2nd International Conference on

ARTIFICIAL INTELLIGENCE AND SUSTAINABLE COMPUTING

AISC 2025

Programme Schedule

July 24-26, 2025

Organized by

Department of Information Technology

B. P. Poddar Institute of Management and Technology

&

A. K. Choudhury School of Information Technology

University of Calcutta

Technical Co-Sponsor

International Conference on Artificial Intelligence and Sustainable Computing

July 24-26, 2025

INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND SUSTAINABLE COMPUTING

137, V.I.P. Road, Kolkata-700052 | JD-2, Sector 3, Salt Lake, Kolkata -700106
Website: www.bppimt.ac.in/AISC2025
Email: aisc2025@bppimt.ac.in

Program Schedule
AISC 2025

Day 1 (24.07.2025)
Inauguration (09:30 am-10:30 am)
Tutorial Session-1 (10:30 am-11:30 pm) Speaker 1: Prof. Ansuman Banerjee, ISI, Kolkata Title: A look inside the DeepSeek reasoning LLM Session chair: Dr. Jayeeta Chanda, BPPIMT
Breakfast (11:30 am-11:45 pm)
11:45 am-12:45 pm Speaker 2: Mr. Sourabh Mukherjee, Accenture Title: Enterprise Digital Brain Session chair: Dr. Jayeeta Chanda, BPPIMT
Lunch (12:45 PM – 02:00 PM)
2:00 pm -03: 00 pm Speaker 3: Mr. Shamik Misra, Microsoft Title: Responsible AI in the Real World: Building Responsible and Scalable Solutions for Sustainability Session chair: Dr. Bikramaditya Mandal, BPPIMT
Tutorial Session -2 (03:00 pm-04:30 pm) Mr. Shamik Misra Title: Practical demo on RAG
Tea (04:30 pm-04:45 pm)

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Program Schedule
AISC 2025

Day 2 (25.07. 2025)		
Inauguration (09:30 am-10:30 am) **Chief guest**: Shri Vijay Bharti, IAS, Secretary, Department of Science and Technology and Biotechnology, Government of West Bengal		
Guests of honour Prof. Swapan Bhattacharya, Former Director, NIT Suratkal, NIT Durgapur, Jadavpur University Prof. Bimal Roy, ISI, Kolkata Mr. Aditya Kr. Sinha, Executive Director, C-DAC Mumbai & Centre Head, C-DAC Patna Mr. Manjeet Nayek, Director, STPI, Kolkata Prof. Tapas Chakraborty, Vice Chancellor, MAKAUT, WB VC, University of Calcutta/ Registrar Prof. Amlan Chakrabarti, Professor and Director, AKCSIT, University of Calcutta Prof. (Dr.) Sutapa Mukherjee, Principal, BPPIMT Prof. Suparna Kar Chowdhury , Professor, Electrical engineering, Jadavpur University , Chair IEEE- Kolkata Section		
10:30 AM – 11: 15 noon (Hall 1) Keynote: 1. Prof. Bimal Roy, Professor, Applied Statistics Unit, Indian Statistical Institute Title: AI for Cyber Security Session Chair: Prof. Amlan Chakrabarti, University of Calcutta		
IEEE Session (11:15 AM-11:30 AM)		
Tea break (11:30 AM-11:45 AM)		
11:45 AM – 01:30 PM Track 1: Machine Learning and Sustainable Computing		
Session I (Hall 1) 7 papers Session Chair: Dr. Anirban Sarkar, NIT Durgapur	**Session II (Hall 2) 7 papers** Session Chair: Prof. Sankhayan Choudhury, University of Calcutta, India	**Session III (Hall 3) 7 papers** Session Chair: Prof. Nabendu Chaki, University of Calcutta, India
Lunch (01:30 PM – 02:30 PM)		
02:30 PM –03: 15 PM (Hall 1) Keynote: 2. Prof. Kamaljeet Sandhu, AI Hub / University of New England, Australia Title: Quantum AI Innovations Adoption for Global Reserve Banks in CBDC Governance: Opportunities & Challenges of Fintech & Cybersecurity for the US Federal Reserve System & the Reserve Bank of India. Session Chair: Prof. Shila Ghosh, Principal, St. Thomas' College of Engineering & Technology		
03:15 PM – 04: 00 PM (Hall 1) Invited Talk 1: Prof. Subhadip Basu, Professor, Jadavpur University Title: Bioimage Informatics and AI-Driven Neuroimage Analysis: From Dendritic Spines to Synaptic Plasticity Session Chair: Prof. Ivy Majumdar, BPPIMT, Kolkata		
04:00 PM – 05: 45 PM Track 1: Machine Learning and Sustainable Computing		**04:00 PM – 05: 45 PM** Track 2 Artificial Intelligence and Cyber Physical System
Session IV (Hall 1) 7 papers Session Chair: Dr. Saptarshi Goswami, Bangabashi Morning College, University of Calcutta	**Session V (Hall 2) 8 papers** Session Chair: Dr. Punyasha Chatterjee, Jadavpur University	**Session VI (Hall 3) 8 papers** Session Chair: Prof. Chandan Majumdar, Jadavpur University
Session VII (04:00 PM – 05: 45 PM) 6 papers **Poster Session** Session Chair: Prof. Kamaljeet Sandhu, AI Hub / University of New England, Australia Prof. Amlan Chakraborty, University of Calcutta, India		
Tea break (05:45 PM-06:00 PM)		
(06:00 PM-07:00PM) Cultural Programme (07:00 PM onwards) Conference Dinner		

