

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

Technical Program

First Announcement dated 31st July 2026

		0900-1030					1050-1230						1400 – 1530					1545 – 1900							
Day-1 August 17, 2026 Monday														Session 1.1			Session 1.2								
														Dr. Noshewan Shoaib IEEE Chairperson			Dr. Hailong Sun BUAA, China		AI-ST-256	AI-ST-462	AI-ST-303	Dr. Imran Naseem University of Western Australia/NED			
Session 2.1						Session 2.2						Session 2.3													Session 2.4
Day-2 August 18, 2026 Tuesday		Dr. Muhammad Tariq NUCES FAST, Pakistan		AI-ST-217	AI-ST-199	AI-ST-387	Dr. Gao Huan NPU, China		AI-ST-200	AI-ST-74	AI-ST-367	Dr. Yasar Ayaz NCAI, Pakistan		Dr. Yusuf Sinan Akgul Gebze Technical University Turkiye		Prof. Dr. Adrian Olaru University Politehnica of Bucharest, Romania									
Day-3 August 19, 2026 Wednesday		Session 3.1						Session 3.2						Session 3.3						Session 3.4					
		AI-ST-365	AI-ST-300	AI-ST-458	Dr. Khurram Khurshid HoD(CS) IST, Pakistan			Dr. Eng. Serban Olaru Vice president of UASTRO Academic Society, Romania			AI-ST-501	AI-ST-111	AI-ST-168	AI-ST-222	AI-ST-603	AI-ST-76	AI-ST-512	Dr. Sara Baber Sial Monash University, Australia							
Day-4 August 20, 2026 Thursday		Session 4.1						Session 4.2						Session 4.3						Session 4.4					
		AI-ST-57	AI-ST-183	Dr. Usman Qayyum AI-RESOLVE			AI-ST-522	AI-ST-502	AI-ST-538	AI-ST-270	Dr. Tahir Jameel Dy PC AI&ST ,IBCA ST			AI-ST-191	AI-ST-53	AI-ST-493	AI-ST-492	AI-ST-246	AI-ST-373	AI-ST-169 AI-ST-432					

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

01

Day 1 · Monday

17 August 2026

Opening Message by Program Coordinator (Dr. Usman Qayyum)

Session 1.2 — 15:45 – 17:15

Time	Program Item	Speaker / Presenter
15:45 – 16:30	Invited Advancing Technology for Humanity	Dr. Noshewan Shoaib IEEE Chairperson
16:30 – 17:15	Invited Program Analysis Meets AI: Towards Intelligent Software Quality Assurance	Dr. Hailong Sun BUAA, China
17:15 – 17:30	Paper AI-ST-256: Adaptive Mobility-Aware Multi-Criteria Routing Protocol for High-Speed UAV Networks	Nadia Nawaz Qadri COMSATS Wah Cantt
17:30 – 17:45	Paper AI-ST-462: LAIDS: An LLM-Based Agentic Intrusion Detection System with MITRE ATT&CK-Grounded Retrieval-Augmented Generation and Residual AutoEncoder Behavioral Filtering	Ehmaan Shafqat PIEAS Islamabad

17:45 – 18:00	Paper AI-ST-303: Uncertainty-Aware Selective Test-Time Augmentation (TTA) for Cloud-Robust Satellite Land Cover Classification	Muhammad Faisal Zia Bahria University Islamabad
18:00 – 19:00	Invited Turning Pixels into Products	Dr. Imran Naseem University of Western Australia / NED

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

02

Day 2 · Tuesday

18 August 2026

Five invited talks and twelve paper presentations — Sessions 2.1 to 2.4

Session 2.1

09:00 – 10:30 · Session Chair

Time	Program Item	Speaker / Presenter
09:00 – 09:45	Invited Beyond the Physical: AI-Powered Digital Twins for Autonomous Cyber-Physical Intelligence	Dr. Muhammad Tariq NUCES FAST, Islamabad
09:45 – 10:00	Paper AI-ST-217: Bloom-Conditioned Question Generation: A T5-Based Framework for Cognitively Diverse Educational Assessment	Muzammal Bilal Bahria University
10:00 – 10:15	Paper AI-ST-199: QueryRoute-RAG: Intent-Aware Query Routing for Improved Retrieval-Augmented Generation	Muhammad Ali Arshad COMSATS Islamabad
10:15 – 10:30	Paper AI-ST-387: Robust Real-Time Object Detection in Simulated Battlefield Environments Under Adverse Visual Conditions	Mariyam Amreen UMT

