/10.1007/s00500-023-09443-8

M. Bhanumathi, B. Arthi (2024), "FishRNFuseNET: Development of Heuristic-Derived Recurrent Neural Network with Feature Fusion Strategy for Fish Species Classification", Knowledge and Information Systems, Vol. 66, pp. 1997–2038. DOI: https://doi.org/10.1007/s10115-023-01987-3.

Abinaya K, Sivakumar B (2024), "A Deep Learning Based Approach for Cervical Cancer Classification Using 3D CNN and Vision Transformer", Journal of Imaging Informatics in Medicine, Vol.37, pp. 280–296. DOI: https://doi.org/10.1007/s10278-023-00911-z.

Sasi Rekha Sankar, P. Madhavan (2024), "Hybrid Feature Selection Model for Accurate Wind Speed Forecasting from Numerical Weather Prediction Dataset", Expert Systems with Applications, Elsevier, Vol. 248, (IF: 8.5-Q1-SCI). DOI: https://doi.org/10.1016/j.eswa.2024.123054.

#### **Patent Granted**

Dr. Pradeep Mohan Kumar K has received a patent grant titled, "A System and a Method For Determining An Optimal Path To Communicate Data Between Nodes", Intellectual Property Rights on 7th March 2024.

Dr. M. Karthikeyan and Dr. B. Arthi have received a patent grant titled, "A Lane Detection System of Self-Driving Vehicle for Over-Speeding Detection and Method Thereof", Intellectual Property Rights on 14th March 2024.

Dr. Ferni Ukrit M and Nithyakani P have received a patent grant titled, "A Smart Human Gait Recognition System and a Method Thereof", Intellectual Property Rights on Olst March 2024.

Dr. S. Sivakumar has filed a patent titled, "Two stage Optimizers Attention Residual U-Net with CLAHE Enhanced Dental Carries Detection", Intellectual Property Rights on 2nd February 2024.

Dr. S. Sivakumar has filed a patent titled, "Smart Medication Management: Empowering Elderly with Visual Impairments through Intelligent Dispensing Technology", Intellectual Property Rights on O2nd February 2024.

#### **Research Proposal(s)**

Dr. G.Balamurugan Dr. V. Arulalan and Dr. Kishore Anthuvan Sahayaraj K submitted BIS Proposal on "Study for Management of Mobile Application's Permission".

Dr. P Velmurugan submitted a Proposal on "Smart Accident Detection and Reporting (SADR) System for SRM MCH".

Dr. C. Vijayakumaran submitted a Proposal on "Two Stage Optimizers Attention Residual U-Net with CLAHE Enhanced Dental Carries Segmentation" to AMTZ Internal Funding.

Dr. K. Sreekumar submitted a Proposal on "Adaptive Training Model Aligned with OBE to Enhance the Student Career Opportunities using Cognitive-Transfer Learning" to SERB-SURE Funding.

#### **Book Chapter Pubished**

Sai Dhakshan, G.Balamurugan, J. S. Shyam Mohan, Amit Kumar Tyagi, (2024). Role of Emerging Technologies in Education 4.0: Challenges and Future Research Directions, In Architecture and Technological Advancements of Education 4.0, pp.131-154. DOI: 10.4018/978-1-6684-9285-7.ch006.

#### **Professional Activities**

Dr. M. Kanchana acted as Session Co-Chair for the Paper presentation at the National Conference on "Futuristic Computing Trends in Financial Technologies (FCOM-Fintech)", organized by the Department of Computing Technologies, School of Computing, SRMIST, Kattankulathur on 29th - 30th January 2024.

#### **Targets for Next three Months**

To publish papers in SCI / SCOPUS Journals To publish book chapters To work on Product related patent

















# Advanced Multilingual Computing





#### **Upskilling Activities**

Dr. A. Pandiaraj, Assistant Professor has completed Udemy Course on "Machine Learning: Natural Language Processing in python(v2)", during February 2024.

on 16th March 2024.

#### **Resource Person for FDP**

Dr.C.N.Subalalitha Associate Professor, delivered an expert talk on "LLMs from the Enterprise and Research Perspectives" at KaniTamil 24 conference, Tamil Virtual Academy and TN Startup on 9th February 2024.



Delivered an expert talk on "LLMs from the Enterprise and Research Perspectives"

Step #3: Building Applications?

- maint
2 models
3 HAMAN herd
4 Genera Smil

Expert talk on "Generative AI in the Context of Tamil Language"

Dr.C.N.Subalalitha Associate Professor, delivered an expert talk on "A Day with Generative AI for Panel Discussion" IET Chennai Local Chapter on 23rd March 2024.



