

IEEE-ICCA 2025

[Conference](#) » Program

2025 International Conference on Computer and Applications (ICCA) Program

Critical milestones are due

Due (edit)	Conference	Task	Responsible	Explanation	Notes	Reminded	Completed (mark complete)	Completed by
November 2025								
!								
	Nov 19, 2025	IEEE-ICCA 2025	Proceeding services set up	chair, publication	Chairs determine what kind of EDAS services they need: no attendee proceedings	Dec 19	late	

! Papers [1571227673](#) [1571233070](#) have not been assigned to sessions.

! [Day-2:Research Session 27:AI for Secure, Intelligent, and Human-Centric Systems](#): The last paper presentation ends before (18:00) the session end time of 18:15.

! [Day-2:Research Session 28:AI and Intelligent Systems for Smart Environments, Energy, and Agriculture](#): The last paper presentation ends before (18:00) the session end time of 18:15.

Time (Bahrain)	Main Conference (Amphitheater)	A-Lecture Hall - SF001 (HYBRID)	B-Lecture Hall - SF04 (HYBRID)	C-Lecture Hall - SF010 (HYBRID)	D-Lecture Hall - SF015 (HYBRID)	E-Lecture Hall - FF002 (HYBRID)	F-Lecture Hall - FF012 (HYBRID)	G-Lecture Hall - FF028 (HYBRID)
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Monday, December 22

08:00- 09:00	IEEE/ICCA 2025 ARAB OPEN UNIVERSITY - KINGDOM OF BAHRAIN - REGISTRATION - 2025: INTERNATIONAL CONFERENCE ON COMPUTER & APPLICATIONS: <u>IEEE-ICCA 2025 - REGISTRATION - DAY 1 - MONDAY, 22 DECEMBER 2025 - KINGDOM OF BAHRAIN</u> Theme: Opening, Keynote Presentation & Panel Discussion - Main Conference (Amphitheater)							
09:00- 09:45	IEEE-ICCA 2025 - AOU - OPENING CEREMONY: <u>AOU: OPENING CEREMONY</u>							

Time (Bahrain)	Main Conference (Amphitheater)	A-Lecture Hall - SF001 (HYBRID)	B-Lecture Hall - SF04 (HYBRID)	C-Lecture Hall - SF010 (HYBRID)	D-Lecture Hall - SF015 (HYBRID)	E-Lecture Hall - FF002 (HYBRID)	F-Lecture Hall - FF012 (HYBRID)	G-Lecture Hall - FF028 (HYBRID)
	<u>- Main Conference</u> <u>(Amphitheater)</u> AOU: OPENING CEREMONY							
09:45- 10:00								
10:00- 10:25	Keynote Speaker - Day 1 PROF. OMAR - KUWAIT: <u>Keynote</u> <u>Speaker - Day 1</u> <u>PROF. OMAR -</u> <u>KUWAIT</u> Keynote Speaker - Day 1 PROF. OMAR - KUWAIT							
10:25- 10:50	Keynote Speaker - Day 1 - PROF. HELEN - GREECE: <u>Keynote Speaker -</u> <u>Day 1 - PROF. HELEN</u> <u>- GREECE</u> Keynote Speaker - Day 1 - PROF. HELEN - GREECE							

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10:50- 11:15	Keynote Speaker - Day-1 - PROF. HORONORI: <i>Keynote Speaker - Day-1 - PROF. HORONORI Keynote Speaker - Day-1 - PROF. HORONORI</i>							
11:15- 12:00	Panel Discussion 1: <i>Panel Discussion 1:</i>							
12:00- 14:00	Workshop 1: 12:00 - 14:00 Monday, 22 December 2025: <i>Workshop 1: 12:00 - 14:00 Monday, 22 December 2025</i>	Day-1: Research Session 1: (Track 1: Artificial Intelligence and Machine Learning): <i>Day-1: Research Session 1: (Track 1: Artificial Intelligence and Machine Learning) Day-1: Research Session 1: (Track 1: Artificial Intelligence and</i>	Day-1:Research Session 2:Track 2: Data Science and Big Data Analytics: <i>Day- 1:Research Session 2:Track 2: Data Science and Big Data Analytics</i> <i>Day-1:Research Session 2:Track 2: Data Science and Big Data Analytics</i>	Day- 1:Research Session 3:Track 3: Computer Vision and Image Processing: <i>Day-1:Research Session 3:Track 3: Computer Vision and Image Processing Day-1:Research Session 3:Track 3: Computer Vision and Image Processing</i>	Day- 1:Research Session 4:Track 4: Natural Language Processing and Speech Technologies: <i>Day-1:Research Session 4:Track 4: Natural Language Processing and Speech Technologies Day-1:Research Session 4:Track 4: Natural Language Processing and</i>	Day- 1:Research Session 5:Track 5: Cybersecurity and Privacy: <i>Day-1:Research Session 5:Track 5: Cybersecurity and Privacy Day-1:Research Session 5:Track 5: Cybersecurity and Privacy</i>	Day- 1:Research Session 6:Track 6: Internet of Things (IoT) and Smart Systems: <i>Day- 1:Research Session 6:Track 6: Internet of Things (IoT) and Smart Systems Day-1:Research Session 6:Track 6: Internet of Things (IoT) and Smart Systems</i>	Day-1:Research Session 7:Track 14: E-Health, Bioinformatics, and Computational Biology: <i>Day- 1:Research Session 7:Track 14: E- Health, Bioinformatics, and Computational Biology Day-1:Research Session 7:Track 14: E- Health, Bioinformatics, and Computational Biology</i>

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		Machine Learning)			Speech Technologies			
14:00- 15:00								
15:00- 16:00		Day-1: Research Session 8: Track 1: Artificial Intelligence and Machine Learning: <u>Day-1: Research Session 8: Track 1: Artificial Intelligence and Machine Learning</u> Day-1: Research Session 8: Track 1: Artificial Intelligence and Machine Learning	Day-1:Research Session 9:Track 2: Data Science and Big Data Analytics: <u>Day- 1:Research Session 9:Track 2: Data Science and Big Data Analytics</u> Day-1:Research Session 9:Track 2: Data Science and Big Data Analytics	Day-1: Research Session 10:Track 3: Computer Vision and Image Processing: <u>Day-1:Research Session 10:Track 3: Computer Vision and Image Processing</u> Day-1:Research Session 10:Track 3: Computer Vision and Image Processing	Day-1:Research Session 11:Track 4: Natural Language Processing and Speech Technologies: <u>Day-1:Research Session 11:Track 4: Natural Language Processing and Speech Technologies</u> Day-1:Research Session 11:Track 4: Natural Language Processing and Speech Technologies	Day-1:Research Session 12:Track 5: Cybersecurity and Privacy: <u>Day-1:Research Session 12:Track 5: Cybersecurity and Privacy</u> Day-1:Research Session 12:Track 5: Cybersecurity and Privacy	Day-1:Research Session 13:Track 6: Internet of Things (IoT) and Smart Systems: <u>Day- 1:Research Session 13:Track 6: Internet of Things (IoT) and Smart Systems</u> Day-1:Research Session 13:Track 6: Internet of Things (IoT) and Smart Systems	Day-1:Research Session 14:Track 14: E- Health, Bioinformatics, and Computational Biology: <u>Day- 1:Research Session 14:Track 14: E- Health, Bioinformatics, and Computational Biology</u> Day-1:Research Session 14:Track 14: E-Health, Bioinformatics, and Computational Biology

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16:00- 17:30		Day-1:Research Session 15:Track 1: Artificial Intelligence and Machine Learning: <u>Day-1:Research Session 15:Track 1: Artificial Intelligence and Machine Learning</u> Day-1:Research Session 15:Track 1: Artificial Intelligence and Machine Learning	Day-1:Research Session 16: Advanced Machine Learning and Multimodal AI Applications: <u>Day-1:Research Session 16: Advanced Machine Learning and Multimodal AI Applications</u> Day-1:Research Session 16: Advanced Machine Learning and Multimodal AI Applications	Day-1:Research Session 17:Track 3: Computer Vision and Image Processing: <u>Day-1:Research Session 17:Track 3: Computer Vision and Image Processing</u> Day-1:Research Session 17:Track 3: Computer Vision and Image Processing	Day-1:Research Session 18:Track 4: Natural Language Processing and Speech Technologies: <u>Day-1:Research Session 18:Track 4: Natural Language Processing and Speech Technologies</u> Day-1:Research Session 18:Track 4: Natural Language Processing and Speech Technologies	Day-1:Research Session 19:Track 5: Cybersecurity and Privacy: <u>Day-1:Research Session 19:Track 5: Cybersecurity and Privacy</u> Day-1:Research Session 19:Track 5: Cybersecurity and Privacy	Day-1:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems: <u>Day-1:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems</u> Day-1:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems	Day-1:Research Session 21:Track 14: E-Health, Bioinformatics, and Computational Biology: <u>Day-1:Research Session 21:Track 14: E-Health, Bioinformatics, and Computational Biology</u> Day-1:Research Session 21:Track 14: E-Health, Bioinformatics, and Computational Biology

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Tuesday, December 23

08:30-
09:00

09:00-
09:30

**Keynote Speaker
(Online): PROF.
HAMID:** *Keynote
Speaker-1, Tuesday
23 December 2025*
Keynote Speaker-1,
Tuesday 23 December
2025

09:30-
10:00

**Keynote Speaker
(Online): ENG.
DEVEN:** *Keynote
Speaker (Online)*

10:00-
10:45

**Panel Discussion
2::** *Panel Discussion
2::*

Time (Bahrain)	Main Conference (Amphitheater)	A-Lecture Hall - SF001 (HYBRID)	B-Lecture Hall - SF04 (HYBRID)	C-Lecture Hall - SF010 (HYBRID)	D-Lecture Hall - SF015 (HYBRID)	E-Lecture Hall - FF002 (HYBRID)	F-Lecture Hall - FF012 (HYBRID)	G-Lecture Hall - FF028 (HYBRID)
10:45- 12:45	Workshop 2: Day 2 - Tuesday 23 December 2025: Workshop 2: Day 2 - Tuesday 23 December 2025	Day-2: Research Session 1:Track 1: Artificial Intelligence and Machine Learning: <u>Day-2: Research Session 1:Track 1: Artificial Intelligence and Machine Learning</u> Day-2: Research Session 1:Track 1: Artificial Intelligence and Machine Learning	Day-2:Research Session 2: <u>Day- 2:Research Session 2</u> Day-2:Research Session 2	Day- 2:Research Session 3:AI- Driven Enterprise Systems, Human- Centric Applications, and Cloud- Native Solutions: <u>Day- 2:Research Session 3:AI-Driven Enterprise Systems, Human- Centric Applications, and Cloud-Native Solutions</u> Day-2:Research Session 3:AI-Driven Enterprise Systems, Human-Centric Applications, and Cloud-Native Solutions	Day- 2:Research Session 4:AI, IoT, and Intelligent Systems for Smart Infrastructure and Automotive Applications: <u>Day-2:Research Session 4:AI, IoT, and Intelligent Systems for Smart Infrastructure and Automotive Applications</u> Day-2:Research Session 4:AI, IoT, and Intelligent Systems for Smart Infrastructure and Automotive Applications	Day- 2:Research Session 5:Cloud Computing, AI-Driven Analytics, and Intelligent Infrastructure: <u>Day-2:Research Session 5:Cloud Computing, AI- Driven Analytics, and Intelligent Infrastructure</u> Day-2:Research Session 5:Cloud Computing, AI- Driven Analytics, and Intelligent Infrastructure	Day- 2:Research Session 6:AI, Cloud Systems, and Intelligent Applications for Education, Finance, and Sustainable Technologies: <u>Day-2:Research Session 6:AI, Cloud Systems, and Intelligent Applications for Education, Finance, and Sustainable Technologies</u> Day-2:Research Session 6:AI, Cloud Systems, and Intelligent Applications for Education, Finance, and Sustainable Technologies	Day-2:Research Session 7:AI, Security, and Intelligent Systems for Societal and Real-Time Applications: <u>Day-2:Research Session 7:AI, Security, and Intelligent Systems for Societal and Real-Time Applications</u> Day-2:Research Session 7:AI, Security and Intelligent Systems for Societal and Real-Time Applications
12:45- 14:00		Day- 2:Research	Day-2:Research Session 9:AI and	Day- 2:Research	Day- 2:Research	Day- 2:Research	Day- 2:Research	Day-2:Research Session

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		Session 8:Track 1: Artificial Intelligence and Machine Learning: <u>Day-2:Research Session 8:Track 1: Artificial Intelligence and Machine Learning</u> Day-2:Research Session 8:Track 1: Artificial Intelligence and Machine Learning	Modeling for Intelligent Systems, Communications, and Energy Applications: <u>Day-2:Research Session 9:AI and Modeling for Intelligent Systems, Communications, and Energy Applications</u> Day-2:Research Session 9:AI and Modeling for Intelligent Systems, Communications, and Energy Applications	Session 10: Intelligent Systems, Computer Vision, and Embedded AI Applications: <u>Day-2:Research Session 10: Intelligent Systems, Computer Vision, and Embedded AI Applications</u> Day-2:Research Session 10: Intelligent Systems, Computer Vision, and Embedded AI Applications	Session 11:IoT, Networked Systems, and Secure Intelligent Applications: <u>Day-2:Research Session 11:IoT, Networked Systems, and Secure Intelligent Applications</u> Day-2:Research Session 11:IoT, Networked Systems, and Secure Intelligent Applications	Session 12:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems: <u>Day-2:Research Session 12:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems</u> Day-2:Research Session 12:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems	Session 13:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems: <u>Day-2:Research Session 13:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems</u> Day-2:Research Session 13:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems	14:Secure and Real-Time Intelligent Systems and Applications: <u>Day-2:Research Session 14:Secure and Real-Time Intelligent Systems and Applications</u> Day-2:Research Session 14:Secure and Real-Time Intelligent Systems and Applications
14:00-15:00								
15:00-16:30		Day-2:Research Session	Day-2:Research Session 16:Track 2: Data Science	Day-2:Research Session	Day-2:Research Session 18:AI,	Day-2:Research Session 19:AI-	Day-2:Research Session	Day-2:Research Session 21:Interpretable

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		15:Track 1: Artificial Intelligence and Machine Learning: <u>Day-2:Research Session 15:Track 1: Artificial Intelligence and Machine Learning</u> Day-2:Research Session 15:Track 1: Artificial Intelligence and Machine Learning	and Big Data Analytics: <u>Day-2:Research Session</u> <u>16:Track 2: Data Science and Big Data Analytics</u> Day-2:Research Session 16:Track 2: Data Science and Big Data Analytics	17:Intelligent Computing Systems, Cloud Technologies, and Emerging AI Applications: <u>Day-2:Research Session</u> <u>17:Intelligent Computing Systems, Cloud Technologies, and Emerging AI Applications</u> Day-2:Research Session 17:Intelligent Computing Systems, Cloud Technologies, and Emerging AI Applications	Autonomous Systems, and Intelligent Analytics for Real-Time and Critical Applications: <u>Day-2:Research Session 18:AI, Autonomous Systems, and Intelligent Analytics for Real- Time and Critical Applications</u> Day-2:Research Session 18:AI, Autonomous Systems, and Intelligent Analytics for Real- Time and Critical Applications	Driven Innovation for Security, Analytics, and Socio- Technical Applications: <u>Day-2:Research Session 19:AI- Driven Innovation for Security, Analytics, and Socio-Technical Applications</u> Day-2:Research Session 19:AI- Driven Innovation for Security, Analytics, and Socio-Technical Applications	20:Track 6: Internet of Things (IoT) and Smart Systems: <u>Day-2:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems</u> Day-2:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems	and Applied Artificial Intelligence for Data-Driven Systems: <u>Day-2:Research Session</u> <u>21:Interpretable and Applied Artificial Intelligence for Data- Driven Systems</u> Day-2:Research Session 21:Interpretable and Applied Artificial Intelligence for Data- Driven Systems
16:30- 16:45								
16:45- 18:15		Day-2:Research Session	Day-2:Research Session 23:AI- Driven	Day-2:Research Session 24:AI-	Day-2:Research Session 25:AI,	Day-2:Research Session 26:AI-	Day-2:Research Session 27:AI	Day-2:Research Session 28:AI and Intelligent

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		22:AI-Enabled Decision Support Systems and Socio-Technical Applications: <u>Day-2:Research Session 22:AI-Enabled Decision Support Systems and Socio-Technical Applications</u> Day-2:Research Session 22:AI-Enabled Decision Support Systems and Socio-Technical Applications22	Computational Systems and Intelligent Applications: <u>Day-2:Research Session 23:AI-Driven Computational Systems and Intelligent Applications</u> Day-2:Research Session 23:AI-Driven Computational Systems and Intelligent Applications	Driven Predictive Modeling and Optimization for Safety, Health, and Intelligent Systems: <u>Day-2:Research Session 24:AI-Driven Predictive Modeling and Optimization for Safety, Health, and Intelligent Systems</u> Day-2:Research Session 24:AI-Driven Predictive Modeling and Optimization for Safety, Health, and Intelligent Systems	Privacy, and Intelligent Systems for Data-Driven Applications: <u>Day-2:Research Session 25:AI, Privacy, and Intelligent Systems for Data-Driven Applications</u> Day-2:Research Session 25:AI, Privacy, and Intelligent Systems for Data-Driven Applications	Enhanced Systems, Robotics, and Real-Time Intelligent Applications: <u>Day-2:Research Session 26:AI-Enhanced Systems, Robotics, and Real-Time Intelligent Applications</u> Day-2:Research Session 26:AI-Enhanced Systems, Robotics, and Real-Time Intelligent Applications	for Secure, Intelligent, and Human-Centric Systems: <u>Day-2:Research Session 27:AI for Secure, Intelligent, and Human-Centric Systems</u> Day-2:Research Session 27:AI for Secure, Intelligent, and Human-Centric Systems	Systems for Smart Environments, Energy, and Agriculture: <u>Day-2:Research Session 28:AI and Intelligent Systems for Smart Environments, Energy, and Agriculture</u> Day-2:Research Session 28:AI and Intelligent Systems for Smart Environments, Energy, and Agriculture

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Wednesday, December 24

09:00- 09:45	Day-3: Wednesday 24 December 2025 - 09:00 - 09:45 - Panel Discussion 3: <u>Panel Discussion 3</u> <i>(Day-3):</i> Panel Discussion 3 (Day-3):							
09:45- 10:45		Day-3:Research Session 1:Track 9: High Performance and Parallel Computing: <i>Day-3:Research Session 1:Track 9: High Performance and Parallel Computing</i> Day-3:Research Session 1:Track 9: High Performance and Parallel Computing	Day-3:Research Session 2:Optimization, Simulation, and AI-Driven Decision Support Systems: <i>Day-3:Research Session 2:Optimization, Simulation, and AI- Driven Decision Support Systems</i> Day-3:Research Session 2:Optimization, Simulation, and AI- Driven Decision Support Systems	Day-3:Research Session 3:Interpretable and Applied Artificial Intelligence for Data- Driven Systems: <i>Day-3:Research Session 3:Interpretable and Applied Artificial Intelligence for Data-Driven Systems</i> Day-3:Research Session 3:Interpretable and Applied Artificial	Day-3:Research Session 4: <i>Day-3:Research Session 4</i> Day-3:Research Session 4	Day-3:Research Session 5: <i>Day-3:Research Session 5</i> Day-3:Research Session 5	Day-3:Research Session 6:AI, IoT, and Automation for Intelligent Systems and Sustainable Technologies: <i>Day-3:Research Session 6:AI, IoT, and Automation for Intelligent Systems and Sustainable Technologies</i>	Day-3:Research Session 7:IoT, Real-Time Systems, and Data-Driven Applications: <i>Day-3:Research Session 7:IoT, Real- Time Systems, and Data-Driven Applications</i> Day-3:Research Session 7:IoT, Real- Time Systems, and Data-Driven Applications