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Program Schedule
AISC 2025

<table>
<tr><th colspan="3">Day 3 (26.07. 2025)</th></tr>
<tr><td colspan="3">09:30 AM – 10: 15 AM (Hall 1)
Keynote: 3. Prof. Sudip Mishra, IIT KGP
Session Chair: Dr. Ananya Kanjilal, BPPIMT, Kolkata</td></tr>
<tr><td colspan="3">Tea break (10:15 AM-10:30 AM)</td></tr>
<tr><td colspan="3">10:30 AM – 11:15 AM (Hall 1)
Invited Talk 2: Ms. Usha Rengaraju, Chief Data Scientist| Corporate Trainer | Founder NeuroAI | Autism Advocate head of data science research at Exa Protocol and the world's first female triple Kaggle Grandmaster
Title: Implementing Multi Agent AI Systems
Session Chair: Dr. Gitosree Khan, BPPIMT, Kolkata</td></tr>
<tr><td colspan="3">11:15 PM – 12: 00 noon (Hall 1)
Keynote 4: Prof. Indranil SenGupta, City University of New York (CUNY) - Hunter College
Title: From pixels to profits: an image-based determination of rare fluctuations in finance
Session Chair: Prof. Sabnam Sengupta, BPPIMT, Kolkata</td></tr>
<tr><td colspan="2">12:00 noon – 1:30 PM
Track 3: Emerging Technology: Blockchain, Quantum Computing, Cognitive Computing, Robotics and Automation/ Artificial Intelligence for Health Informatics/NLP/Signal Processing/ Artificial Intelligence for Security</td><td>12:00 noon – 1:30 PM
Online Session</td></tr>
<tr><td>Session VIII (Hall 1) 6 papers
Session Chair: Prof. Anirban Mukhopadhyay, University of Kalyani</td><td>Session IX (Hall 2) 6 papers
Session Chair: Dr. Suparna Biswas (Saha), MAKAUT, India</td><td>Session X (Hall 3) 9 papers
Session Chair:
Prof. Nandita Sanyal, Principal, BPPIMT Saltlake campus</td></tr>
<tr><td colspan="3">Lunch (01:30 PM – 02:15 PM)</td></tr>
<tr><td colspan="3">02:15 PM – 03: 00 PM (Hall 1)
Invited Talk 3: Dr. Hena Ray, Joint Director, CDAC, Kolkata
Title: Applied AI : Innovations from Concept to Deployment
Session Chair: Dr. Himadri Nath Saha, University of Calcutta</td></tr>
<tr><td colspan="3">03:00 PM – 03: 45 PM (Hall 1)
Invited Talk 4: Dr. Ritajit Majumdar, Research Scientist at IBM Quantum, IBM India Research Lab
Title: Quantum-centric supercomputing: A new perspective on computing
Session Chair: Session Chair: Dr. Soumya Sen, University of Calcutta</td></tr>
<tr><td colspan="3">Valedictory Session (03:45 PM – 04: 30 PM)</td></tr>
<tr><td colspan="3">Tea (04:30 PM – 05: 00 PM)</td></tr>
</table>

