

## Conference Program IEEE ICET 2024

**Day 1: Tuesday Nov 19, 2024**

### Plenary Session / Opening Ceremony

Venue	Timings	Activity
<b>Auditorium Day-1 19/11/2024</b>	09:00 - 09:15	Guests to be seated
	09:20 - 09:25	Tilawat-e-Quran
	09:25 - 09:30	National Anthem
	09:30 - 09:40	Conference Introduction by Steering Chair, Prof. Dr. S. M. Hasan Zaidi, Pro-Rector (Academic), GIKI
	09:40 - 09:55	Welcome Address by Conference Patron, Prof. Dr. Fazal A. Khalid, SI, Rector GIKI
	<b>Keynote Talks</b>	
	10:00 - 10:30	Keynote Talk 1: Physical Layer Security: Latest Trends, Threats, and Countermeasures Prof. Dr. Huseyin Arslan, Istanbul Medipol University, Turkey
	10:30 - 11:00	Keynote Talk # 2: Explainable AI and Digital Twin Prof. Dr. Ashiq Anjum, University of Leicester, UK
	<b>Panel Discussion</b>	
	11:00 - 11:40	<b>Moderator:</b> Dr. Naveed Butt, GIKI <b>Panelists:</b> Dr. Nasir Elia (BIC, Islamabad) , Mrs. Mehreen Nazish (PTCL), Engr. Shafi Ullah Kamran (Zong), Dr. Sajid Shah (DoST), Dr. Akif Khan (KPITB), Dr. Fahad Umer (AKU), Dr. Tanveer Ahmad (UN), Dr. Sharifah Sakinah (Malaysia)
	11:40-11:55	Address by Chief Guest
11:55-12:00	Presentation of Sounviers	
<b>(12:00 - 12:20) Networking Hi-Tea (Outside Auditorium)</b>		
<b>New Academic Block</b>	<b>12:20 - 13:40</b>	<b>Parallel Sessions 1, 2, 3, 4 and 5</b>
<b>MLH1 - New Academic Block</b>	<b>Session 1</b>	
		Session Moderators: Dr. Javed Iqbal, MCS NUST and Dr. Ghulam Abbas, GIKI
	12:20 - 12:40	Invited Presentation, "AI and Data Analytics for Solving Industrial Problems", Dr. Tanvir Ahmad, Country Focal Person Climate Change, UN
	12:40 - 13:00	Invited Presentation, Dr. Akif, MD KPITBoard
	13:00 - 13:20	Invited Presentation, "Women in IEEE", by Komal Batool, IEEE Officer
	13:20 - 13:40	Invited Presentation, DreamBig Semi Conductors
<b>MLH2 - New Academic Block</b>	<b>Session 2</b>	
		Session Chair: Dr. Ihtesham Ul Islam, NUST
		Sesssion Co-Chair: Dr. Zain Siddiqi, GIKI
	12:20 - 12:35	52 - Specification of Virtual Reminder System using Z
	12:35 - 12:50	56 - Blockchain-Enabled Peer-to-Peer Energy Trading (BE-PET) with Distributed Authority
	12:50 -13:05	60 - Asymmetric Channel Reuse Model for Wi-Fi 6
	13:05 -13:30	Invited Presentation, "National Cybersecurity Policy Compliance: The Role of Academia", Prof. Dr. Haider Abbas, DG CERT
	13:30 -13:40	Certificate Distribution
<b>MLH3 - New Academic Block</b>	<b>Session 3</b>	
		Session Chair: Dr. Fazli Subhan, NUML Islamabad
		Sesssion Co-Chair: Dr. Zaiwar Ali, GIKI
	12:20 - 12:35	21 - Extractive Summarization of Urdu Language using Deep Learning Techniques on a Custom Dataset
	12:35 - 12:50	120 - Corpus of Human-Labeled Indirect Harassment
	12:50 -13:05	130 - Optimizing Driver Identification Using Adaboost and Vehicular Telemetric Data Analysis
	13:05 -13:30	Invited Presentation, "Integrating Digital Twins with AI and IoT: Unlocking New Possibilities to Local Challenges of Pakistan", Prof. Dr. Tariq FAST
	13:30 -13:40	Certificate Distribution
<b>LH4 - New Academic Block</b>	<b>Session 4</b>	
		Session Chair: Dr. Asfandyar, IBMS
		Sesssion Co-Chair: Dr. Sarah Iqbal, GIKI
	12:20 - 12:35	124 - Robust Exercise-based Telerehabilitation for Elderly Healthcare Survives
	12:35 - 12:50	141-Unveiling Hidden Threats in Word Documents: A Hybrid Approach to Malware Classification
	12:50 -13:05	103 - Analogue and Digital Modulation Classification Using Deep Neural Networks
	13:05 -13:30	Invited Presentation, "AI Unleashed" Dr. Maryam Mahsal Khan, Cecos University
	13:30 -13:40	Certificate Distribution
<b>LH5 - New Academic Block</b>	<b>Session 5</b>	
		Session Chair: Dr. Javed Iqbal, IBMS
		Sesssion Co-Chair: Dr. Fahad Bin Mustim, GIKI
	12:20 - 12:35	183 - Hate Speech Detection of Roman Urdu Using Transformer Model
	12:35 - 12:50	202 - Comparative Analysis of Machine Learning Techniques on EuroSAT RGB for Land Use Land Cover Classification
	12:50 -13:05	239 - Localized Mobile Health application: Fully Automated AI diagnostic system – bilingual support for sustainable Pakistan
	13:05-13:30	Invited Presentation, "The IoT and Digital Twin" by Prof. Dr. Pardeep Kumar, QUEST, Nawabshah
	13:30 -13:40	Certificate Distribution
<b>Lunch and Prayers Break (13:40-14:30 Café/Main Lobby)</b>		
<b>New Academic Block</b>	<b>14:30 - 16:00</b>	<b>Parallel Sessions 6, 7, 8, 9</b>

