

# DATA CHRONICLE

OFFICIAL NEWSLETTER

DATA SCIENCE AND BUSINESS SYSTEMS

SCHOOL OF COMPUTING  
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY  
KATTANKULATHUR



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



**SCHOOL OF  
COMPUTING**





## *What we are, the world is!*

We are pleased to share with you, the sixth edition of the newsletter for the last quarter of the year 2022. As the sun shines bright every day, there are glimpses of data tied up with the knot of DSBS department by its faculty and student crew. Though the pecuniary activity of our country has created a situation of global financial, research, commercial and academic reinvention, the members of the School of Computing, Department of DSBS never go back to risen to the occasions to resolve and find solutions to the current scenario. During the hardships, we started reinventing the wheel of success as a whole community to stand together and are putting all efforts to counter the research and academic balance through conducting lot of conferences, workshops, FDPs, student counselling programs, social activities, placement pretalks, Alumni talks, Motivational speeches, sports events and so on.

In these times, DSBS at SCO is also putting its best effort and strives to keep the members connected through its quarterly e-newsletter, by keeping the faculty-student members updated on relevant news, events and providing them a platform to share their views on various activities and incidental matters. Amidst the busy schedule of the semester, with 3-exams, surprise quizzes and all those assignments and problem sheets that make you want to bang your head on the wall, we tend to lose track of all the other simpler things that we are capable of, things that we could have been proud of, that can bring one satisfaction. So this time we have made an attempt to bring out the talent concealed within our faculty-student community I would also like to take this opportunity to thank the contributors of the newsletter and the SCO Chairperson and the Head of the department by providing immense support in making this e-newsletter a success. We wish to engage and encourage more experts working in the DSBS domain to share their contribution. It is our sincere appeal to all readers to read & enjoy and convey their suggestions to the Editorial Board so that any mistake committed in the magazine is minimized & board is able to improve the quality of the magazine in future.

Any suggestions or criticism on Data Chronicle would be most welcome.

**Dr. B. Amutha**  
**SCO - Newsletter - Head**



2023  
Happy New Year

*Dear students, break a bad habit, learn a new skill, read a  
new book, do a good deed*

*Successful are those who never give up to difficult situations and  
problems. You have a lot of potential to make the impossible possible.*

**Happy 2023**





- Community Outreach Program
- Role Of Computer Science, Electronics and Communication Technologies In Select Space and Defence Applications- A Bird's Eye View
- Data Analytics Approach in Renewable Energy
- Placement and Alumni Talk Series

## **People of DSBS**

- Paper Publications and Patents
- Notable Achievements
- Upskilling Activities - Workshops/FDPs attended / Certifications.
- Welcome to New Members of DSBS

## **Students Corner**

- Winners of SDG hackathon
- Winner of Hack4NF
- Smart IoT Helmet
- Placement News
- Jeffrey Ullman Colloquium

## **Gallery**

**International Conference on Recent trends in Data Science and it's Applications.**

# Tamilnadu Police Hackathon

08 & 09, December 2022

Tamil Nadu Cyber Crime Wing has organized TN Police Hackathon 2022 in association with Department of Data Science and Business Systems in the premises of SRM Institute of Science and Technology on 9th and 10th of December 2022. It aimed at encouraging the students to use their logical and coding skills in solving the policing problems. This is an event which welcomes the socially responsible students to tie up with law enforcement agency in building a safe and secure nation.

The Hackathon event was open to all colleges in Tamilnadu and solutions were invited for problem statements on Facial Recognition, Genuineness of messages, Open-source intelligence, VoIP call tracing and Tracking Phishing messages. The event received 434 abstracts from various colleges, and 60 solutions were screened in the initial round for online presentation. Further 15 solutions were selected to the final round for solution demonstration at SRMIST on 9th and 10th December.





# Tamilnadu Police Hackathon

## Day 1 - Inauguration and Kick start of Hackathon

The Hackathon event 2022 was inaugurated on 9th December by the **Additional Director General of Police, Cyber Crime Wing Tr. Sanjay Kumar IPS** at the premises of SRM Institute of Science and Technology, Kattankulathur. The event was felicitated by **Mr.K.Stalin, Superintendent of Police, Cyber Crime Wing,Tmt.N.Devarani IPS, Superintendent of Police, Cyber Crime Division-III ,Mr.M.S.Kumar, Consultant,O/o the Director General of Police and Mr.Venugopal Aditya,CEO & Co-Founder,Pi-one Data.**

Prof. Revathi Venkataraman, Chairperson, School of Computing, Dr Dr. Shantanu Patil, Associate director, SIIEC graced the event with their presence. Prof. M.Lakshmi, Head, Department of Data Science and Business Systems steered the entire event with much perfection along with Dr.A.Murugan, Professor and Dr.T.Karthick, Assistant Professor of DSBS department.

After inauguration, the participants started their coding wars. They were supervised, judged, queried by panel of experts from SRMIST and the Cyber wing.



# Tamilnadu Police Hackathon

## Day 2 - Coding war and Valedictory Function

The second day witnessed the culmination of coding process and the solution demonstration by the participants. The Panel members meticulously evaluated every team and provided their judgements.

