



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956



SCHOOL OF
COMPUTING



INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of HRD Initiative)

The
Official
Newsletter
of Computing
Technologies

SMART SPRINKLERS

Quarterly Edition | Vol 2 | Issue 4



 NAAC A++	 WIRF Category 1 with 12B Status	 NIRF (2022) Ranked 19 th University	 QS (2023) World Ranking one among 41 Indian Universities	 THE WORLD UNIVERSITY RANKINGS (2023) World Ranking one among 75 Indian Universities	 ARIA (2021) Ranked 4 th	 SHANGHAI RANKING (2023) World Ranking one among 14 Indian Universities
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EDITORIAL MESSAGE

Dear Bibliophiles!



Greetings from your Editor and the Team. We take this opportunity to thank our devoted readers, highly innovative and talented HoD and faculty, expert members and distinguished Chair for being a part of this extremely sought edition of Smart Sprinklers! Time for us to embark our knowledge and innovations in terms of conducting and participating various innovative programs, publishing papers and patents, stepping into commercialization of the granted patents, extending our hands to help and support other departments and schools, spreading our wings ready to fly over the clouds and so on..

In most of the cases, the global challenges are interrelated and interdependent, so they cannot be addressed effectively in a piecemeal fashion. As the pandemic represents a multidimensional threat to every aspect of people's lives all over the world which has impacted on health, food production and distribution, employment and livelihoods, manufacturing, transport and distribution everywhere, Schools were closed, transport was shut down, manufacturing stopped, and global supply chains interrupted.

Terrific growth in automation across different business sectors, implementation of edge computing to improve efficiency, and computer vision are some of the topmost trends in AI and machine learning in 2023 that the market will be watching out for. The Department of Computing Technologies consistently has a watch out on AR-VR, Quantum computing, Green Computing, Accelerated Computing, Computer Vision, and Theatrical Computing apart from core computer science and Engineering.

Sand batteries are one of the most needed new inventions 2023 in science that could help to store renewable energy. They work by heating sand up to 500 degrees Celsius and then storing the heat in a silo. The heat can then be used to provide hot water heating or even generate electricity.

"I am not afraid of storms, for I am learning how to sail my ship." - Louisa May Alcott.

This is a "Shore leave" -Better you can disembark your ship for a while!!

Meet you in the Next Edition!

Dr. B. Amutha
SC0-Newsletter-Head
Department of Computing Technologies



Dr. M. Suchithra
Newsletter Coordinator



Dr. B. Kanisha
Proof Reader



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Content Writer



Dr. G. Ramya
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Content Writer



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Content Writer



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Designer

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Message from Head of Department



Dr. M. Pushpalatha

Professor and Head
Department of Computing Technologies

Dear Readers,

Greetings!

Department of Computing Technologies entrusts developing Engineers with a rich blend of Technical leadership and social consciousness that contributes to nation-building. SMART SPRINKLERS – The Department Newsletter, Volume 2 Issue 4 presents a special outlook on the International Conference on Internet of Things-ICIoT2023 held during April 26-28, 2023. The outcome of the conference was overwhelming and much appreciated. This quarterly news publication marks the end of the academic year 2022-23 and welcomes the newcomers for yet another successful academic year 2023-24 towards the department's research urgency for Quantum Computing, Multilingual Computing, Visual Computing, Theoretical Computer Science, Accelerated Computing and Green Computing. With excellent infrastructure, an experienced team of faculty members, an enthusiastic student fraternity, and an effective teaching-learning process; we pave the way towards a dream career destination.

Best Wishes to All!

“ A Winner is a Dreamer who never gives up”

- Nelson Mandela

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 center 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 body of nearly 5000 undergraduates, 50 postgraduate students, 100+ 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.

Ph.D AWAARDEES

Evidently, the years of hard work and deication has finally resulted in the most significant fruit you have ever wanted. Many congratulations on your 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 on your achievements.

Dr.Sibi Amaran
Dr.Malarselvi
Dr.Arul Prakash
Dr.Jayapradha



NEW JOINERS

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

Dr. M. K. Vidhyalakshmi
Assistant Professor

Dr. D. Gokulakrishnan
Assistant Professor

Ms. P. Jane Olive Sharon
Assistant Professor

Dr. Ajanthaa Iakkshmanan
Assistant Professor

Dr. K. Priyadharshini
Assistant Professor

Dr. M. Suresh
Assistant Professor

Dr. Aswathy K Cherian
Assistant Professor

Dr. R. Deepa
Assistant Professor

Dr. L. K. Shoba
Assistant Professor

Dr. V. Angayarkanni
Assistant Professor

Dr. S. Sankara Narayanan
Assistant Professor

Mr. S. Girirajan
Assistant Professor

Dr. P. Rama
Assistant Professor

Dr. Snehasish Ghosh
Assistant Professor

Dr. N. Nithiyanandam
Assistant Professor

Mrs. R. Madhura
Assistant Professor

Dr. V. Arun
Assistant Professor

Dr. C. Gokulnath
Assistant Professor

Dr. R. Brindha
Assistant Professor

Dr. S. Nikkath Bushra
Assistant Professor

Dr. K. Vijiyakumar
Assistant Professor

Dr. A. Pandiaraj
Assistant Professor

Dr. P. Robert
Assistant Professor

Dr. S. Deepajothi
Assistant Professor

Mrs. Divya Mohan
Assistant Professor

Dr. P. Rajasekaran
Assistant Professor

Dr. N. V. Shibu
Assistant Professor

Dr. D. Jesline
Assistant Professor

Dr. Abhijit Saha
Assistant Professor

Dr. A. Manju
Assistant Professor

HIGHLIGHTS



SRM INSTITUTE OF SCIENCE & TECHNOLOGY, KTR CAMPUS.
DEPARTMENT OF COMPUTING TECHNOLOGIES



CONGRATULATIONS

**To All PIs those who received funds from Government Agencies
(External & Internal),
BRNS, DST SERB, Meity QCAL, IGCAR, AICTE & SRMIST**

1.34 Crore

1. Dr. E. Poovammal, Professor, sanctioned amount of Rs.38.44 Lakhs from BRNS - Advisory Board of Department of Atomic Energy, Title: "Performance Improvement and GUI Development of PINAK Code"
2. Dr. G. Niranjana, Professor, received amount of Rs. 18.57 Lakhs from DST SERB- ASEAN-India Collaborative research project, Title: "Automated Deep Learning Framework for Covid Disease Detection and Analysis in Southeast Asian Countries using Computed Tomographic Images"
3. Dr. M. Pushpalatha Prof. & Head, Dr. M.Gayathri, AP & Mr. Ragavendra, Qkrishi, received 39120 USD from Meity QCAL Research Grant, Title: "Harnessing the Power of Variational Quantum Algorithms for Practical Quantum finance"
4. Dr. M. Pushpalatha Prof. & Head & Dr. M.Gayathri, AP, received 29000 USD from Meity QCAL Research Grant, Title: "Harnessing the Power of Quantum Algorithms for Televisions advertisement scheduling"
5. Dr. R.I. Minu, Professor, Dr.J.Selvin Peter Paul, ASP, received amount of Rs. 4.88 Lakhs from Floral Taxonomy of IGCAR, Kalpakkam Biodiversity.
6. Dr. M.Pushpalatha Prof. & Head, received Rs.9 Lakhs from AICTE, Title: "Drone based Crop Disease Detection and Recommendation System"
7. Dr. C.N Subalalitha ASP , Dr. Akilandeswari. P, AP, received amount Rs. 7.42 Lakhs from SRMIST, Title: "Building an SRM Humanoid Professor"
8. Dr. S. Poornima, AP, received amount Rs. 83000 from SRMIST, Title: Rainfall Prediction using Intensified LSTM and IoT Based Crop Recommendation.