Session 6	
<b>MLH1 - New Academic Block</b>	Session Chair: Dr. Ghulam Mustafa, PIEAS
	Session Co-Chair: Dr. Durre Zehra, GIKI
	14:30 - 14:50 Invited Presentation, "The Role of Data Science and AI in the Energy Industry", Dr. Sharifah Sakinah, UTEM Malaysia
	14:50 - 15:05 134 - Segmentation of Agricultural Fields in Aerial Imagery Using Enhanced Deep Learning Models
	15:05 - 15:20 142 - Analyzing Phenological Progression in Wheat Genotypes Through UAV Multispectral Imagery
	15:20 - 15:35 135 - Wearable Sensors-based Human Locomotion And Indoor Localization with Smartphone
	15:35 - 15:50 148 - ClapMetrics: Decoding Users' Gender and Age Through Smartwatch Gesture Dynamics
	15:50-16:00 Certificate Distribution

Session 7	
<b>MLH2 - New Academic Block</b>	Session Chair: Dr. Safdar Nawaz Marwat, UET Peshawar
	Session Co-Chair: Dr. Waleed Tariq Sethi, GIKI
	14:30 - 14:50 Invited Presentation, "6G Overview and Research Challenges", Dr. Hesham Syed Kamal Ali, Managing Director ALTER Technology Solutions, UAE
	14:50 - 15:05 48 - Ultra Miniaturized Novel Antenna for Wireless Capsule Endoscopy System
	15:05 - 15:20 101 - Energy-Efficient 6G Networks: A Cognitive Radio Assisted Cluster-Based Downlink Hybrid Multiple Access Approach
	15:20 - 15:35 171 - Transforming Legal Workflows: A Deep Dive into NLP Solutions for Legal Challenges
	15:35 - 15:50 258 - Exploring the Diagnostic Potential of Heart Sound Spectrograms in Depression Identification
	15:50-16:00 Certificate Distribution

Session 8	
<b>LH4 - New Academic Block</b>	Session Chair: Dr. Waseem Abbas, IBMS
	Session Co-Chair: Dr. Arbab Abdur Rahim, GIKI
	14:30 - 14:50 Invited Presentation, "Augmented Intelligence for Advancing Healthcare" Dr. Muhammad Ilyas, Florida Atlantic University, USA
	14:50 - 15:05 248 - Vegetation Detection Using UAV Imagery with Deep Learning Segmentation Models
	15:05 - 15:20 219 - Next-Gen Cloud-Based Video Processing and Content Management Platform: Leveraging Serverless Architecture, Cloud Storage, and CloudFront CDN for Optimized Distribution
	15:20 - 15:35 218 - Leveraging Deep Learning for Accurate Fracture Detection and Classification Using X-ray Images
	15:35 - 15:50 182 - Design and Manufacturing of a Walk Assist Device
	15:50 - 16:00 Certificate Distribution