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				Intelligence for Data-Driven Systems			Day-3:Research Session 6:AI, IoT, and Automation for Intelligent Systems and Sustainable Technologies	
10:45- 12:00		Day-3:Research Session 8:AI and Machine Learning for Health, Accessibility, and Intelligent Applications: <u>Day-3:Research Session 8:AI and Machine Learning for Health, Accessibility, and Intelligent Applications</u> Day-3:Research Session 8:AI and Machine Learning for Health, Accessibility, and Intelligent Applications	Day-3:Research Session 9:AI- Driven Optimization, Logistics, and Intelligent Decision Systems: <u>Day-3:Research Session 9:AI-Driven Optimization, Logistics, and Intelligent Decision Systems</u> Day-3:Research Session 9:AI-Driven Optimization, Logistics, and Intelligent Decision Systems	Day-3:Research Session 10:AI, Intelligent Systems, and Optimization for Cyber- Physical and IoT Applications: <u>Day-3:Research Session 10:AI, Intelligent Systems, and Optimization for Cyber-Physical and IoT Applications</u> Day-3:Research Session 10:AI, Intelligent Systems, and Optimization for Cyber-Physical and IoT Applications	Day-3:Research Session 11:AI for Decision Support, Security, and Healthcare Applications: <u>Day-3:Research Session 11:AI for Decision Support, Security, and Healthcare Applications</u> Day-3:Research Session 11:AI for Decision Support, Security, and Healthcare Applications	Day-3:Research Session 12:AI, Automation, and Intelligent Sensing Systems: <u>Day-3:Research Session 12:AI, Automation, and Intelligent Sensing Systems</u> Day-3:Research Session 12:AI, Automation, and Intelligent Sensing Systems	Day-3:Research Session 13:AI, Data Privacy, and Socio- Economic Intelligent Systems: <u>Day-3:Research Session 13:AI, Data Privacy, and Socio-Economic Intelligent Systems</u> Day-3:Research Session 13:AI, Data Privacy, and Socio-Economic Intelligent Systems	Day-3:Research Session 14:Intelligent Security, AI- Driven Systems, and Advanced Sensing Technologies: <u>Day-3:Research Session 14:Intelligent Security, AI-Driven Systems, and Advanced Sensing Technologies</u> Day-3:Research Session 14:Intelligent Security, AI-Driven Systems, and Advanced Sensing Technologies

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12:00- 12:45	Closing Keynote and Best Papers Awards 12:00 - 12:45 (Day-3): <i>Closing Keynote and Best Papers Awards 12:00 - 12:45 (Day- 3)</i> Closing Keynote and Best Papers Awards 12:00 - 12:45 (Day-3)							

Monday, December 22

Monday, December 22 8:00 - 9:00 (Asia/Bahrain)

IEEE/ICCA 2025 ARAB OPEN UNIVERSITY - KINGDOM OF BAHRAIN - REGISTRATION - 2025: INTERNATIONAL CONFERENCE ON COMPUTER & APPLICATIONS IEEE-ICCA 2025 - REGISTRATION - DAY 1 - MONDAY, 22 DECEMBER 2025 - KINGDOM OF BAHRAIN

Theme: Opening, Keynote Presentation & Panel Discussion - Main Conference (Amphitheater)

Room: Main Conference (Amphitheater)

Monday, December 22 9:00 - 9:45 (Asia/Bahrain)

IEEE-ICCA 2025 - AOU - OPENING CEREMONY: AOU: OPENING CEREMONY - Main Conference (Amphitheater)

AOU: OPENING CEREMONY

Room: Main Conference (Amphitheater)

Monday, December 22 9:45 - 10:00 (Asia/Bahrain)

COFEE BREAK - DAY-1: COFEE BREAK - DAY-1

COFEE BREAK - DAY-1

Monday, December 22 10:00 - 10:25 (Asia/Bahrain)

Keynote Speaker - Day 1 PROF. OMAR - KUWAIT: Keynote Speaker - Day 1 PROF. OMAR - KUWAIT

Keynote Speaker - Day 1 PROF. OMAR - KUWAIT

Room: Main Conference (Amphitheater)

Monday, December 22 10:25 - 10:50 (Asia/Bahrain)

Keynote Speaker - Day 1 - PROF. HELEN - GREECE: Keynote Speaker - Day 1 - PROF. HELEN - GREECE

Keynote Speaker - Day 1 - PROF. HELEN - GREECE

Room: Main Conference (Amphitheater)

Monday, December 22 10:50 - 11:15 (Asia/Bahrain)

Keynote Speaker - Day-1 - PROF. HORONORI: Keynote Speaker - Day-1 - PROF. HORONORI

Keynote Speaker - Day-1 - PROF. HORONORI

Room: Main Conference (Amphitheater)

Monday, December 22 11:15 - 12:00 (Asia/Bahrain)

Panel Discussion 1: Panel Discussion 1:

Room: Main Conference (Amphitheater)

Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1: Research Session 1: (Track 1: Artificial Intelligence and Machine Learning) Day-1: Research Session 1: (Track 1: Artificial Intelligence and Machine Learning)

Day-1: Research Session 1: (Track 1: Artificial Intelligence and Machine Learning)

Room: A-Lecture Hall - SF001 (HYBRID)

Chair: Ashraf Ali (Arab Open University-Bahrain, Bahrain)

12:00 A Comparative Analysis of Machine Learning Models for Chronic Kidney Disease Prediction 

Hussain AlSalman (King Saud University, Riyadh, Saudi Arabia)



12:15 Enhancing Low-Frequency Trading with Rule-Guided Reinforcement Learning

Mohammed Ibrahim El-hajj (Arab Open University - Lebanon (AOU), Lebanon)

12:30 Data-Driven Prediction of Traffic Violations Using Improved Random Forest

Mohammed Alshriem (HBKU, Qatar); Yin Yang (Hamad Bin Khalifa University, Qatar)

12:45 Beyond Econometrics with a Spatial-Temporal Learning Framework for Predicting and Forecasting Housing Market Responses to Crime



Jerome Mawuena Klu (Norfolk State University, USA); Isaac O Osunmakinde (Norfolk State University, USA & None, USA); Musbah Abdulgader and Cheryl Hinds (Norfolk State University, USA)



13:00 Enhancing Cognitive Security through Explainable Fake News Detection

Sarkis Sarkissian (Arab Open University, Lebanon); Khoulood Samrouth (Lebanese University, Lebanon); Modhuparna Manna (Rashtriya Raksha University, India); Mohamad Nassar (University of New Haven, USA)



13:15 "Smart" Integration of Statistical Approaches in AI Development

Samir Haddad (University of Balamand, Lebanon); Chadi Kallab and Nisrine Turkey (Lebanese American University, Lebanon); Jinane Sayah and Imad Zakhem (University of Balamand, Lebanon); Rushdi Zaiter (Lebanese American University, Lebanon); Joseph Merhej (Faculty of Sciences II, Lebanon); Kassem Danach, Sr (Al Maaref University, Lebanon & Chairperson, Lebanon)



13:30 Machine Learning Model for T-cell Identification from Flow Cytometry Panel of Melanoma Patients

Muraam Abdel-Ghani, Omnya Abdalla, Amira Abdalla and Tanvir Alam (Hamad Bin Khalifa University, Qatar)



13:45 MuGen-100: A Diverse and Geographically-Rich Dataset for Music Genre Classification

Rihab Zouitni (Al Akhawayn University, Morocco); Salma Samine (Al Akhawayn University in Ifrane, Morocco); Yousra Chtouki (Al Akhawayn University, Morocco)



Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1:Research Session 2:Track 2: Data Science and Big Data Analytics Day-1:Research Session 2:Track 2: Data Science and Big Data Analytics

Day-1:Research Session 2:Track 2: Data Science and Big Data Analytics

Room: B-Lecture Hall - SF04 (HYBRID)

12:00 **A Weighted Voting Ensemble Framework for Robust Financial Fraud Detection Across Diverse Data Types**

Nicholas Fell (Norfolk State University, USA); Isaac O Osunmakinde (Norfolk State University, USA & None, USA)



12:15 **A BiLSTM with Attention Approach Using 2D Skeletons for Autism Activity Recognition**

Mohammad Kassir (University of Technology of Troyes, France); Sandy Mahfouz and Farah Mourad-Chehade (Université de Technologie de Troyes, France); Khoulood Samrouth (Arab Open University, Lebanon)



12:30 **Enhancing Deep Learning-Based Fall Detection Under Non-Dominant Paths Using Wi-Fi CSI**

Israa Bayad (Université de Technologie de Troyes, France & Université Libanaise, Lebanon); Farah Mourad-Chehade and Sandy Mahfouz (Université de Technologie de Troyes, France); Khoulood Samrouth (Lebanese University, Lebanon); Hassan Amoud (Lebanese University & Faculty of Sciences, Lebanon)



12:45 **A General Framework For Deepfake Video Detection**

Dema Mohd Al-Thani, ثنائي (Oryx Universal College, Qatar & Liverpool John Moores University, United Kingdom (Great Britain))



13:00 **Comparative Analysis of Deep Learning Models for Multi-Class Dysgraphia Detection (The researcher will present the paper online)**

Shaima Yousif Almaazmi (University of Sharjah, United Arab Emirates); Karam Mohamed Sallam (University of Shrjah, United Arab Emirates); Manar Abu Talib and Iman Khowailed (University of Sharjah, United Arab Emirates)



13:15 **A New Performance Metric for the Arabic Handwriting Characters Recognition using 2D Convolution Neural Network (2D CNN)**

Kassem Hamze (Islamic University of Lebanon, Lebanon); Mohamad Alwan (Lebanese University, Lebanon); Samir Haddad (University of Balamand, Lebanon); Joseph Merhej (Facultyof Sciences II, Lebanon); Chadi Kallab (Lebanese American University, Lebanon); Jinane Sayah (University of Balamand, Lebanon)



13:30 **Responsible AI from Farm to Finance: A Unified Credit and Carbon Scoring Model for Data-Sparse Rural Economies**

Deepa Shukla (Jaipur National University, India & AgAutomate Pvt Ltd, India); Sunil Gupta (Jaipur National University, India)

13:45 PinnerFormerLite: A Transformer Based Architecture for Focused Recommendations via Sequences

[Vinay Venkatesh](#) (Google, USA); [Akshay Mittal](#) (University of the Cumberland, USA); Varun Joshi (Amazon Development Center, USA)



Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1:Research Session 3:Track 3: Computer Vision and Image Processing Day-1:Research Session 3:Track 3: Computer Vision and Image Processing

Day-1:Research Session 3:Track 3: Computer Vision and Image Processing

Room: C-Lecture Hall - SF010 (HYBRID)

Chair: Layla Faisal ALhalwachi, Dr Layla ('Arab Open University', Bahrain & Bahrain Polytechnic, Bahrain)

12:00 YOLO-CX: Towards Better Small Object Detection in Aerial Scenes via Context-Aware Learning and Derivative-Conditioned Attention

[Youssef A. Khadragy](#) and Maggie Mashaly (German University in Cairo, Egypt)

**12:15 Advanced Intelligent Anemia Detection System**

Dina Darwish, [Aya Mohamed Attia](#), Ahmed Nousir, Mohamed Ahmed Osama, Mohamed Salama Abdelfattah and Bakinam Mohamed (Ahram Canadian University, Egypt)

**12:30 A Deep Generative Convolutional Autoencoder Image Colourizer**

[Hagar Ali Shalabi](#) (BUE, Egypt & New Cairo, Egypt); Gerard McKee (BUE, Egypt); Walid Hussein (Heidelberg Materials A.G, Egypt)

**12:45 Point-Net Vision Transformer: An Extendable 3D Object Reconstruction Approach**

Hagar Ali Shalabi (BUE, Egypt & New Cairo, Egypt); Andreas Pester (BUE, Egypt); Walid Hussein (Heidelberg Materials A.G, Egypt)

**13:00 Analysing and Forecasting Disability Patterns in the UAE**

[Mohammed Abdul Rahim](#) (Higher Colleges of Technology, United Arab Emirates); [Amala Rajan](#) (Dubai Women's College, United Arab Emirates); [Jim O Otieno](#) (Higher Colleges of Technology, United Arab Emirates)

**13:15 Leveraging Machine Learning to Analyze and Predict Disability Trends in the UAE**

Mohammed Abdul Rahim (Higher Colleges of Technology, United Arab Emirates); Amala Rajan (Dubai Women's College, United Arab Emirates);
Jim O Otieno (Higher Colleges of Technology, United Arab Emirates)

13:30 **A Review of AI Model-Based Food Image Recognition Research**

Zhang Jiahao (Hong Kong University of Science and Technology, Hong Kong)



13:45 **Intelligent Traffic Monitoring with YOLOv11: A Case Study in Real-Time Vehicle Detection**

Shkelqim Sherifi (University of Tetove, Macedonia, the former Yugoslav Republic of); Festim Halili (State University of Tetovo, Macedonia, the former Yugoslav Republic of); Merita-Kasa Halili (State University of Tetovo, the Former Yugoslav Republic of Macedonia, Macedonia, the former Yugoslav Republic of)



Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1:Research Session 4:Track 4: Natural Language Processing and Speech Technologies Day-1:Research Session 4:Track 4: Natural Language Processing and Speech Technologies

Day-1:Research Session 4:Track 4: Natural Language Processing and Speech Technologies

Room: D-Lecture Hall - SF015 (HYBRID)

12:00 **LLM-Powered Network Requirement Engineering Conversational Agent for Automated 6G Datacenter Network Configuration**

Shourok Ahmed Abdelrahim, Sa (Arab Academy for Science and Technology, Egypt); Samy Ghoniemy (Galala University, Egypt)



12:15 **GraphDrive: Graph-Attentive Relational Reasoning for Autonomous Driving**

Abdallah WallyAllah and Omar Nasr (Cairo University, Egypt)



12:30 **English Please: Evaluating Machine Translation with Large Language Models for Multilingual Bug Reports**

Aryan Jadon (Juniper Networks Inc, USA); Avinash Patil and Siru Tao (Juniper Networks, USA)

12:45 **Expense Radar: an AI-Driven Budget Management System**

Khalid Alemadi (Oryx Universal College, Qatar); Ali Baydoun (Liverpool John Moores University, United Kingdom (Great Britain))

13:00 A Hybrid Retrieval Based Framework and NLP tool Comparison for Text-to-ISL Translation

[Sarabjoth Singh Bhatia](#), Avijith Manikandan and Vikas Upadhyaya (NIIT University, India)

**13:15 GenAI-Powered Contextual Micro-Learning Recommender for Personalized Education**

[Akshay Mittal](#) (University of the Cumberlands, USA); Anusha Nagineni (Independent Researcher, USA); [Krishna Kandi](#) (USA); [Vamsi Alla](#) (Independent Researcher, unknown)

**13:30 Performance Optimization of LLM-Based Agentic Workloads in Kubernetes Environments: Bottlenecks, Root Causes, and Solutions**

[Akshay Mittal](#) (University of the Cumberlands, USA); [Goutam Tadi](#) (Astronomer, USA)

**13:45 Deep Reasoning Policy Intelligence Network: Automating Evidence-Based Policy Analysis via Copilot Studio and Power BI Fabric Integration**

[Sarat Piridi](#) (Microsoft, USA); Satyanarayana Asundi (University of the Cumberlands, USA); Nataraja Kumar Koduri (Google, USA)



Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1:Research Session 5:Track 5: Cybersecurity and Privacy Day-1:Research Session 5:Track 5: Cybersecurity and Privacy

Day-1:Research Session 5:Track 5: Cybersecurity and Privacy

Room: E-Lecture Hall - FF002 (HYBRID)

12:00 Blockchain-Based Mechanisms for Mitigating False Data Injection in Microgrid Systems

[Bacem Mbarek](#) (Gulf College, Oman)

**12:15 CyberGuard: A Deployable Deep Learning Model for Cyber Attacks Threat Detection, and Prevention**

[Mohamed Wafiq](#) and [Ahmed Maged Fahmy](#) (The British University in Egypt, Egypt)

12:30 Ransomware Detection Techniques - A Comprehensive Comparison

Fatimaezzahra Harim and Barra Touray (Oryx Universal College, Qatar)

12:45 Agentic AI in Cybersecurity Review of Autonomous Threat detection and Adaptive defense Mechanism

Sheily Verma Panwar ('CUC Ulster University', Qatar)

13:00 Critical Analysis of Custom AI agents Vs. Generic agents for Integration with Existing Systems and Improvement of Data Privacy and Security to deliver efficiency in terms of Cost and Complexity of Use

Krishna D Jadhav (University of Chicago, USA & Tech Mahindra, USA); Rajesh Nelwadkar (USA)

**13:15 File Hash Comparison for Duplicates Using AI**

Ahmed Mohamed Abo sabala (AOU, Egypt); Eid Amery (Amery, Egypt); Mahmoud Attallah (Attalah, Egypt)

**13:30 Privacy and Security in the Metaverse: A General Review**

Fahad Mira, Mira Fahad (University of Bedfordshire, United Kingdom (Great Britain) & London, United Kingdom (Great Britain))

**13:45 Construction of a Unified Knowledge Graph for Cyber Threat Intelligence**

Moaz Usama Hassan (The British University in Egypt, Egypt); Khaled Ahmed Nagaty (The British University in Egypt & Ain Shams University, Egypt); Noura Maghawry (The British University in Egypt, Egypt)



Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1: Research Session 6: Track 6: Internet of Things (IoT) and Smart Systems Day-1: Research Session 6: Track 6: Internet of Things (IoT) and Smart Systems

Day-1: Research Session 6: Track 6: Internet of Things (IoT) and Smart Systems

Room: F-Lecture Hall - FF012 (HYBRID)

12:00 Improved IoT Anomaly Detection Through Hybrid Machine Learning and Deep Learning Approaches Using the IoT-23 Dataset

Mariam Ahmed Mostafa Mohamed (The Arab Open University in Egypt, Egypt); Mahmoud Attallah (Attalah, Egypt); Eid Amery (Amery, Egypt)

**12:15 Task Offloading and Resource Management in UAV-Assisted Federated Learning: A Preliminary Study**

Mian Ahmad Jan (University of Sharjah, Sharjah, United Arab Emirates); Sohail Abbas, Farah Abu Hamad, Omnia Abu Waraga and Esraa Alhamid (University of Sharjah, United Arab Emirates)

12:30 GreenMesh: Energy-Aware Adaptive Clustering in Resource-Constrained IoT Ad Hoc Networks

Abdulaziz G Alanazi and [Nasser S Albalawi](#) (Northern Border University, Saudi Arabia)