HIGHLIGHTS



Ms. Anouska Jhunjhunwala - RA2211003010637 from First year CSE II Section, selected for Google TalentSprint Women Engineers Program for a duration of 24 months, along with a scholarship of Rs. 1,00,000.

HIGHLIGHTS

PROJECT GRANT

Title: Harnessing the Power of Variational Quantum Algorithms for Practical Quantum Finance

PI: Ragavendra (Qkrishi)

CO-PI1: Dr.M. Pushpalatha, Professor/Head- <SQ|QuIC> /CTECH

CO -PI2: Dr.M. Gayathri, Assistant Professor/ SPOC - <SQ|QuIC>/ CTECH

Worth: USD 39,120.

Title: Harnessing the Power of Quantum Algorithms for Television Advertisements scheduling

PI: Dr.M. Pushpalatha, Professor/Head- <SQ|QuIC> /CTECH

Co PI 1: Dr.P.C.Karthick, Associate Professor/ DSBS

CO -PI2: Dr.M. Gayathri, Assistant Professor/ SPOC - <SQ|QuIC>/ CTECH

Worth: USD 29000.

STUDENT ACHIEVEMENTS



Akarsh Ghildyal-RA2211003011111, from First Year CSE A2 section, Won First Place in 24 hours OODP HACK-39;23 Hackathon held at SRM Institute of Science and Technology, Kattankulathur from 27.4.2023 to 28.4.2023.

Tejas Singh from Final Year CSE I2 Section, developed car damage detection project using OpenCV, Flask, YOLOV8 (Object detection and segmentation models), HTML, CSS, and JavaScript and secured 3rd rank in SRM Techno Hackathon along with Ja Assure, Singapore, with cash prize of Rs. 15,000.

Aryaman adivya singh-RA2011003011266, Kumar Shashwat-RA2011003011262, and Mohammed Shoaib Khan-RA2011003011289 exhibited their exceptional project which showcased an innovative approach to debunking false information and got substantial cash prize.

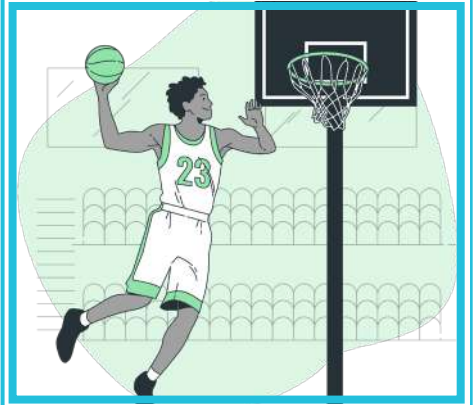
Yashita Srivatsava-RA2211003011218, from first year CSE C2 Section, attended a '24 hour' hackathon conducted by Block-chain club and Team Gen-Y at SRMIST, from 17th to 19th April 2023.

Narni Lalith Adhityan-RA2211003011236, from first year CSE C2 Section completed two online courses titled 'JavaScript for beginners' and Learn HTML for beginners in Udemy on 17th May 2023.

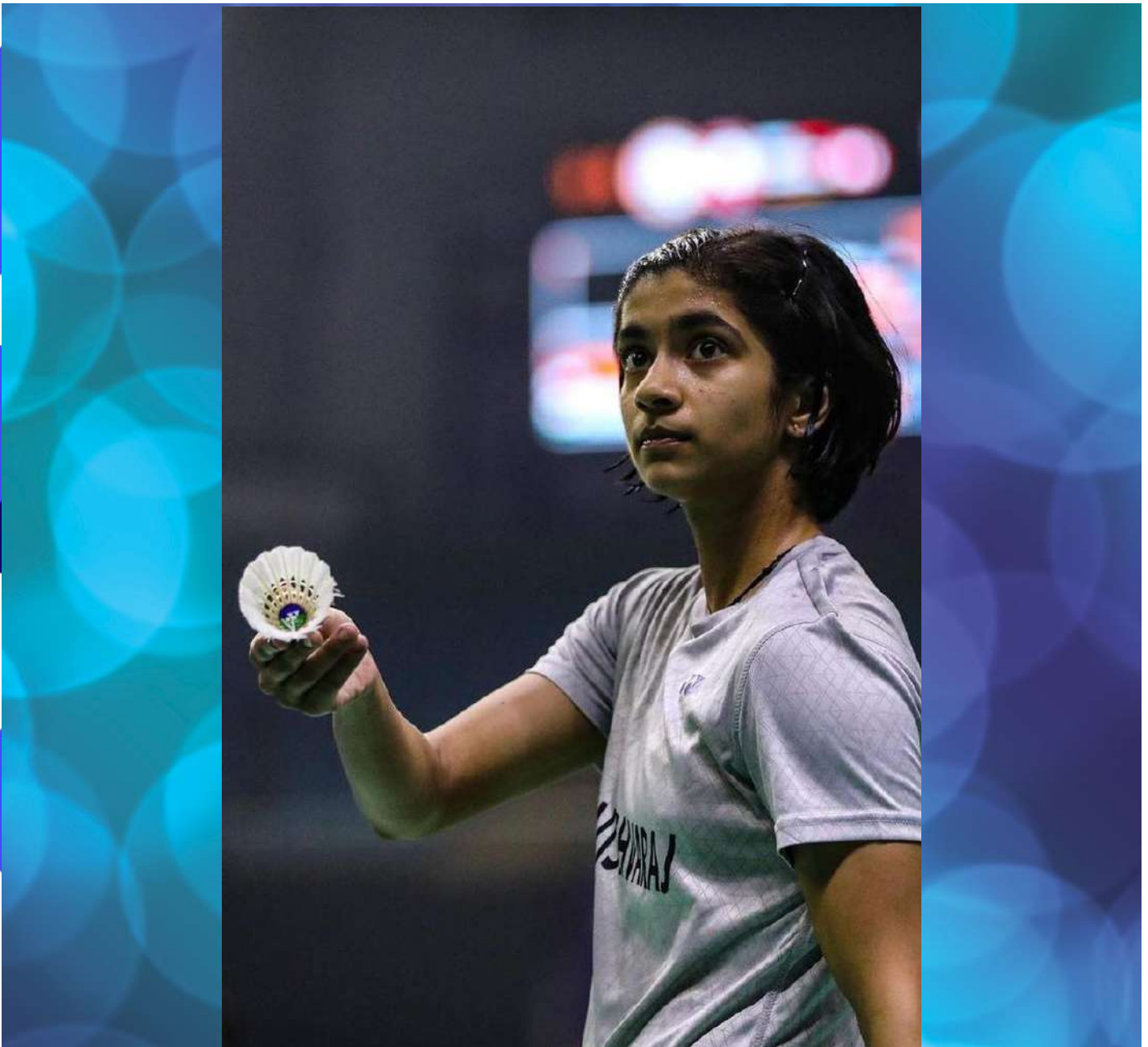
Taanisha Sharma-RA2211003011206, from first year CSE C2 Section completed the online course 'Python for machine learning' in Great Learning academy during May 2023.