- First Prize (Rs 50000/-, Certificate + Trophy)
  - K.S.Rangasamy College of Engineering
- Second Prize (Rs 25000/-, Certificate + Trophy)
  - Amrita College of Engineering
- Third Prize (Rs 15000/-, Certificate + Trophy)
  - PSG College of Technology



The day ended with the Valedictory function that was presided by Tr. B.K.Ravi, IPS, DGP, Fire and Rescue. He honoured the winning teams. The higher officials from TN Police department including Tr.K.Stalin, Superintendent of Police, Cyber Arangam, Cyber Crime Wing, Tr.Abishek Dixit, IPS, Deputy Inspector General of Police, Railways, Tmt.N.Devarani IPS, Superintendent of Police, Cyber Crime Wing were there at the valedictory and wished all the students a grand success





# Tamilnadu Police Hackathon

Dec 9 and 10, 2022- Moments

These are the days when "Cyclone Mandous" was harnessed by the People of Data Science and Business Systems. Dr.A.Murugan, Professor and Dr.T.Karthick, Assistant Professor in guidance of Dr.M.Lakshmi, HoD along with the support of fellow faculty of DSBS department proved that hard and smart work enables to sail through any cyclone to perfect a planned event successfully amidst Nature's uncertainty.



The Winners are appreciated with cash prizes, certificates and trophies. We wish all the students to carry forward their work in support of TN Police.



Department of Data Science and Business systems, SRMIST is honoured to host this event and look forward to next editions with much enthusiasm.



# Foreign Collaboration and Industry Connect

Oct 20,2022

Faculty in Charge: Dr.G.Vadivu

A team of Shastri Indo-Canadian members from Dalhousie University, Canada visited India. A round table meeting was organized at Tamil Nadu Agricultural University, Coimbatore. Virtual welcome remarks given by Dr. Prachi Kaul, Director, Shastri Indo-Canadian Institute. Special remarks & presentation given by Dr. Deep Saini, President and Vice- Chancellor, Dalhousie University. Dr. G. Vadivu represented on behalf of SRM Institute of Science and Technology as a SICI member institute.



Delegates from Foxconn Hon Hai Technology visited Taiwan-India Big Data Analytics Living Lab at SRMIST for a fruitful collaboration. Present on the occasion were Mr. Andrew, Executive Vice President, Foxconn Hon Hai Technology and Vice Chancellor of SRMIST Prof. C.Muthamizhchelvan among others.



# Applications of Artificial Intelligence

Oct 31 to Nov 2, 2022

## 3 Days Technical Workshop

A workshop on "Applications of Artificial Intelligence" was conducted from October 31st to November 2nd. The topics discussed were Image Classification using CNN, Natural Language Processing on Apache Spark and Exploratory Data Analysis. The participants were from multiple colleges outside SRM, and the session was highly useful for the participants.

- Dr.Rijo Jackson Tom, Sr. Engineer (Innovation) Augusta HiTech delivered a talk on Image Classification using CNN.
- Dr.Dhivya Subburaman, Senior Data Scientist, Dun & Bradstreet Technologies handled a session on Natural Language Processing on Apache Spark and Deep Learning. On the third day,
- Ms.A.Saranya, Senior Data Scientist, Great Learning gave a session on Exploratory Data Analysis.



**Coordinators: Dr K.Sornalakshmi, Dr.D.Hemavathy**



# DATAKON'22

Nov 14, 2022

## A National-level technical fest

DataKon 2022 was organized by the Department of DSBS, the nexus of all technical events to boost the techno skills with challenges given! DataKon 2022 had 5 unique and challenging events in line for the participant to take part in and they 1) to build a code - Blinders, 2) to design a web page -WebPaged, 3) to explore GitHub -HubWorks, 4) to voice out the opinion- Diss-cuss, and 5) to find the errors - Bug-Out were conducted to bring out the potential of the students. The Chief guest of the day was, Mr. Makesh Gopalakrishnan, Founder and CEO of Crayon'd. He is also the COO of Virrtuo and Co-founder of Fugo Consulting



The event ended on a promise note from everyone for more editions in the near future every year!



Convenor: Dr.M.Lakshmi

Coordinators: Dr Paul.T.Sheeba, Dr.J.Jeba Sonia

# Community Outreach Program

Nov 18,2022

Basic computer training session and awareness talk on Importance of Healthy food

The department of Data Science and Business Systems conducted outreach program on 18.11.2022 at Panchayat union middle school. The objective of this program is to introduce computers to the student's studying 6th to 8th standard as well as to give awareness about the healthy foods to the Primary section students. Practice in Microsoft Word and Powerpoint is given to the students. Simple tasks were given to increase their enthusiasm towards computers. Fun activities were conducted and prizes were distributed to encourage the students.



Event Coordinator: Dr.D.Hemavathi

Event Organizers: Dr.K.Sornalakshmi, Ms.S.Sindhu, Ms.S.Srividhya,  
Dr.A.Shanthini, Dr.M.Sangeetha



## ROLE OF COMPUTER SCIENCE, ELECTRONICS AND COMMUNICATION TECHNOLOGIES IN SELECT SPACE AND DEFENCE APPLICATIONS- A BIRD'S EYE VIEW

Nov 30,2022

### Research Seminar

Dr. V. N. Mani, Scientist-F, C-MET, Electronics and Information Technology Division, Hyderabad, delivered the research talk on "ROLE OF COMPUTER SCIENCE, ELECTRONICS AND COMMUNICATION TECHNOLOGIES IN SELECT SPACE AND DEFENCE APPLICATIONS- A BIRD'S EYE VIEW" on 30-11-2022. He highlighted the importance of data science in defense and space industries & discussed the role of data scientist in various sectors.



