

# 22<sup>nd</sup> IBCAST 2025: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

19-22 August 2025

Technical Program (Conducted)

Venue: Imperial Hall-I  
RAMADA Hotel Murree Hills  
Updated: 22 August 2025

	0930-1100	1120-1250	1400 – 1530	1600 – 1730	1745-1925
<b>Day-1</b> August 19, 2025 Tuesday	Arrival to Venue (Ramada, Murree Lower Topa)		Session 1.1	Session 1.2	Session 1.3 (Extended Session)
			Registration & Check-in	Prof. Dr. Shoab Khan Chancellor of Sir Syed CASE Institute of Technology, Pakistan AI-ST-33 AI-ST-23 AI-ST-63 NS	Dr. Syed Hasan Adil Saudi Electricity Company, KSA AI-ST-81 AI-ST-83 AI-ST-92 AI-ST-108
<b>Day-2</b> August 20, 2025 Wednesday	Session 2.1	Session 2.2	Session 2.3	Session 2.4	Session 2.5 (Extended Session)
	AI-ST-255 AI-ST-304 AI-ST-151 AI-ST-160 Prof. Dr. Nizamettin Aydin Istanbul Technical University, Turkey NS	Prof. Dr. Liu Liu Beihang University, China AI-ST-139 AI-ST-364 AI-ST-374 AI-ST-217	AI-ST-471 AI-ST-313 AI-ST-459 AI-ST-379 AI-ST-134 AI-ST-128 NS	Prof. Dr. Faisal Shafait NUST, Pakistan AI-ST-228 AI-ST-344 AI-ST-390	AI-ST-400 AI-ST-137 AI-ST-413 AI-ST-415 AI-ST-424 AI-ST-452 NS
<b>Day-3</b> August 21, 2025 Thursday	Session 3.1	Session 3.2	Session 3.3 (Plenary Talks)		
	Prof. Dr. Seref Engin Yildiz Technical University, Turkey AI-ST-44 AI-ST-381 AI-ST-2 AI-ST-514 NS	Prof. Dr. Waqar Shahid University of Galway, Ireland AI-ST-133 AI-ST-382 AI-ST-327 NS	Prof. Neri Filippo Italy	Prof. Hasan Mandal Turkiye	Dr. Noshewan Shoaib IEEE Chairperson
<b>Day-4</b> August 22, 2025 Friday	Session 4.1	Closing Ceremony			
	Panel Discussion Foreign & Local Speaker				

NS = No Show  
(ID-63, ID-128, ID-304, ID-327, ID-381, ID-452)

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Day 1: August 19, 2025

16:00 – 19:15		22 <sup>nd</sup> IBCAST 2025: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES	
Opening Message Dr. Usman Qayyum			
Session 1.2 Session Chair	16:00 – 16:45	Invited Talk (Gen AI and Future of Work for Pakistan)	Prof. Dr. Shoab Khan Chancellor of Sir Syed CASE Institute of Technology, Pakistan
	16:45 – 16:55	AI-ST-33: FAME: A Multimodal and Social-Context Driven Approach for Fake News Detection	Sarah Nasir UMT, Lahore Sialkot Campus
	17:00 – 17:10	AI-ST-23: Generative AI vs. Traditional Teaching in Project-Based Learning: Experiences from the Course of Data Analytics and Artificial Intelligence Tools	Rasikh Tariq Tecnologico de Monterrey, Mexico
	17:20 – 17:30	AI-ST-63: FusionSort: Enhanced Cluttered Waste Segmentation with Advanced Decoding and Comprehensive Modality Optimization	Muhammad Ali ACES
Break			
Session 1.3 Session Chair	17:45 – 18:30	Invited Talk (Beyond Feature Engineering: Leveraging Relation-Aware Transformers for Intelligent Code Quality Assessment)	Dr. Syed Hasan Adil Saudi Electricity Company, Saudi Arabia
	18:30 - 18:40	AI-ST-81: Transfer Learning-Based Deep Learning Model with XAI Integration for Breast Cancer Histopathology Classification	Haseeb Iqbal UET Lahore
	18:40 - 18:50	AI-ST-83: Predicting Aerodynamic Coefficients of Fighter Aircraft Wings through Machine Learning	Zahid Ahmad NUST Islamabad
	18:50 - 19:00	AI-ST-92: Hybrid Emotion Detection Framework on Twitter (X) Using Self-Attention Mechanisms: Integrating RoBERTa and CNN Features	Muhammad Dawood Majid SZABIST Islamabad
	19:05 - 19:15	AI-ST-108: Graph Meets Grid: Hybrid Neural Networks for Hate Speech Detection	Zainab Rafiq UMT Lahore