Session 9	
<b>LH5 - New Academic Block</b>	Session Chair: Prof. Dr. Ejaz Khan HSA, Islamabad
	Session Co-Chair: Dr. Muhammad Hanif, GIKI
	14:30 - 14:50 Invited Presentation: Dr. Usama Khalid Bukhari, UK
	14:50 - 15:05 203 - Fault Diagnosis in Rotating Machines using Vibration Signal Analysis and Machine Learning
	15:05 - 15:20 198 - Identification of Bearing Faults through Vibrational Signal Analysis using Automated Relative Energy based Empirical Mode Decomposition
	15:20 - 15:35 197 - Deep Learning-Based MRI Image Classification for Early-Stage Alzheimer's Disease Diagnosis
	15:35 - 15:50 196 - A Machine Learning Approach for Diagnosis of Diabetes through Fusion of PPG and ECG Signals
	15:50 - 16:00 Certificate Distribution

**Refreshments and Poster Papers Exhibition (16:00-16:40 New Academic Block)**

**Conference Banquet/Dinner - 19:00 - 20:00 - Faculty Club GIKI**

**Day 2: Wednesday, November 20, 2024**

New Academic Block	9:30 - 11:40	Session 10, 11, 12, 13
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Session 10	
<b>MLH1 - New Academic Block</b>	Session Chair: Dr. Bilal Astam, UET Taxila
	Session Co-Chair: Dr. Qamar Abbas, GIKI
	9:30 - 10:15 Invited Talk, Quantum Computing Challenges and Opportunities: A Systems Perspective, Prof. Dr. Ashfaq Khokar, Iowa State University USA
	10:15 - 10:30 83-Crowd Anomaly Detection via Multiscale Features and Zero-shot Learning in Public Surveillance
	10:30 - 10:45 240-GAMS-based Efficient Approach for Coordination of Directional Overcurrent Relays in Distribution System
	10:45 - 11:00 252-Design and Analysis of SIW Iris Bandpass Filters for Ku-Band Applications
	11:00-11:15 127-FOSSSC: A Free, Open-Source Software Stack Cluster for Digital System Design
	11:15-11:30 74 - Quantum-inspired Multi-Agent Computation Offloading in Edge Intelligence-aided IoT Networks
11:30 - 11:40 Certificate Distribution	

Session 11	
<b>MLH2 - New Academic Block</b>	Session Chair: Dr. Musadaq Mansoor, PAF-IAST
	Session Co-Chair: Dr. Faisal Javed, GIKI
	9:30 - 9:45 45 - Holistic Scene Recognition through U-Net Semantic Segmentation and CNN
	9:45 - 10:00 116-Enhancing Micro/Nanorobot Navigation for Medical Applications Using Reinforcement Learning
	10:00 - 10:15 43-Towards a Greener Future: Leveraging Blockchain for Sustainable Demand Response and Supplier Baseline Assessment
	10:15 - 10:30 97-Unmanned Aerial Vehicle Classification via YOLOv9 and Recurrent Neural Network
	10:30 - 10:45 179-Exploring the Cognitive Impact of Optical Illusions on EEG Signals

