Fifth Asian Symposium on Cellular Automata Technology, 2026
(ASCAT 2026)
February 25-27, 2026, Calicut (India)
http://www.cellularautomata.in/ascat2026

Call for Papers

Important Dates:

Paper Submission deadline:	Friday, October 24, 2025
Notification of acceptance:	Tuesday, December 23, 2025
Deadline for camera-ready papers:	Monday, January 05, 2026

Aims and Scope of the Conference:

The symposium aims two-fold: to nurture the theories of cellular automata, and to explore the cellular automata as technology. So all the theoretical aspects of cellular automata and their applications in any domain are within the scope of this symposium. In particular, the topics of interest include (but not limited to) the following:

A. **Algebraic and Theoretical aspects of CA**
- Algorithmic and Complexity issues in Cellular Automata
- Formal Language Processing
- Cellular Automata and Logic
- Randomness
- Reversibility and Cycle structure
- Algebraic properties of Cellular Automata and Discrete Systems
- Characterization tools for Cellular Automata
- Conservation Laws and Cellular Automata

B. **Cellular Automata Models and Computation**
- Traffic models and Crowd dynamics
- Models for Distributed and Parallel Systems
- Lattice Gas and Lattice Boltzmann model
- Environmental, Social and Economical Modeling and Simulation
- Natural Computing
- Reversible and Quantum Computing
- Cellular Automata Architecture for Computation
- Cellular Automata for Computing-in-Memory Architecture

- Cellular Automata with Memory
- Integration of CA and Agent-based Modeling
- Sandpile Cellular Automata

C. **Non-uniformity in Cellular Automata**
- Non-uniform or Hybrid CA
- Asynchronous Cellular Automata
- Stochastic Cellular Automata
- Network Automata

D. **Cellular Automata, Hardware Design and Security**
- Circuit Design and Computer Architecture
- Quantum-dot Cellular Automata
- Memristor Design
- Security and Encryption
- Cryptography
- Secured Hardware Design

E. **Quantum-dot Cellular Automata**
- Logic Gates and Circuit Design
- Quiescent Quantum Cellular Automata
- Quantum Gate Cellular Automata
- Universal Quantum Cellular Automata
- Quantum computing
- Quantum lattice gases
- Quantum Reversible Automata
- Quantum Nano-Automata

F. **Cellular Automata, Machine Learning and Artificial Intelligence**
- Artificial Life
- Pattern Recognition
- Machine Learning
- Bioinformatics
- Image and Video Processing

G. **Emerging Applications of Cellular Automata**
- Ecological issues
- Urban development
- Graph Colouring
- Sensor network applications

Submissions:

Authors are invited to submit original unpublished research papers written in English that are not more than 12 pages (single column including figures, tables and references) via Springer Nature Submission System

ASCAT 2026 through Meteor: https://meteor.springer.com/ASCAT2026

Submissions should contain original research that has not previously been published. Concurrent submissions to other conferences/ journals are not allowed. Supplementary material that exceeds the above mentioned page limit may be included as an appendix and will be considered at the committee's discretion (note that appendices will not be published in the proceedings).

Submissions must be formatted in LaTeX or Microsoft Word using the standard Springer single column format and submitted in Portable Document Format (PDF). For each accepted paper, at least one author has to complete full registration and present the paper. Papers authored or co-authored by PC members are also welcome and will follow a specific evaluation process.

Note that the review process is **double-blind** – the submissions should be anonymous and should not contain any information from which the author(s) identity can be revealed. Authors should ensure that any references to their own related work are in the third person.

Proceedings:

Accepted papers of the conference will appear in the proceedings published by Springer Nature.

Committee:

Patron

Prof. Prasad Krishna, Director, National Institute of Technology, Calicut, India

General Co-Chairs

- Madhukumar S D (National Institute of Technology Calicut, India)
- Biplab K Sikdar (Indian Institute of Engineering Science and Technology Shibpur, India)
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Program Co-Chairs

- Raju Hazari (National Institute of Technology Calicut, India)
- Sukanta Das (Indian Institute of Engineering Science and Technology Shibpur, India)
- Jimmy Jose (National Institute of Technology Calicut, India)

Program Committee

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- Jimmy Jose (NIT Calicut, India)
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- Mamata Dalui (NIT Durgapur, India)
- Nazma Naskar (JIS University, India)
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