Contributory Paper Presentation

July 25, 2025

Track 1: Machine Learning and Sustainable Computing

Session I

Time: 11:45 AM to 01:30 PM

Hall: 1

Session Chair: Dr. Anirban Sarkar, NIT Durgapur

Paper Title	Registered Author
AgentTrustEval: A Framework for Evaluating Trustworthiness in Agentic System	Joyita Chakraborty
Enhancing Brain Tumor Diagnosis with Ensemble Deep Learning Technique for Improved Accuracy	Tista Mukherjee
A federated attention-driven machine for classification of chest radiographs across distributed datasets	Tapomoy Koley
Attendance Management System using Fingerprint based Identification	Debashish Barman
User-Driven Multimodal Sentiment Analysis: Enhancing Emotion Recognition through Audio-Text Integration in Clinical Contexts	Ahona Bhattacharyya
GreenNet: A Low-Cost Solution for Plant Disease Detection	Sayandip Bhattacharyya
An improved Alzheimer's disease identification from FastSurfer, contour detection based ROI extraction and MRI scan images	Soumya Chowdhury

Contributory Paper Presentation

July 25, 2025

Track 1: Machine Learning and Sustainable Computing

Session II

Time: 11:45 AM to 01:30 PM

Hall: 2

Session Chair: Prof. Sankhayan Choudhury, University of Calcutta, India

Paper Title	Registered Author
A Comparative Study of Machine Learning Models for Mushroom Classification	Rinkle Rani
A Psychological Perspective on Non-Functional Testing: Enhancing Automation with Machine Learning Algorithms	Anirban Bhar
Simulating Attacks and Evaluating Machine Learning Models for Intrusion Detection Systems	Swawon Mondal
TinyFL for Predictive Maintenance and Predicting the Remaining Useful Life in Industry 5.0	Katakam Sai Ananya
A Machine Learning Framework for Understanding the Link between Parental Education, Socioeconomic Status, and Student Performance	Abhijit Pasari
Personality Trait Prediction from Handwritten Text Using Deep Feature Engineering and Ensemble Learning	Dipankar Basu
Sectoral Stock Analysis for Bullish and Bearish Market Conditions Based on Time Series Analysis Approaches	Tamoghna Mukherjee

Contributory Paper Presentation

July 25, 2025

Track 1: Machine Learning and Sustainable Computing

Session III

Time: 11:45 AM to 01:30 PM

Hall: 3

Session Chair: Prof. Nabendu Chaki, University of Calcutta, India

Paper Title	Registered Author
Modified ResNet-50-Based Deep Learning Approach for Oral Cancer Diagnosis	Indranil Banerjee
Real-Time Elephant Monitoring Using YOLOv8 and Swin Transformers: A Deep Learning Framework for Wildlife Conservation	Promita Chakraborty
SPAM SMS Classification Using Deep Neural Networks	Ronit Das
Entropy-Enhanced Memory Dump Classification for Fileless Malware Detection via AGCWD, GIF, and Various Machine Learning Models	Soham Paul
VisionNet: A Hybrid CNN-ViT Approach for Detecting AI-Generated Images	Hitartha Saikia
Unveiling Security Vulnerabilities in Multi Exit Networks: A Sponge Attack Approach	CH.Dhanavardhana
Novel Approach for Early Detection of Oral Cancer using Deep Learning Techniques	Kandunuru Keerthi