	10:45 - 11:15	Invited Talk, "DER and Hybrid Energy System for Net Zero: Challenges and Opportunities", Dr. Asma Aziz, Edith Cowan University, Australia
	11:20 - 11:30	Certificate Distribution
<b>mLH3 - New Academic Block</b>	<b>Session 12</b>	
		Session Chair: Dr. Ali Mustafa, COMSATS Islamabad
		Session Co-Chair: Dr. Ateeq Rehman, GIKI
	9:30 - 9:45	242- Fast Frequency Response Provision from Inverter-enabled Hybrid Power Plants
	9:45 - 10:00	237-Enhancing Machine Learning Security - Mitigating Adversarial and Data Poisoning Attacks in Cybersecurity Applications
	10:00 - 10:15	208-Towards Electronic Voting Using Face Verification Technology
	10:15 - 10:30	207-Revolutionizing Sales: A Comprehensive Approach to AI-Powered Sales Call Assistance
	10:30 - 10:45	195-Gastrointestinal Disease Diagnosis through Deep Features Extracted from Endoscopic Imaging
	10:45 - 11:00	180-Wound Detection and Size Estimation From DFU Images
	11:00-11:30	Invited Talk, "Mathematics for Digital Twins" by Prof. Dr. Mian Ilyas Ahmad NUST Islamabad
11:30-11:40	Certificate Distribution	
<b>LH4 - New Academic Block</b>	<b>Session 13</b>	
		Session Chair: Dr. Waheed, PAF-IAST
		Session Co-Chair: Dr. Ahmad Kamal, GIKI
	9:30 - 9:45	174-Recognition of Leukocytes using a Combination of Deep Features and Ensemble Classifier
	9:45 - 10:00	172-Comparative analysis of CT Image reconstruction using Deep Learning Layer structures
	10:00 - 10:15	170-Integrating UAV Multispectral Imagery and IoT Data to Diagnose Water Stress in Rainfed Wheat
	10:15 - 10:30	167-Enhancing Amazon Product Review Analysis by Using Bidirectional LSTM Neural Networks for Deep Multi-Domain Sentiment
	10:30 - 10:45	160-A Novel Human Interaction Recognition via Composite Features and Max Entropy Classifier
	10:45 - 11:00	159-Overcoming Linguistic Barriers Developing Advanced Urdu Text-to-Speech Systems
	11:00 - 11:30	Invited Talk, "Emerging Topics in Quantum Computing and Quantum Communication", by Prof. Dr. Umar Usman FAST Peshawar
11:30-11:40	Certificate Distribution	
<b>LH5 - New Academic Block</b>	<b>Session 14</b>	
		Session Chair: Dr. Waheed, PAF-IAST
		Session Co-Chair: Dr. Ahmad Kamal, GIKI
	9:30 - 9:45	104-Drone-Based Video Surveillance using Yolov6 and Neuro Fuzzy Classifier
	9:45 - 10:00	250-Impact of Load Variations on the Stability of GA-Optimized PID Controllers in Isolated Power Systems
	10:00 - 10:15	59 - Assessing Respiratory Changes Induced by STN-DBS in Rat Models
11:30-11:40	Certificate Distribution	
<b>Networking Hi-Tea (11:15 - 11:30 New Academic Block)</b>		
<b>New Academic Block</b>	<b>10:00 - 13:30</b>	<b>Workshops &amp; 3MT Session</b>
<b>Workshop 1: State of the Art IC Design Verification Trends</b>		
<b>DA Lab NAB Day-2 20/11/2024</b>	10:00 - 12:00	Dr. Haroon Waris (NECOP)
<b>Workshop 2: Monitoring Kubernetes with eBPF: Enhancing Observability and Performance</b>		
<b>SE Lab NAB Day-2 20/11/2024</b>	11:30 - 13:00	Prof. Dr. Muhammad Arshad Islam, (FAST Islamabad) and Mr. Yousuf Jawwad (Founder-Software Architect, Breu)
<b>Three Minute Thesis (3MT)</b>		
<b>mLH2 - New Academic Block</b>	12:00 - 13:30	Moderator: Mrs. Sana & Ms. Fatima Khalid (PhD Students)
<b>Conference Lunch and Prayer Break (13:00 - 14:00 Guest House)</b>		
<b>MLH2 - New Academic Block</b>	<b>Session 15</b>	
		Session Chair: Dr. Maqsood, FAST Peshawar
		Session Co-Chair: Dr. Ali Imran, GIKI
	14:00-14:15	157-Dermoscopic Image Analysis for Skin Cancer Detection Using Deep Features and Support Vector Machines
	14:15-14:30	117-Real-time Gas and Air Quality Monitoring and Controlling by IoT Solution
	14:30-14:45	176-Forecasting Building Energy Consumption using Statistical Models Incorporating Operational and Environmental Factors
	14:45-15:15	Invited Talk, Prof. Dr. Haseeb Zafar, UK
15:15-15:20	Certificate Distribution	
<b>Conference Closing Ceremony</b>		
<b>Auditorium Day-2 20/11/2024</b>	15:30 - 15:40	Guests to be seated
	15:40 - 15:45	Tilawat-e-Quran
	15:45 - 16:10	Keynote Talk: Prof. Dr. Yasar Ayaz, NUST
	16:15 - 16:25	Conference Summary by Prof. Dr. Qadeer ul Hasan, Dean FCSE
	16:25-16:35	Closing Remarks by Conference Patron, Prof. Dr. Fazal Ahmad Khalid, Rector GIKI
	16:35-16:50	Closing Remarks by Chief Guest

16:50-17:00

Presentation of Shields

**Hi-Tea ( Café Lawn or Outside Auditorium)**

**Departure of Buses**