Dr.C.N.Subalalitha Associate Professor, delivered an expert talk on "Generative AI in the Context of Tamil Language" at St.Joseph Engineering College

Expert talk on "A Day with Generative AI for Panel Discussion"

Expert talk on "Hands on Session on - Gen Al and Large Language Models"

Dr.C.N.Subalalitha Associate Professor, delivered an expert talk on "Hands on Session on - Gen Al and Large Language Models" at department of CTech, SRMIST on 23rd February 2024.

Dr.C.N.Subalalitha Associate Professor, delivered an expert talk on செயற்கை நுண்ணறிவும் தமிழும்" at Valliammai Engineering College on 6th March 2024.



Expert talk on செயற்கை நுண்ணறிவும்

#### **In House Project**

Prafful Mishra (RA2011003010802), Deepak Chand Chaganti (RA2011003010785) and Rohan R Mahishi (RA2011003010801) under the guidance of Dr.S.Poornima have completed an In house project titled, "Rainfall Prediction using Intensified LSTM and IoT Based Crop Recommendation", in March 2024.

#### **Research Outcomes**

#### **Journal Publication**

Alagiri Govindasamy, D. Rajeswari, R. Srinivasan, A. Arivarasi (2024) "Cost-Effective Digital Twin Design for Entertainment Enterprise's Through Machine Learning", *Entertainment Computing*, Vol. 50, (Article In Press). DOI: https://doi.org/10.1016/j.entcom.2024.100648.

#### **Book Chapter Pubished**

Rajendran, Srinivasan, and D. Rajeswari. (2024). A Web-Based Platform to Reduce Food Wastage Through Women Organisation. Advances in Computational Intelligence and Robotics Book Series, pp.1–13. DOI: https://doi.org/10.4018/979-8-3693-1435-7.ch001.

#### **An outreach Program**

Dr. S. Poornima has organized an outreach program, titled "Impact of Digital Technology on Young Minds", at Panchayat Union Middle School, Potheri East – 603203 on 13th March 2024.





Outreach program, titled "Impact of Digital Technology on Young Minds"

## Accelerated Computing

Incharge: Dr.B.Amutha, Professor



#### **Events Organized**

Dr. D. Malathi (Convener) and Dr. B. Amutha (Co-Convener) and the faculty Members of Accelerated Computing Vertical Organized 6-days FDP on "High Performance Computing in HealthCare and Big Data Analytics", from O5th -10th February 2024. Number of participants was 107. On completing the Assessment, the participants earned 2 NVIDIA DLI Certifications "Getting Started with Deep Learning" and "Fundamentals of Accelerated Computing with CUDA Python".



#### **Professional Activities**

Discussion was sought on 6 project proposals like, EV, Priority Inversion, AI on Agriculture, Embedded systems, Smart Devices and Application, Automation with CDAC scientists.

A student visit has been arranged to visit CDAC and discuss their internships in CDAC. Approval is sought. Dates have to be finalized.

An Industrial expert lecture has been arranged in "High Performance" coming for third-year students Approval is sought to visit IITM HPC cluster for students and dates have to be finalized.

A funding proposal has been submitted to ICMR on "Al-assisted Medication coaching" along with the Medical faculty.

Approval is sought to visit IITM HPC cluster for students and dates have to be finalized.

#### **Research Outcomes**

#### **Conference Publication**

Delsi Robinsha S., and Amutha B, (2024), IoT Revolutionizing Healthcare: A Survey of Smart Healthcare System Architectures In Proceedings of the 2023 International Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering (RMKMATE), IEEE, pp. 1-5. DOI:10.1109/RMKMATE59243.2023.10369980

Madhuri, P. Shyamala, DJ Nagendra Kumar, and B. Amutha, (2024), Security of Medical Multimodality Images for Telemedicine Using PDESNet Encryption Standard In Proceedings of the 2023 2nd International Conference on Futuristic Technologies (INCOFT), IEEE, pp. 1-5. DOI: 10.1109/INCOFT60753.2023.10425441

#### **Journal Publication**

Robinsha, S. D., Amutha, B (2024), "IoT Architecture for Energy Management in Smart Cities", International Journal of Services Operations and Informatics, 12(4), pp.325-343. DOI: 10.1504/IJSOI.2023.137474

Deeba, K, Amutha Balakrishnan, Manoj Kumar, Kadiyala Ramana, C. Venkata Narasimhulu, Gaurav Dhiman (2024), "A Disease Monitoring System using Multi-class Capsule Network for Agricultural Enhancement in Muskmelon", Multimedia Tools and Applications, pp.1-20. DOI:10.1007/s11042-024-18717-8

#### **Research Proposal**

A proposal for funding has been submitted to ICMR on "Al Assisted Medication Coaching" along with the Medical faculty.