10:30 – 10:50 · Break

Session 2.2

10:50 – 12:30 · Session Chair

Time	Program Item	Speaker / Presenter
10:50 – 11:35	Invited Privacy Preservation in Multi-Agent Consensus and Distributed Optimization	Dr. Gao Huan NPU, China

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

11:40 – 11:55	Paper AI-ST-200: DIWA-Net: A Parameter-Efficient Multi-Modal Architecture for Deepfake Detection in the Open-Set Paradigm	Hamza Abdul Jabbar UET Taxila
11:55 – 12:10	Paper AI-ST-74: I-VECTOR: An LLM-Graded, MITRE ATT&CK-Aligned Platform for Hands-On SOC Analyst Training	Muhammad Arslan Shahid NUST
12:15 – 12:30	Paper AI-ST-367: Transformer-Based Soccer Player Re-Identification for Game State Reconstruction Using Domain-Adapted SOLIDER-Swin	Sameer Khan NUCES FAST

12:30 – 14:00 · Lunch Break

Session 2.3 — Invited Talks

14:00 – 15:30

Time	Program Item	Speaker / Presenter
14:00 – 14:45	Invited Artificial Intelligence for Everyone	Dr. Yasar Ayaz NCAI, Pakistan
14:45 – 15:30	Invited Disentangling Clinic-Specific Acquisition Variability from Motion Dynamics in Medical Ultrasound	Dr. Yusuf Sinan Akgul Gebze Technical University, Turkiye

15:30 – 16:00 · Break

Session 2.4

16:00 – 18:15 · Session Chair

Time	Program Item	Speaker / Presenter
16:00 – 16:45	Invited Artificial Intelligence Applied in Robotics	Prof. Dr. Adrian Olaru University Politehnica of Bucharest, Romania

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

16:45 – 17:00	Paper AI-ST-178: Feature-Level Fusion of Complementary Vision Transformers for Generalizable Medical Image Classification	Muhammad Hamza NUCES FAST Islamabad
17:00 – 17:15	Paper AI-ST-18: Adversarial Robust Quantum Reinforcement Learning: Defending Variational Policies Against Quantum-State Perturbations	Kainat Rizwan NTU
17:15 – 17:30	Paper AI-ST-556: CutQ: What Works and What Doesn't for QAOA on Max-Cut	Muhammad Anas NUCES FAST Karachi
17:30 – 17:45	Paper AI-ST-113: An Agentic Hybrid RAG Framework for Intelligent University Policy Navigation: A Multi-LLM Comparative Study with RAGAS Evaluation	Muhammad Umar Tariq Bahria University
17:45 – 18:00	Paper AI-ST-166: Hybrid Parallelization and GPU Acceleration of Chain Matrix Multiplication: A Comparative Study of Cache-Aware Tiling, OpenMP Task Parallelism, MPI Row-Split GEMM, and CUDA Kernel Approaches	Ali Muhammad NUCES FAST Islamabad
18:00 – 18:15	Paper AI-ST-231: Hardware-Isolated Secure Mesh Communication with Edge-AI Intrusion Detection over LoRa for Infrastructure-Denied Environments	Ansab Farooq Air University Islamabad