Convenor: Dr.M.Lakshmi

Coordinators: Dr N.Dhanasekaran

Dr.K.Priyadarsini



# DATA ANALYTICS APPROACH IN RENEWABLE ENERGY

Nov 11-12,2022

## A two days' Technical Workshop

Day 1 – 11th Nov, 2022 - Topic: Wind Data Resource Analytics

\* Ms.Subhashree Ravi,

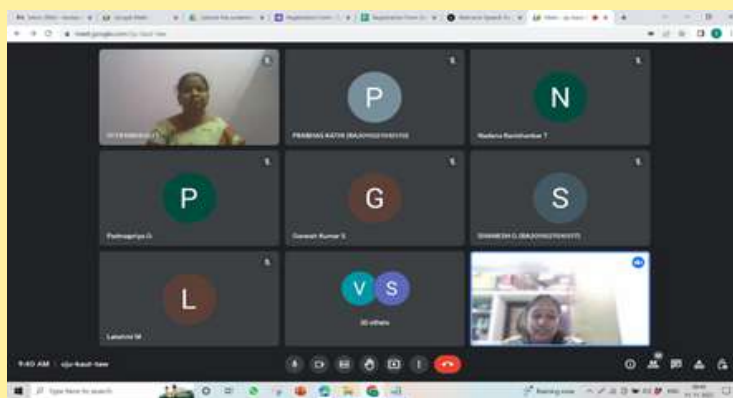
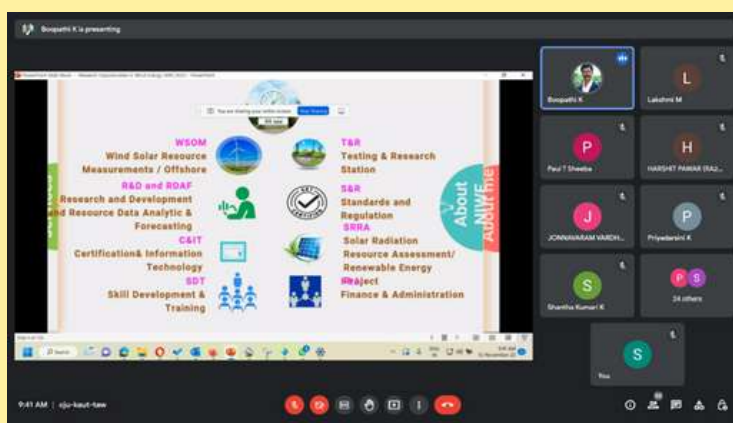
Data Engineer, Renewables Strategy & Operational Excellence  
Blue Power Partners, Chennai.

\* Mr.Sivaprasath Munusamy, CEO, Vistaconvert

Day 2 – 12th Nov 2022 - Topic: Research Directions & Challenges in Renewable Energy  
in India

\* Dr.K.Boopathi, Director & Division Head.

\* Dr.A.G.Rangaraj, Deputy Director (Technical) & Unit Chief,  
Offshore Wind Development, Data Analytics & Forecasting Department  
National Institute of Wind Energy, Chennai.



Coordinators: Dr A.Shobana Devi, Dr.T.Veeramakali



## Placement Talk Series

- 2-Nov-2022
  - Topic: " I am hired!!! What next? "
  - Resource Person: Mr.M.Raguraman, Project Manager,  
Business Transformation Group, TCS.
- 9-Nov-2022
  - Topic: "Tooling Infrastructure for Safety Critical SW development "
  - Resource Person: Mr.M.Madhan Babu, Project Manager,  
Bosch Global Software Technologies Ltd.
- 23-Nov-2022
  - Topic: "JOBS for Next Generation "
  - Resource Person: Ms. Toniya Sundaram, Tech Lead  
Klaytn Ltd. Malaysia.

Coordinators: Dr.P.Kanmani, Dr.N.Manikandan

## Alumni Talk Series

- 27-Oct-2022
  - Topic: "Navigating through Tech Conferences, Clubs and ML! "
  - Resource Person: Ms.Niharika Krishnan, 2019 Passed out  
MS in Computer Science Graduate  
Teaching Assistant  
New York University, USA



Coordinators: Dr K.Sornalakshmi ,Mrs.R.Radha

# Paper Publications and Patents



## SCI PUBLICATIONS

- Dr.M.Lakshmi, Improved deep convolutional neural network-based COOT optimization for multimodal disease risk prediction. Neural Comput & Applic 35, 1849–1862 (2023). <https://doi.org/10.1007/s00521-022-07767-4> [IF:5.1]
- Dr.N.Manikandan, Soft Computing Technique with Maintenance and Controlling for Distributed Energy Using Differential Evolution Based Local Power Distribution System and Fuzzy Radial Basis Function Neural Network, August 2022, Sustainable Computing: Informatics and Systems 36(12):100784, DOI: 10.1016/j.suscom.2022.100784 [IF: 4.923]
- Dr Paul T Sheeba, A metaheuristic-enabled training system for ensemble classification technique for heart disease prediction, Advances in Engineering Software, Volume 174,2022,103297, ISSN 0965-9978,<https://doi.org/10.1016/j.advengsoft.2022.103297>. [IF: 4.255]
- Dr.M.Prakash Cloud-based blockchain technology to identify counterfeits. J Cloud Comp 11, 67 (2022). <https://doi.org/10.1186/s13677-022-00341-2> [IF: 3.895]
- Dr.K.Priyadarsini, “Securing 3D Point and Mesh Fog Data Using Novel Chaotic Cat Map”, Computers, Materials & Continua, [IF:3.86]
- Dr.R.Rajkumar, "Machine Learning Predicts Patient Tangible Outcomes After Dental Implant Surgery," in IEEE Access, vol. 10, pp. 131481-131488, 2022, doi: 10.1109/ACCESS.2022.3228793. [IF:3.55]