12:45 Developing an IoT Security Framework for Smart Homes in Qatar

[Maryam Ahmad Mahzouni](#) (Oryx University, Qatar)

**13:00 Integration of IoT and AI Technologies for Predicting the Ecological Status of Black Sea Water**

Tamar Lominadze, [Lily Petriashvili](#), [Nino Topuria](#), Gia Surguladze and Taliko Zhvania (Georgian Technical University, Georgia); Givi Gavardashvili (Tsotne Mirtskhulava Water Management Institute, Georgia)

**13:15 Predictive Maintenance in Industrial IoT using Enhanced Ant Colony Optimization and Logistic Regression**

Abo bakr Ahmed Khedr (University of Sharjah, United Arab Emirates); Ahmed Khedr (UOS, United Arab Emirates)

13:30 Scalable and Privacy-Aware IoT Anomaly Detection Using Machine Learning in Smart City Environments

[Muntasar Al Zakwani](#) and Shima Al Zakwani (Arab Open University, Oman); Mohammad Abrar, Yousuf Nasser Al Husaini, Mohammed Abdullah Salim Al Husaini and Wasin AlKishri (Arab Open University Oman, Oman)

**13:45 Machine Learning based Security Mechanism Against DDoS Attacks in Mobile Edge Computing**

[Omar H. Ramadan](#) and Saddaf Rubab (University of Sharjah, United Arab Emirates)

Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Day-1:Research Session 7:Track 14: E-Health, Bioinformatics, and Computational Biology Day-1:Research Session 7:Track 14: E-Health, Bioinformatics, and Computational Biology

Day-1:Research Session 7:Track 14: E-Health, Bioinformatics, and Computational Biology

Room: G-Lecture Hall - FF028 (HYBRID)

12:00 Applications of AI in oral diseases with special reference to microbial infections

[Dina Darwish](#) and Neveen Elshafaei (Ahram Canadian University, Egypt)



12:15 Machine Learning-Enhanced Monte Carlo Simulation for Infectious Disease Modeling

Samir Haddad (University of Balamand, Lebanon); Joseph Merhej (Faculty of Sciences II, Lebanon); Jinane Sayah (University of Balamand, Lebanon); Mohamad Chakroun (Universitat Rostock, Germany); Salah El Falou (Lebanese University, Lebanon); Kassem Danach, Sr (Al Maaref University, Lebanon & Chairperson, Lebanon); Mohamad Muhieddine (ISMANS CESI, France); Kassem Hamze (Islamic University of Lebanon, Lebanon)

**12:30 Generalizing Forecasts for Hospital Supplies with LLMs: A Comparative Study of Zero-Shot and Fine-Tuned TimesFM**

Nicolas Haxaire (University of Technology of Troyes & OPTACARE, France); Farah Mourad-Chehade and Yalaoui Alice (Université de Technologie de Troyes, France); Patrick Nader and Hicham Chehade (OPTACARE, France)

12:45 Monte Carlo-Based Infectious Disease Simulation for Policy Support

Samir Haddad and Jinane Sayah (University of Balamand, Lebanon); Chadi Kallab (Lebanese American University, Lebanon); Joseph Merhej (Faculty of Sciences II, Lebanon); Mohamad Chakroun (Universitat Rostock, Germany); Salah El Falou (Lebanese University, Lebanon); Mohamad Muhieddine (ISMANS CESI, France); Kassem Danach, Sr (Al Maaref University, Lebanon & Chairperson, Lebanon); Kassem Hamze (Islamic University of Lebanon, Lebanon)

**13:00 'Tibbi': An AI-Powered Mobile Application and Robotic Pharmacy Assistant for Reducing Pharmacy Wait Times in the UAE**

Shouq Alrahma, Roudha Mohamed, Fatema Khaled, Alia Alali and Ahmed Shuhaiber (Zayed University, United Arab Emirates)

13:15 Stress Monitoring Using Wearable Technology

Sakshi Prasad and Vikas Upadhyaya (NIIT University, India)

**13:30 Early Detection of Parkinson's Disease using Biomedical Voice Measurements with Random Forest Classifier**

Muhammad Zaman (COMSATS University Islamabad, Pakistan); Zainab Fatima (Superior University, Pakistan); Muhammad Zabair Aslam (University of Lahore, Pakistan); Vedran Uroš (University of Applied Sciences Marko Marulic of Knin, Croatia & University of Zagreb - FOI, Croatia); Nikola Ivkovic (University of Zagreb, Croatia); Adnan Akhonzada (University of Doha for Science and Technology, Qatar & Technical University of Denmark, Denmark)

13:45 Enhancing Hematological Diagnostics: A Machine Learning Framework Featuring Michael's Classifier for Beta Thalassemia

Muhammad Zaman (COMSATS University Islamabad, Pakistan); Sidra Mumtaz (University of Lahore, Pakistan); Muhammad Danial (Shaheed Zulfiqar Ali Bhutto Medical University, Pakistan); Nikola Ivkovic (University of Zagreb, Croatia); Vedran Uroš (University of Applied Sciences Marko Marulic of Knin, Croatia & University of Zagreb - FOI, Croatia); Adnan Akhonzada (University of Doha for Science and Technology, Qatar & Technical University of Denmark, Denmark)

Monday, December 22 12:00 - 14:00 (Asia/Bahrain)

Workshop 1: 12:00 - 14:00 Monday, 22 December 2025 Workshop 1: 12:00 - 14:00 Monday, 22 December 2025

Room: Main Conference (Amphitheater)

Monday, December 22 14:00 - 15:00 (Asia/Bahrain)

LUNCH BREAK - DAY-1: LUNCH BREAK - DAY-1

LUNCH BREAK - DAY-1

Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1: Research Session 8: Track 1: Artificial Intelligence and Machine Learning Day-1: Research Session 8: Track 1: Artificial Intelligence and Machine Learning

Day-1: Research Session 8: Track 1: Artificial Intelligence and Machine Learning

Room: A-Lecture Hall - SF001 (HYBRID)

15:00 A Deep Learning Approach for Early Detection of Depression from Structured Questionnaire Data 

Yash Upadhyay (NIIT University, India); Nitesh Jha (NIIT University, Neemrana, Rajasthan, India); Vikas Upadhyaya (NIIT University, India)



15:15 Multimodal Fake News Detection Paper 

Moataz Salah Elfoly and Ahmed Maged Fahmy (The British University in Egypt, Egypt)



15:30 A Machine Learning-based Model Selection and Optimization Approach for Anemia Classification 

Bandar Saleh Almaslukh (Prince Sattam Bin Abdulaziz University, Saudi Arabia)



15:45 Financial Distress Predication based on Deep Learning Techniques: A survey

Magdi El-Bannany (Umm Al Quwain University, United Arab Emirates); Belma Ramic-Brkic (SSST, Bosnia and Herzegovina); Ahmed Khedr (UOS, United Arab Emirates)

Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1:Research Session 10:Track 3: Computer Vision and Image Processing Day-1:Research Session 10:Track 3: Computer Vision and Image Processing

Day-1:Research Session 10:Track 3: Computer Vision and Image Processing

Room: C-Lecture Hall - SF010 (HYBRID)

15:00 *Hybrid Vision Approaches for Sustainable Agri-Food Automation: Comparing YOLOv8 and Classical Techniques in Produce Sorting*

Anas Hassan Abdelmoneam (The British University in Egypt, Egypt & None, Egypt); Saifeldeen Ayman Radwan (The British University in Egypt, Egypt)



15:15 *A Gaussian-Based Approach to Video Representation*

Hilal Safarjalani (Lebanese University, Lebanon); Amani Raad (Université Libanaise, Lebanon); Nader Bakir (Beirut Arab University, Lebanon)



15:30 *A Novel Metric For Evaluating Content-Based Media Retrieval: Forgery Videos As Case Study*

Hasan Mohammad Wassouf (SRM University AP, India); Farooq Shaik (SRM University Ap, India); Jatindra Kumar Dash (SRM University, India)



15:45 *Artificial Intelligence in Audiovisual Communication: recommendations to produce a promotional video*

Sónia Almeida Ferreira, Ms (Polytechnic of Viseu, Portugal & School of Education, CI&DEI, Portugal); Vanessa Reis Campos (School of Education, Portugal)



Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1:Research Session 11:Track 4: Natural Language Processing and Speech Technologies Day-1:Research Session 11:Track 4: Natural Language Processing and

Speech Technologies

Day-1:Research Session 11:Track 4: Natural Language Processing and Speech Technologies

Room: D-Lecture Hall - SF015 (HYBRID)

15:00 *Identifying Core Innovation Dimensions via Semantic Clustering with a Novel Pairwise Validation Metric*

Sarah Malaeb (Université Paris 8, France); Imad Saleh (University Paris 8, France); Maroun Jneid (Université Paris 8, France)

15:15 *Conversational AI for workday HCM designing ethical and human-centered digital assistants*

Abhishek Jain (Concentrix, USA); Monu Sharma (Valley Health System, USA); Shivareddy Devarapalli (Government Employees Insurance Company (GEICO), USA)



15:30 *An AI-Augmented Framework for Early-Stage Product Discovery*

Mohana Karumuri (Tapclicks, USA)



15:45 *Student Evaluation System Using Lexicon-based Sentiment Analysis*

Anna Loretta C. Romulo and Ruby Mae Bermejo (Carlos Hilado Memorial State University, Philippines)



Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1:Research Session 12:Track 5: Cybersecurity and Privacy Day-1:Research Session 12:Track 5: Cybersecurity and Privacy

Day-1:Research Session 12:Track 5: Cybersecurity and Privacy

Room: E-Lecture Hall - FF002 (HYBRID)

15:00 *LINK_TIP: An AI-Ready Threat Intelligence Prototype with Machine-Learning-Based Anomaly Detection*

Manaf Majid Mohammed (Arab Open University, Bahrain); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain)

15:15 *Beyond COPPA: A proposed Age-Appropriate AI Design Code for Children in the MENA Region*

Ahmed Mahfouz (AOU, Oman & Minia University, Egypt); Maab Alfadil (Arab Open University); Abeer Al-Bahriya and Noor Al-Siyabi (Arab Open University, Oman)

15:30 *Design and Integration of Intelligent Agents for Automated Threat Intelligence in Suricata-Based Intrusion Detection Systems*

Kingsley C Nwosu, Musbah Abdulgader and Guy Munn (Norfolk State University, USA)



15:45 Policy-as-Code Auto-Remediation with Human-Centered Explanations

Pragya Keshap (Senior IEEE Member, USA & Technical Architect, USA); Arpana Hosabettu (Senior IEEE Member, USA); Akshay Mittal (University of the Cumberland, USA)



Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1:Research Session 13:Track 6: Internet of Things (IoT) and Smart Systems Day-1:Research Session 13:Track 6: Internet of Things (IoT) and Smart Systems

Day-1:Research Session 13:Track 6: Internet of Things (IoT) and Smart Systems

Room: F-Lecture Hall - FF012 (HYBRID)

15:00 Drift Detection and Self-Healing Infrastructure with Ansible and GitOps

Nandagopal Seshagiri (Okta Inc., USA); Bindu Harve (Independent Researcher, USA); Pavan Nutalapati (USA); Rakesh Keshava (IEEE Senior Member, USA); Arun Kumar Elengovan (Okta Inc. and IEEE Senior Member, USA); Madhushree Kumari (IEEE Senior Member, USA); Naga Satya Praveen Kumar Yadati (Meta, USA)



15:15 Hybrid Edge-Cloud Federated Learning Framework for Predictive Maintenance in Industrial IoT

Nahla Nabil Skaik (Arab Open University, Bahrain); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain)



15:30 Investigating the Social Impact of IoT-Enabled Smart Homes

Jayendira P Sankar (University of Technology Bahrain, Bahrain); Mahmood Akbar (Arab Open University Bahrain, Bahrain); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain)



15:45 Urban Resilient Strategies through Smart Transportation Model Consolidating Circular Carbon Economy

Samar Allam (King Salman International University, Egypt & Universite Francaise d'Egypte, Egypt)

Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1:Research Session 14:Track 14: E-Health, Bioinformatics, and Computational Biology Day-1:Research Session 14:Track 14: E-Health, Bioinformatics, and Computational Biology

Day-1:Research Session 14:Track 14: E-Health, Bioinformatics, and Computational Biology

Room: G-Lecture Hall - FF028 (HYBRID)

15:00 *Privacy-Preserving Responsible AI Framework for Patient-Facing Generative Healthcare Systems*

Shravya Bussari (Hcltech, USA); Thiyagarajan Kalyanasundaram (HCL Technologies, USA); Usha Rani Sheri (USA)



15:15 *Deep Learning Approach for the Classification of Chest X-rays in Pneumonia Detection*

Omar Khaldoun Abahussain (Arab Open University - Bahrain); Nabil Hewahi (UOB, Bahrain)



15:30 *A Clinical Feature Engineering and Imbalance-Aware Framework for Hospital Readmission Prediction*

Vasanth rao Jadav (EPAM Systems, USA); Ritesh H Ruparel (CSG International, USA)



15:45 *Large Language Models in Animal Healthcare: Survey, Challenges, and Future Directions*

Ritesh H Ruparel (CSG International, USA); Vasanth rao Jadav (EPAM Systems, USA)



Monday, December 22 15:00 - 16:00 (Asia/Bahrain)

Day-1:Research Session 9:Track 2: Data Science and Big Data Analytics Day-1:Research Session 9:Track 2: Data Science and Big Data Analytics

Day-1:Research Session 9:Track 2: Data Science and Big Data Analytics

Room: B-Lecture Hall - SF04 (HYBRID)

15:00 *Shrinkage Cracking in Concrete: An Actuarial-Civil Engineering Framework for Insurance Applications*

Sandy Feres (University of Rouen, France); Hala Al moubayed (Cesi école d'ingénieur, France); Houda Halawani, Ms (ESILV, France & De Vinci Higher Education, France); Malak Mohamad Daher, Md (Jinan University, China & ZacaInternational, Lebanon); Nancy Chendeb (De Vinci Higher Education, France & De Vinci Research Center, Paris, France)



15:15 Leveraging Predictive Maintenance and Machine Learning using FOMAX Data Streams

Shyam Sundar Ravikumar and Mahesh Ganesamoorthi (Expedia Group, USA)



15:30 AI-Generated Code in Computer Science Education: Boon or Bane?

Nader Bakir (Beirut Arab University, Lebanon); Layla Akkouch (Jinan University, Lebanon); Hussein Krayani (Peter the Great St.Petersburg Polytechnic University, Russia); Ghida Dannaoui (École Des Mines de Saint-Étienne, France); Abdallah El Chakik (Beirut Arab University, Lebanon)



15:45 Content Based Video Retrieval Leveraging Classification and Distance Similarity

Farooq Shaik (SRM University Ap, India); Hasan Mohammad Wassouf (SRM University AP, India); Jatindra Kumar Dash (SRM University, India)



Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 15:Track 1: Artificial Intelligence and Machine Learning Day-1:Research Session 15:Track 1: Artificial Intelligence and Machine Learning

Day-1:Research Session 15:Track 1: Artificial Intelligence and Machine Learning

Room: A-Lecture Hall - SF001 (HYBRID)

16:00 Comparative Analysis of Regression Techniques: Effects of Sample Size and Noise Variance on Predictive Performance

Kakoli Khatun (University at Buffalo, USA); Yesar Ahmed Oshan (Colorado State University, USA); Anwar Hossain (New Mexico Institute of Mining and Technology, USA)



16:15 Effect of Machine Learning and Artificial Intelligence on Solar Energy Balancing Costs by Enhancing Solar Power Prediction Accuracy (Personal Notes - Online)

Youssef Nabil Maxi and Ayman Abbas (The British University in Egypt, Egypt); Nader A. Mansour (Benha University, Egypt); Mahmoud Magdy (The British University in Egypt & Benha University, Egypt)



16:30 RIS with Minimal Actuation: Budgeted Phase-Only Control under QoS and Fairness

Wafaa Mohammed Ridha Shakir (Al-Furat Al-Awsat Technical University, Iraq); Jinan Charafeddine, Dr. Jinan (Engineering School Léonard de Vinci - ESILV, France); Zeinab Mhanna (Ecole Supérieure d'Ingénieurs Léonard de Vinci, France)

**16:45 Predicting Rollover Propensity: A Decision Tree Approach to Analyzing LTV and Barrier Impact Data from UAE Crash Investigations**

MD Didarul Alam, Luqman Ali and Hamad Al Jassmi (United Arab Emirates University, United Arab Emirates)

**17:00 Crash Data Transformation: Applying Generative AI to Standardize and Improve Freeway Incident Reporting**

MD Didarul Alam, Luqman Ali and Hamad Al Jassmi (United Arab Emirates University, United Arab Emirates)

**17:15 Flag the Flow: AI-Powered Anomaly Detection for Data Exfiltration in Network Traffic**

Ala Aabdulhakim Al-areqi (Western Sydney University, Australia & Cybersecurity Aid and Community Engagement, Australia); Alana A Maurushat, Gowree Sankar A Gireesan Sandhya, Khaled A Eliali, Yazan Al Koudmani, Ridhi Ravi and Farnaz Farid (Western Sydney University, Australia)

Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 16: Advanced Machine Learning and Multimodal AI Applications

Day-1:Research Session 16: Advanced Machine Learning and Multimodal AI Applications

Day-1:Research Session 16: Advanced Machine Learning and Multimodal AI Applications

Room: B-Lecture Hall - SF04 (HYBRID)

16:00 Emotion-Aware Learning Analytics: Transformer Based Sentiment Analysis on Online Discussions Forums

Laila Abd-Ellatif and Al-Ayham M Shamaki (Arab Open University Oman, Oman)

**16:15 AI Applications in Astronomy**

Nadine Nasser Na'ami (Arab Open University, Bahrain)

**16:30 Video Deepfake Detection in English and Arabic**

Rehab Said Al Nassri (Arab Open University Oman, Oman); Rawad Abdulghafor (AOU Oman, Oman); Mohammed Abdullah Salim Al Husaini, Wasin AlKishri, Yousuf Nasser Al Husaini and Mohammad Abrar (Arab Open University Oman, Oman)

16:45 Comparative Evaluation of Vision-Language Models in Skin Diseases Recognition

Alexandr Ovsyannikov, Maksim Airapetian, David Barboza and Noor Jamal Alkhateeb (Murdoch University, Australia); Luqman Ali (United Arab Emirates University, United Arab Emirates)



17:00 ImaginSynth: Bridging the Gap Between 3D Workflow and Machine Learning with Open Source Synthetic Data

Tejas Pravinbhai Patel (Amazon, USA); Amit Kumar Padhy (University of Illinois Urbana-Champaign, USA & Adobe Inc., USA); Bharadwaj Vulugundam (Oracle, USA); Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekhar Medicherla (Salesforce Inc, USA); Sandeep Shivam (Tavant Technologies, USA)



17:15 Hybrid Time Series and Sentiment Analysis for Stock Forecasting on Distributed Big Data Platforms

Aswathnarayan Muthukrishnan Kirubakaran (Meta Inc, USA); Sumit Saha (East West Bank, USA); Abhirup Mazumder (Amazon, USA); Ravi Kiran Kodali (Cognizant Technology Solutions, USA); Lokesh Butra (NTT Data, USA); Dinesh Eswararaj (Compunnel Software Inc & Mazda North America Operations, USA)



Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 17:Track 3: Computer Vision and Image Processing Day-1:Research Session 17:Track 3: Computer Vision and Image Processing

Day-1:Research Session 17:Track 3: Computer Vision and Image Processing

Room: C-Lecture Hall - SF010 (HYBRID)

Chair: Irfan Alam Irfan (Arab Open University Bahrain, Bahrain & Computer Studies, Bahrain)

16:00 Towards Efficient Keyframe Selection for News Video Captioning

Anthony Nguyen, Dev Pandya, Ajmery Sultana, Miguel A. Garcia-Ruiz and Wenjun Lin (Algoma University, Canada)



16:15 The Effectiveness of Animation to Display the Brand for Some Commercial Companies on Social Media

Mahmoud Abdelmajed Ahmed, Sr (Arab Open University Bahrain, Bahrain & Arab Open University, Bahrain); Salman Jan (Arab Open University, Bahrain)

16:30 ScopeTags: Self-Knowledge Tokens for Reliable Retrieval-Augmented Generation in Multimodal Systems

Muhammad Taimoor Hassan (Auburn University, USA)

16:45 Edge AI Framework for Real-Time Facial Emotion Recognition Toward Student Engagement Tracking

Souhir Boufrikha and Soulef Bouafia (University of Monastir, Tunisia); Olfa Ben Ahmed (XLIM, France); Mohamed Ali Hajjaji (University of Sousse, Tunisia); Abdellatif Mtibaa (ENIM, Tunisia); Jihad M. Al Jaam (Oryx Universal College, Qatar)



17:00 Image Enhancement via Differential Evolution Optimized Piecewise Linear Transformation

Ali Awad (Alazhar University-Gaza, Palestine); Basel M Mohsen (Alazhar University- Gaza, Palestine)

17:15 A Multi-Modal RAG and Automated Ingestion Framework for Real-Time GenAI Product Search

Vasanth rao Jadav (EPAM Systems, USA)



Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 18:Track 4: Natural Language Processing and Speech Technologies Day-1:Research Session 18:Track 4: Natural Language Processing and Speech Technologies

Day-1:Research Session 18:Track 4: Natural Language Processing and Speech Technologies

Room: D-Lecture Hall - SF015 (HYBRID)

16:00 Performance Evaluation of IVR Systems: Ensuring Voice Quality and Enhancing Customer Experience

Vigneshwaran Jagadeesan Pugazhenth, Gokul Pandey and Baskaran Jeyarajan (IEEE Senior Member, USA); Aravindhan Murugan (Capital One, USA)



16:15 Evaluating Natural Language Business Intelligence with Autonomous AI Databases- Architecture and Business Applications using Oracle Select AI

Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekhar Medicherla (Salesforce Inc, USA); Bharadwaj Vulugundam (Oracle, USA); Tejas Pravinbhai Patel (Amazon, USA); Sandeep Shivam (Tavant Technologies, USA); Amit Kumar Padhy (University of Illinois Urbana-Champaign, USA)

& Adobe Inc., USA)



16:30 AI-Driven Cross-Domain Sentiment Analysis: Evaluating Lexicon-Based and Transformer-Based Models for Product Reviews

Milan Parikh (IETE, SCRS, IEEE Senior Member, USA & Cytel, USA); Arun Kumar Elengovan (Okta Inc. and IEEE Senior Member, USA); Nandagopal Seshagiri (Okta Inc., USA); Rohit Nimmala (Independent Researcher, NC, USA); Bindu Harve (Independent Researcher, USA); Pavan Nutalapati (USA); Vinay R Soni (Independent Researcher, USA & Georgia Institute of Technology, USA)



16:45 A Hybrid Privacy Framework for Multi-Tenant Data Warehouses Using Tokenization and Dynamic Masking

Arun Kumar Elengovan (Okta Inc. and IEEE Senior Member, USA); Milan Parikh (IETE, SCRS, IEEE Senior Member, USA & Cytel, USA); Nandagopal Seshagiri (Okta Inc., USA); Bindu Harve (Independent Researcher, USA); Naga Satya Praveen Kumar Yadati (Meta, USA); Pavan Nutalapati (USA); Rakesh Keshava (IEEE Senior Member, USA)



17:00 Development and Evaluation of Culturally Contextualized Speech Recognition Engine for Reading Assessment

Angie C. Almarza (Iloilo State University of Fisheries Science and Technology, Philippines & State University of Northern Negros, Philippines)



17:15 Comparative Analysis of Student's Perception of Large Language Model (LLM) Use on Algorithm Subject using TAM Approach

Salma Atika Poerwadi (Universitas Telkom, Indonesia); Kemas Lhaksmana (Telkom University, Indonesia)



Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 19:Track 5: Cybersecurity and Privacy Day-1:Research Session 19:Track 5: Cybersecurity and Privacy

Day-1:Research Session 19:Track 5: Cybersecurity and Privacy

Room: E-Lecture Hall - FF002 (HYBRID)

16:00 Player Behavior and Its Impact on Cybersecurity Threats in Online Gaming

Ala Aabdulhakim Al-areqi (Western Sydney University, Australia & Cybersecurity Aid and Community Engagement, Australia); Syed Shuaib Warisi, Alana A Maurushat, Farnaz Farid, Jack Shuaib Jones, Arman Goharinasab and Ratib Shuaib Hoque (Western Sydney University, Australia)

16:15 A Novel Authentication Scheme for Smart Homes

Irfan Alam Irfan (Arab Open University Bahrain, Bahrain & Computer Studies, Bahrain)



16:30 A Paradox-Pathway Framework for Digital Transformation in Small Island Developing States

Mohamed Shareef (Nexia Maldives, Maldives)



16:45 Security and Forensic Issues in Internet of Everything Networks: A Review

Loso Judijanto (IPOSS, Indonesia); Sri Nurhayati (IKIP Siliwangi, Indonesia & None, Indonesia)



17:00 Recovering File Extensions, Deleted Files, and Encrypted Data after Windows Malware Attacks: Methods, Tools, and Forensic Considerations

Mohammad Qbea'h (United Arab Emirates University, United Arab Emirates)



17:15 A Hybrid Data-Driven Clustering Approach for Beneficiary Prioritization Using Jenks Natural Breaks and Simple Additive Weighting Method

John Rey A. Alipe (Iloilo State University of Fisheries Science and Technology, Philippines & State University of Northern Negros, Philippines);
Ramil G. Lumauag (State University of Northern Negros, Philippines)



Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems Day-1:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems

Day-1:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems

Room: F-Lecture Hall - FF012 (HYBRID)

16:00 Fast Tensor Convolver Multiplier for Exact Integer Convolution and Multiplication

Mehmet E Ciftcibasi (Edge T&I - Radar and Electronic Warfare Center of Excellence, United Arab Emirates)



16:15 Development of Educational Trainer Using 8051, Arduino, ESP8266, Raspberry Pi for Multi-Platform Microcontroller Learning

Jerry Incierto Teleron (Technological Institute of the Philippines - Quezon City, Philippines)

**16:30 Towards Secure Smart-Home Environments: Machine Learning for IoT Device Classification, Segmentation, and Botnet Detection**

Amjad Qashlan (University of Jeddah, Saudi Arabia)

**16:45 Analyzing Data Integrity and Transmission Patterns in a Smart Oyster Mushroom Cultivation**

Shem L. Gonzales, Chrysler Van D. Conde and Rex C. Legaspi (Surigao del Norte State University, Philippines); Jenie L. Plender-Nabas (Caraga State University, Philippines); Jerry I. Teleron (Technological Institute of the Philippines - Quezon City, Philippines)

**17:00 Innovative Portable Drawing Table with Integrated Technology Package for Drafting Technology Management**

Jerry Incierto Teleron (Technological Institute of the Philippines - Quezon City, Philippines)

**17:15 TinyEdgeMesh: A Federated TinyML Framework for Distributed Learning Across Resource-Constrained IoT Nodes**

Nasser S Albalawi and Abdulaziz G Alanazi (Northern Border University, Saudi Arabia)

Monday, December 22 16:00 - 17:30 (Asia/Bahrain)

Day-1:Research Session 21:Track 14: E-Health, Bioinformatics, and Computational Biology Day-1:Research Session 21:Track 14: E-Health, Bioinformatics, and Computational Biology

Day-1:Research Session 21:Track 14: E-Health, Bioinformatics, and Computational Biology

Room: G-Lecture Hall - FF028 (HYBRID)

16:00 Use digital health and AI to close access and quality disparities

Nasser Al Muraqab (University of Dubai, United Arab Emirates); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain); Abdelsalam Hamid (A'Sharqiyah University, Oman); Baligh Bsher (GU, Bahrain); Shafeeq Ahmed Ali (Gulf University, Bahrain); Fajer Danish (University for Women, Bahrain)

16:15 GenAI-Powered Clinical Libraries: Enhancing Patient-Centric Care with Retrieval-Augmented Generation and Multimodal Search

Shravya Bussari (Hcltech, USA); Ritesh H Ruparel (CSG International, USA)



16:30 Psychological Stress in High-Risk Industries: The Impact of Emotional Demands, Work-Family Conflict, and Job Instability

Ali Ateeq (Gulf University, Bahrain); Gehad Mohammed Ahmed Naji (Universiti Teknologi Petronas, Malaysia); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain); Ahmad Shahrul Nizam Isha (Universiti Teknologi PETRONAS, Malaysia); Shafeeq Ahmed Ali (Gulf University, Bahrain); Yulita Hanum P Iskandar (Universiti Sains Malaysia, Malaysia)

16:45 Beyond The Desk: Organisational Deficits And The Necessity Of Administrative Controls For MSK Risk In Indian Higher Education

Shaik Balkhis Banu (Fatima College of Health Sciences, United Arab Emirates); Ali Ateeq (Gulf University, Bahrain); Yogawallie Rengasamy (Physiotherapists, Saudi Arabia); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain)

**17:00 The Genome as a Quantum Error-Correcting Code**

Irfan Alam Irfan (Arab Open University Bahrain, Bahrain & Computer Studies, Bahrain); Sultan Alam and Anish Pawar (VIT Bhopal University, India); Mohammad Abdussami (SRM University AP, India)

**17:15 Explainable and Multimodal AI Approaches for Early Detection and Prognosis in Autoimmune Liver Diseases**

Samuel Giftson Durai (UTAS Muscat, Oman); Ben George Ephrem (University of Technology and Applied Sciences, Oman); Jeba Roseline, Teresa K.george and Gnana Rajesh (UTAS, Muscat, Oman); Abraham Varghese (University of Technology and Applied Sciences, Oman); Giri Ramadoss (UTAS, Muscat, Oman)



Tuesday, December 23

Tuesday, December 23 8:30 – 9:00 (Asia/Bahrain)

REGISTRATION Day-2 Tuesday 23 December 2025: REGISTRATION Day-2

Tuesday, December 23 9:00 – 9:30 (Asia/Bahrain)

Keynote Speaker (Online): PROF. HAMID Keynote Speaker-1, Tuesday 23 December 2025

Keynote Speaker-1, Tuesday 23 December 2025

Room: Main Conference (Amphitheater)

Tuesday, December 23 9:30 - 10:00 (Asia/Bahrain)

Keynote Speaker (Online): ENG. DEVEN Keynote Speaker (Online)

Room: Main Conference (Amphitheater)

Tuesday, December 23 10:00 - 10:45 (Asia/Bahrain)

Panel Discussion 2: Panel Discussion 2:

Room: Main Conference (Amphitheater)

Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

**Day-2: Research Session 1:Track 1: Artificial Intelligence and Machine Learning Day-2:
Research Session 1:Track 1: Artificial Intelligence and Machine Learning**

Day-2: Research Session 1:Track 1: Artificial Intelligence and Machine Learning

Room: A-Lecture Hall - SF001 (HYBRID)

10:45 A Systematic Review of Machine Learning and Deep Learning Approaches for Credit Card Fraud Detection

Asmaa F. Hassan (Arab Open University, Egypt & Egypt Branch, Egypt); GannaTullah Asaad Gouda, Ali Mohamed Ali, Ahmed Khaled Abdulfatah, Abdelrahman Mahmoud Ahmed and Shady Abdelhady Abdelmoneim (Egyptian Russian University, Egypt)

11:00 Kyber-MSMT-PF: An Intelligent Hybrid Cryptosystem for Post-Quantum Security

Marwa Sharawi, Maryam Almulla, Abdullah Al-Obaid and Nour Rezkalla (American University of Kuwait, Kuwait)



11:15 Exploring the Influence of Digital Engagement Factors on Trust and Online Shopping Behavior in Beauty Live Commerce

Noah Efendi, A Raharto Condrobimo and Danang Prihandoko (Bina Nusantara University, Indonesia)



11:30 Personalization at Scale: Leveraging AI for User-Centric 0-1 Product Design

Mohana Karumuri (Tapclicks, USA); Thiffany Belda (Troy University, USA)

**11:45 Evolution of IVR building techniques: from code writing to AI-powered automation**

Khushbu Mehboob Shaikh (Technical Lead, Principal Technical Account Manager Twilio Inc. Irving, Texas, United States); Georgios Giannakopoulos (Independent Researcher, The Netherlands)

**12:00 A Novel Speckle-Aware Dynamic Vision Transformer Deep Learning Model for Retinal Disease Detection**

Vedaant Agarwal (School, USA & Pine Crest School, United Arab Emirates); Yelena Yesha (University of Miami, USA)

12:15 Sentiment Analysis for Arabic Expo Visitor Reviews: A Comparative Study from Machine Learning to Transformers

Lama Al-Qarni, Raghad Baroud and Wasan Alotaibi (University of Jeddah, Saudi Arabia); Remas Hajed (Alghamdi, Saudi Arabia); Shaden Alghamdi and Shahd Alahdal (University of Jeddah, Saudi Arabia)

**12:30 Readiness and Barriers to AI Adoption in Electronic Archiving in Higher Education Institutions in Oman**

Yousuf Nasser Al Husaini (Arab Open University Oman, Oman); Abdul Rahman Al Abri and Rahma Mohammed Al Kharusi (Arab Open University, Oman); Mohammed Abdullah Salim Al Husaini (Arab Open University Oman, Oman)



Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Day-2:Research Session 2 Day-2:Research Session 2

Day-2:Research Session 2

Room: B-Lecture Hall - SF04 (HYBRID)

10:45 Hybrid Encryption Scheme for Securing Drone Surveillance Data in Military and Safety Applications

Afeefa Muskan, Almaha Al-Kuwari, Yara Ahmed, Hissa Almerekhi and Elias Yaacoub (Qatar University, Qatar)

**11:00 Generative AI and the Ethics of Innovation: Towards Inclusive and Sustainable Futures**

AWS Ismail Abueid (Arab Open University - KUWAIT, Kuwait); Moneef M. Jazzar (Arab Open University, Saudi Arabia)

**11:15 Composable AI Stack for Marketing Agents: Modular Orchestration Using Context Routing, Memory, and Tools**

Manan Agrawal (University of North Carolina Charlotte, USA); Angshuman Rudra (Tapclicks, USA)

**11:30 Sentiment in Artificial Intelligence**

Meera Ramadas (Arab Open University Bahrain, Bahrain); Maram Bejaoui (Arab Open University, Bahrain)

**11:45 Securing Test Automation in Zero Trust Architectures: A Framework for Continuous Verification**

Jay Bharat Mehta (Cleveland State University, Alumni, USA)

**12:00 Edge-to-Cloud AI Inference Pipelines: A Resilient Architecture for Real-Time Decision Systems**

Kapil Kumar Goyal (The University of California, Irvine, USA)

12:15 Shaping the Future of Education Through Technology: A Conceptual Framework for Bahrain

Mahmood Akbar (Arab Open University Bahrain, Bahrain); Fatema Faraj Masaud (Arab Open Univrsity - Bahrain, Bahrain); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain)

**12:30 Comparative Analysis of Recurrent Neural Network Architectures for Real-Time VANET Misbehavior Detection: Performance vs. Efficiency Trade-offs**

Nayera Youness (The British University in Egypt, Egypt & Ain Shams University, Egypt); Ahmad Mostafa (Capella University, USA); Mohamed Ali Sobh (Elsewedy University of Technology, Egypt & Ain Shams University, Egypt); Ayman Bahaa-Eldin (Ain Shams University, Egypt); Khaled Ahmed Nagaty (The British University in Egypt & Ain Shams Uiversity, Egypt)

Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Day-2:Research Session 3:AI-Driven Enterprise Systems, Human-Centric Applications, and Cloud-Native Solutions Day-2:Research Session 3:AI-Driven Enterprise Systems, Human-Centric Applications, and Cloud-Native Solutions

Day-2:Research Session 3:AI-Driven Enterprise Systems, Human-Centric Applications, and Cloud-Native Solutions

Room: C-Lecture Hall - SF010 (HYBRID)

10:45 Operationalizing AI in Cloud-native Systems: A DevSecOps Framework for Secure, Scalable, and Cost-efficient Engineering

Manan Agrawal (University of North Carolina Charlotte, USA); Shalini Sudarsan (Kindercare Learning Companies, USA)



11:00 Artificial Intelligence in Human Resources Practices

Afnan Yousef Alnajim (Prince Mohammed Bin Fahd University, Saudi Arabia); Razan Yousef Alnajim (Software Engineering Graduate, Saudi Arabia & Prince Mohammed Bin Fahd University, Saudi Arabia)

11:15 Comparative Study of AI Models for Electricity Demand Forecasting

Layla Faisal ALhalwachi, Dr Layla ('Arab Open University', Bahrain & Bahrain Polytechnic, Bahrain)

**11:30 A Cloud-Native Internal Developer Platform for the Accelerated Lifecycle Management of Heterogeneous Autonomous Robot Fleets**

Akshay Mittal (University of the Cumberlands, USA); Krishna Kandi (USA)

**11:45 AI-Optimized Data Governance: A Federated Framework for Multi-Enterprise Organizations**

Gregory David Spehar (GiDanc AI LLC, USA); Akshay Mittal (University of the Cumberlands, USA); Dave Bhattacharjee (Farm Credit Bank of Texas, USA)

**12:00 Evaluating Serious Game Effectiveness For Obsessive Compulsive Disorder (OCD) Representation And Mental Health Awareness**

Vincentius Tristan Chandra (Bina Nusantara University, Indonesia); Dicky Dixon (BINUS University, Indonesia); Muhammad Ryan Arrafi and Dimas Ramdhan (Bina Nusantara University, Indonesia)

**12:15 Exploring the Negative Effects of Gamification on Students: A PRISMA-Based Systematic Literature Review**

Muhammad Adhiim Nugroho, Afina Salma, Akmal Rasyid Pradipa and Edi Purnomo Putra (Bina Nusantara University, Indonesia)

**12:30 Skill-Driven Resilience: Human Resources' Role in Upskilling and Reskilling Workforce for Digital Transformation in Future Proofing Organizations Insights from Bahrain's Telecommunication sector**

Sherine Badawi (Arab Open University, Bahrain)



Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Day-2:Research Session 4:AI, IoT, and Intelligent Systems for Smart Infrastructure and Automotive Applications

Smart Infrastructure and Automotive Applications

Day-2: Research Session 4: AI, IoT, and Intelligent Systems for Smart Infrastructure and Automotive Applications