#### **An outreach Program**

The Accelerated Computing vertical in Department of Computing Technologies, SRM Institute of Science and Technology has organized an outreach programme for Panchayat union primary school, Pulipakkam to train the school students in basic fundamentals of Ms-office for all classes from the 1st to 5th standard childrens on 1lth January 2024. The event started at 10:00 a.m in a classroom and a total of 40 student were presented. The outreach program was inaugurated by Dr.B.Amutha, Professor, A talk was given by Dr. Jeya Assistant Professor followed by Dr. Jagadeesan S, Dr. Vidhya and Dr. Nagadevi S. On behalf of the Department of Computing Technologies, a 120 pages notebook, and gift pack (Pen, Pencil, Eraser, Sharpener and Color Pencil Box) was donated for the 40 school students with the cost of Rs.2279 and provide Bed sheet with the cost of Rs. 3445. After the first session presentation refreshments and compliments were provided to all the participants. We arranged lunch for school children and teachers with a cost of Rs. 5530. Interaction session with the participants was appreciated by the Headmistress. The programme ended by 2.30 p.m on 1lth January 2024. Vote of thanks was given by Dr.C.Vijayakumaran, Associate Professor, Department of Computing Technologies.



An outreach programme for Panchayat union primary school, Pulipakkam

"The future belongs to those who believe in the beauty of their dreams."

-Eleanor Roosevelt

## Theoretical Computing

Incharge: Dr. K.Vijaya, Associate Professor



Upskilling faculty members to carry out research in theoretical aspects of computer science.

Collaborate with Institutes of repute and carry out collaborative research in the core domains like Algorithms, Programming, Compilers, Computation and Logics.

Introduce new Programs, Courses, Certification courses to enhance the student's ability to develop optimal solutions

#### **Upskilling Activities**

Three faculty members from the Theoretical Computer Science vertical attended FDP on "Delivery of Design and Analysis of Algorithms with Mathematical Perspective" at SRM Institute of Science and Technology, from 4th to 11th January 2024.

Dr.S.Gnanavel attended FDP on "Emerging Research Trends in Engineering and Technology" at Kings Engineering College, Chennai from 4th to 11th January 2024.

Dr.M.Kowsigan, Dr.N.Arunachalam and Dr.K.Senthil Kumar attended FDP on "Foundations of Theoretical Computer Science" sponsored by SERB at Theoretical Computer Science Group, Department of Computer Science and Engineering, IIT Madras, Chennai from 29th February to 2nd March 2024.

Dr.K.Anitha and Dr.D.Vinod published a course entitled "Mastering Compiler Design - Basics to Advanced Techniques", on Udemy.







Vinod D

Published a course entitled "Mastering Compiler Design - Basics to Advanced Techniques

#### **Resource Person for FDP**

Dr.G.Padmapriya, Acted as Resource Person and delivered an expert talk on algorithms related to the topic "Recent Trends in AI" in Faculty Development Program "AI NEXUS-ADVANCING AI EDUCATION" at Department of Computer Science and Engineering, School of Computing, Sathyabama Institute of Science and Technology, Chennai, on 8th January 2024.

Dr.G.Padmapriya, Acted as Resource Person and delivered an expert talk on algorithms related to the topic "Artificial Intelligence and Machine Learning" at Industry Institution

#### **Events Organized**

Dr.K.Vijaya (Convenor), Dr.R.Anto Arockia Rosaline (Co-Convenor) and the faculty Members of Theoretical Computer Science Vertical Organized a Faculty Development Programme on "Delivery of Design and Analysis of Algorithms with Mathematical Perspective" in SRMIST KTR from 18th - 24th January 2024





. Faculty Development Programme on "Delivery of Design and Analysis of Algorithms with Mathematical Perspective"

#### **Targets for Next three Months**

2 publications, 50% of the members upskill by registering for an online course pertaining to Theoretical Computing.

Always seek out the seed of triumph in every adversity.
- Og Mandino.

## Green Computing

Incharge: Dr. E. Poovammal, Professor



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.

