



نقابة المهندسين الأردنيين  
Jordan Engineers Association



**IJCC24**  
The 2024 International Jordanian  
Cybersecurity Conference

المؤتمر الأردني الدولي  
للأمن السيبراني  
17 - 18 Dec, 2024 Amman-Jordan

# The 2024 International Jordanian Cybersecurity Conference

December 17-18, 2024  
Kempinski Hotel  
Amman - Jordan

	Grand Ballroom Hall	Al Reem Hall
<b>Day 1: Tuesday - December 17, 2024</b>		
9:00 - 16:00	Registration	
10:00 - 11:00	Opening Ceremony (Grand Ballroom)	
11:00 - 11:30	Coffee Break	
11:30 - 12:00	Panel Discussion 1	
12:00 - 12:30	Keynote Speech 1	
12:30 - 14:00	Technical Session 1	Technical Session 2 (Virtual)
14:00 - 14:30	Coffee Break	
14:30 - 15:00	Keynote Speech 2	
15:00 - 16:30	Technical Session 3	Technical Session 4 (Virtual)
16:30 - 17:30	Lunch	
<b>Day 2: Wednesday - December 18, 2024</b>		
9:00 - 16:00	Registration	
10:00 - 12:00	Technical Session 5	CyPetra Competition Kickoff
12:00 - 12:30	Coffee Break	
12:30 - 13:30	Panel Discussion 2	
13:30 - 14:00	Keynote Speech 3	
14:00 - 14:30	Coffee Break	
14:30 - 16:00	Technical Session 6	CyPetra Competition Closing
16:00 - 17:00	Lunch	

# Day 1: Tuesday

December 17<sup>th</sup>, 2024

\* Indicates a Presenting Author

Time	Item	Place
09:00-16:00	Registration	
10:00-11:00	Opening Ceremony	Grand Ballroom
11:00-11:30	Coffee Break	
11:30-12:00	<b>Panel Discussion 1</b> <b>National Cybersecurity Policies: A Holistic Vision from Government, Financial, and Security Sectors</b> Moderator: Belal Hafnawi	Grand Ballroom
12:00-12:30	<b>Keynote Speech 1</b> Roland Abi Najem, Founder & CEO of Revotips, Kuwait <b>Enhancing Cybersecurity in Supply Chain Risk Management through Governance and Compliance</b> Session Chair: Wael Qassas	Grand Ballroom
12:30-14:00	<b>Technical Session 1</b> Session Chair: Iman Almomani	Grand Ballroom
	<b>Paper 1. TDCGAN: a Novel GAN-Based Framework for Addressing Class Imbalance in Phishing Attack Detection</b> Mohammad AlKhanafseh (Birzeit University, Palestine) and Ola Surakhi* (American University of Madaba, Jordan)	
	<b>Paper 2. Botnet Detection Using Hybrid Methods</b> Wassan Hashim (Alqalam University College, Iraq); Sarmad Ali (Al-Qalam University College, Iraq); Ali Al-Khawaldeh* (Jordan Engineers Associations, Jordan); Faris AL-Shammri (University of Warith Al Anbiyaa, Iraq)	
	<b>Paper 3. Cybercrime Prediction via Geographically Weighted Learning: the Case Study of GCC</b> Muhammad Al-Zafar Khan (Zayed University, United Arab Emirates); Jamal Al-Karaki* (The Hashemite University, Jordan); Emad Mahafzah (Zayed University, United Arab Emirates)	
	<b>Paper 4. Penetration Testing Overview-Opportunities and Ethical Considerations: Literature Notes</b> Mahmoud Asassfeh; Ghassan Samara; Ali Abu Zaid; Dena Abu Laila*; Shouq Al-Anzi; Abdullah Alqammaz (Zarqa University, Jordan); Ahmad Al Smadi (Zarqa University, Jordan & Zayed University, United Arab Emirates); Alaa Al-Shaikh; Mohammad Rasmi Al-Mousa (Zarqa University, Jordan)	
	<b>Paper 5. A Comprehensive Survey of Microsoft Office Macros' Dual Role in Enhancing Efficiency and Elevating Security Risks</b> Homam El-Taj*; Alaa Alattas (Dar Alhikma University, Saudi Arabia)	