S. Sujith kumar-RA2211003011243, from first year CSE C2 Section won the Honourable Mention award in G20 at SRM MUN held during 28th to 30th April 2023.

SPORTS HIGHLIGHTS



Another colorful feather added to our sports cap, as Bansod Malvika Prabodh RA2011003011385 of 3rd year got selected to represent India for an upcoming Asian Games in Hangzhou, China.



CAREER NEWS



The placement season for the batch: 2019-23 has been successfully completed for the 17 sections of UG students. 775 students enrolled for campus placement, 211 students opted for higher studies and 1 student is interested in entrepreneurship. Anand Group, UIDAI, Siemens and Hexagon provided 7 internship offers. Till date, 211 companies visited SRMIST for recruitment process and 151 companies have offered the placement opportunity.

35
Marque
356
Super Dream
355
Dream
542
Day Sharing
07
Internship
**Total Offer
1295**
**Unique Offer
735**

COMPARISION FOR LAST 3 YEARS



**Highest
Salary
47.88 Lakhs PA
Amazon WoW**

CONGRATULATIONS TO MARQUEE PLACED STUDENTS

	EISHITA GUPTA Amazon CTC: 47.88 LPA		ADITI KHATRI Amazon CTC: 47.88 LPA		SANSKRITI KHARE Adobe CTC: 47.00 LPA		SANJANA ZOLA Cloudera CTC: 39.6 LPA		HARSHIT PRATAP Autodesk CTC: 36 LPA		ROHAN SACHDEVA Commvault CTC: 31 LPA		VIVEK KUMAR Hybrid CTC: 30 LPA		ASHUTOSH KUMAR Morgan Stanley CTC: 29.49 LPA		ANMOL MITTAL APP Development CTC: 29.48 LPA		AMISHA JAISWAL Adash CTC: 27 LPA
	ABHUDAY MISHRA Amazon CTC: 47.88 LPA		ADITYA SHUKLA PayPal CTC: 26.5 LPA		DEBODYUTI BISWAS Reverse Labz CTC: 25 LPA		SWARNABHA DAS ReverseLabz CTC: 25 LPA		RITIKA GUPTA Cisco CTC: 24.7 LPA		SHAMBHAVI JHA Wells Fargo CTC: 24 LPA		AVAD AGARWAL Wells Fargo CTC: 24 LPA		RITESH KUMAR RAI Wells Fargo CTC: 24 LPA		KODURU SIVA Pay Pal CTC: 20 LPA		OISHWARJYA BANERJEE Wells Fargo CTC: 24 LPA
	SHAURYA JAGGI PayPal CTC: 24 LPA		SHUBHAM KUMAR Wells Fargo CTC: 24 LPA		HARSH M Wells Fargo CTC: 24 LPA		VARUN SRUTEJA K British Petroleum CTC: 22.4 LPA		DINESH VARMA British Petroleum CTC: 22.4 LPA		MOHAMMAD HASAN RISHABH SHARMA Nutanix CTC: 22 LPA		TUSHAR KRISHNA Kaleyra CTC: 20.24 LPA						
	EESHAN DUTTA Kaleyra CTC: 20.24 LPA		MALLIKA SHARDA Kaleyra CTC: 20.24 LPA		SAGNIK BISWAS Farmako Healthcare CTC: 20 LPA		MOHAMMAD MUAZAM Squadcast CTC: 20.04 LPA		AADITYA PRAKASH Richpanel CTC: 20 LPA		TAPI SHARMA PayPal CTC: 20 LPA								

Marquee - 35
Super Dream - 354
Dream - 347
Day Sharing - 542
Internship - 07
Total Offers - 1286
Unique offer - 782
Highest Salary - 47.88 LPA
Placement - 94.45%

THE GLOBAL ACADEMIC INTERNSHIP PROGRAM (GAIP)



Global Academic Internship Program at NUS, Singapore internship - reg

The Global Academic Internship program (GAIP) - "Data Analytics using Deep Learning" for the students mentored by Corporate Gurukul Pvt. Ltd being conducted at National University of Singapore from 1-7-23 to 21-7-23 at NUS campus, Singapore.



Peela Sai



Ligandro Singh



Nandini Agrawal



Goutham



Aneesh Hatkar



**Saketh Reddy
Pannala**





SEMESTER ABROAD PROGRAM



The department of C-Tech congratulates our IV-year students who got admissions to pursue their SEMESTER ABROAD PROGRAM (SAP) under the SAP FALL 2023 commencing from September 2023

University of Wisconsin, Madison commencing



ROHAN SONTA



RAHUL NARAYANAN



YOHAN VERGIS

National Tsing Hua University, Taiwan

Illinois Institute of Technology, Chicago



ANANDAN BISWAS



PACHAVA VENGALA

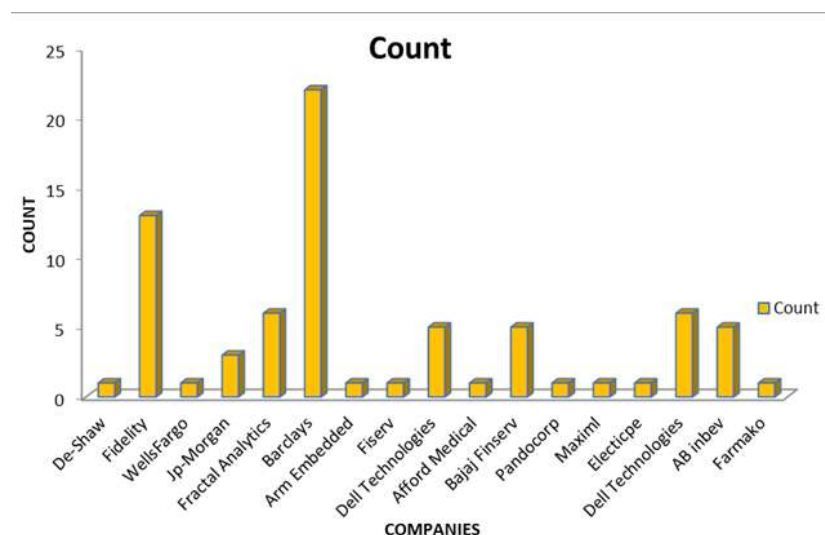
SARVESH KUMAR – University of California, Davis, University of Wisconsin, Madison

MOHIL CHATURVEDI – Waseda University, Japan, Middle East Technical University, Turkey, National University of Singapore, Singapore

INTERNSHIP ACHIEVEMENTS (BATCH 2020-24)



INTERNSHIP DETAILS



FACULTY CORNER



Patent Grant /Published

Dr.J.Nithyashri, received a patent grant titled "Temperature Based Touch Less Attendance System", vol.17, 28-04-2023 by Intellectual Property Rights, India.

M.Kandan et al., "Machine Learning and Image Processing based approaches for Lung Tumor Classification and Prediction", Intellectual Property India, Indian Publication, on 16.06.2023. 2023.

A patent titled, "A System and Method for implementing and Unmanned Aerial Vehicle for crop production" has been granted for M. Sindhuja, K Alice, NAS Vinoth, A Maria Nancy and G Usha

A patent titled "An Effective Method for Estimating Security Risk for IoT Access, Control Models", Indian Patent Application No. 202341028883, published in Patent Office Journal (05/05/2023), Co-author (2nd position)

Dr. C. Vijayakumaran published a patent titled "An Effective Method for Estimating Security Risk for IoT Access, Control Models", Indian Patent Application No. 202341028883, published in Patent Office, Journal (05/05/2023), Co-author (2nd position)

Dr.S.Nithiya as a CO-PI with her team successfully completed a project titled "Building an Ecommerce website to sell IOT Devices" offered by Rezzlon technologies.