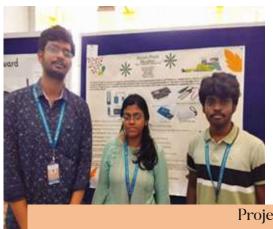


Dr.V.Angayarkanni and Dr.P.Rama attended ATAL FDP on "Precision Health Technology" at SRM Institute of Science and Technology, Kattankulathur from O5th – 10th February 2024.

#### **Events Organized**

Dr. R. Brindha, Dr. R. K. Pongiannan, Dr. S. Nikkath Bushra, Dr. R. Madura for their invaluable guidance and mentorship provided to showcase their project title for I & II year Students on Project Expo'24- CTech held on 27th march 2024.

- 1. Line following Robot
- Smart Clean Wheel BOT
- 3. Mecanum Bot
- 4. Drone with camera
- 5. RFID based Bus announcement System for Blind People
- 6. IOT based flow meter
- 7. IOT water pump controller





## Research Outcomes Journal Paper Published

Vidhyalakshmi, M. K., K. Jagadeesh, Bhuvana Suganthi Dharmaraj, Prabu Sankar N, and R. G. Kumar. (2024), "Indian Sign Language Recognition using Transfer Learning with Efficient Net", *Smart Science*: pp.1-12. DOI: https://doi.org/10.1080/23080477.2024.2320 956.

Youseef Alotaibi, Brindha Rajendran, Geetha Rani.K, Surendran Rajendran, (2024) "Dipper Throated Optimization with Deep Convolutional Neural Network-based Crop Classification for Remote Sensing Image Analysis", *PeerJ Computer Science*, vol.10. DOI:10.7717/peerjcs.1828.

#### **Conference Paper Published**

Thaiyalnayaki, S., Rakoth Kandan Sambandam, M. K. Vidhyalakshmi, S. Shanthi, J. Jenefa, and Divya Vetriveeran, (2024), Smart Air Pollution Monitoring System Using Arduino Based on Wireless Sensor Network *In Proceedings* of the International Conference on Soft Computing and Signal Processing, Lecture Notes in Networks and Systems (LNNS, volume 840), pp. 497-504. DOI: https://doi.org/10.1007/978-981-99-8451-0\_42.

Angayarkanni, V., P. Rama, and M. K. Vidhyalakshmi, (2024), Capacity Improvement of Cell Edge Users Using EI-SC Scheme In Proceedings of the International Conference on Recent Advances in Information Technology for Sustainable Development (ICRAIS), IEEE, pp. 20-24. DOI: 10.1109/ICRAIS59684.2023.10367111.

S.Priya, Aksh Kalyani, Nipun Chaurasia, (2024), A Comprehensive Study of Leaf Disease Identification on Tomato and Potato Plants *In Proceedings* of the 12th International Conference on Contemporary Engineering and Technology, Price Dr.K. Vasudevan College of Engineering and Technology.

Y. Prakash, P. Rama and S. Jagadeesh, (2024), Machine Learning-based Soil Fertility Analysis to Maintain Environmental Sustainability *In Proceedings* of the 2nd International Conference on Automation, Computing and Renewable Systems (ICACRS), Pudukkottai, India, pp. 1732-1739. doi: 10.1109/ICACRS58579.2023.10404822.

#### **Patent Granted**

Dr. B. Ida Seraphim, Dr. E. Poovammal has received a design patent grant titled, "A System and Method for Detecting Anomalies in a Streaming Data", Intellectual Property Rights on 15th March 2024.

Dr. B. Sowmiya, Dr. E. Poovammal has received a design patent grant titled, "An IoT Based System for Monitoring Cardiac Condition", Intellectual Property Rights on 7th January 2024.

S Priya, E Poovammal has received a design patent grant titled, "A Vehicle Parking Management System And Method", Intellectual Property Rights on 28th February 2024.

#### **Book Chapter Pubished**

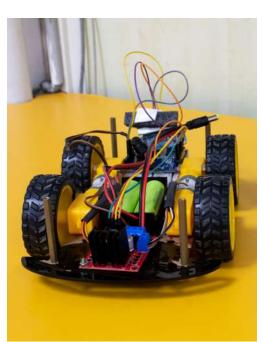
Mishal Ahmed, Mohammed Fadil, Dr. M. K. Vidhyalakshmi. (2024). Diagnosis of Ovarian Cancer Using Convolutional Neural Network and Attention Mechanism. Algorithms for Intelligent Systems. Springer. eBook ISBN 978-981-97-1488-9.

#### **Targets for Next three Months**

Over the next three months, the vertical has an exciting plan lined up, including an industrial visit to gain first-hand insights into industry practices.