# Paper Publications and Patents



## SCI PUBLICATIONS

- Dr.S.Suchitra , "Stochastic Learning-Based Artificial Neural Network Model for an Automatic Tuberculosis Detection System Using Chest X-Ray Images," in IEEE Access, vol. 10, pp. 103632-103643, 2022, doi: 10.1109/ACCESS.2022.3208882. [IF: 3.367]
- Dr.B.Prabu Kavin, Performance Evaluation of Stateful Firewall-Enabled SDN with Flow-Based Scheduling for Distributed Controllers. Electronics 2022, 11, 3000. <https://doi.org/10.3390/electronics11193000> [IF:2.69]
- Dr.B.Prabhu Kavin, A Multiclass Fault Diagnosis Framework Using Context-Based Multilayered Bayesian Method for Centrifugal Pumps. Electronics 2022, 11, 4014. <https://doi.org/10.3390/electronics11234014> [IF:2.69]
- Dr.S.Sharanya, A Multiclass Fault Diagnosis Framework Using Context-Based Multilayered Bayesian Method for Centrifugal Pumps. Electronics 2022, 11, 4014. <https://doi.org/10.3390/electronics11234014> [IF:2.69]
- Dr.V.Kavitha, The hydrological impact of tropical cyclones on soil moisture using a sensor-based hybrid deep learning model. Acta Geophys. 70, 2933–2951 (2022). <https://doi.org/10.1007/s11600-022-00942-0> [IF:2.293]
- Dr.N.Parthiban, The hydrological impact of tropical cyclones on soil moisture using a sensor-based hybrid deep learning model. Acta Geophys. 70, 2933–2951 (2022). <https://doi.org/10.1007/s11600-022-00942-0> [IF:2.293]

# Paper Publications and Patents



## SCI PUBLICATIONS

- Dr.A.Shanthini, Efficient energy consumption system using heuristic renewable demand energy optimization in smart city. Computational Intelligence. 2022; 38: 784– 800. <https://doi.org/10.1111/coin.12412> [IF: 2.142]
- Dr.N.Manikandan , Optimization techniques for task scheduling criteria in IaaS cloud computing atmosphere using nature inspired hybrid spotted hyena optimization algorithm. Concurrency Computat Pract Exper. 2022; 34(24):e7228. doi:10.1002/cpe.7228 [IF: 1.831]
- Dr.K.Dhanasekaran, "Hybrid Firefly-Ontology-Based Clustering Algorithm for Analyzing Tweets to Extract Causal Factors," International Journal on Semantic Web and Information Systems (IJSWIS) 18, no.1: 1-27. <http://doi.org/10.4018/IJSWIS.295550> [IF:1.7.42]



## PATENTS PUBLISHED

- **Dr.R.Jayaraj**, Implementation of an Enhanced Adv-Imps Approach to Leverage OIT Networks in Household Deployment, IPR, India
- **Dr.V.Kavitha** , A Hardware Based Multi-Factor Authenticator and A Method Thereof, IPR, India
- **Dr Jeba Sonia**, Method for Utilizing Machine Learning for Power Prediction in Vlsi Circuits, IPR, India
- **Dr. K. Priyadharshini**, Method for Utilizing Machine Learning for Power Prediction in Vlsi Circuits, IPR, India
- **Dr. Prabhu Kavın B**, A Conceptual Framework for Changing Demands in Indian Healthcare Services, IPR, India
- **Dr. Prabhu Kavın B**, Big Data and Machine Learning Based Approach for Wireless Network Optimization, Intellectual Property India



# Paper Publications and Patents



## SCOPUS PUBLICATIONS

- Dr.E. Sasikala, Computational access point selection based on resource allocation optimization to reduce the edge computing latency, Measurement: Sensors, Volume 24,2022,100444, ISSN 2665-9174, <https://doi.org/10.1016/j.measen.2022.100444>.
- Dr.E. Sasikala, Selective Objective Offloading Technique in Edge Computing Using SOOD Algorithm, Indian Journal of Computer Science and Engineering (IJCSE), e-ISSN: 0976-5166 p-ISSN : 2231-3850
- Dr. M. Prakash,A Machine Learning Based Framework for Balancing User Privacy and Utility with Multiple Sensitive Attributes in Health Care Data Publishing,Journal of Theoretical and Applied Information Technology
- Dr.A.Shanthini, Prospects of pose estimation as an input in gaming, AIP Conference Proceedings 2519, 030035 (2022); <https://doi.org/10.1063/5.0110555>
- Dr. Kanmani P, Phishing attack detection using Machine Learning, Measurement: Sensors, Volume 24,2022,100476, ISSN 2665-9174,<https://doi.org/10.1016/j.measen.2022.100476>.
- Dr. Kanmani P, An energy efficient approach of deep learning based soft sensor for air quality management, Measurement: Sensors, Volume 24,2022,100460, ISSN 2665-9174, <https://doi.org/10.1016/j.measen.2022.100460>.

