RIPHAH INTERNATIONAL UNIVERSITY

IEEE Islamabad Section

IEEE

Organized By

Faculty of Computing
Riphah International University
I-14 Campus, Islamabad

INMIC 2025 Conference Schedule

Riphah International University, Islamabad

23–24 December 2025 | 8:45 AM – 5:00 PM

Session 1: Opening Session

(December 23, 2025 – 8:45 am – 11:20 am)

Time	Paper Details	Resource Person
8:45 – 9:00	Guests to be seated	
9:00 – 9:05	Recitation from the Holy Quran	Abdul Rahman Al-Ashy, Hamed Kuheil (Translation in English)
9:05 – 9:10	Welcome Note by Conference Chair	Prof. Dr. Muhammad Zubair
9:10 – 9:20	Speech by the Chief Guest Chancellor RIU	Mr. Hassan Muhammad Khan
9:20 – 9:45	Invited Talk (Title: AI and Software Engineering)	Dr. Mohamed Wiem Mkaouer
09:45 – 10:10	Keynote Speech (Title: Building Smart Educational Organizations: The Potential of Generative AI)	Prof. Dr. Bernard J. Jansen
10:10 - 10:35	Keynote Speech (Title: Seeing Is No Longer Believing: Human-Centered Neuro-Symbolic AI to Rebuild Trust in the Age of Generative AI)	Prof. Dr. Khalid Malik
10:35 – 10:40	Speech by Deputy Vice Chancellor RIU	Prof. Dr. Yawar Hayat
10:40 – 10:45	Speech by the Vice Chancellor RIU	Prof. Dr. Anis Ahmed
10:45 – 10:50	Speech by Chair IEEE Islamabad Section	Prof. Dr. Nosherwan Shoaib
10:50 – 10:55	Vote of Thanks	Prof. Dr. Sheheryar Malik
10:55 - 11:10	Souvenirs / Shields Distribution	
11:10 – 11:40 Tea Break		

Session 2: Keynote Speech

(December 23, 2025 – 11:40 am – 12:05 pm)

	Keynote Speech by Prof. Dr. Syed Irfan Hyder
Title	AI and Exploitation of Web Services
Location	Jinnah Hall

Session 3: Panel Discussion

(December 23, 2025 – 12:05 pm – 01:00 pm)

Location	Jinnah Hall
Title	Future of AI: Opportunities and Challenges
Panelists:	Mr. Asadullah Khan, Prof. Dr. Syed Irfan Hyder, Prof. Dr. Khalid Malik, Prof. Dr. Saad Naeem Zafar and Prof. Dr. Yasir Ayaz, Prof. Dr. Naveed Ikram
Moderator:	Prof. Dr. Muhammad Mansoor Alam

Lunch and Prayer Break: 01:00-02:00 PM

Session 4: Parallel Conference Tracks

(December 23, 2025 – 2:00 pm – 3:30 pm)

Each paper presentation is 15 minutes (6 papers per track).

Track #	Track 1	
Track Theme	Artificial Intelligence, Data Science, and Applications	
Location	C105, Block-C	
Session Chair & Members	Prof. Dr. Arshad Islam, Prof. Dr. Muhammad Zubair, Prof. Dr. Saad Naeem Zafar	
Paper ID	**Paper Details**	**Presenter**
302	Traditional vs. Self-Supervised Audio Features for Speaker Verification in Urdu: A Comparative Study.	Junaid Mir
12	Robust Group Activity Recognition with Graph Attention Networks and Bi-LSTM Modelling	Ishrat Zahra
33	fMRI-Based Brain Tumor Classification Using Deep Learning	Osama Zulfiqar
38	DeepDiab: A Robust Deep Learning Model for Early Identification of Diabetes	Muhammad Majid
48	Indoor-Outdoor Scene Classification: A Novel Depth Framework using Markov Segmentation and ResNet	Muhammad Waqas Ahmed
165	Quantum Infused Multi-Modal Sentiment Analysis of Low Resourced Language	Muzammal Hussain
Certificate Distribution		

Track #	Track 2	
Track Theme	Software & Systems Engineering	
Location	Conference Room: A111, Block-A	
Session Chair & Members	Prof. Dr. Saif Ur Rehman, Prof. Dr. Naveed Ikram, Dr. Muhammad Jasim Saeed	
Paper ID	**Paper Details**	**Presenter**
44	Gender Disparities and Work Stress: A Case Study of Women of Pakistan's Software Industry	Uzair Rasheed
11	Sustainable EV Charging Infrastructure Planning in Distribution Networks using Multi-Objective Ant Lion Optimizer	Maaz Ahmad
21	Performing SQA Activities during Requirements Engineering to Achieve Software Project Success	Shumaila Arshad
259	Improving the Quality of OCL Specifications: The Impact of Teaching OCL Bad Smells and Refactoring to Undergraduate Students	Wafa Basit
307	Verified Validator, Delegation, and Reward Processes in PoS System	Raeesa Mukhtar
309	Formal Verification of the Health Code System for Quarantine Management	Iram Tariq Bhatti
Certificate Distribution		