Room: D-Lecture Hall - SF015 (HYBRID)

10:45 *Exploring the DoIP Protocol in Automotive Systems Architecture and Deployment Challenges*

Imen Bouzarkouna (Cesi LINEACT, France); Marwen Aouini (DUNASYS, France)

11:00 *Prototype for IoT-Based Flood Detection System in Tunnels*

Saqer Almurikhi, Osama Abdelaziz, Fawaz Al-Soufi, Rashid Alyafei and Elias Yaacoub (Qatar University, Qatar)



11:15 *A Hybrid Unsupervised-Supervised Learning Framework for Transformer Fault Detection with Wavelet and PCA Preprocessing*

Isaac Oppong-Baah (Norfolk State University, USA); Isaac O Osunmakinde (Norfolk State University, USA & None, USA)

11:30 *Comparative Analysis of Generative AI Models for Driver Distraction Detection: A Study on Claude and GPT Architectures*

Lugman Ali, MD Didarul Alam, Nadia Maksoud and Lujain Kuruvachalil (United Arab Emirates University, United Arab Emirates); Fady Alnajjar (UAE University, United Arab Emirates); Hamad Al Jassmi (United Arab Emirates University, United Arab Emirates)



11:45 *Usage of the Large Action Models in Agentic AI*

Pradnya Harshad Desai (Salesforce, USA)



12:00 *Toward a Theoretical Mapping of Internet Addiction Subtypes and AI Detection Models, A Conceptual Paper*

Elham Eskandarnia (Arab Open University Bahrain', Bahrain)



12:15 *Enterprise-Scale SSL/TLS Automation Using Let's Encrypt: A Practical Framework for Certificate Lifecycle Management*

Usha Rani Sheri (USA); Vasanth rao Jadav (EPAM Systems, USA)



12:30 *Optimal Placement and Sizing of FACTS Devices in Radial Distribution Systems Using Snooker-Based Optimization Algorithm*

Khawlah Ribat (Al-Furat Al-Awsat Technical University, Iraq & Al-Mussaib Technical College, Iraq)



Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Day-2:Research Session 5:Cloud Computing, AI-Driven Analytics, and Intelligent Infrastructure

Day-2:Research Session 5:Cloud Computing, AI-Driven Analytics, and Intelligent Infrastructure

Day-2:Research Session 5:Cloud Computing, AI-Driven Analytics, and Intelligent Infrastructure

Room: E-Lecture Hall - FF002 (HYBRID)

10:45 *Infrastructure-as-Code Framework for Resilient Kubernetes on AWS with Terraform*

Srivenkateswara Reddy Sankiti (Cleveland State University, USA); Ashok Gadi Parthi (Verizon, USA); Shiva Kumar Reddy Carimireddy (Fidelity Investments, USA); Balakrishna Pothineni and Vinoth Punniyamoorthy (JPMorgan Chase, USA); Kabilan Kannan (AMD, USA); Nachiappan Chockalingam (Meta, USA); Vishnu Ramineni (Albertsons Companies, USA); Seema Gangaiah Aarela (Austin College, USA & University of North Texas, USA)

11:00 *Enhancing Pilgrim Crowd Management in Mina: From Digital Corridor Labels to Physical Coloured Streets*

Samar Aseeri (KAUST, Saudi Arabia)



11:15 *A Unified Analytics Framework for Cloud Governance, Cost Optimization, and Security Compliance: An Azure CCO Case Study*

Vasanth rao Jadav (EPAM Systems, USA); Akshay Mittal (University of the Cumberland, USA); Karthik Pappu (Dakota State University, USA)



11:30 *Redefining Talent Pipelines in Bahrain's Industry Through Blended Learning and Tech Integration*

Layla Faisal AlHalwachi, Dr Layla ('Arab Open University', Bahrain & Bahrain Polytechnic, Bahrain); Layla AlHalwachi (Bahrain Polytechnic, Bahrain)

11:45 *From Automation to Human-Centric Innovation: The transition from Industry*

Asma Ghassoul (University of Bahrain & Sakhir, Bahrain); Mourad Messaadia and Riyadh Ksantini (University of Bahrain, Bahrain)



12:00 *Multi-Dimensional Tail Classification in Procurement Spend Analysis: A Data-Driven Approach to Strategic Sourcing Optimization*

Magzhan Kairanbay (Array Innovation, Bahrain); Najma Ghuloom Taqi (Arab Open University Bahrain, Bahrain); Basaveswar reddy Mora Reddy (Arab Open University, Bahrain & Aluminium Bahrain, Bahrain); Ahmed Bahar (Aluminium Bahrain, Bahrain)



12:15 *Real-Time Multi-Parameter Petroleum Coke Quality Monitoring Using Computer Vision and Integrated Anomaly Detection for Aluminum Smelting Operations*

Magzhan Kairanbay (Array Innovation, Bahrain); Najma Ghuloom Taqi (Arab Open University Bahrain, Bahrain); Basaveswar reddy Mora Reddy (Arab Open University, Bahrain & Aluminium Bahrain, Bahrain); Ahmed Bahar (Aluminium Bahrain, Bahrain)



12:30 *Intelligent Fraud Detection Using Machine Learning in Cross-Platform Retail and Banking Transactions*

Balakumaran Sugumar (USA); Tarun Kalwani (None, USA)



Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Day-2:Research Session 6:AI, Cloud Systems, and Intelligent Applications for Education, Finance, and Sustainable Technologies Day-2:Research Session 6:AI, Cloud Systems, and Intelligent Applications for Education, Finance, and Sustainable Technologies

Day-2:Research Session 6:AI, Cloud Systems, and Intelligent Applications for Education, Finance, and Sustainable Technologies

Room: F-Lecture Hall - FF012 (HYBRID)

10:45 *Bag-of-Tasks Scheduling based on Number of Task Groups and Number of Tasks in Distributed Computing Systems*

Helen Karatza (Aristotle University of Thessaloniki, Greece)



11:00 *AI in Blended Learning: Enhancing Personalization, Efficiency, and Accessibility*

Ashraf Ali (Arab Open University-Bahrain, Bahrain); Raja Zahid Farid (Onaizah Colleges, Saudi Arabia); Ahmad Kananah (Arab Open University-Bahrain, Bahrain)

11:15 *Medallion Architecture for Cloud Data Integration Using dbt on AWS*

Balakrishna Pothineni (JPMorgan Chase, USA); Ashok Gadi Parthi (Verizon, USA); Ram Sekhar Bodala (Amtrak, USA); Nitin Saksena (Albertsons Companies, USA); Aswathnarayan Muthukrishnan Kirubakaran (Meta Inc, USA); Abhirup Mazumder (Amazon, USA); Bikesh Kumar (Apple Inc., USA); Sumit Saha (East West Bank, USA)



11:30 *A Deep Learning Conversational Virtual Human for Assisting Individuals with Autism Spectrum Disorder*

Aya Hegazy (Arab Academy for Science and Technology, Egypt); Khaled Mahar (Arab Academy for Science and Technology and Maritime Transport & College of Computing and Information Technology, Egypt); Nahla Belal (Arab Academy for Science, Technology, and Maritime Transport & College of Computing and Information Technology, Egypt)

11:45 Integration of LLM and RAG to Enhance Process Mining for Open Library Book Loans

Yassmin Syaharah Juliaman (Universitas Telkom, Indonesia); Angelina Prima Kurniati (Telkom University, Indonesia)

**12:00 Modeling Regional Diffusion of Electric Vehicle Incentives Using Graph Neural Networks**

Said Almagbali (MMU, Malaysia); Asmaa H. Marhoubi (University of Technology and Applied Sciences, Oman)

**12:15 Implementation of Kakeibo Method in Personal Finance Management Application**

Risna Sari (Politeknik Negeri Jakarta, Indonesia); Muhammad Dzaky Nashshar (Jakarta State Polytechnic, Indonesia); Rizki Elisa Nalawati (State Polytechnic of Jakarta, Indonesia); Hata Maulana and Iwan Sonjaya (Politeknik Negeri Jakarta, Indonesia)

**12:30 Efficient AI model deployment using quantization analysis tool**

Dwith Chenna (Advanced Micro Devices, USA)

Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Day-2:Research Session 7:AI, Security, and Intelligent Systems for Societal and Real-Time Applications Day-2:Research Session 7:AI, Security, and Intelligent Systems for Societal and Real-Time Applications

Day-2:Research Session 7:AI, Security, and Intelligent Systems for Societal and Real-Time Applications

Room: G-Lecture Hall - FF028 (HYBRID)

10:45 Enhancing Autism Education An Experimental Study on the Smart Heuristic Kit

Ahmed Shuhaiber (Zayed University, United Arab Emirates)

11:00 HashiCorp Vault Integration to Store Secrets and Securely Connect With Any Application: A Cost-Efficient and Enterprise-Grade Security Model

Usha Rani Sheri (USA)

**11:15 A Privacy-Preserving Blockchain System for Analytics-Ready EHRs**

Marina Zakaria Boles, Sahar M. Ghanem and Samia M. Hafez (Alexandria University, Egypt)



11:30 AI-Based Microstructural Analysis of Carbon Fiber Epoxy Composites for Hydrogen Storage Applications: A U-Net Segmentation Approach

Fakhreddine Ababsa (PIMM Laboratory, France & ENSAM, France); Jean Facchini and Mohammadali Shirinbayan (PIMM Laboratory, France)

11:45 Model Context Protocol Business Analyst (MCP-BA): A Governed and Explainable Framework for Enterprise Analytics

Tejas Pravinbhai Patel (Independent Researcher, IEEE); Sandeep Shivam (Tavant Technologies, USA); Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekar Medicherla (Salesforce Inc, USA); Amit Kumar Padhy (University of Illinois Urbana-Champaign, USA & Adobe Inc., USA); Bharadwaj Vulugundam (Oracle, USA)



12:00 Comparative Analysis of Metaheuristic Algorithms for High-Dimensional Rastrigin Optimization

Abdullah Omar and Baraa T. Sharef (American University of Bahrain, Bahrain)



12:15 Automated Multi-Site Federated Learning Infrastructure with Terraform-Based IaC on AWS

Abhirup Mazumder (Amazon, USA); Vinoth Punniyamoorthy (JPMorgan Chase, USA); Sumit Saha (East West Bank, USA); Ram Sekhar Bodala (Amtrak, USA); Suhas Malempati (The Cato Corporation, USA); Lokesh Butra (NTT Data, USA); Shiva Kumar Reddy Carimireddy (Fidelity Investments, USA); Aswathnarayan Muthukrishnan Kirubakaran (Meta Inc, USA)

12:30 SECCOMMS: AI-Driven Visual Steganography for Secure Communication

Abdulla Ahmad Jassim Abdulrahman Al-Hail (Oryx University, Qatar)

Tuesday, December 23 10:45 - 12:45 (Asia/Bahrain)

Workshop 2: Day 2 - Tuesday 23 December 2025 Workshop 2: Day 2 - Tuesday 23 December 2025

Room: Main Conference (Amphitheater)

Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)

Day-2:Research Session 10: Intelligent Systems, Computer Vision, and Embedded AI Applications Day-2:Research Session 10: Intelligent Systems, Computer Vision, and Embedded AI Applications

Day-2:Research Session 10: Intelligent Systems, Computer Vision, and Embedded AI Applications

Room: C-Lecture Hall - SF010 (HYBRID)

12:45 YOLOv8-Based Deep Learning for Multi-Class Leukocyte Detection in Digital Hematology

Sonia Ikken-Benali (Cesi - LINEACT, France & CESI LINEACT, France); Yassine Aouni (Moroccan School of Engineering Sciences, Morocco)



13:00 RiskRover: Multifunctional Autonomous Rescue Robot for Hazard and Victim Detection

NoorAlhodaa Elshawadfy, Isra Ali, Mubashshira Ziaul Matin, Ftoun AlMkhlef and Elias Yaacoub (Qatar University, Qatar)



13:15 Smart-Home Security: A Low-Cost Hybrid Security Solution

Omnia Abu Waraga, Manar Abu Talib and Sohail Abbas (University of Sharjah, United Arab Emirates); Qassim MH Nasir (University Of Sharjah, United Arab Emirates)

13:30 A Hypertension Prediction System Based On Low-Power Analog Hardware Neural Network

Vassilis Alimisis, Anna Mylona, Andreas Papathanasiou and Vasileios Moustakas (National Technical University of Athens, Greece); Paul P Sotiriadis (National Technical University of Athens, Greece & Archimedes, Athena Research Center, Greece)



13:45 Survey and Benchmarking of Retrieval Methods for Enterprise Retrieval-Augmented Generation

Ritesh H Ruparel (CSG International, USA); Shravya Bussari (Hcltech, USA)



Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)

Day-2:Research Session 11:IoT, Networked Systems, and Secure Intelligent Applications Day-2:Research Session 11:IoT, Networked Systems, and Secure Intelligent Applications

Day-2:Research Session 11:IoT, Networked Systems, and Secure Intelligent Applications

Room: D-Lecture Hall - SF015 (HYBRID)

12:45 Performance Analysis of IoT protocols: MQTT vs MQTTs with Encrypted vs Unencrypted

Ali Baydoun (Liverpool John Moores University, United Kingdom (Great Britain))

13:00 Agentic AI for Autonomous Defense in Software Supply Chain Security: Beyond Provenance to Vulnerability Mitigation

Toqeer Ali (Islamic University of Madinah, Saudi Arabia); Mohammad Riyaz Belgaum (Arab Open University - Bahrain, Bahrain); Salman Jan (Arab Open University, Bahrain); Asadullah Abdullah Khan and Saad Alqahtany (Islamic University of Madinah, Saudi Arabia)



13:15 *The Influence Of E-Servicescape On Purchase Intention Through Customer Trust A Study On Prospective Users Of The Brins Mobile Application*

Adawiah Puspita Sari (BINUS Business School, Indonesia); Fadel Himawan Kuncorojati (Business School Undergraduate Program, Indonesia); Anisa Larasati (Bina Nusantara University, Indonesia)



13:30 *Unveiling the Potential of Open Innovation for Sustainable Supply Chain Development: A Systematic Review*

Samrena Jabeen (Arab Open University, Bahrain); Habil Slade Ogalo (Arab Open University-Bahrain, Bahrain); Muhammad Imran Qureshi (International Business School, Teesside University, United Kingdom (Great Britain)); Nohman Khan (Asia Pacific University of Technology and Innovation, Malaysia); Nawal Md Mohabbat Hossain Md Mohabbat Hossain (Arab Open University, Bahrain)

13:45 *Energy-Efficient Distance-Controlled (EEDC) Clustering for Bottleneck Avoidance in Wireless Sensor Networks*

Ahmad Abuashour (Arab Open University, Egypt)



Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)

Day-2:Research Session 12:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems Day-2:Research Session 12:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems

Day-2:Research Session 12:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems

Room: E-Lecture Hall - FF002 (HYBRID)

12:45 *IntelliCare: A Smart Pharmaceutical and Holistic Health Recommendation System*

Dina Darwish and Mohamed Magdy (Ahram Canadian University, Egypt); Mohamed Eid Hussein (Ahram Canadian University, Egypt & W, Egypt); Abdelrahman Mohamed (Ahram Canadian University, Egypt)



13:00 *Enhancing Education through Ethical Integration of Generative AI*

Drishti Joshi, Deepro Chatterjee and Vikas Upadhyaya (NIIT University, India)

**13:15 SmartFactCheckBot: A Dual-Interface AI Platform for Real-Time Misinformation Detection with Explainable Predictions**

Baskaran Jeyarajan and Vigneshwaran Jagadeesan Pugazhenth (IEEE Senior Member, USA)

**13:30 A Conceptual Framework for Authentication in Agentic AI Ecosystems: Protocol Analysis and Taxonomy**

Badal Bhushan (I.E.T. M.J.P. Rohilkhand University, India); Karthik Pappu (Dakota State University, USA); Akshay Mittal (University of the Cumberlands, USA)

**13:45 Emotionally Intelligent MetaHuman-Based Framework for Language Learning through Conversational Simulation**

Rain Alkai, Islam Hamdi and Osama Halabi (Qatar University, Qatar)

Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)

Day-2:Research Session 13:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems Day-2:Research Session 13:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems

Day-2:Research Session 13:Ethical, Explainable, and Human-Centered Artificial Intelligence Systems

Room: F-Lecture Hall - FF012 (HYBRID)

12:45 Compare and Contrast Artificial Neural Networks and Reinforcement Learning

Krishna D Jadhav (University of Chicago, USA & Tech Mahindra, USA); Rajesh Nelwadkar (USA)

**13:00 Multi-Context Protocol (MCP) Hosts provide secure and real-time integration of AI tools**

Vasanth rao Jadav (EPAM Systems, USA)

**13:15 Efficient Routing Scheme Using Quadrant Turn Model for 2D Mesh NoC Architecture**

Umar Adeel, Muhammad Irtiza, Kalkidan Kerala and Ali Alnoman (American University of Ras Al Khaimah, United Arab Emirates); Adeel Akram (University Of Engineering & Technology, Taxila, Pakistan)

13:30 Toward Unified Multimodal Frameworks: A Systematic Review of AI-Driven and Immersive Technologies for Inclusive STEM Education

Thenuka Chandrabhanu Liyanage (Informatics Institute of Technology, Sri Lanka); Santhusha Mallawatantri (Informatics Institute of Technology, Sri Lanka & University of Westminster, Sri Lanka)

**13:45 Deep Analysis of Sequential and Parallel CNN-LSTM Architectures for Energy Time Series Forecasting**

Jerry I. Teleron (Technological Institute of the Philippines - Quezon City, Philippines); Shem L. Gonzales (Surigao del Norte State University, Philippines); Arnel C. Fajardo (Isabela State University, Philippines)

**Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)****Day-2:Research Session 14:Secure and Real-Time Intelligent Systems and Applications****Day-2:Research Session 14:Secure and Real-Time Intelligent Systems and Applications**

Day-2:Research Session 14:Secure and Real-Time Intelligent Systems and Applications

Room: G-Lecture Hall - FF028 (HYBRID)

12:45 Enhancing Cybersecurity Systems through PGP Integration

Ala Samy El-bardini (Oryx University, Qatar)

13:00 Staffing Connect 2.0: Enhancing Domiciliary Care Efficiency through Swipe Verification, Live GIS Tracking, and Secure Incident Reporting

Ekereuke Udoh (QA Higher Education, United Kingdom (Great Britain)); Ayobami Gbemi Aliu (Ulster University, United Kingdom (Great Britain))

13:15 A Dual-Segment Tendon-Driven Soft Continuum Robot with Vision-Based Bending Estimation and Finite Element Validation

Anas Hassan Abdelmoneam (The British University in Egypt, Egypt & None, Egypt); Saifeldeen Ayman Radwan (The British University in Egypt, Egypt)

**13:30 Real-Time and Low Latency Sky Eye Vision Based on Drone-Mounted FPV Head Tracking System**

Abdulla Desmal and Sami Bawazir (Bahrain Polytechnic, Bahrain)

**13:45 Analyzing Performance and Operational Trade-offs in Kong Gateway Deployments on AWS ECS and EKS Platforms**

Vinoth Punniyamoorthy (JPMorgan Chase, USA); Srivenkateswara Reddy Sankiti (Cleveland State University, USA); Nachiappan Chockalingam (Meta, USA); Akash K Agarwal (Albertsons Companies Inc, USA); Aswathnarayan Muthukrishnan Kirubakaran (Meta Inc, USA); Bikesh Kumar (Apple Inc., USA); Kabilan Kannan (AMD, USA); Suhas Malempati (The Cato Corporation, USA)



Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)

Day-2:Research Session 8:Track 1: Artificial Intelligence and Machine Learning Day-2:Research Session 8:Track 1: Artificial Intelligence and Machine Learning

Day-2:Research Session 8:Track 1: Artificial Intelligence and Machine Learning

Room: A-Lecture Hall - SF001 (HYBRID)

12:45 *The role of artificial intelligence, blockchain technology & fintech in influencing environmental performance in emerging markets*

Marwan Milhem (Assistant Professor & Gulf University, Bahrain); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain)

13:00 *Keratoconus Diagnosis from Corneal Map Color Patterns Using Machine Learning*

AbdIlrahman Thanon Alqazaz, Mohammed A M Abdullah and Bashar Ayad Saeed (Ninevah University, Iraq)



13:15 *Edutainment Games in English Language Learning: An Empirical Study of Usage and Impact at AOU Bahrain*

Rupa Supriya Garnipudi and Hilda Jeyakumari (Arab Open University, Bahrain); Meera Ramadas (Arab Open University Bahrain, Bahrain)



13:30 *FANN: Fourier Adaptive Neural Network for Dynamic Learning*

Muhammad Ali Akbar (Hamad Bin Khalifa University, Qatar); Munir Azam Muhammad (Research and Development IOT Softwares and Solution, Pakistan); Samir Brahim Belhaouari (Hamad Bin Khalifa University, Qatar)

13:45 *Investigating the Challenges and Strategies for Cognitive Development in Indonesian Students in the AI Era: An Extended Technology Acceptance Model Approach*

Joyceline Laura Amanda (Bina Nusantara University, Indonesia); Indrajani Sutedja (Binus University, Indonesia & BCA, Indonesia)



Tuesday, December 23 12:45 - 14:00 (Asia/Bahrain)

Day-2:Research Session 9:AI and Modeling for Intelligent Systems, Communications, and Energy Applications Day-2:Research Session 9:AI and Modeling for Intelligent Systems, Communications, and Energy Applications

Day-2:Research Session 9:AI and Modeling for Intelligent Systems, Communications, and Energy Applications

Room: B-Lecture Hall - SF04 (HYBRID)

12:45 *HFSS-Driven Optimization of Arbitrary Patch Antennas: FR4 vs. Rogers at 2.4 GHz*

Samir Haddad and Jinane Sayah (University of Balamand, Lebanon); Saeed Al Gharib (University of the Basque Country - UPV/EHU, Lebanon); Chadi Kallab (Lebanese American University, Lebanon); Manar Alhalboosi and Kassem Hamze (Islamic University of Lebanon, Lebanon); Ali Rachini (Holy Spirit University of Kaslik, Lebanon)



13:00 *Modeling and Simulation of LTE Modulation Schemes: a Practical Approach Using MATLAB and Simulink*

John Harb (NDU, Lebanon); Chady El Moucary and Abdallah Kassem (Notre Dame University, Lebanon)

13:15 *Secure AI-SDLC for Critical Infrastructure: Operationalizing the NIST AI RMF with Evidence-Driven Controls*

Shalini Sudarsan (Kindercare Learning Companies, USA); Akshay Mittal (University of the Cumberlands, USA); Akshay Sekar Chandrasekaran (Intuit, USA)



13:30 *AI-Augmented Macroeconomic Resilience Modeling: A Hybrid Deep Learning Framework for Predicting Economic Shocks in Emerging Economies*

Vinodh Natarajan (Arab Open University Bahrain, Bahrain & Arab Open University, Bahrain); Muhammad Abrar-ul-Haq (University of Bahrain, Bahrain); Ahmed A Khudhur (Arab Open University Bahrain, Bahrain)



13:45 *AI-Driven Prediction and Control for Efficient Ocean Wave Energy Harvesting*

Bouchra Tartoussi (Lebanese University, Lebanon); Taha Houda (Prince Mohammad Bin Fahd University, Saudi Arabia); Abdullah Baradaaji (Lebanese International University, Lebanon); Wafaa Mohammed Ridha Shakir (Al-Furat Al-Awsat Technical University, Iraq)



Tuesday, December 23 14:00 - 15:00 (Asia/Bahrain)

LUNCH BREAK - DAY-2: LUNCH BREAK - DAY-2

LUNCH BREAK - DAY-2

Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 15:Track 1: Artificial Intelligence and Machine Learning Day-2:Research Session 15:Track 1: Artificial Intelligence and Machine Learning

Day-2:Research Session 15:Track 1: Artificial Intelligence and Machine Learning

Room: A-Lecture Hall - SF001 (HYBRID)

15:00 Deep Learning-based Cardiomegaly Detection from Chest X-Rays Using DensNet-169

Omar Mattar Al Ghafri (Arab Open University, Oman); Yousuf Nasser Al Husaini, Mohammad Abrar and Mohammed Abdullah Salim Al Husaini (Arab Open University Oman, Oman)

**15:15 Ensemble Deep Learning for Dental Disease Classification Using DenseNet121 and InceptionV3 with Explainable AI**

A.M. Mutawa, Yacoub Altarakemah and Karthiga Thirupathy (Kuwait University, Kuwait)

**15:30 Synthetic Logic: Coherence Without Truth, Inference Without Reasoning, Meaning Without Grounding**

Constantine Andoniou (Abu Dhabi University, United Arab Emirates)

**15:45 Preprocessing-Enhanced CNN for Accurate Brain Tumor Classification in MRI**

Mohamed Emad and Abdelrahman Radwan (October University for Modern Sciences and Arts (MSA), Egypt); Tamer M Nassef (October University of Modern Sciences and Arts (MSA), Egypt)

**16:00 Mangrove Above-Ground Biomass Prediction Using Multisource Remote Sensing-Based Ensemble Learning Approach**

Yeftanus Antonio (Universitas Prasetiya Mulya, Indonesia); Livia Janice Widiapradja (BINUS University, Indonesia); Nuning Anugrah Putri Namari (International Institute for Carbon-Neutral Energy Research (I2CNER), Japan); Alvian Shanardi Wijaya (Binus University, Indonesia); Michael Suthirta and Tohru Djunaedi Sato (BINUS University, Indonesia)

16:15 Fish Species Classification and Skin Disease Detection in Underwater Images Using YOLO and CNN

Ayman Ghadouna, Mohamed Adam Sterheltou, Mohamed Hadadi and Yousra Chtouki (Al Akhawayn University, Morocco)



Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 16:Track 2: Data Science and Big Data Analytics Day-2:Research Session 16:Track 2: Data Science and Big Data Analytics

Day-2:Research Session 16:Track 2: Data Science and Big Data Analytics

Room: B-Lecture Hall - SF04 (HYBRID)

15:00 *An Empirical Evaluation of Hyperparameter Optimization Strategies in Machine Learning*

Khalid Mansour (Arab Open University, Bahrain)



15:15 *AI for Equity (AI4E)*

Constantine Andoniou (Abu Dhabi University, United Arab Emirates)



15:30 *An Optimized DenseNet-201 Model in Classifying Cocoa Pod Maturity using Bayesian Optimization*

Hermoso Tupas Jr (University of Southeastern Philippines, Philippines); Ariel Sison (Emilio Aguinaldo College, Philippines); Ruji Medina (Technological Institute of the Philippines, Philippines)



15:45 *Advancing Learning in Higher Education: A Triadic Framework of Computational Thinking, Doing and Systems Thinking*

Prashant G Joshi (Leap & Scale & BITS Pilani K K Birla Goa Campus, India)

16:00 *RISC-V Unified: A Cross-Platform Generation Framework from Architecture to Implementation*

Mohamed Badawy (Infineon Technologies AG, Germany & Technical University of Munich, Germany); Jiulong Wang (Infineon Technologies AG, Technical University of Munich, Germany); Paritosh Kumar Sinha and Wolfgang Ecker (Infineon Technologies AG, Germany)

16:15 *A Compliance-Focused Retrieval-Augmented AI System for Pharmacy Policy Assistance*

Thiyagarajan Kalyanasundaram (HCL Technologies, USA); Vasanth rao Jadav (EPAM Systems, USA)



Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 17: Intelligent Computing Systems, Cloud Technologies, and Emerging AI Applications

Day-2:Research Session 17: Intelligent Computing Systems, Cloud Technologies, and Emerging AI Applications

Room: C-Lecture Hall - SF010 (HYBRID)

15:00 *Advancing WebAccessibility: Systematic Review of Machine Learning Approaches for Web Content Summarization and Accessibility for the Visually Impaired*

Fatima Ezzahrae Massdar, Adnane El Amrani and Yousra Chtouki (Al Akhawayn University, Morocco)

15:15 *AI-Augmented DevOps: An Intelligent Framework for Secure and Scalable Cloud-Native Pipeline Automation*

Akshay Mittal (University of the Cumberlands, USA)



15:30 *The Quantum Leap in AI: Harnessing Quantum Computing for Intelligent Systems*

Shenson Joseph (University of North Dakota, USA & JPMorgan Chase, USA); Ashok Gadi Parthi (Verizon, USA)

15:45 *An Empirical Investigation of Financial Services Firms' Switching Toward Cloud ERP: A Two-Factor Theory Perspective*

Hebah Alnahr (The University of Jordan, Jordan); Laila Dahabiyeh (University of Jordan, Jordan)

16:00 *Unlocking Code Understanding: A Local-First Hybrid Knowledge Graph Approach*

Youssef Matloob, Hanan Ahmed Kamal and Nemat Abdelkader (Cairo University, Egypt)



16:15 *An Empirical Evaluation of Deep Learning Models for Multi-Output Forecasting of Substrate Moisture in Agriculture*

Aileen A Sieras (Technological Institute of the Philippines, Philippines)

Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 18: AI, Autonomous Systems, and Intelligent Analytics for Real-Time and Critical Applications

Day-2:Research Session 18: AI, Autonomous Systems, and Intelligent Analytics for Real-Time and Critical Applications

Room: D-Lecture Hall - SF015 (HYBRID)

15:00 Real-Time, Privacy-Preserving Vision Analytics for Pharmacy Wait-Time Prediction

Thiyagarajan Kalyanasundaram (HCL Technologies, USA)



15:15 Autonomous UAV Traffic Surveillance Using Deep Reinforcement Learning for Continuous Congestion Hotspot Monitoring in Kuwait

Mohammed Almulla, Ali Fenjan, Huda J. Nael, Moudhi A. Almutairi and Aljawharah N. Alajmi (American International University, Kuwait)



15:30 Integrating Tidal Harmonic Analysis with Temporal Fusion Transformer for Sea Level Prediction: A Case Study of Semarang Coastal Area

Faiz Maula Ahmad Edwin Putra (Universitas Telkom, Indonesia); Didit Adytia (School of Computing, Telkom University, Indonesia)



15:45 NeuroSym-FI: A Neuro-Symbolic LLM-Assisted Framework for Explainable Fault Detection in Power Systems

Hassan Moustafa (Al-Nahda University & Egyptian Electricity Holding Company (EEHC), Egypt); Haitham Mahmoud (Birmingham City University, United Kingdom (Great Britain)); Moad Idrissi (Oryx University, Qatar); Jihad M. Al Jaam (Oryx Universal College, Qatar)



16:00 Quantum-Inspired and FNN-Enhanced Needleman-Wunsch Algorithm for Large-Scale Genomic Sequence Alignment

Rowel Sumang Facunla (Technological Institute of the Philippines, Philippines); Bobby D. Gerardo (Northern Iloilo State University, Philippines)



16:15 Decentralised Swarm Drones: Shaping the Future of Autonomous Secure Unmanned Aerial System

Moad Idrissi (Oryx University, Qatar); Haitham Mahmoud and Ahmad Wahab Accepted (Birmingham City University, United Kingdom (Great Britain)); Jihad M. Al Jaam (Oryx Universal College, Qatar)



Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 19:AI-Driven Innovation for Security, Analytics, and Socio-Technical Applications
Day-2:Research Session 19:AI-Driven Innovation for Security, Analytics, and Socio-Technical Applications

Day-2:Research Session 19:AI-Driven Innovation for Security, Analytics, and Socio-Technical Applications

Room: E-Lecture Hall - FF002 (HYBRID)

15:00 Securing the Future of IVR: AI-Driven Innovation with Agile Security, Data Regulation, and Ethical AI Integration

Khushbu Mehboob Shaikh (Technical Lead, Principal Technical Account Manager, Twilio Inc. Irving, Texas, United States); Georgios Giannakopoulos (Independent Researcher, The Netherlands)



15:15 A Hybrid Ensemble Framework for Chronic Disease Prediction Using Clustering-Informed Learning

Joseph Quansah (Norfolk State University, USA); Isaac O Osunmakinde (Norfolk State University, USA & None, USA)



15:30 AutoCluster, AutoTopicModeling, AutoTrendAnalysis: A Complete AutoML Pipeline for Predicting Emerging Trends

Ahmed Abolfadl (German University in Cairo, Egypt); Marwa Mahmoud Abla (German University in Cairo (GUC), Egypt); Mervat Abu-Elkheir (The German University in Cairo & Media Engineering and Technology, Egypt); Maggie Mashaly (German University in Cairo, Egypt)



15:45 Digital Marketing Platform Connecting Businesses with Influencers and Marketing Agencies using Machine Learning

Shahed Khalid Ameir Al-Hashemi (Arab Open University, Oman); Mohammed Abdullah Salim Al Husaini, Yousuf Nasser Al Husaini and Wasin AlKishri (Arab Open University Oman, Oman); Rawad Abdulghafor (AOU Oman, Oman)

16:00 AI-Based Disposable Email Detection System

Gasser Sayed (Arab Open University, Egypt); Eid Amery (Amery, Egypt); Mahmoud Attallah (Attalah, Egypt)



16:15 Integrating Egyptian Heritage, Medical Tourism, and Technology: A Digital Framework for Sustainable Cultural Development

Dina Darwish, Yousef Fouad Abdulhakim Abdelkhalek, Abdelrahman Amr Ibrahim Ahmed, Nader Adel Mohamed Ahmed, Mazen Abdallah Ali, Ahmed Ibrahim Kamal and Momen Nabil Ahmed (Ahram Canadian University, Egypt)



Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems Day-2:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems

Day-2:Research Session 20:Track 6: Internet of Things (IoT) and Smart Systems

Room: F-Lecture Hall - FF012 (HYBRID)

15:00 Mapping the Landscape of Digital Transformation Technologies in Insurance: A Bibliometric and Systematic Review

Shady Abdelhady (Helwan University, Egypt); Yehia Helmy (Faculty of Commerce and Business Administration, Egypt); Ibrahim Hassan and Mohamed Abd Salam (Helwan University, Egypt)

**15:15 AI-Driven Predictive Patient Monitoring System Using Kubeflow and CI/CD Enabled MLOps Framework**

Dinalan Sundaram (Zealtech, Inc, USA)

**15:30 Smart Integrity: Leveraging Knowledge-Base-Driven AI Chatbots for Safety and Operational Reliability in Petroleum Refining**

Dana Bassim Charafeddine and Baraa T. Sharef (American University of Bahrain, Bahrain)

**15:45 Cross-Agent Multimodal Provenance-Aware Framework for Robust Prompt Injection Defense in Large Language and Vision-Language Models**

Toqeer Ali and Mishal Ateeq Almutairi (Islamic University of Madinah, Saudi Arabia); Mahmoud Abdelmaged Ahmed, Sr (Arab Open University Bahrain, Bahrain & Arab Open University, Bahrain)

**16:00 Design Hybrid Machine Learning Models for Network Anomaly Detection Systems**

Yasmeen Almutairi, Abdel-Rahman Hedar and Mamdouh Farouk (Assiut University, Egypt); Majid Askar (Assistant Lecturer in Assiut University, Egypt)

**16:15 Organizational Governance, Job Security, And Transparency: Drivers of Performance Management System Delight in Indian Higher Education**

Ali Ateeq (Gulf University, Bahrain); Shaik Balkhis Banu (Fatima College of Health Sciences, United Arab Emirates); Ashutosh Verma (Parul University, India); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain); Ahmad Alastal (Gulf university, Bahrain)



Tuesday, December 23 15:00 - 16:30 (Asia/Bahrain)

Day-2:Research Session 21:Interpretable and Applied Artificial Intelligence for Data-Driven Systems

Intelligence for Data-Driven Systems

Day-2: Research Session 21: Interpretable and Applied Artificial Intelligence for Data-Driven Systems

Room: G-Lecture Hall - FF028 (HYBRID)

15:00 *Interpretable Machine Learning for Longevity Gene Prediction in GenAge Using Grid Search Optimization and SHAP*

Shem L. Gonzales and Antonette B. Donoso (Surigao del Norte State University-Del Carmen Campus, Philippines); Rex Bomvet D. Saura (Surigao del Norte State University - Mainit Campus, Philippines); Jerry I. Teleron (Surigao del Norte State University-Surigao City, Philippines)



15:15 *Enhancing Financial and Investment Literacy Among Indonesian Youth Through the "Investopolis" Simulation-Based Serious Game*

I Gde Wahyu Werayana Kusuma, Michael Ardisa, Vincent Tanujaya and Dimas Ramdhan (Bina Nusantara University, Indonesia)



15:30 *RoboCache: A Distributed Key-Value Store for Petabyte-Scale Multimodal Robot Learning Datasets*

Tejas Pravinbhai Patel (Independent Researcher, IEEE); Sandeep Shivam (Tavant Technologies, USA); Amit Kumar Padhy (University of Illinois Urbana-Champaign, USA & Adobe Inc., USA); Bharadwaj Vulugundam (Oracle, USA); Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekhar Medicherla (Salesforce Inc, USA)



15:45 *Modification of SEIR Model to Enumerate Cancer Burden in Indonesia*

Ika Nurlaila (The National Research and Innovation Agency (BRIN), Indonesia); Dyah Laksmi Dewi (UGM, Indonesia); Wirawan Adikusuma (BRIN, Indonesia); Inna Syafarina (National Research and Innovation Agency (BRIN), Indonesia); Meta Amalya Dewi (Bina Nusantara University, Indonesia & Binus Online, Indonesia); Rifki Sadikin (BRIN, Indonesia)

16:00 *AgentHangar: A Virtual Reality Serious Game for Learning the Flight Control and Trim System of the Cessna 208 Caravan*

Yohanes Duns Scotus Aerotri Tunyanan, Felix Wijaya, Steven Putra Adicandra and Dimas Ramdhan (Bina Nusantara University, Indonesia)



16:15 *Fake News Detection via AI Model*

Muzna Al Hattali (Arab Open University - Oman, Oman); Rawad Abdulghafor (AOU Oman, Oman); Wasin AlKishri, Yousuf Nasser Al Husaini, Mohammed Abdullah Salim Al Husaini and Mohammad Abrar (Arab Open University Oman, Oman)

Tuesday, December 23 16:30 - 16:45 (Asia/Bahrain)

COFEE BREAK - DAY-2: COFEE BREAK - DAY-2

COFEE BREAK - DAY-2

Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 22:AI-Enabled Decision Support Systems and Socio-Technical Applications Day-2:Research Session 22:AI-Enabled Decision Support Systems and Socio-Technical Applications

