REPORT ON THE 12th NATIONAL CONFERENCE ON ADVANCEMENTS IN INFORMATION TECHNOLOGY (NCAIT-2026)

Organized by:
Department of Information Science and Engineering, in association with the Departments of Computer Science and Engineering (CSE), Computer Science and Engineering (AI & ML), and Master of Computer Applications (MCA), JSS Academy of Technical Education, Bengaluru

Date: 30th October 2026
Venue: JSS Academy of Technical Education, Bengaluru

Coordinators:
Dr. Sahana V, Dr. Basamma Umesh Patil, Mrs. Manasa D. S., Mrs. Sukrutha C. Basappa, and Mrs. Rashmi B. R.

1. Introduction

The Department of Information Science and Engineering, in association with the Departments of Computer Science and Engineering (CSE), Computer Science and Engineering (AI & ML), and Master of Computer Applications (MCA), successfully organized the **12th National Conference on Advancements in Information Technology (NCAIT-2026)** on **30th October 2026** at JSS Academy of Technical Education, Bengaluru.

Continuing a proud legacy that began in **2014**, NCAIT-2026 served as a vibrant platform for researchers, academicians, industry professionals, and students to present their research contributions, exchange innovative ideas, and discuss emerging trends in Information Technology.

The conference was organized under the theme **"Advancements in Information Technology"**, with an objective to encourage interdisciplinary research, foster collaborative learning, and promote knowledge sharing among participants from various institutions. The conference witnessed an encouraging response from researchers and students, with participants from several reputed institutions contributing to the technical sessions, making it a meaningful platform for research interaction and academic exchange.

2. Objectives of the Conference

The primary objectives of NCAIT-2026 were:

1. To provide a platform for researchers and academicians to present their research findings and innovative ideas.
2. To encourage research and development in emerging areas of Information Technology.

3. To facilitate interaction and knowledge sharing among academicians, industry professionals, and students.
4. To explore interdisciplinary research opportunities and promote innovative solutions to contemporary technological challenges.
5. To encourage research initiatives aligned with sustainable development and societal needs.
6. To strengthen collaboration between educational institutions and industry experts.

3. Inaugural Ceremony

The conference commenced with participant registration at 9:00 AM, followed by an invocation at 9:30 AM. The inaugural programme included the welcome address, lighting of the ceremonial lamp, and an overview of the conference.

Dr. Mahesh B., Dean of Research, addressed the gathering and highlighted the importance of research and innovation in the rapidly evolving technological landscape. The event was graced by:

- **Chief Guest:** Mr. Jayavardhana Gubbi, Principal Scientist & Technopreneur, TCS Research and Innovation, Bengaluru
- **Guest of Honour:** Dr. Basava Kumar K. G., Joint Director – TED, JSS Mahavidyapeetha, Mysuru
- **Special Invitee:** Mr. Pradeep Manjunath, Head – Training and Placement, JSS Science and Technology University, Mysuru
- **President of the Function:** Dr. P. Mallu, Principal, JSS Academy of Technical Education, Bengaluru

The conference proceedings were formally released during the inaugural session. The programme concluded with the presidential address and vote of thanks.

Following the inaugural programme, a keynote address was delivered by the invited expert, who emphasized the significance of emerging technologies, research-driven innovation, and future opportunities in Information Technology.

4. Technical Sessions and Research Presentations

The conference provided an excellent platform for participants to present their original research contributions through paper and poster presentations.

The technical sessions were organized across **six paper presentation tracks and two poster presentation tracks**, covering a wide range of emerging research domains, including:

- Artificial Intelligence and Robotics
- Machine Learning and Neural Networks
- Data Mining and Big Data Analytics
- Edge Computing and Cloud Computing
- Internet of Things (IoT) and Embedded Systems
- Cyber Security
- Image Processing
- Natural Language Processing
- Speech Processing
- Bioinformatics
- Digital Twins
- Parallel Computing
- Multimedia Communication

The technical sessions facilitated meaningful discussions on contemporary technological challenges, innovative solutions, and future research directions. Participants had the opportunity to interact with experts, reviewers, faculty members, and fellow researchers.

Poster presentations provided an additional platform for students and researchers to demonstrate innovative ideas, prototypes, and research findings in an interactive format.

5. Research Publications and Awards

The conference encouraged the presentation of original research contributions. Accepted and presented papers were considered for publication in the **International Journal for Research in Emerging Science and Technology E-ISSN:2349-7610** as per the conference guidelines.

To recognize and encourage quality research contributions, awards were presented for the **Best Paper** and **Best Poster** presentations in various tracks.

Best Paper Award Winners – NCAIT 2026

Track 1

Paper ID: NCAIT-2026-080

Title: ShareSafe Hybrid Detection of Sensitive Information with GraphRAG and a Local Model

Authors: Manoj M. Krishna, Parnika Madhukumar, Pragathi, Nishmitha Kiran, and Pushpalatha V.

Department: Information Science and Engineering

Institution: JSS Academy of Technical Education, Bengaluru

Track 2

Paper ID: NCAIT-2026-067

Title: Uncertainty-Aware Predictive Autoscaling on Kubernetes: Bayesian Long Short-Term Memory Forecasting under Slow Pod Startup

Authors: Vindhya H. K., Samarth S. Rao, Chiraag V., and Arya Swaroop K. G.