# Paper Publications and Patents



## SCOPUS PUBLICATIONS

- Dr.Vadivu, G., and Dr.Sangeetha,M ,Early Prognosis of Preeclampsia Using Machine Learning. In: Neuhold, E.J., Fernando, X., Lu, J., Piramuthu, S., Chandrabose, A. (eds) Computer, Communication, and Signal Processing. ICCSP 2022. IFIP Advances in Information and Communication Technology, vol 651. Springer, Cham. [https://doi.org/10.1007/978-3-031-11633-9\\_2](https://doi.org/10.1007/978-3-031-11633-9_2)
- Dr.D. Hemavathi, "Detection of Diabetic Retinal Pathogen Using Deep Learning," 2022 IEEE International Conference on Data Science and Information System (ICDSIS), Hassan, India, 2022, pp. 1-6, doi: 10.1109/ICDSIS55133.2022.9915991.
- Dr.N. Parthiban and Dr.V. Kavitha, Construction of heterogeneous medical knowledge graph from electronic health records, Journal of Discrete Mathematical Sciences and Cryptography, 25:4, 921-930, DOI: 10.1080/09720529.2022.2068604
- Dr.R. Rajkumar, "A real-time Augmented Reality application to increase the learners' engagement in Classroom," 2022 IEEE 5th International Symposium in Robotics and Manufacturing Automation (ROMA), Malacca, Malaysia, 2022, pp. 1-3, doi: 10.1109/ROMA55875.2022.9915660.
- Dr.K.Priyadarsini, "The Impact of Blockchain on Cloud and AI." The Convergence of Artificial Intelligence and Blockchain Technologies: Challenges and Opportunities. 2022. 93-113.
- Dr.A. Siva Kumar, An adaptive transformer model for anomaly detection in wireless sensor networks in real-time, Measurement: Sensors, Volume 25,2023,100625, ISSN 2665-9174, <https://doi.org/10.1016/j.measen.2022.100625>.

# Paper Publications and Patents



## SCOPUS PUBLICATIONS

- Dr. D. Hemavathi, "Comparative Analysis of Different Approaches to Object Detection: A Survey," 2022 3rd International Conference on Smart Electronics and Communication (ICOSEC), Trichy, India, 2022, pp. 1571-1574, doi: 10.1109/ICOSEC54921.2022.9952000.
- Dr.K. Sornalakshmi, Mrs S. Sindhu and Dr. D. Hemavathi, "A Technical Survey on Deep Learning and AI Solutions for Plant Quality and Health Indicators Monitoring in Agriculture," 2022 3rd International Conference on Smart Electronics and Communication (ICOSEC), Trichy, India, 2022, pp. 984-988, doi: 10.1109/ICOSEC54921.2022.9951943.
- Dr. P. Saravanan, "Depression Prediction of Human Using Advanced Technology and Medical Imaging," 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICES), Chennai, India, 2022, pp. 1-5, doi: 10.1109/ICES55317.2022.9914245.
- Dr.J.Jeba Sonia and Dr Paul T.Sheeba , "Face Identification and Verification in Thermal Images," 2022 Third International Conference on Intelligent Computing Instrumentation and Control Technologies (ICICT), Kannur, India, 2022, pp. 668-673, doi: 10.1109/ICICT54557.2022.9917911.





# Notable Achievements

## PhD Completion

- Dr.S.Srividhya successfully defended her PhD thesis titled "Energy efficient routing in 6LOWPAN Network for IOT-FOG enabled forest fire environment" on 16.12.2022

## Samsung Prism Worklet Completion

- Dr.S.Suchitra, Dr.M.Anand, Akshat Gaur, Shivam Bhardwaj, Ashwin Prakash, Shashwat Mishra, has successfully completed SAMSUNG PRISM Work-let "CP110-4G/5G | Deep log Inspection & Analysis Framework" from Jan 2022 – Oct 2022.

## IBM Quantum Challenge Fall 2022 Achievement - Intermediate (1/11/22 and 18/11/22)

- Dr.P.C.Karthick has demonstrated an ability to use primitives in Qiskit Runtime, encode classical ML methods to explore quantum kernels and build their own quantum classifier. Additionally, the badge holder has successfully used optimization algorithms from the Qiskit Optimization Module to work out the most optimal solution for the exercise.

## Resource Persons

- Dr. K. Dhanasekaran delivered a session on "Impact of Predictive Data Analytics in Healthcare Industries" at the IEEE RAS & PHOTONICS SOCIETY Sponsored 1 Week FDP on "Advanced Green Computing Technology in Healthcare" organized by Saveetha Engineering College from 26th to 30th December 2022.
- Dr.S.Suchitra, delivered Invited Talk in a 4-days FDP on "Python for Machine Learning" organized by Department of Information Technology in association with centre of Excellence in Data Science, Rajalakshmi Engineering College, Chennai on 7.1.2023. (Topic: Unsupervised Learning)
- Dr.B.Prabhu Kavın acted as Resource person and shared his expertise in the Webinar on "Women and Cyber Security" organized by Women Empowerment cell on 17.08.2022 at St.Anne's arts and science college, Chennai