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

03

Day 3 · Wednesday

19 August 2026

Four invited talks and sixteen paper presentations — Sessions 3.1 to 3.4

Session 3.1

09:00 – 10:30 · Session Chair

Time	Program Item	Speaker / Presenter
09:00 – 09:45	Invited AI Education Beyond Coding: Role of Academia & Industry in Building the Next Generation of Innovators	Dr. Khurram Khurshid HoD (CS) IST, Islamabad
09:45 – 10:00	Paper AI-ST-365: Asynchronous Spatio-Temporal Diffusion Framework for Adversarial Attacks in Visual Tracking	Balaaj Raza NUCES FAST Islamabad
10:00 – 10:15	Paper AI-ST-300: Correspondence Score Prediction for AI-Generated Images Using Fine-Tuned PickScore CLIP	Momina Qureshi NUCES FAST Islamabad
10:15 – 10:30	Paper AI-ST-458: Physics-Informed Neural Network for State of Health Forecasting of Electric Vehicle Batteries	Fazail Bangash GIKI

10:30 – 10:50 · Break

Session 3.2

10:50 – 12:35 · Session Chair

Time	Program Item	Speaker / Presenter
10:50 – 11:35	Invited Autopilot versus Autopilot with Artificial Intelligence Applied in UAV	Dr. Eng. Serban Olaru

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

		Vice President of UASTRO Academic Society, Romania
11:35 – 11:50	Paper AI-ST-501 : Specialist Multi-Model SELF-REFINE with Dual-Feedback Ranking for Robust Mathematical Reasoning	Samar Iqbal NUCES FAST Islamabad
11:50 – 12:05	Paper AI-ST-111 : Overcoming Temporal Constraints in Directed-Energy Weapons: A PPO-Based Agentic Approach to Heterogeneous UAV Swarm Defense	Ali Akbar Gondal UCP
12:05 – 12:20	Paper AI-ST-168 : Deep Neural Networks for Supervised Rainfall Forecasting from Spatiotemporal Remote Sensing Data	Saif Ullah NUCES FAST Islamabad
12:20 – 12:35	Paper AI-ST-222 : On the Vulnerability of Audio Deepfake Detection to Adversarial Attacks in Low-Resource Code-Switched Urdu Speech	Muhammad Hamza UET Taxila

12:35 – 14:00 · Lunch Break

Session 3.3

14:00 – 15:30 · Session Chair

Time	Program Item	Speaker / Presenter
14:00 – 14:45	Invited Understanding and Countering Audio Deepfakes in the Era of Generative AI	Dr. Junaid Mir UET Taxila
14:45 – 15:00	Paper AI-ST-603 : Privacy-Preserving Decentralized Federated Learning with Dynamic Attenuation and Differential Privacy	Huan Gao NPU
15:00 – 15:15	Paper AI-ST-76 : Transformers Based Vulnerability Detection in Smart Contracts	Raza Ali CESAT

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

15:15 – 15:30	Paper AI-ST-512: AI-Based Sensor Fusion Model for Next-Generation Aerial Guidance	Muhammad Shahzaib Bahria University / CESAT
---------------	---	---

15:30 – 16:00 · Break

Session 3.4

16:00 – 18:15 · Session Chair

Time	Program Item	Speaker / Presenter
16:00 – 16:45	Invited Navigating the Boundary Between Social AI and Machine Consciousness- HRI	Dr. Sara Baber Sial Monash University, Australia
16:45 – 17:00	Paper AI-ST-164: Hybrid CNN-Transformer Framework for Earthquake Signature Detection Using VLF Radio Signals	Khurram Sami CESAT
17:00 – 17:15	Paper AI-ST-87: Transfer Learning-Driven Vibration Imaging Framework for Bearing Fault Diagnosis under Variable Speed Conditions	Danish Muhammad University of Ulsan, South Korea
17:15 – 17:30	Paper AI-ST-255: VulnAgent: A Multi-Agent Agentic System for Automated Vulnerability Detection, CWE Classification, and Patch Generation in C/C++ Code	Sameer Ali Syed CESAT
17:30 – 17:45	Paper AI-ST-307: FIMA-Net: A Deep Multi-View Fusion Network with Fractal InfoMax Attention for Few-Shot AMC	Muhammad Faizan Zahid CESAT
17:45 – 18:00	Paper AI-ST-239: CodeGuard: A Comprehensive Framework for Vulnerability Detection, Classification and Patch Recommendation	Rijha Safdar CESAT
18:00 – 18:15	Paper AI-ST-146: A Targeted Asymmetric Heterogeneous (TAH) Framework for Automatic Modulation Classification	Hina Shamshad CESAT