The vertical aims to translate the outcomes of their pilot projects into impactful research articles, contributing significantly to knowledge dissemination and academic discourse.









Intelligent System Design Lab

## e-Yantra Lab



#### **Hackathon**

Four teams comprising our Second Year CTECH students from our lab recently demonstrated their skills by participating in a national-level three-week project hackathon hosted by IIT Bombay. The hackathon, themed "Automate Your e-Yantra Lab" took place from February 8th – 16th March 2024. Through this event, we solidified our position among the TOP 25 colleges in India and our college was certified as Grade "A".

As a result of our performance, we received an invitation and sponsorship from IIT Bombay to attend their prestigious e-Yantra Symposium scheduled for 5th – 6th April 2024, where we will engage with sponsors and experts from the field.

The list of projects submitted for "Automate Your e-Yantra Lab"

- Automated Attendance and access control system: Idhant Joshi, Sudechha Chakraborty, Shaan Washim Naiyar
- Light Automation System with Voice Assistant: Tamanna Grover, Nawnit Singh, Trisha Datta
- Rasberrypi Motion Sensing and Camera Surveillance : Akanksha Mishra, Khushi Patwari,
   Aparijit Chakraborty, Ishan Dey
- **4. Microprocessor Component Detector:** Shyam Kaarthikeyen B,Samyak Varia,Naman Srivastava, Sai Jeevan Thuraka







The Winning Team in IIT Bombay

## CTECH Association Activities

#### **Co-ordinators**

- Dr. M. Murali, Professor, CTech
- Dr. B. Kanisha, Associate Professor, CTech
- Dr. S. Ramesh, Assistant Professor, CTech
- Dr. G. Ramya, Assistant Professor, CTech
- Dr. M. Ranjani, Assistant Professor, CTech
- Dr. V. S. Bakkialakshmi, Assistant Professor, CTech
- Dr. A. Anbarasi, Assistant Professor, CTech

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CTech Association Futurix ULTRON 7.0

March 2024 ULTRON 7.0, orchestrated by SMRIST's CTech Association Futurix, unfolded from March 20th to 22nd as an enthralling technological journey, captivating all who participated. Here's a recap of the eventful three days:

Kicking off the event was an inspiring Tech Talk led by Dr. Muthukumran, Vice President of Cyber Security at Global SOC, featuring esteemed speakers who shared their invaluable insights and expertise. Later in the afternoon, the Ideathon sparked innovative ideas and solutions among participants.

DAY **O1** 





Tech Talk led by Dr. Muthukumran, Vice President of Cyber Security at Global SOC





**Ideathon Event** 

**21**March 2024

Short Film Competition was held in the morning session. Mr. Vishal Venkat, Director in Tamil Industry was the chief guest. Participants forecasted their creativity and storytelling skills. Photography Competition took place in the afternoon session with Mr. Arvind as chief guest, where participants shared captured moments that spoke volumes.





**DRY 02** 

Short Film Competition





Photography Competition

**22**March 2024

The final day started with an exhilarating Treasure Hunt, challenging participants' wit and teamwork. The event culminated with a grand Felicitation Ceremony in the afternoon, honoring the achievers and contributors.







Treasure Hunt

#### **Professional Society Activities**

22

Ecovation hackathon conducted by ASI Student Chapter

Jan 2024 Ecovation Hackathon was organized on January 22, 2024, by the ASI (Artificial Intelligence Society) Student Chapter. The event was coordinated by Dr. Godfrey and Dr. Shiny Irene. Its aim was to foster innovation and creativity among students by challenging them to develop Al-driven solutions to environmental and sustainability issues



#### **Bureau of Indian Standards**

Nodal Officer, Dr.M. Elizaer(FIE) Mentor: *Dr. N. Arunachalam* 

31

**Jan** 2024

#### Student Orientation Program on Standards

Student Orientation Program on Standards and BIS Awareness, a collaborative effort between the Bureau of Indian Standards (BIS) and SRM University, was organized by Dr. N Arunachalam, Assistant Professor in the Department of CTech. Bhaskar G, a retired representative from the Bureau of Indian Standards, shared his insights on understanding standards and raising awareness about BIS initiatives.