Track #	Mix Track	
Track Theme	Artificial Intelligence, Data Science and Applications Biomedical, Electrical, and Electronics Engineering	
Location	Jinnah Hall	
Session Chair & Members	Prof. Dr. Yasir Hafeez, Prof. Dr. Aamir Nadeem, Dr. Musharaf Ahmed	
Paper ID	**Paper Details**	**Presenter**
55	Lightweight Secure Communication Protocol for IoT Devices Using ECDH and Spritz	Sarah Alkadi
56	Lightweight Secure Protocols for Low-Power IoT Devices: Modern Ciphers, Authentication, and Key Exchange	Dimah Alsobaie
180	Deep Learning for Crop Health: Lightweight Modified DenseNet for Cotton and Corn Leaf Disease Detection.	Bushra Tayyaba
218	Cracking the Circuits: Mechanistic Interpretability in Large Language Models.	Dost Muhammad
24	Reinforcement Learning-Based Vehicular Big Data Offloading Across Edge, Regional, and Cloud Computing.	Dr. Afzal Badshah
294	Particle Swarm Optimization of a Cascaded Dual-Loop Control Scheme for a High-Gain Boost Converter.	Yasir Javeed
206	Assessing and Mitigating Multi-Turn Jailbreak Vulnerabilities in Large Language Models: A Crescendo Attack Study.	Muhammad Saad

Certificate Distribution

Track #	Track 5-A	
Track Theme	Biomedical, Electrical, and Electronics Engineering	
Location	Programming Lab 1: Block A	
Session Chair & Members	Prof. Dr. Tariq, Prof. Dr. Faraz Akram, Dr. Muhammad Faisal	
Paper ID	**Paper Details**	**Presenter**
136	A Hybrid EEG Based Emotion Recognition with Dimensionality Reduction and Ensemble Learning	Menahil Khawar
179	Compact Size Higher Order Wideband Low Pass Filter Based on a Suspended Substrate Stripline	Ghiayas Tahir
181	Biomechanics Of Knee Kinematics During Sit-Ups Using Mocap Technology	Eema-E-Zahra Shah
263	High-Sensitivity TMR Sensor System for Magnetic Field Detection for Biomedical Applications	Saad Abdullah
264	Classification of Lower-Limb Motor Imagery Task Using fNIRS-based BCI for Rehabilitation	Muhammad Umar Anwar
283	Human Awareness for Mobile Robot Navigation on a Resource-Constrained Jetson Nano	Muhammad Saad
Certificate Distribution		

Track #	Track 5-B	
Track Theme	Biomedical, Electrical, and Electronics Engineering	
Location	Programming Lab 4: Block D	
Session Chair & Members	Dr. Azhar Imran, Dr. Muhammad Yaseen, Dr. Muhammad Sadiq	
Paper ID	**Paper Details**	**Presenter**
3	MS-STO-Net: A Multi-Scale State Transition Optimization-based Ensemble Network for Accurate White Blood Cell Classification.	Omair Bilal
50	Development and Field Deployment of a Low-Cost IoT-Based Sap Flow Sensor for Conventional and Sustainable Wheat Farming.	Sufyan Ghani / Shahzab Anwar
51	Development of an Indigenous Fluxgate Magnetometer System with Machine Learning-Based Geomagnetic Anomaly Detection.	Taha Amjad
62	Biotelemetry Centric Pulse Oximeter Specifically for Far-flung Areas.	Zuhaa Ejaz Kazmi
63	Design and Implementation of a Virtual Instrument for Dream Onset Detection Using Physiological Signals in LabVIEW.	Sarmad Saeed
66	Harvesting Human Kinetic Energy: Design and Implementation of a Piezoelectric-Based System for Powering Biopotential Acquisition Circuit.	Syeda Iqra Naveen
Certificate Distribution		

Prayer Break: 03:30-04:00 PM

Session 5: Parallel Conference Tracks

(December 23, 2025 – 4:00 pm – 5:00 pm)

Each paper presentation is 15 minutes (4 papers per track).