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

04

Day 4 · Thursday

20 August 2026

Two invited talks and fourteen paper presentations — Sessions 4.1 to 4.4

Session 4.1

09:00 – 10:30 · Session Chair

Time	Program Item	Speaker / Presenter
09:00 – 09:15	Paper AI-ST-57: Efficient Adaptation of Large Language Models for Hate Speech Detection in Low-Resource Languages: A Comparative Study on Roman Urdu	Muhammad Junaid Asif AITeC NCP Islamabad
09:15 – 09:30	Paper AI-ST-183: EmoNet: A Lightweight Attention-Based CNN for Speech Emotion Recognition	Muhammad Moiz Khalid NUCES FAST Islamabad
09:30 – 10:15	Invited Journey from LLMs to Swarm Intelligence	Dr. Usman Qayyum AI-RESOLVE
10:15 – 10:30	Paper AI-ST-522: NetGuardAI: Generative AI-Augmented Network Intrusion Detection via CTGAN and VAE Synthesis on NSL-KDD	Syed Muhammad Asad Shah NUCES FAST

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

10:30 – 10:50 · Break

Session 4.2

10:50 – 12:20 · Session Chair

Time	Program Item	Speaker / Presenter
10:50 – 11:05	Paper AI-ST-502 : Securing 5G Network Slicing Against Cyber Threats: A Layer-Aligned Attack Taxonomy and Random Forest Based Intrusion Detection Framework	Malaika Bibi NUTECH
11:05 – 11:20	Paper AI-ST-538 : Cross-Subject fNIRS Classification Using DVDA-Net: A Dual-View Domain-Adaptive Representation Network	Jamila Akhter Air University
11:20 – 11:35	Paper AI-ST-270 : Parallel GNN Training on a Single Lower Budget GPU System	Muhammad Fahid Imran NUCES FAST Islamabad
11:35 – 12:20	Invited Silent Failures and Phantom Bugs: Catching the Undetectable Before Production	Dr. Tahir Jameel Dy PC AI&ST, IBCAST

12:20 – 14:00 · Lunch Break

Session 4.3

14:00 – 15:30 · Session Chair

Time	Program Item	Speaker / Presenter
14:00 – 14:15	Paper AI-ST-191 : Fine-Tuning LLaMA 3 for Punjabi (Shahmukhi Script) Question Answering: A QLoRA-Based Low-Resource Approach	Mahnoor Naeem IST
14:15 – 14:30	Paper AI-ST-53 : NeuroPark-XAI: Explainable Multimodal Learning for Early Parkinson's Disease Diagnosis	Muhammad Imran Khan Air University Islamabad

23rd IBCAST 2026: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

17-20 August 2026

14:30 – 14:45	Paper AI-ST-493 : Agentic Multi-Modal Triage of Citizen Flood Reports at Scale	Muhammad Anas NUCES FAST Karachi
14:45 – 15:00	Paper AI-ST-492 : Label-Efficient Self-Supervised Battery SOH Prediction Under Randomized Loads	Abdul Malik Govt. College of Medical Sciences, Timergara
15:00 – 15:15	Paper AI-ST-246 : DS-Agent: Role-Aware Hybrid LLM Assignment for Cost-Efficient Automated Data Science	Muhammad Haider Akbar NUCES FAST Islamabad
15:15 – 15:30	Paper AI-ST-373 : Meta-EmotionNet: An EEG-based Personalized Emotion Recognition via Meta-Learning and Transformer Adaptation	Muhammad Adeel Asghar Riphah International University Islamabad

15:30 – 15:45 · Break

Session 4.4

15:45 – 16:15 · Session Chair

Time	Program Item	Speaker / Presenter
15:45 – 16:00	Paper AI-ST-169 : VISTA: LLM-Driven SystemVerilog Assertion Generation with Formal Verification	Asad Ali GIKI
16:00 – 16:15	Paper AI-ST-432 : Find Which Activation Function Give Better Results for Different Tabular Datasets for TabM Model	Muhammad Fahad NUCES FAST Islamabad