

**19th IEEE INTERNATIONAL CONFERENCE ON OPEN-SOURCE SYSTEMS AND TECHNOLOGIES
(ICOSST 2025)**

01 -02 December 2025 version:7

Day 1 - Monday 01 December 2025 | Duration [10:30 – 18:00] Hrs.

Venue: UET Main Auditorium

Brainiac Competitions

Chair: Muzammil Hassan

**Open-Source Series Workshops
(OSSW)**

Chair: Muzammil Hassan

[09:00-11:00] Hrs 2 Hours	Programming Contest <i>Venue: KICS 5, Main Auditorium</i> Contact Person: Mr. Danish Ali Babu	[09:00:00-12:00] Hrs 3 Hours	Quantum Computing and Open Source Frameworks <i>Venue: CR2, Main Auditorium</i> Instructor: Dr. Muhammad Ahsan
[09:00-12:00] Hrs 3 Hours	Gaming Competition <i>Venue: KICS 5, Main Auditorium</i> Contact Person: Maaz	[12:00-15:00] Hrs 3 Hours	The Evolution of AI: From Machine Learning to Generative & Agentic AI <i>Venue: CR2, Main Auditorium</i> Instructor: Laiba Abbas
[09:00-14:00] Hrs 5 Hours	Project Showcase Competition <i>Venue: Auditorium Corridor</i> contact Person: Zohaib Ahmad Chughtai	[15:00-18:00] Hrs 3 Hours	Weaponizing Universal LLM Jailbreaks: The Transferability Fuzz <i>Venue: CR2, Main Auditorium</i> Instructor: Laiba Saleem
[09:30-14:00] Hrs 5 Hours	Impact – A Startup Idea Competition <i>Venue: Smart Classroom, Main Auditorium</i> Contact Person: Zain / Moaz		

Day 2 – Tuesday 02 December 2025 | Duration [09:30 – 16:30] Hrs.

Opening Ceremony [09:15-10:15]

Venue: KICS Seminar Hall

Time	Activity
[09:15 – 09:17]	Recitation of Holy Quran
[09:17 – 09:20]	National Anthem
[09:20 – 09:23]	Video flashback of the ICOSST
[09:23 – 09:45]	Welcome Note and Remarks by: Conference Chair
[09:45-09:50]	Invited Guest (from Cheezious):
[09:50-10:00]	Conclusive Note on Brainiac Competitions and Workshops Remarks by : BRAINIAC Chair
[10:00-10:10]	Workshop Presenter Shields
[10:10-10:15]	Group Photo

Session I

Track – 1A	Session Chairs: <i>Dr. Hafiz Muhammad Tayyab Khushi & Kashif Bashir</i> Venue: CR1 Room, Main Auditorium	Time Track – 1B	Session Chairs: <i>Dr. Bilal Shoaib & Dr. Farrukh Khan</i> Venue: Smart Classroom, Main Auditorium	Time Track – 1C	Session Chair: <i>Dr. Iftikhar Naseer</i> Venue: KICS Conference Room, KICS main building
[10:30-10:55] Hrs 25 Minutes	Talk 1 <i>Are We Too Dependent on Medical Imaging? The Role of AI in Medical Imaging</i> <i>Dr. Anas Bilal</i> <i>Hainan Normal University, China</i>	[10:30-10:50] Hrs 20 Minutes	Talk 13 <i>AI-Powered Behavioral Informatics - Open-Source Solutions for Autism Support</i> <i>Dr. Sajid Mehmood</i> <i>UMT, Lahore</i>	[10:30-10:45] Hrs 15 Minutes	Paper 8 <i>Feature Engineering and Gradient Boosting for Fine-Grained Power Forecasting in Smart Cities</i> <i>Hassan Rehan*</i>
[10:55 - 11:20] Hrs 25	Talk 2 <i>AI-drive personalized healthcare :</i>	[10:50-11:05] Hrs 15 Minutes	Paper 1 <i>RadQwen: A Vision-Language Adaptation for Radiological Image Understanding</i> <i>Tooba Pervaiz</i>	[10:45-11:00] Hrs 15 Minutes	Paper 9 <i>AI-Driven Risk Management and Fraud Prevention in Digital Finance as a Catalyst for US Economic Resilience</i>