Book Published

Dr. M Gayathri Published a book entitled " Machine learning through Cloud computing" by GCS Publishers ISBN : 978-81-963125-8-9.

M.Kandan, Mrs.Rimpi Rani., Dr.K.M.Balamurugan., and Prof. saurabh Sharma, "Fundamentals of Cloud Computing", Book Rivers, Lucknow, ISBN No. 978-93-5515-951-9, on 12.04.2023.



FDP/Workshop Participated

Dr.J.Nithyashri, participated in 5 days FDP on Universal Human Values-I, Online programme organized by AICTE, from 03-04-2023 to 07-04-2023.

Dr.J.Nithyashri, participated in 5 days FDP on Universal Human Values-II, Offline programme organized by AICTE, held at SRMIST, Kattankulathur, from 30-05-2023 to 03-06-2023.

Dr. P. SARAVANAN, 5-days Offline UHV-II FDP, All India Council for Technical Education (AICTE), 30th May to 3rd June 2023.

Dr. P. SARAVANAN , 5-days FDP online on "New Age Technologies" Organized by VIT, AP, 28th March to 1st April.

Dr.M.Kanchana attended 12 weeks NPTEL -AICTE FDP on Introduction to Automata, Languages and Computation during Jan 2023- April 2023.

Dr. C. Vijayakumaran completed Quantum Computing using Indigenous Quantum Simulator QSim

Dr. S.Sivakumar completed Faculty Refresher Assimilation Program, 22nd May to 23rd May 2023, SRMIST

Dr.G.Balamurugan attended Faculty Refresher Assimilation Program, 22nd May to 23rd May 2023, SRMIST.

Dr.G.Balamurugan attended the Institution's Innovation Council (IIC) Calendar "Workshop on Business Model Canvas" conducted by Directorate of Entrepreneurship and Innovation (DEI), SRM Institute of Science & Technology on 20th of June, 2023.

Dr.G.Balamurugan attended Faculty Development Program on Blockchain from 20-03-2023 to 24-03-2023.

Dr. A. ANBARASI, Assistant Professor, Participated in a 16 Day International Online Faculty Development Programme on Teaching, Learning, Assessing in 2030, 6th June, 2023 to 23rd June 2023.

Dr S.Ramesh, Assistant Professor, was completed 5 Days Online FDP on "Real Time Automation Solutions using AI" from 19.06.23 to 23.06.23 organized by Department of ECE, Hindusthan College of Engineering & Technology (An Autonomous Institution), Coimbatore.

Dr.A.Devipriya completed the 5 days Online FDP on the theme "Inculcating Universal Human Values II in Technical Education" organized by All India Council for Technical Education from 6th March to 10th March 2023.

Dr.K.Deeba Completed 5-day Online FDP "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 3rd April to 7th April 2023.

Dr. S.Sivakumar completed Inculcating Universal Human Values in Technical Education, All India Council for Technical Education (AICTE), 3rd April to 7th April 2023.

Dr. S.Sivakumar completed 6-day Online UHV-II FDP, All India Council for Technical Education (AICTE), 15th May to 28th May 2023.

Dr. Arthi B & Dr. Aruna M participated in the 5 Days International Workshop on "Application of Machine Learning and Artificial Intelligence in Research and Innovations (IWMLAI-2023)" at Regional College of Education and Research, Jaipur from 2nd to 6th May 2023.

Dr.A.ANBARASI, Assistant Professor, participated in National Workshop on Research Opportunities in BOT detection in twitter held during 12 -13th May 2023 at Puducherry Technological University sponsored by DST – SERB – Power Research Grant.

Dr.Jagadeesan and Dr B.Amutha attended a FDP on "Machine Learning and its applications" conducted by Manakula Vinayagar Engineering College in this Semester.

Editor/Reviewer/ Session Chair

Dr.J.Nithyashri, appointed as one of the Editorial Team member for a Book chapter series titled "Futuristic trends in Computing Technologies & Data Science", Iterative International Publishers, USA & India.

Dr.J.Nithyashri, acted as a reviewer for the International Conference on Computational Sciences & Sustainable Technologies (ICCSST-2023) held on 8th & 9th May 2023 Organized by Christ University, Bangalore & Modern College of Business Science, Muscat, Oman.

Dr.J.Nithyashri, acted as a Session Chair for the IEEE International Conference on Advances in Computing, Communications & Applied Informatics (ACCAI-2023) held on 25th & 26th May 2023 Organized by St.Joseph's College of Engineering, OMR, Chennai.

Dr.G.Balamurugan, Assistant Professor, acted as a Reviewer for IEEE International Conference on Applied Intelligence and Sustainable Computing (ICAISC – 2023) organized by Shri Dharmasthala Manjunatheshwara College of Engineering and Technology, Dharwad, 16th -17th June 2023.

Dr.G.Balamurugan, Assistant Professor, acted as a Reviewer for AICTE Sponsored IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON) is organized at Nitte Meenakshi Institute of Technology, Bengaluru INDIA during 1st and 2nd September 2023 in association with IEEE Bangalore Section.

Dr. Aruan M acted as a Member Technical Program Committee & Reviewer in the 4th International Conference on Recent Trends in Communication & Intelligent Systems, held from 28 April 2023 to 29 April 2023 at Arya College of Engineering & I.T., Jaipur, Rajasthan, India.

Faculty Upskilling

Dr. S. Pradeep, Associate Professor, has attended Main Survey Training for Trainers from 31st March – 19th April 2023 at Goa to conduct the sixth round of the National Family Health Survey(NFHS-6) at National Level by the Ministry of Health and Family Welfare, Government of India & International Institute for Population Sciences.

Briskilal J, Assistant Professor, is certified authorized by Arizona State University and offered through Coursera (12 module course: English Communication for Tech Professionals from March to June 2023.

Dr. A. ANBARASI, Assistant Professor, Successfully completing the 12 week Course “The Joy of Computing using Python” Jan to April 2023.

Dr.K.Deeba completed 24 weeks Counselor’s training on “Train the Trainers”, organized by the Department counseling cell, College of Engineering, SRM IST.

Dr.G.Balamurugan obtained Certificate in Computer Science Education on “Effective Teaching of Advanced Programming” from Feb 2023 to May 2023 powered by ACM India and IIIT Delhi.

Dr.A.Devipriya completed a NPTEL Online certification titled “Software Testing” with Elite by April 2023.

Dr. C. Vijayakumaran completed Affective Computing – NPTEL – JAN_APR2023

Dr.M.Kanchana, Received 12 weeks NPTEL Online Certification on, Introduction to Automata, Languages and Computation (Jan- April 2023)

Dr. S.Sivakumar completed Deep Learning, NPTEL AICTE, Jan-April 2023

Dr.Geetha. K delivered a Guest Lecture on the topics “Program States & AR/VR on GIS” and “Exception Handling” on 17.06.2023 (2 sessions) Organized by the Faculty Development Training Centre, Government College of Technology, Coimbatore in association with Government Polytechnic College, Karaikudi.

