

# 21<sup>st</sup> IBCAST 2024: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES

20-23 August 2024

Technical Program

First Announcement

	0930-1100		1120-1250		1400 – 1530		1600 – 1730	1745-1945								
<b>Day-1</b> August 20, 2024 Tuesday					L U N C H B R E A K	Session 1.1	Session 1.2	Session 1.3								
										T E A B R E A K	Opening Remarks	Dr. Yasar Ayaz Chairman NCAL, Pakistan	Prof. Jie Yang Shanghai Jiao Tong University, China			
<b>Day-2</b> August 21, 2024 Wednesday	Session 2.1		Session 2.2		Session 2.3						Session 2.4					
	AI-ST-190	AI-ST-248	AI-ST-336	Dr. Shoab Ahmad Khan Chancellor Sir Syed CASE Institute of Technology, Pakistan	Dr. Mircea Hulea Gheorghe Asachi Technical University Lasi, Romania	AI-ST-121	AI-ST-153	Panel Discussion (Recent Trends and Frontiers in AI and Their Impact)	AI-ST-112	AI-ST-264	AI-ST-283	AI-ST-193	AI-ST-263	AI-ST-272	AI-ST-423	AI-ST-366
<b>Day-3</b> August 22, 2024 Thursday	Session 3.1			Session 3.2		Session 3.3										
	AI-ST-107	AI-ST-292	AI-ST-130	Dr. Zohaib Iqbal Founder Quest, Pakistan	AI-ST-377	AI-ST-208	AI-ST-392	Dr. Vlad Muresan Technical University of Cluj-Napoca, Romania	Dr. Mircea Hulea Gheorghe Asachi Technical University Lasi, Romania	Dr. Faizan Ahmed University of Twente, Netherland	AI-ST-176	AI-ST-424				
<b>Day-4</b> August 23, 2024 Friday	Closing Ceremony															

Yellow is for CESAT, Purple is for International, Red is dropped

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#### Day 1: August 20, 2024

16:00 – 19:15 <b>Opening Message</b> Dr. Usman Qayyum		<b>21<sup>st</sup> IBCAST 2024: ARTIFICIAL INTELLIGENCE AND SOFTWARE TECHNOLOGIES</b>	
<b>Session 1.1</b> <b>Session Chair</b>	16:00 – 16:45	Invited Talk (AI on the Leading Edge)	
	16:45 – 17:00	<b>AI-ST-80: Classification and Segmentation of Gastroenterology Images using Saliency Mapping in Convolutional Neural Network</b>	<b>Yusra Khan</b> NUST, Islamabad
	17:00 – 17:15	<b>AI-ST-231: ServeNet-GPT-Fusion: A Fusion Language Model For Web Services Classification</b>	<b>Muhammad Ali Khan</b> Beihang University, China
	17:15 – 17:30	<b>AI-ST-258: Beyond Boundaries: A Novel Ensemble Approach for Breast Cancer Detection in Ultrasound Imaging Using Deep Learning</b>	<b>Ateeq Ur Rehman Butt</b> NTU, Faisalabad
<b>Break</b>			
<b>Session 1.2</b> <b>Session Chair</b>	17:45 – 18:30	Invited Talk (The Robustness of Deep Neural Networks)	
	18:30 - 18:45	<b>AI-ST-157: Exploring the Potential of Machine Learning-Assisted Spaceborne GNSS-R Measurements for Ocean Eddy Detection</b>	<b>Jin Xing</b> Beihang University, China
	18:45 - 19:00	<b>AI-ST-372: Adaptive Power Control Based on Neural Network Design and Implementation for the Hybrid Shipboard Microgrids.</b>	<b>Farooq Alam</b> NUST, Islamabad