#### **IEI Student Chapter**

- IE(I) Faculty Advisor, Dr.Uma Devi M (FIE)
- IE(I) Faculty Coordinators, Dr Jayapradha J(MIE), and Dr.Elaizer M(MIE)
- IE(I) Mentors: Dr.Bibin Christopher V, Dr.Deepajothi S, Dr Shoba LK, Dr.Jane Olive Sharon P, Dr Shibu NV

07

FEB

2024

#### IE(I) students' Chapter corner

The event titled "All India Workshop on Competitive Programming and System Design," held from 07-02-2024 to 09-02-2024 in association with IE(I) Head Quarters and IE(I) KTR Local Centre, has been conducted. The resource persons were Ms. Lijina Vijayan, Senior Consultant in Verizon-Java Full Stack Developer, and Mr. Tanay Agarwal, Senior Software Engineer at Volante Technologies. At the end of this workshop, participants can solve well-defined computational problems within a given time frame. It also enhances academic performance, boosts employability and job prospects in the tech industry, and fosters a competitive and collaborative spirit among peers.



The former president of CTECH IE(I) students' Chapter, Swapnil Roop Rai, gave a talk on "Placement Awareness and Preparation" on 16-02-24 for the third-year students. The session aimed to equip students with insights and strategies essential for successful placement processes.





Placement Awareness and PreparationDesign

Dr. M. Uma Devi, Dr. J. Jayapradha, and Dr. M. Eliazer conducted a One-Day Program on IE(I) Students' Chapter Benefits & Awareness Session on O9-O3-24 exclusively for the first-year students. The program emphasized the significance of students' membership and benefits and advised them to take part in the events conducted by our chapter. Furthermore, it encouraged students to volunteer in various events



#### LEAP' 24 - IEEE CS hackathon

LEAP'24 hackathon was organized by Dr. Godfrey Winster in association with the IEEE Computer Society on 29th Feb 2024. The event aimed to foster creativity, collaboration, and innovation among students, attracting a diverse group of participants from various academic backgrounds and skill levels.

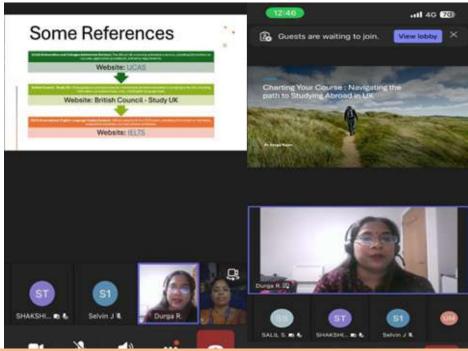


Dr. T. Benil, an Assistant Professor (Senior) at Vellore Institute of Technology Chennai, delivered a technical talk on the transformative potential of Augmented Reality (AR) and Virtual Reality (VR) in education on 05-03-24. The talk emphasized the significant role that AR and VR technologies play in reshaping educational practices in the 21st century. Dr. Benil highlighted various aspects of AR and VR technologies and their applications in educational settings, elucidating their capacity to enhance learning experiences and improve student engagement.



Webinar on "Charting Your Course: Navigating the Path to Studying Abroad in the UK" by Dr. Durga Rajan from The College of Haringey, Enfield & North East London was held on 26-03-24. She discussed prestigious universities with cutting-edge research facilities, various research universities in the UK, admission requirements for students, entry examinations, and provided references for the Engineering

Council UK.



Webinar on "Charting Your Course: Navigating the Path to Studying Abroad in the UK"

#### Team members:

Dr. M. Uma Devi, Committee Member, Kattankulathur Local Centre, IE(I)

Dr. J. Jayapradha, MIE, Students' Chapter Co-ordinator, Assistant Professor, Department of CTECH, SRMIST

Dr. M. Eliazer, MIE, Students' Chapter Co-ordinator, Assistant Professor, Department of CTECH, SRMIST

Dr. Bibin Christopher V, AMIE, Asst. Prof/CTECH, SRMIST

Dr. Shoba .L.K, AMIE, Asst. Prof/CTECH, SRMIST

Dr. Shibu N V, AMIE, Asst. Prof/CTECH, SRMIST

Dr. M L Sworna Kokila, Asst. Prof/CTECH, SRMIST

Dr. M. Suresh Anand, Asst. Prof/CTECH, SRMIST

Dr. P. Kirubananantham, Asst. Prof/CTECH, SRMIST

Dr. B. Prakash, Asst. Prof/CTECH, SRMISTIEEE

#### **Student Club Activities**

01

FEB 2024

#### DS Hack 2.0: Dive Deep Hack High

DS Hack 2.0: Dive Deep Hack High, a 24-hour Hackathon, was successfully organized by the Data Science community on 01 Feb 2024, led by Dr. Sowmiya. The event united Data Science enthusiasts, professionals, and students from diverse backgrounds to showcase their skills, collaborate on projects, and tackle real-world data challenges.