# Notable Achievements

## Resource Person

- Dr.R.Rajkumar delivered his expertise as Resource person for AICTE Sponsored 5 Days FDP on AR VR applications in Civil and Transport on 16-10-2022 at Poornima Institute, Jaipur, Rajasthan.
- Dr.R.Rajkumar acted as Resource person for Design thinking, Patent and Innovation at Sri Krishna College of Engineering and Technology on 9th October 2022 at Coimbatore.
- Dr.R.Rajkumar delivered keynote address in 2nd Biennial Conference on Cognitive & Clinical Neuropsychology on 16th October 2022 at SRMIST.
- Dr.R.Rajkumar given Expert Interaction in Introduction of 3rd Revolution of Web (Web 3.0) and its opportunities in technology and business on 14-10-2022 conducted by The Directorate of Online Education DOE, SRMIST.
- Dr.R.Rajkumar acted as a resource person in One day National seminar on E waste and solid waste management, Department of Biochemistry and Computer science CSH SRMIST KTR is organizing a on November 25th, 2022, at SRMIST.
- Dr.R.Rajkumar acted as a resource person in One day workshop on Tamil Computing for SRM Valliammai Engineering College in September 17th, 2022.
- Dr.R.Rajkumar acted as a resource person for two days workshop on AR VR for SRM Valliammai Engineering College on September 28th - 29th 2022.
- Dr.R.Rajkumar delivered a webinar for research methodology and recent trends to Sacred Heart College, Tirupattur on 18th -20th October 2022.
- Dr.R.Rajkumar delivered Artificial Intelligence for core Faculty Members of SRMIST on one week FDP On Artificial Intelligence on 28th November 2022.
- Dr.R.Rajkumar has been invited and participated for panel discussion for 5G at Doordharsan(DD) Television on 6th October 2022.
- Dr.R.Rajkumarhas been invited and participated for panel discussion for Digital Currency at Doordharsan(DD) Television on 1st December 2022.

## Book / Chapter Publication

- One of a consulting work has been successfully finished by Dr. R. Rajkumar with the State Institute of Rural Development and Panchayat Raj (SIRD-PR)- Govt of Tamilnadu on developing training materials under the initiative of Dr. Thirumurugan Varatharajan, Associate Director (Campus Life), Nodal Officer Unnat Bharat Abhiyan/SBSI-SRM IST. Published on November 2022.
- Dr. R. Rajkumar wriiten an article about web 3.0 and published in The Hindu- Year Book 2023. Published on December 2022.





## Notable Achievements

- Dr. R.Rajkumar is one of the core committee members in organizing the "SRMSDG Hackathon 2022", a two-day hackathon to bring together the best tech enthusiasts and experts across the SRM to code their way up the tech ladder on Nov 16-17,2022. The problem statements were aligned with SRM Internal Sustainable Development Goals (SDG).



- Dr. T. Karthick served as Resource person in 2 days Hands-on training on "Microsoft Power BI" held on 3rd and 4th November 2022 at Guru Nanak College. The objective of this hands-on training is to enable the students to understand how to transform data into stunning visuals, generate interactive reports, and customize dashboards.





## Upskilling Activities - Workshops/FDPs attended / Certifications

Event Name	Duration	Organization	Faculty attended
18 hours Workshop on How Teachers can make a Difference	08.08.2022 - 13.08.2022	IIT, Madras	Dr.A.Sivakumar
6 Days FDP on "Emerging Trends in IoT"	19.09.2022 - 24.09.2022	MEITY, GOI, organized by E&ICT Academy, NIT Warangal and SRMIST	Dr. K. Arthi, Dr.S.Jeeva, Dr.K.Dhanasekaran, Dr.M.Sangeetha Dr.K.Shantha Kumari
3 Days online FDP on "AI based-Technologies"	06.10.2022 - 08.10.2022	VIT,Chennai	Dr.A.Sivakumar
Basic FDP on Enhancing Supply Chain efficiencies using Artificial Intelligence	10.10.2022 - 21.10.2022	AICTE Training And Learning (ATAL) Academy	Dr.D.Rajeswari
2 days workshop "Data Analytics approach in Renewable Energy"	11.11.2022 - 12.11.2022	Department of DSBS, SRMIST,	Dr. K. Arthi
Boeing BUILD Bootcamp	05.12.2022 - 09.12.2022	IIT Madras Research Park	Dr.P.C.Karthick
FDP on "Diverse Application of Research Paradigms in AI"	10.12.2022 - 16.12.2022	AICTE Training And Learning (ATAL) Academy	K.S.Archana
5-day Online FDP on "Inculcating Universal Human Values in Technical Education"	19.12.2022 - 23.12.2022	All India Council for Technical Education (AICTE)	Panimalar.K
5-Days National Level Online Faculty Development Program on "Machine Learning Approaches for Engineering Applications"	27.12.2022 - 31.12.2022	Prathyusha Engineering College	Dr.G.Premalatha

## CERTIFICATIONS

Certification Name	Duration	Organization	Faculty certified
NPTEL Certification Course on "Data Base Management System"	July-Nov 2022	NPTEL	Dr.J.Shobana
NPTEL Certification Course on "Python for Data Science"	July-Nov 2022	NPTEL	Dr.K.Shantha Kumari
Effective Teaching of Introduction to Programming	Aug-Dec 2022	CSSEDU, IIIT-Delhi, ACM India	Dr.D.Hemavathi Dr. K.Somalakshmi Dr. S.Srividhya Mrs. S.Sindhu Dr.R.Jayaraj
Fundamentals of Visualization with Tableau	Oct 2022	Coursera, UC Davis	Dr.D.Rajeswari
Machine Learning	Oct 2022	Coursera, Stanford	Dr.S.Suchitra
Business intelligence and data analytics: Generate insights	Dec 2022	Coursera, Macquarie University	Dr.S.Suchitra
Python 101 for Data Science	Nov 2022	IBM in cognitiveclass.ai	Dr.P.Rajasekar
Introduction to Hadoop	Dec 2022	Great Learning	Dr.P.Rajasekar
Data Science Foundation	Jan 2023	Great Learning	Dr.K.Arthi