Contributory Paper Presentation

July 25, 2025

Track 1: Machine Learning and Sustainable Computing

Session IV

Time: 04:00 PM to 05:45 PM

Hall: 1

Session Chair: Dr. Saptarshi Goswami, Bangabashi Morning College, University of Calcutta

Paper Title	Registered Author
Resume Analyzer: An AI-Powered Approach to Job Matching and ATS Optimization	Debangshu Chatterjee
DeepSeek vs OpenAI: for Breast Cancer Prediction	Anjali Agarwal
Enhancing Visionless Object Recognition on Grasp Using Unsupervised Learning Methods	Simran Gupta
Intelligent Fall Detection with Optical Flow and LSTM: Ensuring Safety Through Vision-based AI	Kuheli Banik
A Comparative Discussion on Critical System Design and Verification Using Formal Methods	Shubha Chakraborty
Intelligent Crop Monitoring: An IoT and Machine Learning Approach to Disease Detection and Remediation	Navoneel Dey
Prediction of Diabetes Using Machine Learning	Sreejitava

Contributory Paper Presentation

July 25, 2025

Track 1: Machine Learning and Sustainable Computing

Session V

Time: 04:00 PM to 05:45 PM

Hall: 2

Session Chair: Dr. Punyasha Chatterjee, Jadavpur University

Paper Title	Registered Author
Brain Tumor Detection Using Image Classification in Google Teachable Machine	Arunthathi B
A Dynamic Framework for Performance Analysis of Players in T20 Cricket Matches using Neo4j	Dr. Partha Ghosh
Real-Time Anxiety Detection Using Emotion Echo: A Multi-Modal and Embedded Approach	Ishika Rana
A LLM based test script generation framework for Acceptance Testing of mobile applications	Archak Nath
Comprehensive Review of AI and Machine Learning Approaches for Prediction of Epigenetic Modifications in Autoimmune Disorders	Shreya Kohli
DeepSign: A Robust Signature Verification Framework Leveraging Transfer Learning using VGG16 and MobileNetV2	Piyali Datta
Macroeconomic-Driven Crash Forecasting with Transparent Machine Learning Models	Dr Subir Gupta
Design and Implementation of a Prototype Smart Energy Meter using STM32 Microcontroller for Monitoring Single-Phase Loads	Rimi paul

Contributory Paper Presentation

July 25, 2025

Track 2: Artificial Intelligence and Cyber Physical System

Session VI

Time: 04:00 PM to 05:45 PM

Hall: 3

Session Chair: Prof. Chandan Majumdar, Jadavpur University

Paper Title	Registered Author
Advancing Healthcare with Machine Learning: Predictive Models for Neurological and Chronic Diseases	Arunthathi B
EEG Signal Analysis for the Detection of Epilepsy	Dr. Partha Ghosh
Ghost Writer: AI-Powered Writing Assistant	Ishika Rana
AI-Powered Lane Detection: Integrating Digital Image Processing and Deep Learning for Robust Autonomous Navigation	Archak Nath
Towards Sustainable Farming in India through AI-Based Crop Recommendation and Smart Irrigation with NeerVaani	Shreya Kohli
CropWise: Crop Recommendation App Using Machine Learning	Piyali Datta
AI-Powered Project Risk Management System	Dr Subir Gupta
MOCKVIEWER: A Real-time Multimodal System for Interview Practice with Continuous Verification and Feedback	Rimi paul

Contributory Paper Presentation

July 25, 2025

Session VII

Time: 04:00 PM to 05:45 PM

Poster Session

Session Chair: Prof. Kamaljeet Sandhu, University of New England, Australia

Prof. Amlan Chakraborty, University of Calcutta, India

Paper Title	Registered Author
Autism Spectrum Disorder Detection from Facial Image Using Hybrid Model	Jaydev Mishra
GlaucNet:A Novel and Computationally Sustainable Glaucoma Detection System	Snigdha Chandra
Integrative Analysis of Differentially Expressed Genes Reveal Hub Genes and Potential Therapeutic Targets through Molecular Docking for Dengue Disease	Epsita Das
HospiTech: A Smart Sustainable Healthcare App	Rumela Ganguly
Breast Cancer Detection: A Comparative Study and Future Directions (Online)	Laxman Singh
In Silico identification of high affinity PARP1 inhibitors for improved therapeutic targeting in Triple-Negative Breast Cancer (Online)	Aayush Ratna Bajpai