#### Day 2: August 21, 2024

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<b>Session 2.1</b> Session Chair	09:30-09:45	<b>AI-ST-190: A Machine Learning-Based Framework for Predicting E-commerce Product Ratings</b>	Muneeb Iqbal NCP, Islamabad
	09:45-10:00	<b>AI-ST-248: Enhanced Pneumothorax Detection in Chest Radiographs Via a Deep Learning Framework DENSE Network Fusion with Yolov8</b>	Imtiaz ul haq khan Millenium Universal College
	10:00-10:15	<b>AI-ST-336: The Art of Deception: Adversarial Network Strategies in Thwarting Airborne Object Detection</b>	Mohsin Khalil NUST, Islamabad
	10:15 –11:00	Invited Talk (AI: A Platform Approach for System Integration – Bridging Silos and Enhancing Efficiency)	Dr. Shoab Ahmad Khan Chancellor Sir Syed CASE Institute of Technology, Pakistan
Break			
<b>Session 2.2</b> Session Chair	11:20 – 12:05	Invited Talk (Hardware and Software Reliability in redundant systems)	Dr. Mircea Hulea Gheorghe Asachi Technical University Iasi, Romania
	12:05 – 12:20	<b>AI-ST-121: Autonomous Robotic Arm Grasping Objects with Reinforcement Learning</b>	Azhar Abbas MUET, Jamshoro
	12:20-12:35	<b>AI-ST-153: Multi-Core Architecture</b>	Muhammad Shehryar Bahria University, Islamabad
Break			
<b>Session 2.3</b> Session Chair	14:00 – 14:45	Panel Discussion (Recent Trends and Frontiers in AI and Their Impact)	
	14:45 – 15:00	<b>AI-ST-112: Kernel Fashion Context Recommender System (KFCR): A Kernel Mapping Fashion Recommender System Algorithm using Contextual Information</b>	Sadia Khalid NUST, Islamabad
	15:00 – 15:15	<b>AI-ST-264: Deep Learning for automated multi-scale functional field boundaries extraction using multi-date Sentinel-2 and PlanetScope imagery: Case Study of Netherlands and Pakistan</b>	Saba Zahid IST, Islamabad
	15:15 – 15:30	<b>AI-ST-283: MASA: Multi Agent Situational Awareness for Visually Impaired</b>	Salman Sadiq NUST, Islamabad
Break			
<b>Session 2.4</b> Session Chair	16:00 – 16:15	<b>AI-ST-193: The Study Of Characteristics Of Self Organizing Teams In Agile</b>	Javeria Sadiq NUCES FAST, Lahore
	16:15 – 16:30	<b>AI-ST-263: A Model Driven Framework Enabling the Development of Standardized Text-free User Interface for Smartphones</b>	Uzair Rasheed NUST, Islamabad
	16:30 – 16:45	<b>AI-ST-272: An Intelligent Digital System for Foot Weight Distribution</b>	Uman Ahmad Center for AI & Big Data
	16:45 – 17:00	<b>AI-ST-423: Model-Driven Engineering for Modeling and Simulating Satellite Power Systems: A Case Study</b>	Daijin Hu Beihang University, China
	17:00 – 17:15	<b>AI-ST-366: AI framework for Urban and Natural Scene Classification using Multiscale Attention for SAR/Multispectral Big Data</b>	Amjad Nawaz Beihang University, China
	17:30-17:45	<b>AI-ST-453: AHP-RNN based Hybrid Model with Embedded Software Solution for Smart Climate Control in IoT Automation</b>	Ali Hassan Jamal CESAT

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#### Day 3: August 22, 2024

<b>Session 3.1</b> Session Chair	09:30-09:45	<b>AI-ST-107: Exploring the Impact of Dataset Content on Self Supervised Pretext Rotation Learning: A Comparative Analysis using MobileNet</b>	Amina Asif Air University, Islamabad
	09:45-10:00	<b>AI-ST-292: AI Driven Prognosis in Pediatric Bone Marrow Transplantation Survival</b>	Wafiya Sohail Sir Syed Case university, Islamabad
	10:00-10:15	<b>AI-ST-130: Delineation of the Atrial Chamber from the Cardiac Pool</b>	Arooj Arif NUST, Islamabad
	10:15 – 11:00	Invited Talk (AI for productization)	Dr. Zohaib Iqbal Founder Quest, Pakistan
Break			
<b>Session 3.2</b> Session Chair	11:20 – 11:35	<b>AI-ST-377: Efficient Path Planning and Collision Avoidance for Autonomous Robot Navigation</b>	Naem ul Islam Yuan ze university, Taiwan
	11:35 – 11:50	<b>AI-ST-208: Forecasting Particulate Matter (PM 2.5) Concentration in Air with Double Attention GRU</b>	Saira Mudasser PIEAS, Islamabad
	11:50 – 12:05	<b>AI-ST-392: Real-Time VoIP Classification in Encrypted Traffic using Deep Learning</b>	Fahad Naem NUST, Islamabad
	12:05–12:50	Invited Talk (AI in Healthcare for Predicting the Pandemic Spread)	Dr. Vlad Muresan Technical University of Cluj- Napoca, Romania
Break			
<b>Session 3.3</b> Session Chair	14:00 – 14:45	Invited Talk (Learning in Spiking Neural Networks and their applications in robotics)	Dr. Mircea Hulea Gheorghe Asachi Technical University Iasi, Romania
	14:45-15:30	Invited Talk (Explainable AI)	Dr. Faizan Ahmed University of Twente, Netherland
	15:30-15:45	<b>AI-ST-176: Automated Segmentation of the Ocular Orbit from Magnetic Resonance Images</b>	Amad Qureshi George Mason University, USA
	15:45-16:00	<b>AI-ST-424: Online Fault Diagnosis of the Water Circulation System of Altitude Simulation Test for LREs</b>	Yong Xu Beihang University, China

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Day 4: August 23, 2024

10:00-Onwards	Closing Remarks
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