# Welcome to DSBS Family



**Dr R Anita Jasmine**



**Dr K S Archana**

*"Martin Luther King Jr. once said, "Take the first step in faith. You don't have to see the whole staircase, just take the first step."*

*Congratulations on the first step by joining our DSBS Family Rest assured; Everything is going to be top-notch. Looking forward to work with your thoughts and ideas*



**Dr B Arunsundar**



**Dr C Tamizhselvan**

*Welcome to the team."*





# Students Achievements



*Congrats!*

## SRM SDG Hackathon

### Winner

1st PRIZE-TEAM TEK3

III-year B.Tech CSE - Gaming Technology

MAYANK KUMAR

VEDANT SINGH

MIHIR GUPTA

Solution for

Smart Parking Management system



## PARKO - Winning Solution

Parko is a one-stop Smart Parking Management system that reduces time and increases the efficiency of the current Parking Management System. The system provides details of the vacant parking slots in the vicinity and reduces the traffic issues due to illegal parking in the vicinity. It is designed with the objective to meet the requirements of controlled parking that offers effortless parking tactics to the authorities.

### Highlighted features

- Detecting free spots near the destination
- Theft alert to user if vehicle is moved from the location and user is not near the vehicle
- Smart Surveillance at parking areas
- Monitoring and data analysis of parking spots and area
- Separated spots for 2 wheelers and 4 wheelers.
- Different area allotted for different type of users, i.e., Staff, Students, Guests



# Students Achievements

Winner : Hack4NF



DITTO4NF

*Congrats!*



RA2011051010071  
Name: RAVIKUL RAO

III year B.TECH CSE  
GAMING TECHNOLOGY

This project used publicly available datasets and several predictors ranging from genome level to protein 2D and 3D structure to predict variant deleteriousness. The team mapped these deleterious variants to individual's transcriptome and phenotype information to support variant classification and prioritization providing new evidence that could help in the prognosis of NF1. The team also created a web app for researchers to upload OpenCravat annotated variants for deleterious predictions along with explanations so that results are easily understandable for clinicians.

Hack4NF, a global genomic data hackathon hosted by the Children's Tumor Foundation (CTF), the results announced the winners of the 2022 virtual event that brought together researchers, data analysts, genomic experts, computational biologists, statisticians, healthcare startups and hackathon enthusiasts for three weeks (October 15-November 7, 2022) to ideate and develop viable solutions for medical advancements in a rare genetic disorder called neurofibromatosis (NF).

### Innovation: Smart IoT Helmet



A project was developed as smart helmet has been developed that is able to detect of hazardous events in the mines industry. In the development of helmet, we have considered the three main types of hazard such as air quality, helmet removal, and collision (miners are struck by an object).



The IoT-based smart helmet, which helps underground workers in many ways. It tells the predetermined services of coal miners, such as the gas sensor, temperatures, humidity, and many other things that are essential for the safety of the miners. This helmet is made up of a helmet with detectors. The transmitter segment has a microcontroller which receives input from several sections such as a helmet remover sensor, collision sensor, and gas sensor. At a particular instance, when a harmful event happens, the helmet transfer alert towards the application is fixed on several different areas of the coal mine. The helmet remover, gas sensors, and collision sensors will feel the corresponding parameters.

#### Team Members:

Dewansh Chatter, Aniket Dhand, Sparsh Rastogi,  
Swapnil Kumar and Shambhavi Bajpai

Faculty Mentors: Dr. S Jeeva and Dr. M Ramprasath

Faculty Advisor: Dr. R. Rajkumar

*Congrats!*

## Placement Statistics [ December 2022 status]



*Congrats!*  
*2023 Passing out Students*

S. NO	CATEGORY	NO OF OFFERS
1	MARQUEE	7
2	SUPER DREAM	68
3	DREAM	73
4	DAY SHARING	111
	TOTAL	259



Students with Multiple Offers	Count
Four	4
Three	20
Two	86
One	149
TOTAL	259



Highest : Still counting...

Lowest : 3.6 Lakhs PA

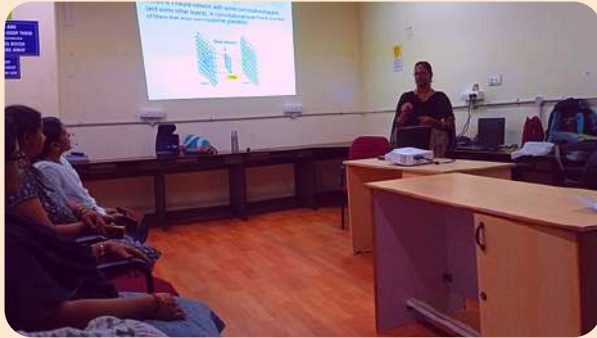
Best Wishes for this year  
Placement Season

*Break the Records*



# Jeffrey Ullman Colloquium

Jeffrey Ullman Colloquium has been initiated with the aim of researching effectively among the Research Scholars of Department of Data Science and Business Systems. Weekly seminar series are conducted among the Research scholars and the faculty members. **Faculty Incharge: Dr. N. Parthiban.**



Date: 24/09/2022 - Deep learning concepts with image classification

Name : Ms. Anna Anbumozhi

Supervisor Name : Dr. Shanthini. A

A model is trained to detect the target classes (things to identify in images) using labeled example images. Image classification is a supervised learning problem. The input for early computer vision models was simply raw pixel data.