Day-2:Research Day-2:Research Session 22:AI-Enabled Decision Support Systems and Socio-Technical Applications22

Room: A-Lecture Hall - SF001 (HYBRID)

16:45 A Systematic Literature Review for the retrieving and summarizing of Security Related Issues and Risks in Agile Software Engineering

Approach

Islam Zada (International Islamic University, Pakistan); Sehrish Bibi (International Islamic University Islamabad, Pakistan); Esraa Omran (Gulf University of Science and Technology, Kuwait); Sara Shahzad (University of Peshawar, Pakistan); Attiya Kanwal (International Islamic University Islamabad, Pakistan); Sumaira Johar (Institute of Management Sciences, Peshawar, Pakistan)



17:00 Implementation of the Multi-Objective Optimization on the Basis of Ratio Analysis Method for Determining Tuition Fee Assistance

Eligibility

Euis Oktavianti, Farhan Adi Nugraha, Ahmad Muharram Jiddan, Ayres Pradiptyas and Ariawan Andi (Politeknik Negeri Jakarta, Indonesia)



17:15 Corporate Governance and Firm Performance in Emerging Markets: Investigating the Moderating Role of Artificial Intelligence

Alaa Amarna (Andhra University, India); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain); Ali Ateeq (Gulf University, Bahrain); Laith Yousef Bani Hani (Andhra University, India)

17:30 The Interplay at work family Conflict and Enrichment in Predicting Among Higher Education Faculty

Divya Hariharan (Bayan College, Oman); Ali Ateeq (Gulf University, Bahrain); Ashutosh Verma (Parul University, India); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain); Ranju Padikkapparambil (Bayan College, Oman)



17:45 AI-Powered Smart Transportation for Sustainable Urban Growth

Vinodh Natarajan (Arab Open University Bahrain, Bahrain & Arab Open University, Bahrain); Muhammad Abrar-ul-Haq and Farheen Akram (University of Bahrain, Bahrain); Jayendra P Sankar (University of Technology Bahrain, Bahrain)



18:00 Driving Economic Growth through AI-Enabled Smart Transportation

Farheen Akram and Muhammad Abrar-ul-Haq (University of Bahrain, Bahrain); Jayendira P Sankar (University of Technology Bahrain, Bahrain);
Vinodh Natarajan (Arab Open University Bahrain, Bahrain & Arab Open University, Bahrain)



Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 23:AI-Driven Computational Systems and Intelligent Applications

Day-2:Research Session 23:AI-Driven Computational Systems and Intelligent Applications

Day-2:Research Session 23:AI-Driven Computational Systems and Intelligent Applications

Room: B-Lecture Hall - SF04 (HYBRID)

16:45 AI-Driven 3D Molecular Reconstruction and Generative Modeling for Property-Aware Molecule Design

Anas Refaat Sabry and Alaa Adel Zaki (October University for Modern Sciences and Arts (MSA), Egypt); Mazen A. Ebrahim (MSA University, Egypt & University of Greenwich, United Kingdom (Great Britain)); Tamer M Nassef (October University of Modern Sciences and Arts (MSA), Egypt)

**17:00 Ontology-Based Disease Diagnosis in Root and Tuber Crops**

Safiatou Sore (Université Norbert Zongo, Burkina Faso); Pengwendé Zongo (Université Norbert ZONGO, Burkina Faso); Tounwendyam Frédéric Ouédraogo (Université Norbert Zongo, Burkina Faso)

17:15 Performance Analysis of Kotlin Multiplatform on Android in a Model-View-Intent (MVI) Architecture Pattern

Indira Faradiba Afina and Amil Ahmad Ilham (Universitas Hasanuddin, Indonesia); Mukarramah Yusuf (Hasanuddin University, Indonesia)

**17:30 A Comparative Analysis of AI Literacy and Adoption Among Engineering Students and Faculty**

Nourah AlJallal (Kuwait University, Kuwait)

**17:45 Adaptive Medication Adherence Optimization Using Behavioral Analytics and Multi-Model AI Prediction**

Thiyagarajan Kalyanasundaram (HCL Technologies, USA); Dinalan Sundaram (Zealtech, Inc, USA); Shravya Bussari (Hcltech, USA)



18:00 A Survey of Security Threats and Defense Mechanisms in ROS2-Based Internet of Drones Systems

Yousef A. Yaseen (University of Jordan, Jordan); Iman Almomani (University of Jordan, Jordan & Prince Sultan University, Saudi Arabia); Mousa T. AL-Akhras (The University of Jordan, Jordan)



Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 24:AI-Driven Predictive Modeling and Optimization for Safety, Health, and Intelligent Systems Day-2:Research Session 24:AI-Driven Predictive Modeling and Optimization for Safety, Health, and Intelligent Systems

Day-2:Research Session 24:AI-Driven Predictive Modeling and Optimization for Safety, Health, and Intelligent Systems

Room: C-Lecture Hall - SF010 (HYBRID)

16:45 Prediction of Autoignition Temperature as A Hazard Indicator Using Support Vector Machine with Grey Wolf Optimizer

Hellen Allysa Putri (Universitas Telkom, Indonesia); Angel Metanosa Afinda and Isman Kurniawan (Telkom University, Indonesia)

**17:00 Development of Food Inspection: Risk and Safety Tracker (FIRST) AI-Enhanced Mobile Application**

John Vincent Manalo (Iloilo State University of Fisheries Science and Technology, Philippines); Angie C. Almarza (Iloilo State University of Fisheries Science and Technology, Philippines & State University of Northern Negros, Philippines)

**17:15 AI-Assisted Adaptive Rendering for High-Frequency Security Telemetry in Web Interfaces**

Mona Rajhans (Palo Alto Networks, USA & Georgia Institute of Technology, USA)

17:30 Implementation of Ensemble-Sine Cosine Algorithm in Prediction of VEGFR-2 Inhibitors as Anti-Cancer Agents

Cut Nabilah Nuur Azizah, Angel Metanosa Afinda and Isman Kurniawan (Telkom University, Indonesia)

**17:45 Prediction of NR-ER Toxicity Using an Ensemble Model with the Monarch Butterfly Algorithm**

Alya Shabrina (Universitas Telkom, Indonesia); Angel Metanosa Afinda and Isman Kurniawan (Telkom University, Indonesia)

**18:00 Real Time Evolutionary Optimization of Adaptive Disturbance Rejection Control for Mobile Robot**

Usama Habib, Madyan Omar Bagosher and Saber Elsayed (University of Sharjah, United Arab Emirates)

Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 25:AI, Privacy, and Intelligent Systems for Data-Driven Applications Day-2:Research Session 25:AI, Privacy, and Intelligent Systems for Data-Driven Applications

Day-2:Research Session 25:AI, Privacy, and Intelligent Systems for Data-Driven Applications

Room: D-Lecture Hall - SF015 (HYBRID)

16:45 Homomorphic Encryption for Privacy-Preserving Credit Scoring in Multi-Cloud Banking Systems

Arpana Hosabettu (Google, USA); Pragya Keshap (Senior IEEE Member, USA & Technical Architect, USA); Akshay Mittal (University of the Cumberlands, USA)



17:00 An Empirical Examination of CNN and ResNet Architectures on the CIFAR-10 Dataset through Bayesian Hyper-parameter Optimization

Tanagi Ahmed Mohamed Omer (Arab Open University, Bahrain)

17:15 Multi-Objective Polynomial Regression for Model Selection Using Brute Force Strategy

Ali Ridha Ali (Bahrain Polytechnic, Bahrain)

17:30 Developing Missing Data Prediction Techniques in Medical IoT Sensors

Ghadeer Salem, Abdel-Rahman Hedar and Mamdouh Farouk (Assiut University, Egypt); Majid Askar (Assistant Lecturer in Assiut University, Egypt)



17:45 AI-Based Dental Disease Diagnosis Using Multimodal Data

Dina Darwish, Neveen Elshafaei, Sarah Elayouty, Youssef Mustafa Abdalazim, Shahd Tamer Abdelhamid, Mohamed Hosam El-Din, Omar Ewis Ibrahim, Ismail Ali Ibrahim, Lojain Ibrahim Basseouny, Mohamed Deyaa El Din, Ibrahim Shedeed and Muhammed Adel Mohamed Abdalrhaman (Ahram Canadian University, Egypt)



18:00 Leveraging AI and Automation to Streamline Recruitment in the Food and Beverage Industry

Layla Faisal ALhalwachi, Dr Layla ('Arab Open University', Bahrain & Bahrain Polytechnic, Bahrain)



Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 26:AI-Enhanced Systems, Robotics, and Real-Time Intelligent Applications

Day-2:Research Session 26:AI-Enhanced Systems, Robotics, and Real-Time Intelligent Applications

Day-2:Research Session 26:AI-Enhanced Systems, Robotics, and Real-Time Intelligent Applications

Room: E-Lecture Hall - FF002 (HYBRID)

16:45 Validation of PSO-Tuned Unscented Kalman Filtering for Real-Time IMU-GPS Vehicle Localization in Simulated and Embedded On-Road Environments

Psyche Tabiongan Malabo (Technological Institute of the Philippines, Philippines); Bobby D. Gerardo (Northern Iloilo State University, Philippines)



17:00 AI-Driven Sentiment Analysis for Stakeholder Feedback in Large Industrial Projects

Mohammed J. Altoog and Baraa T. Sharef (American University of Bahrain, Bahrain)

17:15 Automated Classification of Knee Osteoarthritis Severity using Deep Learning

Abdelrahman Nabil (MSA University, Egypt); Abdelrahman Ezzeldin Nagib (MSA, Egypt); Tamer M Nassef (October University of Modern Sciences and Arts (MSA), Egypt)



17:30 Vibe Coding: An AI-Augmented Flow Paradigm for Software Development

Shravya Bussari (Hcltech, USA)



17:45 Integrating ConvNeXt and Vision Transformers for Enhancing Facial Age Estimation

Gaby Maroun (Universidad del País Vasco, Spain & AI & Data Architect, France); Salah Eddine Bekhouche and Fadi Dornaika (University of the Basque Country, Spain); Jinan Charafeddine, Dr. Jinan (Engineering School Léonard de Vinci - ESILV, France); Jihad Jaam (Liverpool J. Mores University, United Kingdom (Great Britain))



18:00 Robotic Digital Twins in Smart Manufacturing: Resolving Real-Time Synchronisation Gaps

Loso Judijanto (IPOSS, Indonesia); Sri Nurhayati (IKIP Siliwangi, Indonesia & None, Indonesia)



Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 27:AI for Secure, Intelligent, and Human-Centric Systems Day-2:Research Session 27:AI for Secure, Intelligent, and Human-Centric Systems

Day-2:Research Session 27:AI for Secure, Intelligent, and Human-Centric Systems

Room: F-Lecture Hall - FF012 (HYBRID)

16:45 Policy-Driven Intelligent Classification System for Academic Document Confidentiality Management

Rowena A Alibagon (Iloilo Science and Technology University, Philippines & State University of Northeern Negros, Philippines); Ramil G. Lumauag (State University of Northern Negros, Philippines)



17:00 An AI-Based 3D Dental Modeling Framework for Digital Twin Dentistry

Maram Hossameldin Abdelsadek (October University for Modern Sciences & Arts (MSA), Egypt); Mazen A. Ebrahim (MSA University, Egypt & University of Greenwich, United Kingdom (Great Britain)); Mohamed Gamal Saad (October University for Modern Sciences & Arts (MSA), Egypt); Tamer M Nassef (October University of Modern Sciences and Arts (MSA), Egypt)



17:15 ACARIS: Attempting to Improve Conversational AI and Human Social Skills using User Embeddings

Tejas Pravinbhai Patel (Independent Researcher, IEEE); Sandeep Shivam (Tavant Technologies, USA); Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekhara Medicherla (Salesforce Inc, USA); Amit Kumar Padhy (University of Illinois Urbana-Champaign, USA & Adobe Inc., USA); Bharadwaj Vulugundam (Oracle, USA)



17:30 Clustering-Enhanced Ensemble Learning for Aviation Fatality Detection: The AEROSAFE Framework

A K M Zubaer Ferdous (Norfolk State University, USA); Isaac O Osunmakinde (Norfolk State University, USA & None, USA)



17:45 Multiclass Intrusion Detection System for IoT Networks Using Gradient Boosted Trees

Wedyan Alsakran and Lamya Albraheem (King Saud University, Saudi Arabia)

Tuesday, December 23 16:45 - 18:15 (Asia/Bahrain)

Day-2:Research Session 28:AI and Intelligent Systems for Smart Environments, Energy, and Agriculture Day-2:Research Session 28:AI and Intelligent Systems for Smart Environments, Energy, and Agriculture

Day-2:Research Session 28:AI and Intelligent Systems for Smart Environments, Energy, and Agriculture

Room: G-Lecture Hall - FF028 (HYBRID)

16:45 Your EV Is Talking Behind Your Back: How Token-Based Security Can Protect Driver Privacy

Prem Kumar Akula (SambaNova Systems, USA); Karthik Pappu (Dakota State University, USA); Akshay Mittal (University of the Cumberlands, USA)



17:00 A Cross-Generational Evaluation of SQL Aggregation Efficiency on Oracle Exadata Engineered Systems

Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekhar Medicherla (Salesforce Inc, USA); Bharadwaj Vulugundam (Oracle, USA); Tejas Pravinbhai Patel (Amazon, USA); Amit Kumar Padhy (University of Illinois Urbana-Champaign, USA & Adobe Inc., USA); Sandeep Shivam (Tavant Technologies, USA)



17:15 A Multi-Agent Agentic AI System for Energy-Efficient and Personalized HVAC Control

Nazmi Muhammad Abkary (Gadjah Mada University, Indonesia); Azkario Rizky Pratama (UGM, Indonesia); Syukron Abu Ishaq Alfarozi (Universitas Gadjah Mada, Indonesia)



17:30 System-level performance analysis for CNN model deployment using CPU, GPU and AI Accelerator

Dwith Chenna (Advanced Micro Devices, USA)

17:45 Comprehensive Wheat Leaf Disease and Pest Diagnosis Using Convolutional Neural Networks

Mohamed Hadadi and Yousra Chtouki (Al Akhawayn University, Morocco)



Wednesday, December 24

Wednesday, December 24 9:00 - 9:45 (Asia/Bahrain)

Day-3: Wednesday 24 December 2025 - 09:00 - 09:45 - Panel Discussion 3 Panel Discussion 3 (Day-3):

Panel Discussion 3 (Day-3):

Room: Main Conference (Amphitheater)

Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3: Research Session 1: Track 9: High Performance and Parallel Computing Day-3: Research Session 1: Track 9: High Performance and Parallel Computing

Day-3: Research Session 1: Track 9: High Performance and Parallel Computing

Room: A-Lecture Hall - SF001 (HYBRID)

9:45 Quantum-Resilient Zero-Trust Architectures in Edge Computing Networks: Theoretical Foundations and Complexity Bounds

Varshitha Manjunath and Sooraj Sathyanarayanan (Lasell University, USA); [Rajesh Purushothaman](#) (Zscaler Inc, USA); Arun Kumar Elengovan (Okta Inc. and IEEE Senior Member, USA); Jeevan Shanbhag (Applied Materials Inc, USA & IEEE.org, USA); Rakesh Keshava (IEEE Senior Member, USA)

10:00 Design and Implementation of Bluetooth-Enabled Multi-Sport Scoreboard with Dual ESP32 Controllers and Android App

[Jerry Incierto Teleron](#) (Technological Institute of the Philippines - Quezon City, Philippines)



10:15 A Dual-Attention Temporal-Spatial Network for Multi-Channel EEG-Based Visual Semantics Decoding

Zihan Dong and Sun Zhou (Xiamen University, China)

10:30 SPIFFE-Based Zero-Trust Authentication for AI Agent Ecosystems

[Karthik Pappu](#) (Dakota State University, USA); Badal Bhushan (I.E.T. M.J.P. Rohilkhand University, India); Akshay Mittal (University of the Cumberlands, USA)



Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3:Research Session 2:Optimization, Simulation, and AI-Driven Decision Support Systems

Day-3:Research Session 2:Optimization, Simulation, and AI-Driven Decision Support Systems

Day-3:Research Session 2:Optimization, Simulation, and AI-Driven Decision Support Systems

Room: B-Lecture Hall - SF04 (HYBRID)

9:45 *Simulation Based Optimization of Unit Load Multi Aisle Automated Storage and Retrieval System Design*

Yousef Adel (German University in Cairo, Egypt); Lamia Shihata (German University in Cairo (GUC), Egypt)



10:00 *Snooker-Based Optimization Algorithm for Optimal FACTS Allocation in a Practical 30-Bus Iraqi Distribution Network*

Khawlah Ribat (Al-Furat Al-Awsat Technical University, Iraq & Al-Mussaib Technical College, Iraq)



10:15 *Developing Voice-Based Assistant Machine Learning Techniques to Enhance Learning Experiences for Students with Special Needs*

Esraa Fadel, Abdel-Rahman Hedar, Mamdouh Farouk and Mostafa Mohammed (Assiut University, Egypt)



10:30 *Implementation of Hybrid Machine Learning Method for Predicting Tuberculosis Spread Patterns Using CRISP-DM Framework in Indonesia*

Martinus and Gunawan Wang (Bina Nusantara University, Indonesia)



Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3:Research Session 3:Interpretable and Applied Artificial Intelligence for Data-Driven Systems

Day-3:Research Session 3:Interpretable and Applied Artificial Intelligence for Data-Driven Systems

Day-3:Research Session 3:Interpretable and Applied Artificial Intelligence for Data-Driven Systems

Room: C-Lecture Hall - SF010 (HYBRID)

9:45 *Semantic Data Virtualization for Real-Time HR Decision Intelligence in Agile Enterprises*

Naveen Kolli (Independent Researcher, USA); Bharath Reddy Thihi Reddy (Kian Corp, USA); Abanish Mishra (MatchGroup LLC, USA); Saravanan Jayakumar (Company, USA & BNY, USA)

10:00 LES-Quality Urban Wind and NFZ Mapping via Multi-Fidelity Learning

Jinan Charafeddine, Dr. Jinan (Engineering School Léonard de Vinci - ESILV, France); Aminallah Rabia (De Vinci Research Center, France); Hani Hamdan (CentraleSupélec, Université Paris-Saclay, France); Samir Yahiaoui (De Vinci Research Center, France)

10:15 Machine Learning Dataset Imputation Using Related Features

Mahmoud M Eid (Egyptian Chinese University (ECU), Egypt); Kamal ElDahshan (Egypt); Abdelatif H. Aboualy (Murray State University, USA); Alaa Tharwat (Bielefeld University of Applied Sciences and Arts, Germany); Hassan Mistareehi (Murray State University, USA & Ammar's Auto Services LLC, USA)



10:30 Digital Twin of a 3-DOF Cartesian Sorting Robot: A Mechatronics Education Case Study

Natheer Almtireen, Mutaz Ryalat, Ghaith Alrefai and Hisham Elmoaqet (German Jordanian University, Jordan)

Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3:Research Session 4 Day-3:Research Session 4

Day-3:Research Session 4

Room: D-Lecture Hall - SF015 (HYBRID)

