

Proceedings of the

***International Conference on Recent Trends in Computer Science, Applications,
Technology, Data Science, and Mathematics (ICRTCSATDSM-2026)***



Date: 27th February, 2026

Venue: Vidyasagar College of Arts and Science, Udumalpet

Organized by,

Department of Computer Science,

Department of Computer Applications,

Department of Information Technology,

Department of Data Science &

Department of Mathematics

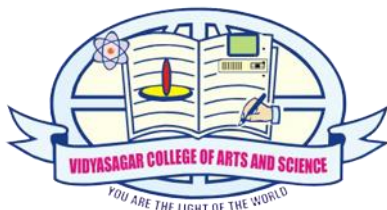
Vidyasagar College of Arts and Science

in association with

Sri Aandal Educational Trust

&

Krishna Research Foundation



Disclaimer

The content and details included in the proceedings of the *International Conference on Recent Trends in Computer Science, Applications, Technology, Data Science, and Mathematics (ICRTCSATDSM-2026)* are solely the responsibility of the respective authors. Sri Aandal Educational Trust, Vidyasagar College of Arts and Science, Udumalpet, and Krishna Research Foundation hold no liability for any plagiarized content, or the reuse of materials such as equations, images, symbols, or other details presented within the conference proceedings.

All copyrights for this publication are owned by Sri Aandal Educational Trust ©2026. However, the trust and the college are in no way accountable for any disputes or claims arising from the content contributed by the authors.

© Sri Aandal Educational Trust

ISBN: 978-81-983678-2-2

24	ICRTCSATDSM-2026-1025	Cyber Security in 5G Networks	Ms. Durga .S Ms. Dharshini.V	17
25	ICRTCSATDSM-2026-1026	DATA MINING AND ITS REAL-WORLD APPLICATIONS	Mr. K.Athi Kesavan Mr. M.Lingith	18
26	ICRTCSATDSM-2026-1027	DATA MINING TECHNIQUES	Mr. B. Naresh kumar Mr. P. Sasikumar	18
27	ICRTCSATDSM-2026-1028	Enhancing E-Commerce Performance, Operational Efficiency and Customer Experience through AI and ML	Dr. R. Shiddharthy Mr. Rajagopalan. S	19
28	ICRTCSATDSM-2026-1029	Edge AI for REAL -Time IoT Applications	Mr. Abdhur Raheem. A Mr. Prasanna Raj. S	19
29	ICRTCSATDSM-2026-1030	Edge-Intelligent IoT Systems in the Era of 5G and 6G: An Analysis of Opportunities and Challenges	Mr. M. Guruprasath Mr. R. Kamaraj	20
30	ICRTCSATDSM-2026-1031	EMPIRICAL ANALYSIS ON ENERGY EFFICIENT AND SECURED DATA TRANSMISSION IN WIRELESS NETWORKS	Dr. P. Suresh Babu Ms. K. Hemapriya	21
31	ICRTCSATDSM-2026-1032	Enhanced ECG Arrhythmia Prediction Using Multi-Lead Signals and Hybrid AI Models	Balakrishna Tilakachuri Krishna Sai Saran Veeramallu Hemachand Ravulapalli Anusha Rani Devarakonda Kusal Sai Kiran Sajja	22
32	ICRTCSATDSM-2026-1033	Enhancing IoT Security: Logistic Regression and Trust-Based Black Hole Detection	M.N. Karuppusamy Dr. N. Sasirekha	23
33	ICRTCSATDSM-2026-1034	Fermatean Neutrosophic Hypersoft Gpr Closed Sets	K. Ramesh N. Vithya M. Buvanasankari	23
34	ICRTCSATDSM-2026-1035	Fostering Innovation in Education: Long-Term Impacts of Cross-Disciplinary Collaboration on Training and Knowledge Integration	Aqeel Abbood Rahmah	24
35	ICRTCSATDSM-2026-1036	FUZZY LOGIC-BASED ADAPTIVE CONTROL FOR NONLINEAR INDUSTRIAL PROCESSES	Ms. S. Santhika Mr. A. Nitheshkumar	25
36	ICRTCSATDSM-2026-1037	FUZZY MULTI CORRELATION MEASURE IN SIGNATURE VERIFICATION AND FOREGERY DETECTION	N. Uma E. Vivek K. Nithya Sri	25
37	ICRTCSATDSM-2026-1038	GLOBAL CONNECTED DOMINATION IN FUZZY GRAPHS	S. Sathiya Jothi G. Chandraprabha	26

management, academic analytics, and business forecasting. This paper provides an expanded overview of data mining techniques, explaining their fundamental concepts, working processes, major methods, applications, commonly used tools, advantages, and challenges. The study highlights the growing importance of data mining in data-driven environments and emphasizes its contribution to the development of intelligent, automated, and scalable systems.

ICRTCSATDSM-2026-1028

Enhancing E-Commerce Performance, Operational Efficiency and Customer Experience through AI and ML

Dr. R. Shiddharthy, Assistant Professor, Department of Computer Science,
NGM College (Autonomous), Pollachi. gurushiddharthy@gmail.com

Mr. Rajagopalan. S, Assistant Professor, PG Department of Commerce (CA),
NGM College (Autonomous), Pollachi. srajagopalan.ngm@gmail.com

Abstract

Artificial Intelligence (AI) and Machine Learning (ML) technologies are transforming the E-Commerce sector by streamlining supply chains, enhancing inventory management, and providing better customer experiences through personalized recommendations. Using real-time data and predictive algorithms, businesses can efficiently manage stock levels and forecast demand. In terms of security, ML and AI provide effective means of detecting and mitigating fraud, protecting personal data, and ensuring secure transactions. This paper delves into the numerous applications and benefits of AI and ML in E-Commerce, highlighting their critical roles in increasing efficiency, improving consumer satisfaction and protecting operations in a fast-paced online market.

ICRTCSATDSM-2026-1029

Edge AI for REAL -Time IoT Applications

Mr Abdhur Raheem. A, Student, Department of Artificial Intelligence and Machine Learning,
Akshaya College of Arts and Science, Kinathukadavu, Tamil Nadu, India.

abdhurraheemabdhurraheem70@gmail.com

Mr Prasanna Raj. S, Student, Department of Artificial Intelligence and Machine Learning,
Akshaya College of Arts and Science, Kinathukadavu, Tamil Nadu, India. Prasannaraj7002@gmail.com