Dr.G.Balamurugan, acted as Resource person and delivered a Lecture on the topics “IoT Architecture” on 26.06.2023 (1 sessions) in a 5 days FDP program on INTERNET OF THINGS Organized by the Sri Sairam Engineering College, Chennai.

Dr.A.Devipriya, Dr.G.Balamurugan completed a course on “Cohort 4 – Design Thinking” Train the Trainer program by Intellect, SIPCOT IT Park.

Dr.B.Amutha completed the NPTEL Course on:” Data Science for Engineers” with Elite Certificate in this semester.

CSEDU IIIT for the Faculty Development Course Module

Dr K.M.Umamaheswari, Associate Professor, Dr M Suchithra Associate Professor , Dr. Muthu Kumaran A M J Assistant Professor , Dr S.Nithya ,Assistant Professor, Dr J.Ramaprabha,Assistant Professor, Dr.G.Balamurugan,Assistant Professor,Dr S.Sivakumar, Assistant Professor, are certified with Excellence by CSEDU IIIT Delhi for the Faculty Development Course Module: Advanced Programming Practice from Feb to May 2023.

Dr Manoj Kumar Rana, Research Assistant Professor, is certified with Excellence by CSEDU IIIT Delhi for the Faculty Development Course Module: Advanced Graph Algorithms from May 22 to May 26, 2023.

Dr.Geetha.K,Assistant Professor, Dr Sindhuja,Assistant Professor, M, Dr C.Ashokkumar, Assistant Professor are certified with Excellence by CSEDU IIIT Delhi for the Faculty Development Course Module: Advanced Graph Algorithms from May 22 to May 26, 2023.

Dr.M.Kanchana, Received CSEDU certificate from Indraprastha Institute of Information Technology Delhi (IIIT-Delhi)) for Effective Teaching of Theory of Computation. Duration : Feb 2023-March 2023 (6 weeks).

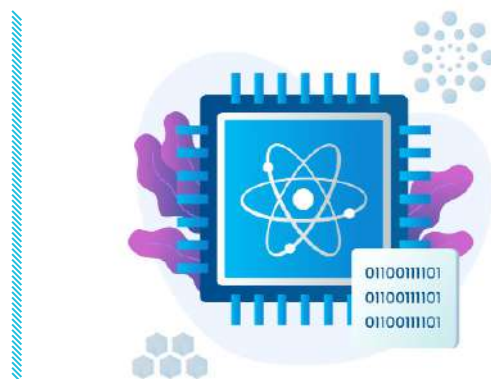
AICTE for the Faculty Development Course Module

Dr S.Gnanavel Associate Professor is certified with Excellence by ALL INDIA COUNCIL FOR TECHNICAL EDUCATION Delhi for the Faculty Development Course Module: Inculcating Universal Human Values in Technical Education from 01-05-2023 to 05-05-2023.

A short -Term training program on "Computer skills" organised by C.Tech, Dept. for Prisoners in Central Jail, Tiruchirappalli was conducted from 10th May to 24th May 2023. In Connection with SRMIST, a lab with ten desktops was inaugurated by Dr T.K.Sivakumar provided by computer training for 20 Prisoners.



QUANTUM COMPUTING



The Quantum Computing Vertical has received and sanctioned two Meity QCAL Research grants to Dr.M.Pushpatha , Dr.M.Gayathri, Dr.P.C.Karthick worth Rs 55 Lakhs AWS credits.

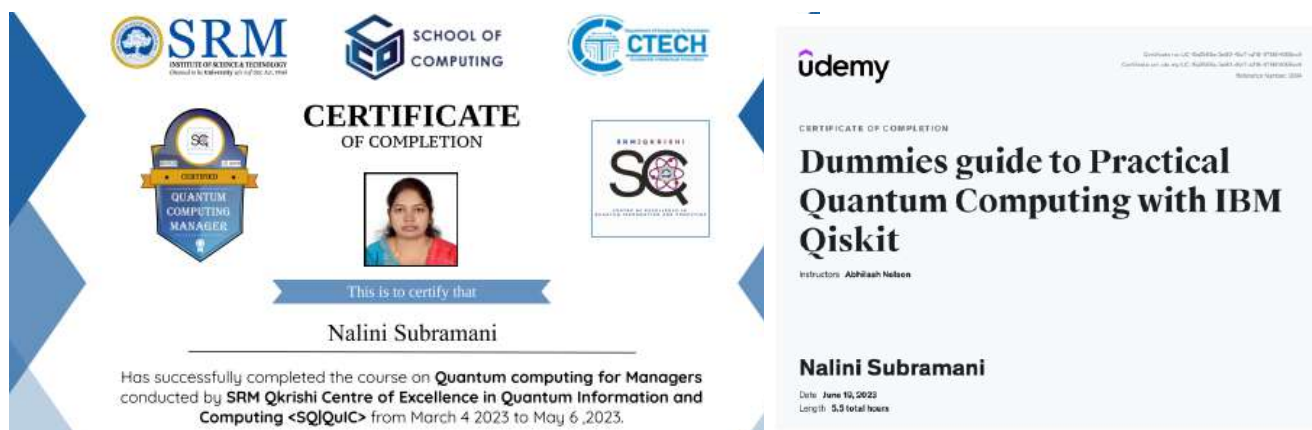
The Management Certification Live Course “ Quantum Computing for Managers” was offered to Industry leaders by SRM Qkrishi Centre of Excellence in Quantum Information and Computing < SQ| QuIC>. The course was successfully completed by 30 industry leaders from March 4 2023– May 6 2023. The participants of the course were from various companies like IBM, Nvidia, Tech Mahindra, Fractal and DXC. Out of 30 participants, four participants are international participants from countries like the USA, Peru and UK. Capstone projects were demonstrated by participants. 3 participants received certificates of Excellence for the best projects.

The following members have been completed the faculty upskilling and patent granted under the Quantum Computing

Dr.M.Pushpalatha and Dr.M.Gayathri have registered for 6 month Certification program “ Quantum Expert ” Offered by QpiAI and IISC Bangalore.

Dr. S. Nalini has completed the 10 weeks with 2 hours (from March 4, 2023 to May 6, 2023) Management Certification Course on “Quantum Computing for Managers” for Industry Leaders offered by QKrishi and SRMIST and she has successfully completed the online Certification course on “Dummies guide to Practical Quantum Computing with IBM Qiskit” by Udemy.

Dr.P.C.Karthik, Associate Professor, Department of DSBS, School of Computing, has passed the NPTEL Online Certification on the course “Quantum Algorithms and Cryptography”. He is one among 111 candidates who have been certified in this course and he has been granted the patent titled “AN APPARATUS AND A METHOD FOR MEASURING ANGULAR DISPLACEMENT OF A GYROSCOPE USING QUANTUM OPTICS” with patent number 433668, by the Patent Office, Government Of India.



VISUAL COMPUTING



Dr.B.Muruganantham has collaborated with the southern railway in tambaram EMU for developing a prototype for "Online Monitoring System for Electrical Train" and the scheme of "Industry Academic Program" with Global Logics (MoU to be signed).

Dr.A.Devipriya and Dr.G.Balamurugan has organized committee member for "SRM TECHNO JACKATHON – 2023" in association with Ja Assure Singapore on 17th April 2023 to 18th April 2023 and she has actively coordinated a three days national workshop on "IoT using Raspberry Pi" an outreach workshop of Technex'23 IIT, Varanasi delivered by Innovians Technologies from 26th April 2023 to 28th April 2023.