Minutes	<p>Challenges & Opportunities</p> <p><i>Dr. Tanvir Alam</i></p> <p><i>Hamad Bin Khalifa University (HBKU), Qatar</i></p>				<p>and Global Financial Leadership</p> <p><i>Zenith Matin Guria*</i></p>
		<p>[11:05-11:20] Hrs</p> <p>15 Minutes</p>	<p>Paper 2</p> <p><i>Efficient English Text-to-Speech Voice Cloning Using Limited Speaker Data</i></p> <p><i>Emaan Abid</i></p>	<p>[11:00-11:15] Hrs</p> <p>15 Minutes</p>	<p>Paper 10</p> <p><i>A Machine Learning Framework for Predicting Wind Turbine Active Power from Multivariate Sensor Data</i></p> <p><i>Uman Ahmed Mohammed*</i></p>
		<p>[11:20-11:35] Hrs</p> <p>15 Minutes</p>	<p>Paper 3</p> <p><i>Explainable DeepFake Detection: Comparative Analysis of CNN and Transformer Architectures with XAI</i></p> <p><i>Muhammad Kamran</i></p>	<p>[11:15-11:30] Hrs</p> <p>15 Minutes</p>	<p>Paper 11</p> <p><i>High-Accuracy Breast Cancer Diagnosis Using Neural Networks and Dimensionality Reduction Techniques</i></p> <p><i>Ms Asif Ul Haq Khan*</i></p>
[11:20 - 11:45] Hrs 25 Minutes	<p>Talk 3</p> <p><i>Beyond the West: Social Media Polarization and Political Realignment in Pakistan</i></p> <p><i>Dr. Anees Baqir</i></p> <p><i>Northeastern University, London</i></p>	<p>[11:35-11:50] Hrs</p> <p>15 Minutes</p>	<p>Paper 4</p> <p><i>A Unified Deep Learning Approach for Multi-Class Classification of Poultry Fecal Images</i></p> <p><i>Tooba Pervaiz</i></p>	<p>[11:30-11:45] Hrs</p> <p>15 Minutes</p>	<p>Paper 12</p> <p><i>HYRIDE-RL: A Deep Reinforcement Learning-Driven Adaptive Intrusion Detection System for Concept Drift in Industrial IoT Networks</i></p> <p><i>Nasir Hussain*</i></p>
[11:45 - 12:10] Hrs 25 Minutes	<p>Talk 4</p> <p><i>Unlocking the Future: Multimodal AI and Generative Models in Action</i></p> <p><i>Dr Nouh Sabri Elmitwally</i></p> <p><i>University of Surrey, United Kingdom</i></p>	<p>[11:50-12:05] Hrs</p> <p>15 Minutes</p>	<p>Paper 5</p> <p><i>ML-Powered Intrusion Detection Framework for Secure Wireless Sensor Networks</i></p> <p><i>Muhammad Umar Tariq</i></p>	<p>[11:45-12:00] Hrs</p> <p>15 Minutes</p>	<p>Paper 13</p> <p><i>Global Concept-based Explanations (GCE): A Universal Concept Dictionary for Interpretable Object Detection</i></p> <p><i>Muhammad Imran Khalid*</i></p>
[12:10 - 12:35] Hrs	<p>Talk 5</p> <p><i>Substitution Box (S-Box): The Core</i></p>	<p>[12:05-12:20] Hrs</p> <p>15 Minutes</p>	<p>Paper 6</p> <p><i>Rice Leaf Disease Detection Using MobileNetV2 Transfer Learning: Comparative Study on Small and Large-Scale Datasets with Stream-lit Deployment</i></p>	<p>Presentation of Certificates and Recognition</p>	

25 Minutes	Component of Modern Ciphers <i>Dr Amjad Hussain Zahid</i> <i>UMT, Lahore</i>		<i>Wajiha Aslam</i>	
		[12:20-12:35] Hrs 15 Minutes	Paper 7 Urdu Emergency Response Chatbot for Real-Time First-Aid Assistance <i>Maheen Saqib</i>	
[12:35 - 13:00] Hrs 25 Minutes	Talk 6 Metaheuristic-Driven Optimization Approaches to Strengthen Cybersecurity and Intrusion Detection <i>Dr. Farhan Ullah</i> <i>Prince Mohammad Bin Fahd University, Saudi Arabia</i>	[12:35-12:55] Hrs 20 Minutes	Talk 14 Cognitive therapy to detect mental illness using Naïve Bayes Algorithm <i>Dr. Shahid Naseem</i> <i>University of Education, Lahore</i>	
Presentation of Certificates and Recognition		Presentation of Certificates and Recognition		
Lunch and Prayer Break [13:15 - 14:00] Hrs				

SESSION-II					
Time Track – 2A	Session Chairs: <i>Dr. Shahan Yamin Siddiqui & Dr. Nadeem Sarwar</i> Venue: CR1 Room, Main Auditorium	Time Track – 2B	Session Chairs: <i>Dr. Shahid Naseem</i> Venue: Smart Classroom, Main Auditorium	Time Track – 2C	Session Chair: <i>Dr. Muhammad Hassan Ghulam</i> Venue: KICS Conference Room, KICS main building
[14:00 - 14:25] Hrs 25 Minutes	Talk 7 Empowering Diverse Learners Through Pervasive Learning: A Digital Shift Toward Universal Accessibility	[14:00 - 14:20] Hrs 20 Minutes	Talk 15 Sustainable AI: Intelligent Computation with Purpose, Precision, and Efficiency <i>Dr. Nadeem Sarwar</i> <i>Bahria University, Lahore</i>	[14:30 - 14:45] Hrs 15 Minutes	Paper 20 Exploring the Impact of Dietary Habits and Physical Activity on Obesity Rates Using Apache Spark <i>Moudasra Shahreen*</i>
		[14:20 - 14:35] Hrs	Paper 14 LLM-Agent Powered Automated Literature	[14:45 - 15:00] Hrs	Paper 21 PetalVisionX: Grad-CAM-Driven