Track #	Track 1-A	
Track Theme	Artificial Intelligence, Data Science, and Applications	
Location	A111, Block-A	
Session Chair & Members	Prof. Dr. Yasir Ayaz, Dr. Naurin Farooq Khan, Dr. Shumaila Qayum	
Paper ID	**Paper Details**	**Presenter**

100	Unveiling the Potential of Machine Learning Models for Improved Non-Intrusive Load Monitoring.	Yasir Ali
121	Deep Learning Approach for Automated Fact-Checking in Key Climate Change Topics.	Bushraa Yousuf
126	Quantification of Major Depressive Disorder Via Spectrogram-Based Analysis of Electroencephalography Signals.	Maryam Khan Afridi
135	Deep Recognition of Group Behavior in Crowded Scenes Using ResNet-STAN Fusion.	Saleha Kamal
Certificate Distribution		

Track #	**Track 1-B**	
Track Theme	Artificial Intelligence, Data Science, and Applications	
Location	Programming Lab 1: Block A	
Session Chair & Members	Prof. Dr. Muhammad Mansoor Alam, Dr. Jamal Ud Din, Dr. Farrukh Arsalan	
149	Drone Surveillance for Action Recognition via Mask R-CNN and Transformer learning.	Harris Shahid
151	MSHFF-Net: A Multi-Scale Hierarchical Feature Fusion CNN for Breast Cancer Diagnosis.	Muhammad Hassaan Ashraf
158	U2Sign: Urdu-Driven Pakistani Sign Language Sequence Production.	Neelma Naz
163	Hybrid Feature Learning with QDA and CNN for Wearable Activity Recognition.	Iqra Abro
Certificate Distribution		

Track #	**Track 3**	
Track Theme	Cyber Security and Network Security	
Location	Jinnah Hall	
Session Chair & Members	Prof. Dr. Zunaira Jalil, Dr. Tahira Nazir, Dr. Sumera Saleem	
Paper ID	**Paper Details**	**Presenter**
156	Exploiting CRUSAP: An Adversarial Security Evaluation of a Lightweight RFID Protocol.	Aiman Malik
262	Secure and Decentralized Management of Electronic Health Records Using Ethereum and Proxy Re-Encryption.	Qaisar Manzoor
300	Cyber-Security in Critical Infrastructure Anomaly Detection & Mitigation Using Machine Learning.	Hafsa Haqqani
337	Transformer-based Transfer Learning for Cyber-Physical Attack Detection in Electric Vehicle Charging Stations.	Fida Khan
Certificate Distribution		

Track #	**Track 5**	
Track Theme	Biomedical, Electrical, and Electronics Engineering	
Location	Programming Lab 4: Block D	
Session Chair & Members	Prof. Dr. Khalid Latif, Prof. Dr. Sheheryar Malik	
Paper ID	**Paper Details**	**Presenter**
69	Physiological Stress Response Assessment During Immersive Virtual Reality Using ECG and PPG Signals.	Tooba Naeem
85	Classification of Stress States Using Cardiac Impedance and Ground Reaction Force in Virtual Reality.	Muhammad Shoaib
90	Wearable Smart Insole for Early Diabetic Foot Ulcer Prediction Using Multi-Modal Sensing.	Abdul Rahman

91	Biomechanical Modeling and Optimal Control of a Multi-Joint Human Hand for Precision Motion.	Zeeshan Saeed
Certificate Distribution		

Workshops by the Industry Experts

(December 23, 2025 – 10:00 am – 4:00 pm)

Day1: Workshops Schedule

Workshop Title	Venue
Workshop 1: Prompt. Build. Automate: The Agentic AI Way *by Mr. Faisal Saleem*	Programming Lab 3 E-Block
Workshop 2: From Experiment Design to Data Analysis *by Prof. Dr. Noman Naseer*	Programming Lab 6 F-Block
Workshop 3: Securing the Future: AI-Powered Cyber Defense Architectures *by Dr. Yasir Malik Associate Professor & Director, System Security Lab, Bishop's University, Canada*	Project Lab A- Block

Day 2 – Wednesday, 24 December 2025

Session 1: Conference Tracks – Parallel Sessions (11:00 AM – 12:45 PM)

Each paper presentation is **15 minutes** (7 papers per track).

Track #	Track 1-A	
Track Theme	Artificial Intelligence, Data Science, and Applications	
Location	C105, Block-C	
Session Chair & Members	Prof. Dr. Ayaz Hussain, Dr. Muhammad Hanif, Dr. Jawaid Iqbal	
Paper ID	**Paper Details**	**Presenter**
176	Hybrid Deep Learning-Assisted Framework for Efficient Power Demand Forecasting Across Multiple Zones.	Abid Ali
45	Power Analysis Attacks on Cryptographic Devices: Insights, Solutions, and Emerging Challenges	Muhammad Younas
187	A Human-in-the-Loop Class-Incremental Framework for Lifelong Human Activity Recognition.	Amir Khan
199	Lightweight Wildlife Image Classification Using EfficientNetV2-S with Confidence-Aware Prediction	Ravikanth Manchana
214	Context-Aware Threat Detection for Malicious URLs: An AI-Driven Approach Integrating Traditional and Transformer-Based Models.	Muhammad Gulzaib
141	A Novel Approach to Enhancing BER Metrics in PHOTON-Beetle Through Alternate Mix Column Serial Values	Maria Imad
Certificate Distribution		