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Day 2: August 20, 2025

Session 2.1 Session Chair	09:30-09:40	<b>AI-ST-255: Prediction Model for Criminal Judgments Using Deep Learning Techniques with Pakistani Legal Data</b>	Muhammad Anas Habib University Karachi	
	09:40-09:50	<b>AI-ST-304: Multi-Scale Fungal Classification with Parallel Network Architecture and Adaptive Fusion</b>	Farhan Shoukat Sir Syed CASE Institute of Technology	
	09:50-10:00	<b>AI-ST-151: EGG-Based Emotion Recognition Using Deep Learning and Real-Time Live Portrait Visualization</b>	Fatima Arshad Cheema PIEAS Islamabad	
	10:00-10:10	<b>AI-ST-160: Automated Code Summarization Using Large Language Models: Fine-Tuning CodeBERT and Llama 3 for Developer Efficiency</b>	Nazia Bibi NUST, MCS	
	10:15-11:00	Invited Talk (AI Approaches to Understanding Infertility)		Prof. Dr. Nizamettin Aydin Istanbul Technical University, Turkey
Break				
Session 2.2 D Session Chair	11:20-12:05	Invited Talk (Recent Advances in Reasoning with Large-Scale Language Models)		Prof. Dr. Liu Liu Beihang University, China
	12:05-12:15	<b>AI-ST-139: DataBot: A Privacy Preserving Retrieval Augmented Generation System for Personal Digital Archives</b>	Emama Nugman PIEAS	
	12:15-12:25	<b>AI-ST-364: Integrated Flight and Maintenance Planning for Enhanced Fleet Availability</b>	Adeel Khan CAE NUST	
	12:30-12:40	<b>AI-ST-374: Brain Tumor Cell Grading and Survival Prediction using MI-based Feature Selection and GenAI Approach</b>	Sobia Shafiq NUML Rawalpindi	
	12:40-12:50	<b>AI-ST-217: A hybrid CNN and Vision Transformer based Deepfake detection approach</b>	Zulkaif Sajjad UET Taxila	
Break				
Session 2.3 Session Chair	14:00-14:10	<b>AI-ST-471: Towards Scalable Vulnerability Remediation: Fine-Tuning Large Language Models for Efficient Vulnerability Fixing</b>	Shahzeb CESAT	
	14:15-14:25	<b>AI-ST-313: SecVulGuard: Your Shield Against Vulnerabilities</b>	Rijha Safdar CESAT	
	14:30-14:45	<b>AI-ST-459: Towards Transparent Bone Fracture Classification through Decision-Level Fusion of Deep Neural Networks and Traditional Models with Explainability</b>	Hanzla Shehzad University of Wah, Taxila	
	14:45-14:55	<b>AI-ST-379: Real-Time Machine Learning-Based Object Tracking on a Low-Cost 3-Axis Gimbal</b>	Omer Nazir CAE NUST	
	15:00-15:10	<b>AI-ST-134: Multiclass Lung Cancer Detection Using Deep Learning and Explainable AI on Chest CT Scans</b>	Syed Taimoor Hussain Shah Politecnico di Torino, Italy	
	15:15-15:25	<b>AI-ST-128: Contextual Synergy in Image Captioning Analyzing Deep Learning Architectures with LSTM and Transformer</b>	Aleena Shafiq GIKI	
Break				
Session 2.4	16:00-16:45	Invited Talk (From Code to Clinic: The Transformative Power of AI in Neurological Healthcare)	Prof. Dr. Faisal Shafait NUST, Pakistan	