9:45 Enhancing Facial Recognition Accuracy Through Image Processing Techniques

Rowida Morsy (October University for Modern Sciences and Arts (MSA), Egypt); Tamer M Nassef (October University of Modern Sciences and Arts (MSA), Egypt)



10:00 Can AI Experience Happiness? A Mathematical Approach to Making Happiness Computable

Ali Ridha Ali (Bahrain Polytechnic, Bahrain)

10:15 Automated Multilingual Narrative Analytics Using BERTopic: Transforming Student Feedback into Actionable Educational Insights

Said Almaqbali (MMU, Malaysia); Asmaa H. Marhoubi (University of Technology and Applied Sciences, Oman)



10:30 Automated Feature Extraction and UML Modeling from Real-World Unstructured Egyptian Arabic Text

Farah El Degheidy (German University in Cairo, Egypt); Raghda El Ebrashi (German International University, Egypt); Hany Abdelghaffar (The German University in Cairo, Egypt); Mervat Abu-Elkheir (The German University in Cairo & Media Engineering and Technology, Egypt)



Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3:Research Session 5 Day-3:Research Session 5

Day-3:Research Session 5

Room: E-Lecture Hall - FF002 (HYBRID)

9:45 *Future of Cloud Computing in IT Infrastructure Online Presentation*

Razan Yousef Alnajim (Software Engineering Graduate, Saudi Arabia & Prince Mohammed Bin Fahd University, Saudi Arabia)

10:00 *Physics-Informed Machine Learning for Service Life Prediction of Reinforced Concrete Under Real Environmental Actions*

Hala Al moubayed (Cesi école d'ingénieur, France); Houda Halawani, Ms (ESILV, France & De Vinci Higher Education, France); Baraa Altayebrrafei (Le Cnam Liban, Lebanon & Lebanese University, Lebanon); Nancy Chendeb (De Vinci Higher Education, France & De Vinci Research Center, Paris, France)



10:15 *Intelligent Evolution of AWS Glue for Scalable Serverless ETL*

Prema K Veerapaneni and Vinoth Punniyamoorthy (JPMorgan Chase, USA); Akash K Agarwal (Albertsons Companies Inc, USA); Nitin Saksena (Albertsons Companies, USA); Mayilsamy Palanigounder (NTT Data, USA); Durgaraman Maruthavanan (Tata Consultancy Services, USA); Ravi Kiran Kodali (Cognizant Technology Solutions, USA); Seema Gangaiah Aarella (Austin College, USA & University of North Texas, USA)



10:30 *Integrating Workday Prism with AI Pipelines for Real-Time HR Analytics and Forecasting*

Monu Sharma (Valley Health System, USA); Shivareddy Devarapalli (Government Employees Insurance Company (GEICO), USA); Abhishek Jain (Concentrix, USA)



Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3:Research Session 6:AI, IoT, and Automation for Intelligent Systems and Sustainable Technologies Day-3:Research Session 6:AI, IoT, and Automation for Intelligent Systems and Sustainable Technologies

Day-3:Research Session 6:AI, IoT, and Automation for Intelligent Systems and Sustainable Technologies

Room: F-Lecture Hall - FF012 (HYBRID)

9:45 *Univariate Time Series Forecasting of Electrical Energy Consumption: A Comparative Performance Analysis of ARIMA, CNN, and LSTM Architectures*

Arnel C. Fajardo (Isabela State University, Philippines); Jerry I. Teleron (Technological Institute of the Philippines - Quezon City, Philippines); Shem L. Gonzales (Surigao del Norte State University, Philippines); Al D. Horteza (Cebu Technological University, Philippines)



10:00 *Evolving Software Engineering Practices in the Era of AI-Driven Automation*

Pradeep Kumar Sambamurthy (Nvidia Corporation, USA); Varun Tamminedi (NVIDIA, India)

10:15 *Design and Development of an Automated School Bell System for Improved Scheduling and Efficiency*

Jerry Incierto Teleron (Technological Institute of the Philippines - Quezon City, Philippines)



10:30 *Solar-Powered IoT-Integrated Copra Dehydration Technology for Enhanced Efficiency in Coconut Processing Systems*

Jerry Incierto Teleron (Technological Institute of the Philippines - Quezon City, Philippines)



Wednesday, December 24 9:45 - 10:45 (Asia/Bahrain)

Day-3:Research Session 7:IoT, Real-Time Systems, and Data-Driven Applications Day-3:Research Session 7:IoT, Real-Time Systems, and Data-Driven Applications

Day-3:Research Session 7:IoT, Real-Time Systems, and Data-Driven Applications

Room: G-Lecture Hall - FF028 (HYBRID)

9:45 *Leveraging IoT Technology Concept for Smart Traffic Lights in Jakarta*

Kenny Kenedy (Binus University, Indonesia); Gunawan Wang (Bina Nusantara University, Indonesia)



10:00 Integrated IoT-LSTM Framework for Real-Time Vehicle Dynamics Monitoring and Lane Change Intention Prediction

Umer Mukhtar Andrabi (National Research University Higher School of Economics, Russia); [Ehsan Wadood](#) (Moscow Institute of Physics and Technology, Russia); Muhammad Salman Saeed (ITMO University, St. Petersburg, Russia); Raman Saurabh (Moscow Institute of Physics and Technology, Russia); Sanjeev Kumar Ojha (Manipal University Jaipur, India); Aamir Mehmood (Harbin Institute of Technology, China)

**10:15 Latency-Optimized Microservices Orchestration for Real-Time E-Commerce in Multi-Cloud Environments**

[Amit Kumar Padhy](#) (University of Illinois Urbana-Champaign, USA & Adobe Inc., USA); Chaitanya Kulkarni (Oracle America Inc, USA); Chandrashekhar Medicherla (Salesforce Inc, USA); Tejas Pravinbhai Patel (Amazon, USA); Bharadwaj Vulugundam (Oracle, USA); Sandeep Shivam (Tavant Technologies, USA)

**10:30 A CRISP-DM Based Hybrid Machine Learning Approach for Predicting HIV/AIDS Spread Patterns in Indonesia**

[Stephen Krisdy](#) and Gunawan Wang (Bina Nusantara University, Indonesia)



Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 10:AI, Intelligent Systems, and Optimization for Cyber-Physical and IoT Applications Day-3:Research Session 10:AI, Intelligent Systems, and Optimization for Cyber-Physical and IoT Applications

Day-3:Research Session 10:AI, Intelligent Systems, and Optimization for Cyber-Physical and IoT Applications

Room: C-Lecture Hall - SF010 (HYBRID)

10:45 FinAgent: An Agentic AI Framework Integrating Personal Finance and Nutrition Planning

Toqeer Ali (Islamic University of Madinah, Saudi Arabia); [Salman Jan](#) (Arab Open University, Bahrain); Sohail Khan (Effat University, Saudi Arabia); Ali Akarma and Abdulaziz Alshahrani (Islamic University of Madinah, Saudi Arabia)

**11:00 Image Encryption Based on 3D Rubik's Cube, Arnold Scrambling, and Hyperchaos**

[Ghada Osama Zaineldin](#) (Nile University, Egypt); Wafaa Sayed (Assistant Lecture, Egypt); Lobna Said (Nile University, Egypt)

**11:15 Towards Human-Centered Explainable AI: A Systematic Review of Interactive Explanation Approaches**

Ashfaq Fazlin (Informatics Institute of Technology, Sri Lanka); Santhusha Mallawatantri (Informatics Institute of Technology, Sri Lanka & University of Westminster, Sri Lanka)

11:30 Rethinking Pancreatic Cancer Modelling: A Systematic Literature Review of Graph Neural Networks

Asiyah Zaheem Nazoordeen (Informatics Institute of Technology, Sri Lanka); Santhusha Mallawatantri (Informatics Institute of Technology, Sri Lanka & University of Westminster, Sri Lanka)

11:45 A Blockchain-Monitored Agentic AI Architecture for Trusted Perception-Reasoning-Action Pipelines

Salman Jan (Arab Open University, Bahrain); Hasan Ali Razzaqi (Arab Open University - Bahrain, Bahrain); Ali Akarma (Islamic University of Madinah, Saudi Arabia); Mohammad Riyaz Belgaum (Arab Open University - Bahrain, Bahrain)



Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 11:AI for Decision Support, Security, and Healthcare Applications Day-3:Research Session 11:AI for Decision Support, Security, and Healthcare Applications

Day-3:Research Session 11:AI for Decision Support, Security, and Healthcare Applications

Room: D-Lecture Hall - SF015 (HYBRID)

10:45 Investigating Student Perceptions of Conversational Recommender Systems for Academic Major Selection

Abeer Khaled Alfadhli, Abdel-Rahman Hedar, Mamdouh Farouk and Mostafa Mohammed (Assiut University, Egypt)



11:00 Beyond Individual Defenses: Evaluating Defense Combinations Against Prompt Injection Attacks

Piyush Mamidwar (San Jose State University, USA); Rani Rajurkar (Santa Clara University, USA); Niharika Deshmukh (State University of New York at Buffalo, USA)

11:15 Predicting Heart Failure Outcomes Using Machine Learning and Deep Learning Models: An Extensive Evaluation

Yesar Ahmed Oshan (Colorado State University, USA); Anika Tasnim Aparna (National University of Bangladesh, Bangladesh)



11:30 Blockchain based Privacy Solutions Brokered with AI for Data Compliance

Nachiappan Chockalingam (IEEE Senior); Rajesh Purushothaman (Zscaler Inc, USA); Jeevan Shanbhag (Applied Materials Inc, USA & IEEE.org, USA); Arun Kumar Elengovan (Okta Inc. and IEEE Senior Member, USA); Nitin Saxena (Albertsons Companies, USA); Akash K Agarwal

(Albertsons Companies Inc, USA); Darshan Mohan Bidkar (Netflix, USA); Deepak Jayabalan (Meta, USA)



11:45 Performance Evaluation of Pattern-Based Prediction in Modern AI Systems with Limited Reasoning Budgets

Muhammad Badruddin Khan (Imam Mohammad Ibn Saud Islamic University (IMSIU), Saudi Arabia)

Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 12:AI, Automation, and Intelligent Sensing Systems Day-3:Research Session 12:AI, Automation, and Intelligent Sensing Systems

Day-3:Research Session 12:AI, Automation, and Intelligent Sensing Systems

Room: E-Lecture Hall - FF002 (HYBRID)

10:45 Designing Self-Healing Automation Frameworks for Flaky CI Environments

Jay Bharat Mehta (Cleveland State University, Alumni, USA)



11:00 Biometric Identification Based on Sensor Fusion of Wearable Accelerometer and sEMG Data

Ali Tariq Abuhamr (Arab Academy for Science, Technology & Maritime Transport, Egypt, Egypt); Ahmed Mohamed Ahmed and Heba A. Shaban (Arab Academy for Science, Technology & Maritime Transport, Egypt); Mohamed Khedr (Arab Academy for Science and Technology, Egypt)

11:15 Enhancing Brain Tumor Detection in Multi-Class MRI Scans Using Attention-Guided U-Net Architecture and Data Augmentation Techniques

Aqeel Majeed Breesam (Middle Technical University, Iraq); Sarah Adnan (Al-Nahrain University, Iraq); Roaa Abed Alah (University of Information Technology and Communications, Iraq)



11:30 Design and Implementation of a Smart Building Management System Using Edge Computing Technologies

Jerry Incierto Teleron (Technological Institute of the Philippines - Quezon City, Philippines)



11:45 Automated Classification of Arabic client Inquiries for Government Services: A Fine-Tuning Approach with AraBERT

Eisa Alsaadi, Ayad Turkey and Saad Harous (University of Sharjah, United Arab Emirates)

Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 13:AI, Data Privacy, and Socio-Economic Intelligent Systems Day-3:Research Session 13:AI, Data Privacy, and Socio-Economic Intelligent Systems

Day-3:Research Session 13:AI, Data Privacy, and Socio-Economic Intelligent Systems

Room: F-Lecture Hall - FF012 (HYBRID)

10:45 ***A Biomimetic Technique in Clay 3D Printing Experimenting Parameters Variations on Rheology and Stability***

Samar Allam (King Salman International University, Egypt & Universite Francaise d'Egypte, Egypt)

11:00 ***A Scale-Free Interbank Connection Network for Banking Systemic Risk Modeling***

Yeftanus Antonio (Universitas Prasetya Mulya, Indonesia); Moch. Fandi Ansori (Universitas Diponogoro, Indonesia); Shan Savera (Univeristas Prasetya Mulya, Iceland); Nathasya Avrila and Ayomi Sasmito (Universitas Prasetya Mulya, Indonesia); Hoirun Nisa (Univeristas Prasetya Mulya, Indonesia)

11:15 ***A Policy Driven Geo Adaptive Framework for Data Privacy Residency and Cross Border Controls in CRM Platforms***

Karthik Bodducherla (IQVIA, USA); Vijaya Sai Munduru (Salesforce, USA); Sitaram Srivatsavai (IQVIA, USA)



11:30 ***Multimodal Interview Analysis System: NLP and Audio-Visual Fusion for Personality Trait Assessment***

Ali M. NEgm (October University for Modern Sciences & Arts, Egypt); Mazen A. Ebrahim (MSA University, Egypt & University of Greenwich, United Kingdom (Great Britain)); Tamer M Nassef (October University of Modern Sciences and Arts (MSA), Egypt)



11:45 ***Design and Development of an Integrated Fish Attractor Technology for Coastal Fishing Communities***

Jerry Incierto Teleron (Technological Institute of the Philippines - Quezon City, Philippines)



Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 14:Intelligent Security, AI-Driven Systems, and Advanced Sensing Technologies Day-3:Research Session 14:Intelligent Security, AI-Driven Systems, and Advanced Sensing Technologies

Day-3:Research Session 14:Intelligent Security, AI-Driven Systems, and Advanced Sensing Technologies

Room: G-Lecture Hall - FF028 (HYBRID)

10:45 A Lightweight Docker-Based Antivirus Engine for high-Throughput Malware Detection

Fatima Khanbash (Arab Open University, Egypt); Ahmed M Gawish (Arab Open University, Saudi Arabia)

11:00 Kinect-Based Markerless Motion Capture for Telerehabilitation: A Comparative Review of Technologies, Clinical Applications, and Research Gaps

Hawraa Hotiet (University of Genova, Italy); Alaa Wehbe (Università degli Studi di Genova, Italy); Mohamad Abou Ali (University of the Basque Country, Spain & Lebanese International University, Lebanon); Abdallah Kassem (Notre Dame University, Lebanon); Camilla Baffigo (University of Genoa, Italy); Silvana G. Dellepiane (University of Genova, Italy)

11:15 Classifying SAR Targets using CNN

Kassem Hamze (Islamic University of Lebanon, Lebanon); Samir Haddad (University of Balamand, Lebanon); Ali Rachini (Holy Spirit University of Kaslik, Lebanon); Jinane Sayah (University of Balamand, Lebanon); Joseph Merhej (Faculty of Sciences II, Lebanon); Saeed Al Gharib (University of the Basque Country - UPV/EHU, Lebanon); Chadi Kallab (Lebanese American University, Lebanon)



11:30 Microburst Chaos Experiments for Resilient High-Performance Zero-Trust Data Planes

Venkateswaran Dorai (Zscaler, USA); Rama Rao Katta (Arista Networks, USA)



11:45 AI-Agent-Based Autonomous Defense Against DoS/DDoS in AI Data Centers

Venkateswaran Dorai (Zscaler, USA); Rama Rao Katta (Arista Networks, USA)



Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 8:AI and Machine Learning for Health, Accessibility, and Intelligent Applications
Day-3:Research Session 8:AI and Machine Learning for Health, Accessibility, and Intelligent Applications

Day-3:Research Session 8:AI and Machine Learning for Health, Accessibility, and Intelligent Applications

Room: A-Lecture Hall - SF001 (HYBRID)

10:45 MyVoice: A Real-Time Arabic Sign Language Recognition System for Deaf and Mute Individuals

Aliaa Al-Ajji, [Belqes Alshami](#), Dania Albatarni, Yomna Nasr and Elias Yaacoub (Qatar University, Qatar)



11:00 Performance Evaluation of BLAST+ Using Multi-Threading: A Parallel Computing Approach for Sequence Similarity Search

[Loay Alzubaidi](#) (Higher Colleges of Technology, United Arab Emirates); Hassan Migdadi and Abdel Rahman Al Kharabsheh (Higher College of Technology (HCT), United Arab Emirates); Mousa Sweidan (Higher Colleges of Technology (HCT), United Arab Emirates)

11:15 A Federated Model with Self-Supervised Learning and Broad Learning for Distributed Epilepsy Subtyping

Zihan Dong and Sun Zhou (Xiamen University, China)

11:30 FitPredictor: AI Driven Size Recommendation Extension

[Himanshu Masand](#) and Judhi Prasetyo (Middlesex University Dubai, United Arab Emirates)

11:45 Hybrid Machine Learning Models for Detecting Identity Deception on Social Media Platforms

[Alaa Hussain Alenezi](#), [Abdel-Rahman Hedar](#) and Mamdouh Farouk (Assiut University, Egypt); Majid Askar (Assistant Lecturer in Assiut University, Egypt)



Wednesday, December 24 10:45 - 12:00 (Asia/Bahrain)

Day-3:Research Session 9:AI-Driven Optimization, Logistics, and Intelligent Decision Systems Day-3:Research Session 9:AI-Driven Optimization, Logistics, and Intelligent Decision Systems

Day-3:Research Session 9:AI-Driven Optimization, Logistics, and Intelligent Decision Systems

Room: B-Lecture Hall - SF04 (HYBRID)

10:45 Optimizing Outbound Logistics Throughput using Discrete Event Simulation: A Case Study in Warehouse Facility and Process Reconfiguration

[Lamia Shihata](#) (German University in Cairo (GUC), Egypt); Mona A Ali (The German University in Cairo, Egypt); Gasser Arafat (German University in Cairo, Egypt)



11:00 Small Models, Large Impact: An SLM-Centric Playbook for Practical Agents

[Muhammad Taimoor Hassan](#) (Auburn University, USA)

11:15 *Designing a Real-Time Reverse Logistics Decision-Support Tool in African Contexts: A Management Perspective*

Mona A Ali (The German University in Cairo, Egypt); Lamia Shihata (German University in Cairo (GUC), Egypt); Gamal Kassem (German University in Cairo, Egypt)

**11:30 *Implementation of MLP Optimized by Harris Hawks Optimization for Gene Expression-Based Lung Cancer Prediction in Smokers***

Helmi Qushayyi Hakim (Universitas Telkom, Indonesia); Isman Kurniawan and Angel Metanosa Afinda (Telkom University, Indonesia)

**11:45 *The Collapse of Data: Comparing The Resiliency of Different AI Models To Model Collapse Using AI Generated Image Data***

Kevin Audreylius Kevin, Jonathan L Fontana and Tjeng Wawan Cenggoro (Bina Nusantara University, Indonesia)



Wednesday, December 24 12:00 - 12:45 (Asia/Bahrain)

Closing Keynote and Best Papers Awards 12:00 - 12:45 (Day-3) Closing Keynote and Best Papers Awards 12:00 - 12:45 (Day-3)

Closing Keynote and Best Papers Awards 12:00 - 12:45 (Day-3)

Room: Main Conference (Amphitheater)

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