12:30-14:30	<b>Technical Session 2 (Virtual)</b> <b>Session Chair: Khair Eddin Sabri</b>	AI Reem
<p><b>Paper 1. RNA Encoding and Raita Algorithm for Misuse Intrusion Detection Method Using KDD-Cup99 Dataset</b>  Omar Rashid* (University of Baghdad, Iraq); Mohannad Mohammed (Middle Technical University, Iraq); Saba Tuama (University of Information and Technology and Communications, Iraq)</p> <p><b>Paper 2. Enhancing Image Security and Privacy Using Double Random Phase Encoding Based Chaotic System and Compressed Sensing</b>  Khalid Alnidawi*; Ali Sagheer (University of Anbar, Iraq)</p> <p><b>Paper 3. Performance Evaluation of Blockchain Systems Based Chaotic Multimedia Encryption</b>  Rania Abdulkadhim* and Hamsa Abdullah (AL-Nahrain University, Iraq)</p> <p><b>Paper 4. Image Encryption Techniques: a Survey</b>  Heba Abughali*; Utku Kose (Suleyman Demirel University, Turkey)</p>		
14:00-14:30	Coffee Break	
14:30-15:00	<b>Keynote Speech 2 (Virtual)</b> <b>Prof. Leandros A. Maglaras, Edinburgh Napier University, UK</b> <b>End-to-End Encryption: Salvation or Curse?</b> <b>Session Chair: Iman Almomani</b>	Grand Ballroom
15:00-16:30	<b>Technical Session 3</b> <b>Session Chair: Ismail Al-Taharwa</b>	Grand Ballroom
<p><b>Paper 1. Integrated Approaches to Steganography: Embedding Static Information Across Audio, Visual, and Textual Formats</b>  Omar Allasasmh; Dena Abu Laila*; Mohammad Aljaidi (Zarqa University, Jordan); Ayoub Alsarhan (Hashemite University, Jordan); Ghassan Samara (Zarqa University, Jordan)</p> <p><b>Paper 2. Improving Email Security Through Machine Learning-Based Phishing Attack Detection</b>  Islam Almalkawi; Mohammad Al-hammouri; Mohammed Abu Mallouh; Tasneem Barakat* (The Hashemite University, Jordan)</p> <p><b>Paper 3. ML-Based CAN Bus Message Sniffing and Classification</b>  Omar Ramadan*; Ibrahim Enaya; Ahmed Al-Zoul; Belal Sababha (Princess Sumaya University for Technology, Jordan)</p> <p><b>Paper 4. Detection of Botnet Attacks on IoT Using AI</b>  Ahmad Rasheed* (Princess Sumaya University for Technology, Jordan); Mohammad Alnabhan (Princess Sumaya University for Technology (PSUT), Jordan)</p>		
15:00-16:30	<b>Technical Session 4 (Virtual)</b> <b>Session Chair: Iyad Jafar</b>	AI Reem
<p><b>Paper 1. Real Time Student Monitoring Smart School Bus with an IoT Based Security System</b>  Md Mehedi Hassain; Md. Jahid Hasan* (Chittagong University of Engineering and Technology, Bangladesh); Abdur Rahman (International Islamic University Chittagong, Bangladesh); Abdullah Al Fahim (Chittagong University of Engineering and Technology, Bangladesh); Mohammed Moin Uddin (Chittagong University of</p>		

Engineering and Technology & University of Science and Technology  
Chittagong, Bangladesh)

**Paper 2. AI-Integrated Cyber Security Risk Management Framework for IT Projects**

Haidar Jabbar\* (Humber Polytechnic, Canada); Samir Al-Janabi (McMaster University, Canada); Francis Syms (Humber Polytechnic, Canada)

**Paper 3. Android Forensics of Edited Messages on Instagram**

Dina Millatina\*; Bambang Sugiantoro (UIN Sunan Kalijaga Yogyakarta, Indonesia)

**Paper 4. Next-Gen Voting: a Blockchain-Based e-Voting System for Fast and Secure Digital Elections**

Shukur Shakir\* (University of Babil, Iraq); Alharith Abdullah (University of Babylon, Iraq)

**Paper 5. Leveraging Blockchain for IoT Network Security Enhancement: a Comprehensive Survey**

Ayat Kadhum; Ahmed Al-Salih\*(University of Babylon, Iraq)