Department: Computer Science and Engineering

Institution: JSS Academy of Technical Education, Bengaluru

Track 3

Paper ID: NCAIT-2026-023

Title: Decentralized Proof of Personhood Using On-Device Liveness Detection and Soulbound Tokens

Authors: Asghar Pasha, Revanth M., Shashank G., Ajay L., and Chinmayee R.

Department: Artificial Intelligence and Machine Learning Engineering

Institution: Sri Krishna Institute of Technology, Bengaluru

Track 4

Paper ID: NCAIT-2026-003

Title: A Unified Deep Learning Pipeline for Brain Tumor Classification, U-Net Segmentation, and Pix2Pix-Based Synthesis of Tumor Progression Images

Authors: Manzoor Ahmed, Kushal N. Gowda, Sanjan S., Manoj Gowda K. J., and S. Vijay Krishna

Department: Artificial Intelligence and Machine Learning

Institution: Sri Krishna Institute of Technology, Bengaluru

Track 5

Paper ID: NCAIT-2026-083

Title: Guardian 360: An Integrated Wearable, Mobile and AI Platform for Fall Detection, Vital-Sign Monitoring and Voice-Based Cognitive Health Assessment in Elderly Care

Authors: S. V. Preethi, Abhinav Chandra, Dikshitha N., Sahana H. M., and Dr. Anil B. C.

Department: Computer Science and Engineering (AI & ML)

Institution: JSS Academy of Technical Education, Bengaluru

Track 6

Paper ID: NCAIT-2026-006

Title: A Hybrid Gated Quantum-Classical Architecture for Edge Cybersecurity Anomaly Detection

Authors: Varshitha S., Spoorthi K. M., and Chetan R.

Department: Computer Science and Engineering

Institution: BNM Institute of Technology, Bengaluru

Best Poster Award Winners – NCAIT 2026

Track 7

Poster ID: NCAIT-POSTER-2026-015

Title: Accident Prone Zone Detection in Bengaluru Using Deep Learning

Authors: Jayasudha K., Shivakumar M., Pallavi L., Megha M. K., and Alok Sharma

Department: Artificial Intelligence and Machine Learning

Institution: Sri Krishna Institute of Technology, Bengaluru

Track 8

Poster ID: NCAIT-POSTER-2026-024

Title: ಗೆಂಲ-Naasika – BIOMUZZLE ID Identification System

Authors: Sunil A. M., Prakruthi B. R., V. Likitha, and Namitha C. S.

Department: Computer Science and Engineering (AI & ML)

Institution: JSS Academy of Technical Education, Bengaluru.

6. Outcomes of the Conference

NCAIT-2026 successfully achieved its intended objectives and provided a valuable platform for:

- Dissemination of recent research findings and technological innovations.
- Exposure to emerging technologies and interdisciplinary research opportunities.
- Promotion of collaboration among researchers, academicians, industry experts, and students.
- Encouragement of research publications and innovative project development.
- Identification of future research directions in advanced Information Technology domains.
- Enhancement of the research culture among undergraduate and postgraduate students.
- Creation of networking opportunities among participants from diverse institutions.

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7. Acknowledgements

The organizing committee expresses its sincere gratitude to **Mr. Jayavardhana Gubbi**, Principal Scientist and Technopreneur, TCS Research and Innovation, Bengaluru, for gracing the conference as the Chief Guest and sharing valuable insights.

We extend our heartfelt thanks to **Dr. Basava Kumar K. G.**, Joint Director – TED, JSSMVP, Mysuru, for attending as Guest of Honour and encouraging the research community.

We also acknowledge the support of **Mr. Pradeep Manjunath**, Head – Training and Placement, JSS Science and Technology University, Mysuru, and **Dr. P. Mallu**, Principal, JSS Academy of Technical Education, Bengaluru, for their guidance and encouragement.

Special appreciation is extended to **Dr. Nagamani N. P., Associate Professor and Head, Department of Information Science and Engineering**, faculty coordinators, organizing committee members, session chairs, reviewers, supporting departments, volunteers, participating institutions, authors, and students for their dedicated efforts and contributions in making NCAIT-2026 a grand success.

Conclusion

The **12th National Conference on Advancements in Information Technology (NCAIT-2026)** successfully provided a dynamic academic platform for sharing research knowledge, discussing technological advancements, and fostering innovation. Through paper presentations, poster sessions, keynote interactions, and scholarly discussions, participants gained valuable insights into emerging technologies and future research opportunities.

The conference strengthened the spirit of research, collaboration, and academic excellence while creating opportunities for meaningful interaction among researchers, faculty members, industry professionals, and students. NCAIT-2026 stands as another significant milestone in the continuing journey of promoting research and innovation at JSS Academy of Technical Education, Bengaluru.

"A conference is not just about presenting research; it is about sharing ideas, inspiring innovation, and building collaborations for the future."



Lighting the lamp of knowledge and innovation, marking the beginning of a meaningful journey of learning and excellence.



The official release of the conference proceedings symbolizes the successful culmination of research, innovation, and academic collaboration.



An engaging keynote session featuring expert perspectives, inspiring discussions, and valuable insights into emerging trends in Information Technology.



The certificate distribution ceremony recognized the efforts and achievements of participants, encouraging continued excellence in research and innovation.