ACCELERATED COMPUTING



Dr.B.Amutha and her team met the Future net authorities for the planning of Industry oriented projects in High Performance Computing. Two projects have been discussed and will be carried over within this semester.

Two of our faculty members, Dr. R.Vidhya, Dr. S.Nagadevi have completed a FDP in High Performance Computing.

26 students of our department had completed the certification course on Future Skills conducted by CDAC and the certification is given by CDAC and NASSCOM.

CADC is interested to collaborate with computing technology department so as to have a MoU in this month in various aspects such as High Performance Computing, Data Science and Cloud Computing.

GREEN COMPUTING



The green computing vertical aims to be sustainable or eco-friendly. It also refers to the practice of designing, manufacturing, and using computer systems and technologies in an environmentally responsible manner. It focuses on minimizing the negative impact of computing on the environment while maximizing energy efficiency and resource utilization. While “green computing vertical” is not a widely recognized term, it could refer to a specific industry sector or market niche that focuses on developing and providing green computing solutions. The first workshop is planned on 13th July 2023. This workshop gives hands-on training to faculty members who will be trained to work on components for developing projects.

A Team of four students from third year C. Tech namely Aryan Singh, Ukti Agarwal, Harsh, and Athish headed by Dr. E. Poovammal and Ms. B. Sowmiya developed an energy-efficient, environmentally friendly software application (Metro Passengers Feedback) that promotes sustainable practices for Chennai Metro Private Limited. It involves creating software solutions that optimize resource utilization, minimize power consumption, and reduce carbon footprint.

In accordance with the MOU signed between SRM and CMRL. The CMRL team has given internship offers to 16 students in the month of June. Three first-year (C.Tech) students and one first-year (MBA) student namely Shruthi, Sujitha, Bharathi, and Jayalakshmi have got internship offers in IT services and 11 students are doing a survey on women's security and comfort during travel.

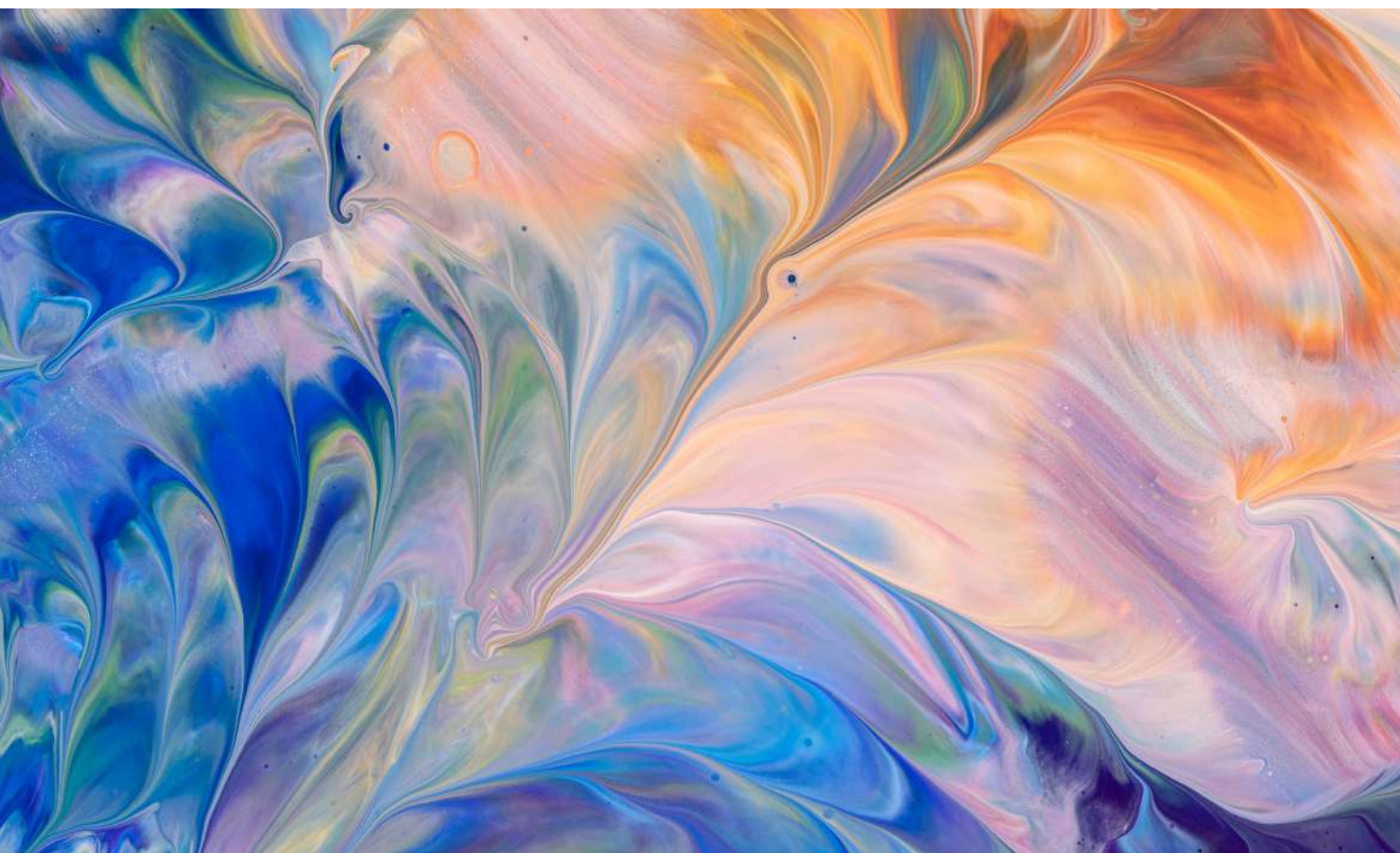


The Intelligent System Design (ISD) lab is set up in TP1509 which can be utilized by all faculty members and students for developing sustainable products. The energy-efficient hardware components have been purchased and set up is made in collaboration with SiGi Tech Embedded and Robotics Solutions Private Limited. The first hands-on training/workshop is planned on 13th July 2023. The following week the students will be trained to work on the ISD lab components in developing projects.

The target for the Next 3 Months :

1. Planned for an expert talk
2. Proposal submission for Funding agencies
3. Each faculty member in the vertical is planned to publish a research paper related to the domain
4. Certification courses for students will be offered from the vertical.

The Online session on 'Leadership in the Digital Era' was presented Mr. Mohandoss, Professor of Practice (PoP) for the Department of Computing Technologies conducted an online interactive session on 'Leadership in the Digital Era' on 30th June 2023. There were around 50 participants for the session where 28 participants were connected from TP401 and the rest connected online. He shared his view on the quality and requirements of leadership in today's era. The faculty members interacted with the speaker to share their views and questions. Mr. Mohandoss, Professor of Practice (PoP) for the Department of Computing Technologies visited the campus on 21st April 2023. He had a discussion with the third-year students at DAV Lab TP13th floor on advancements in Cloud computing. The students had a very informative session and were happy with the outcome of the discussion. The delegate then visited the Quantum lab, where the students presented their projects to Mr. Mohandoss. A round visit was also made to the Apple MAC lab. He was practiced to the Department of Computing Technologies conducted a very interactive session for the first year students of C.Tech department on topic 'Opportunities in Emerging Technology and Industry Landscape'. Around 15 students attended the session. He spoke about the emerging technologies and what could be the future technology. He gave a brief idea on AI, ML, Chat gpt, and many other trending areas.