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	16:50 – 17:00	<b>AI-ST-228: Design and Implementation of a Cost-Efficient AI-Based Autonomous Vehicle for Unstructured Road Environments Using YOLOv8, CNNs, and NI myRIO</b>	Tehreem Rehman IST Islamabad
	17:05 – 17:15	<b>AI-ST-344: An Evolutionary Approach to Despeckle SAR Images using Multigene Genetic Programming</b>	Syed Gibran Javed CESAT
	17:20 – 17:30	<b>AI-ST-390: Optimization of Hazardous Material Storage Using Mixed Integer Linear Programming</b>	M Ahsan Saeed CAE NUST
Break			
Session 2.5 Session Chair	17:45 – 17:55	<b>AI-ST-400: Evaluating Initialization Strategies in Hamiltonian-Embedded Quantum Neural Networks</b>	Syed Bilal Ali NUCES FAST
	17:55 – 18:05	<b>AI-ST-137: Generation of Synthetic Infrared Hazy Aerial Images Dataset using Conditional Generative Adversarial Network</b>	Farhan Mushtaq Hashmi UET Taxila
	18:05 – 18:15	<b>AI-ST-413: End-to-End Deep Multimodal Fusion of Structural MRI and Clinical Text Data Using Swin UNETR and ClinicalBERT for Alzheimer’s Disease Classification</b>	Armughan Ali University of Wah, Taxila
	18:15 – 18:25	<b>AI-ST-415: MaxFUSE: A Novel Approach to Voice Anti-Spoofing Using EfficientNet and Max-Feature-Map Activation</b>	Aiman Darakhshan GIKI
	18:25 – 18:35	<b>AI-ST-424: Enhancing Cyber Threat Detection via Multimodal Fusion of DistilBERT, EfficientNet-Lite, GraphSAGE, and Meta-Optimization</b>	Muhammad Zeeshan Haider University of Wah, Taxila
	18:35 – 18:45	<b>AI-ST-452: The N-Queens Challenge: When Exact Methods Meet Approximate Scalability</b>	Muhammad Qasim Ali GIKI

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Day 3: August 21, 2025

Session 3.1 Session Chair	09:30-10:15	Invited Talk (AI-Driven Insights in industrial Monitoring)	Prof. Dr. Seref Engin Yildiz Technical University, Turkey
	10:15-10:25	AI-ST-44: Deep Learning Framework for Automatic Modulation Classification	Qamar Ijaz CAE NUST
	10:25-10:35	AI-ST-381: Small Language Models with Retrieval Augmented Generation in Finance: A Case Study for Question-Answering on Open Banking Research Articles	Kifayat Khan Birmingham City University, UK
	10:40-10:50	AI-ST-2: Designation-Specific Stress Patterns in Software Professionals of Pakistan	Sadia Khalid NUST
	10:50-11:00	AI-ST-514: Carbon Nest: A framework for carbon footprint calculation and occupancy detection in empathic buildings	Fahad Sohrab Tampere University
Break			
Session 3.2 Session Chair	11:20 – 12:05	Invited Talk (Accelerating AI Development for Pavement Classification: Labeling Agreement, Camera Setup, and Generative AI Tools)	Prof. Dr. Waqar Shahid University of Galway, Ireland
	12:05 – 12:15	AI-ST-133: Contrastive Learning for Remote Sensing Image Recognition	Muhammad Usman Ejaz Dyson Institute of Engineering and Technology, UK
	12:20-12:30	AI-ST-382: Floor Plan Generation From NLP Description	Asadullah Yousaf Bahria University
	12:35-12:45	AI-ST-327: Multi-Head Attention for Pulmonary Embolism Detection in CT Angiography	Muhammad Rayyan Shakoori NUST
Break			
Session 3.3 Session Chair	14:00-14:45	Plenary Talk (Digital Radar Intercept & Countermeasures)	Prof. Neri Filippo Italy
	14:45-15:30	Plenary Talk (Progress in Advance Materials)	Prof. Hasan Mendal Turkiye
	15:30-16:20	Plenary Talk (IEEE: Advancing Technology for Humanity)	Dr. Noshawan Shoaib IEEE Chairperson

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Day 4: August 22, 2025

Session 4.1 Session Chair	9:15-10:00	Panel Discussion (The Next 10 Years of AI Research: Breakthroughs and Bottlenecks)	Foreign & Local Speakers <b>Moderator:</b> Dr. Usman Qayyum
10:00- Onwards	Closing Remarks		