14

March 2024

#### A Design Journey Powered by Figma!

Cherry+ Network's App Archives event debuted with its inaugural event, Preface, and was hailed as a resounding success. The day was characterized by a vibrant atmosphere of learning, engagement, and a shared passion for design. The emcee adeptly introduced the esteemed speaker, Rajdeep Chatterjee, showcasing their remarkable background and expertise. This engaging introduction set the stage



08

**March 2024** 

#### The second chapter of "APP ARCHIVES"

Enthusiasts eagerly gathered as the Cherry+ Network Club hosted the second installment of its App Archives app development event series, named "Foreword". Following the success of the first event, Preface, this gathering promised a deep dive into the world of Flutter development, offering participants the opportunity to master mobile application creation effortlessly. Faraday Hall buzzed with excitement as the dedicated events team meticulously orchestrated logistics, ensuring optimal engagement and comfort for all attendees.



14

March 2024 Coding Ninjas Club - C.A.D 2.0 Hackathon (36 hrs)

Coding Ninjas Club organized the C.A.D 2.0 Hackathon, a 36-hour event aimed at engaging the student community across diverse fields, from programming to tech quizzing, debating, and design. The hackathon provided a platform for participants to showcase their skills, collaborate with peers, and tackle real-world challenges.



14

March 2024

#### E-GNITE'24

E-GNITE'24, a flagship event organized by The Entrepreneurship Cell (E-Cell), illuminated the entrepreneurial scene with dynamic speakers, insightful panels, and interactive sessions. The event aimed to inspire and empower students with entrepreneurial aspirations.





### **Outreach Activities**

On 21st February 2024, a group comprising 3 students and 4 faculty members had the privilege of visiting Potheri Government School. The purpose of the visit was to conduct a session on the usage of digital technologies for school students.

Feb 2024

21





Faculties teaching digital technology to students

#### **RLUMNI**

#### **Activities**

Coordinators: Dr Jayapradha J, Dr. Selvin Paul, Dr. Deepan Chakaravarthy, Dr. Subash

26

JAN 2024 Insights into Corporate Culture and Placement Experiences

On January 26, 2024, SRMIST Computing Technologies and Alumni Affairs jointly hosted a motivational session titled "Exploring Corporate Culture and Placement Journeys." The session, led by Ms. Satakshi Garg, an Analyst from Deloitte, Mumbai, aimed to empower students in making informed decisions about their career paths, placements, and further education. Ms. Garg's speech, filled with personal anecdotes, emphasized resilience and continuous learning in navigating career challenges. She discussed diverse career avenues within technology and engineering, providing insights into immediate employment versus advanced studies.



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FEB 2024 Career in Data Analytics

Alumni Talk on Career in Data Analytics was conducted by Mr. Utkarsh Khanna, a Senior Data Analytics Engineer at Quintaphi, Bangalore. Mr. Khanna highlighted the diverse opportunities and rewarding outcomes in data analytics, outlining essential steps for success. He emphasized the importance of technical skills, domain expertise, professional networks, certifications, and soft skills like communication and problem-solving. The session, held on February 16, 2024, equipped attendees with valuable insights and inspired them to pursue successful careers in



**22** 

**March 2024** 

UI/UX as passion and job market

Ms. Ananya Verma, a Product Designer at Log9 Materials, delivered an Alumni Talk on UI/UX design's dynamics in the job market on March 22, 2024. She emphasized creativity, problem-solving, and continuous learning in UI/UX design. Ms. Verma highlighted the thriving job market for UI/UX designers, discussed career opportunities, and shared practical advice on job searches, resume crafting, and participation in design competitions. Attendees were inspired to pursue their passion actively in UI/UX design



**26** 

### Charting Your Course: Navigating the Path to Studying Abroad in the UK

March 2024 Dr. Durga Rajan, Lecturer at the College Of Haringey, Enfield, And Northeast London, led an Alumni Talk on "Charting Your Course: Navigating the Path to Studying Abroad in the UK" on March 26, 2024, from 12:30 to 1:30 PM. Dr. Rajan provided a comprehensive guide for students interested in studying in the UK, covering steps such as thorough research, application process, financial planning, and visa requirements. Emphasizing proactive preparation, Dr. Rajan encouraged attendees to explore scholarship opportunities, manage finances effectively, and stay informed about immigration laws, ensuring a successful study abroad experience in the UK



28

#### Mastering the Technical Interview: Strategies for Success

March 2024 Mr. Balaji, an Associate at JP Morgan Chase & Co, presented an Alumni Talk on "Mastering the Technical Interview: Strategies for Success" on March 28, 2024, from 11:30 to 12:30 PM. He provided comprehensive strategies for excelling in technical interviews, emphasizing understanding fundamental concepts, practicing mock interviews, problem-solving, and effective communication. Dr. Subhash, Assistant Professor in the Dept. of Computing Technologies, delivered closing remarks



Coming together is a beginning. Keeping together is progress. Working together is success."