**16:30-17:30**

**Lunch**

# Day 2: Wednesday

December 18<sup>th</sup>, 2024

\* Indicates a Presenting Author

Time	Item	Place
09:00-16:00	Registration	
10:00-12:00	<b>Technical Session 5</b> <b>Session Chair: Mustafa Al-Fayoumi</b>	Grand Ballroom
	<b>Paper 1. SUBREDDIT Communities' Dynamic and Conflict Propagation</b> Omar Awajan* and Christopher Jepsen (University of Vermont, USA)	
	<b>Paper 2. S2VC: Secure Smart Vehicular Communications</b> Iman Almomani* (University of Jordan, Jordan & Prince Sultan University, Saudi Arabia); Wissam Almahasneh; Abdalhameed Aldradkeh; Suleiman Alfar; Mousa AL-Akhras; Musa Al Yaman (University of Jordan, Jordan)	
	<b>Paper 3. Lattice-Based RLWE Key Generation Using ECC</b> Ahmad Homsy*; Mustafa Al-Fayoumi (Princess Sumaya University for Technology, Jordan); Mohammad Al-Fawa'reh (Edith Cowan University, Australia)	
	<b>Paper 4. Optimizing Network Traffic Anomaly Detection with Normalized Features</b> Sami Aljarrah (SMS Inc, Jordan); Sarra Cherbal (University of Setif 1, Algeria); Ashraf Mashaleh (Balqa Applied University, Jordan); Mohammad Alauthman (University of Petra, Jordan); Amjad Gawanmeh* (University of Dubai, United Arab Emirates)	
	<b>Paper 5. Detecting Text-Based Cybercrimes Using BERT</b> Abdelrahman Manna*; Mustafa Al-Fayoumi (Princess Sumaya University for Technology, Jordan); Mohammad Al-Fawa'reh (Edith Cowan University, Australia)	
	<b>Paper 6. Renewable Energy and Cyber Threats: Safeguarding Solar Power Systems</b> Homam El-Taj*; Fatima AlAmmari; Amena Khoja; Joud AlKhwowaiter; Dania Kamal; Layal Boragi; Renad Essa (Dar Alhikma University, Saudi Arabia)	
10:00-12:00	CyPetra Competition Kickoff	Al Reem
12:00-12:30	Coffee Break	
12:30-13:30	<b>Panel Discussion 2</b> <b>Strengthening Industrial Cybersecurity: Lessons from Banking, Telecommunications, and Power Transmission Sectors</b> <b>Moderator: Suad Matar</b>	Grand Ballroom

13:30-14:00	<b>Keynote Speech 3 (Virtual)</b> <b>Dr. Munther Abualkibash, Eastern Michigan University, USA</b> <b>Smart Defenses: Using Machine Learning in Cybersecurity</b> <b>Session Chair: Ismail Al-Taharwa</b>	<b>Grand Ballroom</b>
14:00-14:30	<b>Coffee Break</b>	
14:30-16:00	<b>Technical Session 6</b> <b>Session Chair: Fawaz Khasawneh</b> <b>Paper 1. A Secure Regional Authentication Layer for Global ADS-B Communications</b> Abdelnoor Dabit*; Mustafa Al-Fayoumi; Khaled Mahmoud (Princess Sumaya University for Technology, Jordan) <b>Paper 2. On the Comparative Analysis of Trends in Cybersecurity Risk Assessment, Governance, and Compliance Frameworks</b> Sami Aljarrah (SMS Inc, Jordan); Sarra Cherbal (University of Setif 1, Algeria); Ashraf Mashaleh (Balqa Applied University, Jordan); Jamal Al Karaki* (Zayed University, United Arab Emirates); Amjad Gawanmeh (University of Dubai, United Arab Emirates) <b>Paper 3. Towards Analysis Detection of Deepfake Video via Deep Learning Models: a Review</b> Shahad Al-Tamimi*; Walid Salameh (Princess Sumaya University for Technology, Jordan) <b>Paper 4. Arabic Fake News Detection Using Deep Neural Network Transformers</b> Mahmoud Farfoura*; Mohammad Alia; Ibrahim Mashal; Adnan Hnaif (Al-Zaytoonah University of Jordan, Jordan) <b>Paper 5. RPL Routing Attacks Detection for IoT Networks Using Machine Learning</b> Hatem Mosa*; Amro Saleh (Princess Sumaya University for Technology, Jordan & Microsoft, Jordan); Mouhammd Alkasassbeh (Princess Sumaya University for Technology, Jordan)	<b>Grand Ballroom</b>
14:30-16:00	<b>CyPetra Competition Closing</b>	<b>Al Reem</b>
16:00-17:00	<b>Lunch</b>	