Date : 08/10/2022 - Graph using Python

Name : Ms. Harshini Poojaa K

Supervisor Name : Dr. Ganesh Kumar. S

Graphs in Python can be plotted by using the Matplotlib library. Matplotlib library is mainly used for graph plotting. Matplotlib is used to draw a simple line, bar graphs, histograms and pie charts.



Date : 15/10/2022 - Zero knowledge proof algorithm

Name : Mr. Mohideen Abdulkader

Supervisor Name : Dr. Ganesh Kumar. S

A zero-knowledge proof is a technique used in cryptography that allow one party to convince another party that a certain assertion is true while withholding all other information.

Date : 22/10/2022

Graph neural network

Name : Mrs. Mythili. R

Supervisor Name : Dr. N. Parthiban

Graph Neural Networks (GNNs) are a class of deep learning methods designed to perform inference on data described by graphs. GNNs are neural networks that can be directly applied to graphs, and provide an easy way to do node-level, edge-level, and graph-level prediction tasks



# Appreciation from TN DGP



## Coverage in Press and Media

Press



Television





## Appreciation from SIRD



## UHV Seminar by Dr. P. Supraja



## School of Computing - Faculty Sports meet



## TN Police Hackathon War Room







## INTERNATIONAL CONFERENCE ON RECENT TRENDS IN DATA SCIENCE AND IT'S APPLICATIONS

**MARCH 30 - 31, 2023**

Organized by

DEPARTMENT OF DATA SCIENCE AND BUSINESS SYSTEMS  
SRMIST, KATTANKULATHUR, TAMIL NADU, INDIA

ICRTDA 2023 is being organized as an in-person participation event to be held at SRM Institute of Science and Technology, Kattankulathur on 30th and 31st, March 2023. The conference will focus on the Trends and Recent Advances in Data Science and its Applications. Papers accepted for presentation will be published in the Scopus Indexed Conference proceedings.

<https://www.srmist.edu.in/events/icrtda-2023/>

### Keynote Speakers

**Dr. Gan Hong Seng**

Universiti Malaysia Kelantan.

**Dr. Gautam Srivastava**

Brandon University, Canada.

**Dr. Madan Kumar Lakshmanan**

CSIR-CEERI Pilani, Chennai Center.

**Dr. Khalid Elgazzar**

Sontario Tech University, Canada.

**Dr. Sudeep Stephen**

University of Auckland, New Zealand.

**Dr. Debajyoti Mondal**

University of Saskatchewan, Canada.

**Dr. Raghavendra Jana**

Skolkovo Institute of Science and Technology, Russia.

**Dr. Anand Jeyaraj**

Wright State University, USA

**Dr. Sam Goundar**

RMIT University, Vietnam.

**Dr. Thinakaran Perumal**

Universiti Putra, Malaysia.

### Conference Committee

**Conference Chair:**

Dr. M. Lakshmi, Professor and HEAD,  
Department of Data Science and Business Systems, SRMIST

**Program Chair:**

Dr. G. Vadivu, Professor,  
Department of Data Science and Business Systems, SRMIST

**Conveners:**

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Dr. P. Rajasekar, Department of Data Science and Business Systems, SRMIST  
Dr. M. Sangeetha, Department of Data Science and Business Systems, SRMIST  
Dr. K. Priyadarsini, Department of Data Science and Business Systems, SRMIST

### Important Dates

**Paper Submission Deadline: 25th January 2023**

**Decision on Paper: 31st Jan 2023**

**Early Bird Registration: 14th February 2023**

**Last Date of registration 10th March 2023**

**Paper Submission Link:**

<https://tinyurl.com/ICRTDA>

### Conference Registration Fees

#### Indian Delegates

Type	Early Bird Registration	Registration
AUTHORS( STUDENTS, RESEARCH SCHOLARS)	Rs. 1000	Rs. 2000
AUTHORS( FACULTIES AND DELEGATES)	Rs. 1000	Rs. 2500

\*The selected and presented papers will be processed with Additional Fee for publishing in

**Scopus Indexed Journals, UGC CARE Journals**

**\*Indian Authors collaborating with Foreign Author will be given relaxation in Registration Fee**

*In association with*







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



School of  
Computing



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SCHOOL OF COMPUTING

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Content Editor



Tamil Poet- Tiruvalluvar ( 2000 Years ago)

## குறள் எண் : # 650

இணர்ஊழ்த்தும் நாறா மலரனையர் கற்றது  
உணர் விரித்துரையா தார்

தான் கற்றதைப் பிறர் மனங்கொள்ள விளக்கிச்சொல்லும் ஆற்றல்  
அற்றவர், கொத்தாக மலர்ந்தும் மணக்காத மலர் போன்றவர்.

**Those who can't express what they have learnt  
Are a bunch of flowers without scent.**

ஹிந்தி (हिन्दी)

पठित ग्रन्थ व्याख्या सहित, प्रवचन में असमर्थ ।

खिला किन्तु खुशबू रहित, पुष्प-गुच्छ सम व्यर्थ ॥ (६५०)

தெலுங்கு (తెలుగు)

పరిమళము లేక విరిసిన పూగుత్తి

చదివి వ్యక్తపరుప జాలకున్న. (౬౫౦)

# DATA CHRONICLE

OFFICIAL NEWSLETTER

**DEPARTMENT OF DATA SCIENCE  
AND BUSINESS SYSTEMS | SOC  
| SRMIST**



**EDITORIAL TEAM**

4TH FLOOR, UNIVERSITY BUILDING, SRMIST

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<https://fliphtml5.com/homepage/cgyxk>

January 2022