	<i>Dr. Muhammad Yaqoob Koondhar</i> <i>Sindh Agriculture University</i>	15 Minutes	<i>Review and Hypothesis Generation for Cancer Biomarker Discovery</i> <i>Muhammad Azeem</i>	15 Minutes	<i>Interpretable CNN Approach for Multiclass Flower Classification</i> <i>Shamyla Firdoos*</i>
[14:25-14:50] Hrs 25 Minutes	<i>Talk 8</i> <i>Dynamic Applications of Weighted Federated Machine Learning in Smart City Environments</i> <i>Dr. Muhammad Adnan Khan</i> <i>Gachon University, Republic of Korea</i>			[15:00 - 15:15] Hrs 15 Minutes	<i>Paper 22</i> <i>Data Driven Approach for Early Risk Assessment of Cardiovascular Disease through Logistic Regression</i> <i>Warisha Abdullah*</i>
		[14:35 - 14:50] Hrs 15 Minutes	<i>Paper 15</i> <i>Scalable Deep Learning Frameworks for Cyberbullying Detection in Social Media</i> <i>Muhammad Imran Ghafoor</i>	[15:15 - 15:30] Hrs 15 Minutes	<i>Paper 23</i> <i>Big Data Analysis of Dark Matter Distribution in the Milky Way with Gaia DR3, Machine Learning, and Apache Spark</i> <i>Qasim Ajlal*</i>
		[14:50 - 15:05] Hrs 15 Minutes	<i>Paper 16</i> <i>Explainable Ensemble Framework for Orthoptera Sound Classification and visualisation Using MFCCs and OpenL3 Embeddings</i> <i>Muhammad Azeem</i>	[15:30 - 15:45] Hrs 15 Minutes	<i>Paper 24</i> <i>ExCite: Explainable Clickbait Detection through Deep and Transfer Learning</i> <i>Muhammad Sheraz Hassan*</i>
[14:50 - 15:15] Hrs 25 Minutes	<i>Talk 9</i> <i>Advancements in Drone/UAV Technologies: From Network Architectures to Real-World Applications</i> <i>Dr. Muhammad Asghar Khan</i> <i>Prince Mohammad Bin Fahd</i>	[15:05 - 15:20] Hrs 15 Minutes	<i>Paper 17</i> <i>Formal Analysis of Staking and Un-Staking Mechanism in PoS Network</i> <i>Raeesa Mukhtar</i>		

	<i>University (PMU), KSA</i>			
[15:15 - 15:40] Hrs 25 Minutes	<p>Talk 10</p> <p><i>A Machine Learning Model for Predicting HLA-Binding Peptides Involved in Adverse Drug Reactions</i></p> <p><i>Dr. Zainab Jan</i></p> <p><i>Hamad Bin Khalifa University, Qatar</i></p>	[15:20 - 15:35] Hrs 15 Minutes	<p>Paper 18</p> <p><i>Energy-Aware Federated Deep Learning for Real-Time IoT Intrusion Detection: Toward Scalable and Trustworthy Edge Intelligence</i></p> <p><i>Suhaib Kashif</i></p>	
		[15:35 - 15:50] Hrs 15 Minutes	<p>Paper 19</p> <p><i>Comparative Analysis of ML and DL Models for Human Activity Recognition: A Focus on Efficiency and Edge-Readiness</i></p> <p><i>Muhammad Imran Ghafoor</i></p>	
[15:40 - 16:05] Hrs 25 Minutes	<p>Talk 11</p> <p><i>Leveraging AI in Higher Education & Research: Tools, Ethics & Practices</i></p> <p><i>Dr Jamal ud Din</i></p> <p><i>Riphah University, Lahore</i></p>	<p><i>Presentation of Certificates and Recognition</i></p>		
[16:05 - 16:30] Hrs 25 Minutes	<p>Talk 12</p> <p><i>Internet of Vehicles Security Threats, Countermeasures, Open Challenges With Future Research Directions</i></p> <p><i>Dr. Aitizaz Ali</i></p>			

	<i>Asia Pacific University, Malaysia</i>		
Presentation of Certificates and Recognition			

Closing Ceremony [16:30-17:30]

Venue: KICS Seminar Hall

Time	Activity
<i>[16:30-16:32]</i>	<i>Recitation of Holy Quran</i>
<i>[16:32 – 16:35]</i>	<i>National Anthem</i>
<i>[16:35 – 16:37]</i>	<i>Video flashback of the ICOSST</i>
<i>[16:37 – 16:55]</i>	<i>Closing Remarks by:</i> Guest Chair
<i>[16:55-17:10]</i>	<i>Brainiac Competitions Results Announcement and Prize Distribution</i> <i>by : BRAINIAC Chair</i>
<i>[17:10-17:25]</i>	<i>Organizers Shields/Certificates</i>
<i>[17:25-17:30]</i>	<i>Group Photo</i>