ALUMNI CONNECT

We take pride in the fact that our alumni hold esteemed positions in society, and we enjoy maintaining connections with them. We had a few meetings with our alumni:

29**APR
2023**

Mr.Nitish Lokesh software development engineer, was a resource person for two days' workshop on "How to become the next Zuckerberg". The content of the workshop was ReactJS, 2. NextJS, 3. Vercel Cloud, 4. Next Auth, 5. Prisma ORM and 6. Tailwind CSS. The morning session was the theoretical session and the afternoon session was the hands-on session. Students were interested in the workshop and asked many doubts. As the core of the workshop was around java script, the workshop was interesting and efficient. The vercel cloud concentrated on the web development Concepts. The Next Auth is a continuation of Next JS and the hands-on was good on that part..

24**MAY
2023**

Invited Talk – Research Interaction with IIT Professor

Professor Dr.Dan Sathyaraj, Department of Mechanical Engineering, from IIT Indore,Delivered the Invited talk on,"Application of Machine Learning in IoT based Material Characterization," followed by Faculty Interaction meet on 24-05-2023.



FAREWELL CELEBRATION

The Department of Computing Technologies celebrated Farewell Day event for the 2019-2023 Batch Passed out students on 18th May 2023 at TP Ganesan Auditorium SRMIST, Kattankulathur. More than 500+ Students and Faculty members are participated in the event.

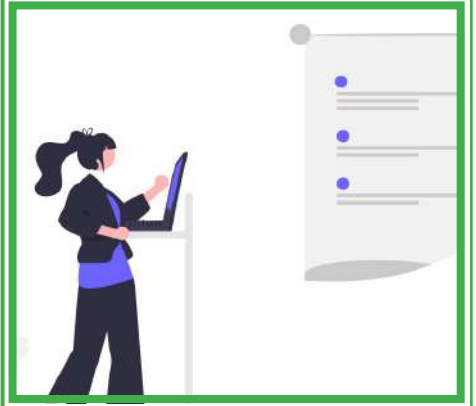
The Meritorious and Marquee Placed students are appreciated during the event celebration. Prof. Dr.S.Ramamoorthy, Associate Professor gave the welcome address and invited the participants to the event. Prof.Dr.S.Sridhar gave the Inaugural address, Prof. Dr.D.Malathy and Prof.Dr.E.Poovammal gave the special address and shared their experiences and memories with the students.

Few students are asked to give the feedback about their college life experience in the past 4 Years and areas in which need to improve further related to the student activities. Totally 17 students from every section received the meritorious student award and 35 Students from all the sections appreciated under the Marquee Placed student category. The event was finally concluded with Cultural events by the students.

The Overall program was coordinated by Prof.Dr.S.Ramamoorthy, Associate Professor, Department of Computing Technologies, SRMIST.



INTERNATIONAL CONFERENCE ON INTERNET OF THINGS 2023 [ICIOT 2023]



The Department of Computing Technologies, School of computing, SRMIST successfully hosted the Fourth International Conference on Internet of Things on April 26-28, 2023. The presence of dignitaries, an impressive lineup of scholars from across the globe, the support of sponsors and media partners, distinguished experts, researchers and industry professionals from various countries, an array of carefully selected, well-researched and well-presented papers on the subject, all came together to help Team ICIOT-2023 to admirably conclude this huge endeavor.

The conference was applauded for 31 concurrent sessions, a panel discussion and a workshop, besides the Inaugural and Valedictory sessions. During the conference, participants could engage in lively discussions, share their research findings, and peer learning. The presentations covered a wide range of topics and provided valuable insights on the latest developments in IoT.

This report aims to provide an overview of the key highlights and takeaways from the conference. It includes a summary of reflections on the research implications presented for future work in the field. This report will serve as a valuable resource for those unable to attend the conference and a helpful reminder for those who were present.

The International Conference on the Internet of Things commenced with an inaugural ceremony on April 26th at 9:30 a.m. The chief guest for the event was Dr. Sangeeta Maini, the Chief Executive Officer of I-HUB Quantum Technology Foundation (QTF) Indian Institute of Science Education and Research (IISER), Pune. Her inaugural address covered various aspects of IoT and its impact on society. The conference also saw the felicitation of guests of honor, including Dr. Ling Tok Wang and Dato' Dr. Shamala Subramaniam.

The conference covered a wide range of topics related to IoT, including:

- **IoT Applications and Services:** This theme focused on the various applications and services that IoT enables, such as smart homes, smart cities, and industrial IoT.
- **IoT Security and Privacy:** This theme addressed the security and privacy concerns that arise in the context of IoT, such as data breaches, cyber-attacks, and data protection.
- **IoT Architecture and Standards:** This theme discussed the technical aspects of IoT, including the architecture, protocols, and standards that underpin it.
- **IoT Analytics and Big Data:** This theme explored the use of data analytics and big data in IoT, including the challenges and opportunities for businesses and organizations.
- **IoT and Artificial Intelligence (AI):** This theme examined the intersection of IoT and AI, including machine learning, deep learning, and other AI techniques in IoT applications.

In addition to this, NLP in E-commerce, IOT in Health Care, Image and video processing in Web and, Mobile Applications, Mobile Pervasive Computing, Green Computing, Augmented reality, Online Threat Detection, Big data Analytics, Big data with IOT, Embedded systems, and applications, Smart Security Applications, Blockchain, Sentimental analysis, and Quantum computing were also under discussion. The conference featured prominent speakers from academia and industry who shared their insights and perspectives on IoT.

Day 1

Dr. Sangeetha Maini, Chief Executive Officer, I-HuB Quantum Technology Foundation, IISER, Pune, shared her insights about The Quantum Leap for the Future India

Dr.R.Ananth Kumar gave a session about How to set up Startup

Dr. Shuai (Steven) Li , Associate Professor, Swansea University, UK, discussed about Kinematic Calibration of Robot Arms: A Machine Learning Perspective (Online)

Dr. Anand Nayyar, Assistant Professor, Duy Tan University, Vietnam spoke about Autonomous Vehicles (Online)

Day- 2

Dr. Ling Tok, Emeritus Professor, Department of Computer Science, School of Computing, National University of Singapore addressed about Improving the Quality of Database Research with ORA-Semantics in ER Model

Dr Shamala Subramaniam, Professor, Universiti Putra Malaysia, Malaysia gave a lively session on Harnessing Dimensions of Coexistence in Surfing the Waves of Evolving IoT Landscapes

Dr. Harilaos Koumaras, Research Assistant Professor, IIT, Greece, presented a session on AerOS: A Meta Operating System for the IoT- Edge-Cloud Continuum (Online)

Dr. Fitri Yakub, Senior Lecturer, MJIT, Malaysia delivered a session on Smart Devices for IoT Applications (Online)

Mr. Senkathir Selvan Suriaprakasam, Business Owner- TCS DigiFleet, spoke about Manufacturing and Agriculture.

Following the Sessions, A panel discussion was held on topic" Impact of Disruptive Technologies on different sectors" Dr. Harilaos Koumaras, Dr. Fitri Yakub and Mr. Senkathir Selvan Suriaprakasam participated in the panel discussion and expressed their views on the disruptive technologies. Dr.S.S. Sridhar moderated the debate.