Contributory Paper Presentation

July 26, 2025

Track 3: Emerging Technology: Blockchain, Quantum Computing, Cognitive Computing, Robotics and Automation/ Artificial Intelligence for Health Informatics/NLP/Signal Processing/ Artificial Intelligence for Security

Session VIII

Time: 12:00 NOON to 01:30 PM

Hall: 1

Session Chair: Prof. Anirban Mukhopadhyay, University of Kalyani

Paper Title	Registered Author
Face Recognition Analysis using Haar Cascade with Textural patterns for student attendance system	MS. Kakoli Dey
Proof of Fair-Chance: An Unbiased Approach to Internet Voting using Fair Chance in Proof of Stake	Ashmita Bhattacharjee
Deep Learning for Genome Sequencing: A Review of Methods for Predicting Genetic Mutation and Variants	Sachin Soni
MedBus: A Ubiquitous Online Ambulance Service	Prateeti Paul
A Resource and Latency-aware Task Offloading Framework in Fog Computing for Multi-Cloudlet environment	Siparna Rabi Das
FundsCrowd: A Blockchain-Based Crowdfunding DApp	Adhishthatri Singh

Contributory Paper Presentation

July 26, 2025

Track 3: Emerging Technology: Blockchain, Quantum Computing, Cognitive Computing, Robotics and Automation/ Artificial Intelligence for Health Informatics/NLP/Signal Processing/ Artificial Intelligence for Security

Session IX

Time: 12:00 NOON to 01:30 PM

Hall: 2

Session Chair: Dr. Suparna Biswas (Saha), MAKAUT, India

Paper Title	Registered Author
Identifying Suspicious Activity Through WAF Logs: Enhancing Web Application Security	Sucheta Chandra
Unveiling Systematicity in Transformer-Based Natural Language Understanding	Chintan Pamnani
VioLENS : Real Time Violence Detection System	Debshankar Dey
SQL and NoSQL Optimization Techniques: A Performance-Oriented Comparative Study	Agnisha De
ChikitsaSpace: A Decentralized Patient-Doctor Consultation Ecosystem Using Blockchain and IoT	Swaraj Lahiri
Study of Sustainable Circuits for Quantum Information Processing Using Photonic Components	Sudipta Dutta

Contributory Paper Presentation

July 26, 2025

Session X

Online Session

Time: 12:00 NOON to 01:30 PM

Hall: 3

Session Chair: Prof. Nandita Sanyal, Principal, BPPIMT Saltlake campus

Paper Title	Registered Author
Efficient Brain Tumor Classification And Detection Using CNN Model For MRI Imaging	Sanasultana Alagur
Job Scheduling In Big Data Analytics Using Reinforcement Learning	Raghunandhan S
Seedscan: AI-Powered Classification Of Soyabean Seed Categories	Srilakshmi A
In-Silico Analysis Of Phytochemicals Of The Plant Carthamus Tinctoris Against Disease Insulin Resistance	Shikha Mishra
Comparative Study of AI Approaches for Predicting Blood-Brain Barrier Permeability	Shiv Naresh Shivhare
Keyword Spotting of Odia Language in Iot Device Using Pruning For Model Compression	Bikash Ranjan Bag
Design Of Proposed Reversible Multiplexer Using QCA With Lower Energy Dissipation For Arithmetic Processor	Dr. R. Manoj Kumar
AI-Driven Machine Learning Techniques For EMG Signal-Based Gesture Classification For Upper Limb Prosthetics: A Comparative Review	Archita Chaudhary
AI-Based Automated Detection Of Furcation Radiolucency In Dental Radiographs Via Efficientnet And Classical ML Classifiers	Priyanka Roy