Track #	Track 1-B	
Track Theme	Artificial Intelligence, Data Science, and Applications	
Location	Conference Room A-111: Block-A	
Session Chair & Members	Dr. Mushtaq Ali, Dr. Usman Habib, Dr. Muhammad Sajid Qureshi,	
Paper ID	**Paper Details**	**Presenter**
216	3D Body Posture with Unique GMM Segmentation and Transformer Networks for Activity Monitoring	Izda Bashir

142	Analyzing the Operational Gaps in SAFUA: Simulation-Based Evaluation of Secure Automotive Firmware Update Protocols	Hudaila Menal
223	EfficientNetB0-Based Lightweight Model for Accurate and Real-Time American Sign Language Recognition.	Charan Kumar Manjunatha
226	A Comparative Evaluation of Search and Metaheuristic Algorithms for the N-Queens Problem: Scalability, Efficiency, and Success Rates.	Eslam Aly
229	Toward Personalized Nutrition: Deep Learning for Food Recognition and Calorie Prediction	Dennis Alejandro Guerra Calix
232	A Comparative Study of CRNN Architectures for CAPTCHA Recognition Using EfficientNet and CNN-LSTM Models.	Zain Javed
319	Surveillance Video-Based Face Recognition Pipeline and Comparative Performance Evaluation of SOTA Deep Learning Models.	Nadim Zia
Certificate Distribution		

Track #	**Track 1-C**	
Track Theme	Artificial Intelligence, Data Science, and Applications	
Location	Project Lab (A-115): Block-A	
Session Chair & Members	Mr. Abdul Mateen, Dr. Hajra Murtaza	
Paper ID	**Paper Details**	**Presenter**
236	Multi-Agent Systems in Software Testing: From Planning to Reporting.	Muhammad Usman
253	High-Accuracy Plant Disease Detection: A ResNet18 Transfer Learning Approach for Multi-Class Classification.	Serik Sailau
269	A Comparative Analysis of the Algorithms DFS, Hill Climbing, Simulated Annealing, and Genetic Algorithm for Solving the N-queens Problem.	Daria Carlberg
272	Deep Learning-Based Tomato Detection from Images for Automated Farming.	Fanglei Zhou
282	Explainable Emotion Recognition from Heart Rate Data Using Deep Learning and XGBoost.	Ibad ullah
289	Comparative Study between CNN, VGG16 and DenseNet121 on classifying COVID, Pneumonia and healthy X-Ray images.	Syed Abbas
292	Towards Smart Agriculture: Efficient Plant Disease Diagnosis with InceptionV3 and Grad-CAM.	Syed Ghazi Abbas
Certificate Distribution		

Track #	**Mix Track**	
Track Theme	Artificial Intelligence, Data Science and Applications Biomedical, Electrical, and Electronics Engineering	
Location	Programming Lab 1: Block A	
Session Chair & Members	Dr. Abdul Jabbar, Dr. Rana M Abdul Haseeb Ur Rehman	
Paper ID	**Paper Details**	**Presenter**
57	Adaptive multimodal AI with low resource and fair evaluation.	Sabeen Masood
152	Exponential Weighting based Network Ranking for Heterogeneous Wireless Networks	Faizan Bashir
321	Decentralized Swarm Formation of Miniature Robots using the SCOPE Strategy.	Muhammad Adnan
155	Hybrid Deep Learning Architecture for SIEM Enhancement Using Novel Threat Intelligence Data	Muhammad Hamza
80	Enhancing Speech Emotion Recognition Through Multimodal Fusion of Acoustic and Textual Features.	Mishal Saeed
338	Automatic Bike Stand for Two Wheelers	Khan Muhammad Abdullah
98	Enhanced Forecasting of Flexible Load For Residential Customers Using LSTM.	Muhammad Athar Shah

Certificate Distribution
Lunch and Prayer Break (12:45 – 02:00 PM)

Workshops by the Industry Experts

(December 24, 2025 – 10:00 am – 4:00 pm)

Day2: Workshops Schedule

Workshop Title	Venue
Workshop 4: DevOps by Mr. Babar Zahoor	Programming Lab 3 E-Block
Workshop 5: Mastering Data Cleaning and EDA by Prof. Dr. Muhammad Aslam Asadi	Programming Lab 6 F-Block