The day was ended with a cultural session which portrayed the diversity and richness of our community's traditions and customs. The event was a testament to the strength and vibrancy of our community.

Day 3

Dr. Khalid Elgazzarr, Canada Research Chair in IoT, Ontario Tech University, Canada addressed the attendees on Detecting Road Boundaries in Challenging Weather Conditions.

Dr. Lipo Wang, Professor, Nanyang Technological University, Singapore discussed about Healthcare Systems

Mr. Karthikeyan, Product Security Leader, Logitech gave a session on IOT Related Security Vulnerabilities and How We are Ensuring our Controls to Deliver Secure Products in the IOT Ecosystem

Mr. Aravind Ramachandran, Senior Sales Manager - Didactics Initiative, JANATICS India Pvt. Ltd., discussed Industrial digitization and the role of IT in manufacturing (Live Demo)

ICIOT conference received more than 700 research papers, and after careful evaluation of their ideas and novelty, 365 papers were accepted and registered for presentation. The articles are organized under 31 different tracks/ sessions. Each session included 10 to 12 articles for presentation. From each session, one article was selected and awarded as the best paper.

The conference also highlighted the latest developments and research in the field of IoT, including its potential impact on society, the challenges and opportunities of implementing IoT in various sectors, and the need for greater collaboration and standardization in developing and deploying IoT technologies. Overall, the conference provided valuable insights and perspectives on IoT, and its potential to transform how we live, work, and interact with technology.

The Day 3 ended with a valedictory function felicitated by our honorable Chief Guest Dr.B.Nepolian, Dean (Research), Dr. Revathi Venkatraman, Chairperson, School of Computing and Dr.Pushpalatha, Head of Computing Technologies Department. Certificates are distributed to the best paper award winners of all the sessions of paper presentations

The Conference owes its success with these outcomes and conclusions:

- The need for greater collaboration and standardization in developing and deploying IoT technologies.
- The importance of addressing the security and privacy concerns that arise in IoT.
- The potential for IoT to transform various sectors, including healthcare, transportation, and manufacturing.
- The opportunities and challenges of using big data and AI in IoT applications



Dr. Sangeetha Maini, talk about The Quantum Leap for the Future India

CONFERENCE INAGURATION



IE(I) STUDENTS' CHAPTER CORNER



A Technological Perspective on Endangered Language Revitalization" Guidance and Motivation has been conducted on 25/04/2023 by Dr.S.Arl Dayanand/CDC,SRMIST and Mohd Ariz Siddiqui , Associate Technical Lead /Microsoft Learn Ambassadors



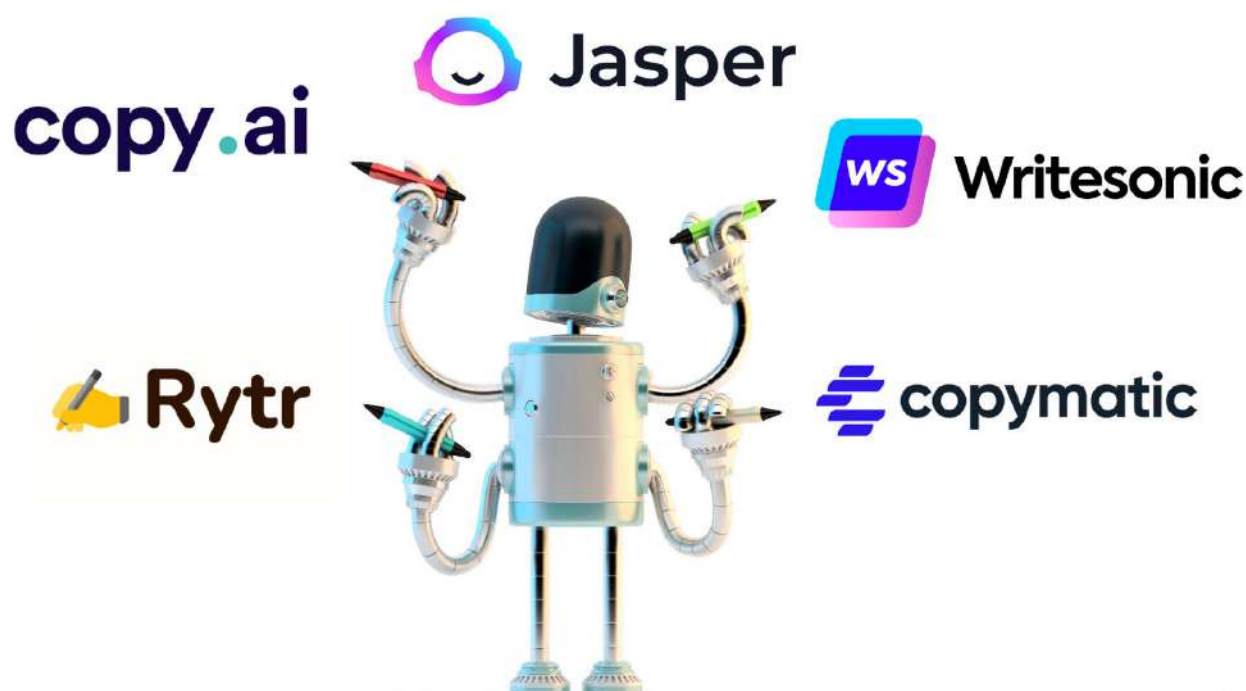
National maritime day 2023 on the theme golden digital era Motivation has been conducted on 06/04/2023 by Abhinav Ranjan, DECISION ANALYTICS ASSOCIATE, (ZS-MANAGEMENT CONSULTING FIRM)



Dr.M.Uma Devi, Dr,M.Eliazer and Dr.J.Jayapradha got the external funding of Rs. 1,00,000 from IE(I) head quarters for the following events.

S,No	Event Name	Date	Amount
1	All India Seminar on FRONT END APPLICATION DEVELOPMENT USING HTML ,CSS ,JAVASCRIPT and REACTJS	27-07-2023 & 28-07-2023	Rs.30,000/-
2	One day workshop on Embedded system design in automotive electronics	07-08-2023	Rs.10,000/-
3	All India Workshop on Building ChatGPT Messenger using NextJS	28-09-2023 & 29-09-2023	Rs.30,000/-

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BRAIN TEASERS

Sum-Thing Special

Each letter from A through H has one of the eight values listed below, and no two letters have the same value. Which number corresponds with each letter to make all of the equations true?

3 4 6 7 11 17 18 24

$$\begin{aligned} D + G &= A \\ F + A &= E \\ H + C &= F \\ D + B &= E \\ C + F &= G \end{aligned}$$

A	B	C	D	E	F	G	H

1 to 25

Move the numbers from the outer ring onto the board. Each number must be placed in one of the five cells that lie in the direction indicated by its chevron. The numbers must snake together vertically, horizontally or diagonally so that they link in sequence from 1 to 25 (for example, 2 must be adjacent to both 1 and 3). There's only one solution. Can you find it?

17	22	18	6	10	13	25
16						15
5						20
12						23
24						3
9			1			2
14	19	21	4	7	8	11



குறள் 93:

முகத்தான் அமர்ந்து இனிதுநோக்கி அகத்தானாம்
இன்சொ லினதே அறம்.

**mukaththaan amarndhu inidhu-noakki akaththaanaam
insoa linadhae aRam**

Sweet speech, flowing from the heart (uttered) with a
cheerful countenance and a sweet look, is true virtue