– Henry Ford.

### **Counselling Cell**

#### Text Neck Syndrome

A session titled "Text Neck Syndrome" took place at Tech Park TP 403 & 305 on 22 February, 2024. The seminar was conducted by S. Sangamithra, a third-year BSc Nursing student from SRM College of Nursing. A total of 120 students from the III year of Computing Technologies attended the session. During the seminar, the speaker shed light on the prevalence of text neck syndrome and its detrimental effects on spinal health. Through informative presentations and case studies, participants gained valuable insights into the significance of maintaining proper posture while using electronic devices to prevent text neck syndrome.

#### **Co-ordinators**

Dr. J. Dorathi Jayaseeli, Associate Professor,

Mr. M. Prabu Shankar, Assistant Professor,

Dr. K. Deeba, Assistant Professor

Dr. U. Karthikeyan, Assistant Professor,

Dr. S. Priya, Assistant Professor



#### Say no to drugs

On March 2nd, 2024, a seminar titled "SAY NO TO DRUGS" focusing on substance abuse was conducted. The seminar was led by Ms. Deepika K, who holds a BBA.LLB (Hons) and ML (Criminology), along with an LL.M (IPR) degree. She is also an Advocate practicing at the Madras High Court. A total of 144 students from the II and III years of Computing Technologies attended the session. The guest delivered insightful information regarding the legal dimensions of substance abuse, stressing the significance of legal awareness in combating drug abuse



### **Event Glimpse**

07

March 2024

Workshop on "SQL Programming Tools"

A two-day workshop on "SQL Programming Tools" was organized by Dr. Manoranjiitham on 7th and 8th March 2024. The workshop aimed to provide participants with comprehensive knowledge and hands-on experience with various SQL programming tools commonly used in database management and

analysis



Workshop on "SQL Programming Tools"

**CODE FEST** 

**FEB** 2024 The initial connection at the data center convention meeting at Hilton Hotel Chennai was facilitated by SRMTECH, represented by Mr. RamDhilli, Mr. Gurumoorthy, and Dr. V.S. Bakkialakshmi from CTECH, followed by an extended connection through an industrial visit to SRMTECH DataCenter with students. The aim of Industrial Visit was to explore corporate culture and learn about data centers and IT infrastructure. The visit was characterized by an atmosphere of innovation and professionalism. Subsequently, five live project proposals were provided by Mr. Balalakshminarayanan Vummidi (VP – SRMTECH), leading to the planning and execution of a 36-hour non-stop hackathon called CODEFEST'24. The event witnessed significant registrations, with 70 teams comprising 248 students selected by the SRMT technical team. CODEFEST'24, conducted in association with CTECH and SRMTechnologies, was an intense competition fostering technical skills, teamwork, perseverance, and problem-solving. Fifteen teams were advanced to the final round, with cash prizes awarded to the winners and runners-up. Gratitude was expressed to key individuals for hosting the event and providing a platform for growth and learning, highlighting the potential of technology with determination and passion.





**Event Convenors** 

Dr. V. S. Bakkialakshmi Event Co-Convenor

Mr. K.C. PrabhuShankar

#### **Non-Academic Events**

## **Embracing Tradition: CTECH Faculties unite for Pongal Festival**

On the 12th of January, our Department was adorned with the vibrant hues of South Indian culture as the local community came together to joyously celebrate the auspicious occasion of Pongal, marking the harvest festival with enthusiasm and unity. This gathering served as a remarkable demonstration of the camaraderie and solidarity among all attendees.



#### Celebrating Success CTECH claims Victory on International Women's Day

On March 8th, SRM IST Chennai celebrated International Women's Day at TP Ganesan Auditorium. The Department of Computing Technologies is thrilled to have won the Rolling Trophy this time, marking the event as a resounding success.

Additionally, the Department hosted a delightful Women's Day celebration, where all the women faculty members came together to showcase their talents. It was a joyous day with a delightful cake-cutting session, making the day truly memorable.



