

CONFERENCE PROGRAMME

02-Dec		03-Dec		04-Dec		05-Dec
08:00-17:00	Registration	08:00-17:00	Registration			Social Activity and Networking Day
09:00-09:30	Opening			09:30-10:30	Keynote Talk	
09:30-10:30	Keynote Talk	09:00-10:30	Keynote Talk and Panel			
10:30-11:00	Coffee Break	10:30-11:00	Coffee Break	10:30-12:00	Technical Sessions	
11:00-12:30	Technical Sessions	11:00-12:30	Technical Sessions	12:00-13:30	Lunch	
12:30-14:00	Lunch	12:30-14:00	Lunch	13:30-16:30	Technical Sessions	
14:00-17:00	Technical Sessions	14:00-17:00	Technical Sessions	16:30-18:00	Closing & Networking, Refreshments	
19:00-22:00			Conference Gala Dinner			

Tuesday 2 nd December 2025		
08:00 - 17:00	Onsite registration	
09:00-09:30	Opening & Welcome	
09:30 – 10:20	Keynote Speaker: Chair:	
10:30-11:00	Coffee break	
11:00 - 12:30	Session 1	Chair: Cross-Protocol Experimental Assessment of BLE and RFID Vulnerabilities in IoT Devices <i>Dimitris Koutras, Nikolaos Fokos, Vangelis Malamas and Panayiotis Kotzanikolaou</i> From Detection to Decision: Adaptive Orchestration of Cyber Defense in IT/OT Converged IoT Networks <i>Vangelis Malamas, Dimitris Koutras and Panagiotis Giannopoulos</i> Security Challenges and Advances in Smart Homes IoT: A Systematization of Knowledge <i>Mohammed Mahyoub</i> Assessing the Success of Evil Twin Attacks in WPA3-Enterprise Networks <i>Saken Tleuberdin, Dina Satybaldina, Tolegen Aidynov, Aliya Issainova, Zhaniya Magmur and Gulsipat Abisheva</i> SECUREAM: Advancing Cybersecurity in IoT-enabled Additive Manufacturing <i>Eun-Young Kang</i>
		Chair: RLS Filter Optimization for non-invasive fECG Extraction Using the PSO Algorithm <i>Mourad Benziane, Mohamed Rezki, Issam Griche, Saoudi Kamel and Abderrazak Arabi</i> Network-Aware Multi-Objective Dynamic Allocation of Virtual Machines in Cloud Data Centers <i>Sara Shar Faiz Alshehri and Khaoula Hamdi</i> Unjammable and Resilient Communications for UAV Swarms: A Hybrid FSO/mmWave Approach <i>Ali Eslami</i> A Fuzzy Approach to Sensor Node State Scheduling: Applied for Optimizing Area Coverage in Wireless Sensor Networks <i>Adda Boualem and Abdelkader Berrouachedi</i> LLM-Based IoT Fuzzing with Format Consistency and Vulnerability-Aware Test Case Generation <i>Hibiki Nakanishi, Kento Hasegawa, Seira Hidano, Kazuhide Fukushima, Kazuo Hashimoto and Nozomu Togawa</i> Investigating Violations of Coding Standards in Large Language Models <i>Yongbeom Park, Hoyong Lim, Jian Kim and Ki-Il Kim.</i>
12:30-14:00	LUNCH	

14:00 - 17:00	Session 3	Chair:
		<p>Planar Meta-Lens-Enabled High-Gain Circularly Polarized Fixed-Beam Antenna for Wideband IoT Applications at Millimeter-Waves <i>Ubaid Ullah, Slawomir Koziel and Anna Pietrenko-Dabrowska</i></p> <p>Class Imbalance Mitigation: A Stacked Ensemble Approach Using Heterogeneous Oversampling for Churn Prediction in Telecom Industry <i>Badar Almarri, Hasan Alkahtani and Munam Shah</i></p> <p>On CJK support for displays of minimalistic IoT devices <i>Antoine Bossard</i></p> <p>Evaluating Communication Models for Scalable IoT-Cloud Integration <i>Samuel Horáček, Roberto Rossi, Ahmad Al-Shishtawy and Vladimir Vlassov</i></p> <p>Towards Realistic Testing of Algorithms and Protocols in IoT Through a Novel Mobility Model <i>Leon Luca Lausberg, Paulo Rettore, Philipp Zißner, Sean Kloth, Edgar S. Oliveira, Clayson Celes, Peter Sevenich and Bruno Santos</i></p> <p>Enabling the Design of Robust Network Applications by Creating Realistic Scenarios <i>Edgar S. Oliveira, Paulo Rettore, Clayson Celes, Leon Luca Lausberg, Rodolfo Meneguette and Nils Aschenbruck</i></p> <p>MobMetrics: A Modular Architecture for Computing and Visualizing Mobility Metrics <i>Márcio Filho, Lucas Novais, Leon Luca Lausberg, Peter Sevenich, Paulo Rettore and Bruno Santos</i></p> <p>SnapAI: a Simulator for Network Algorithms and Protocols with Artificial Intelligence integration <i>João Vitor S. Coelho, Leon Luca Lausberg, Philipp Zißner, Peter Sevenich, Vinícius F. S. Mota, Cássio V. S. Prazeres, Paulo Rettore and Bruno Santos</i></p> <p>From Spatio-Multidimensional Model to Graph-Oriented Warehouse: A Transformation Approach for Road Accident Analysis <i>Derbal Khalissa, Selmoune Nazih, Benaissa Kahina and Lydia Mesbahi</i></p>
14:00 - 17:00	Session 4	Chair:
		<p>Power System Stability Including Wind Farm with STATCOM based PI Fractional Controller <i>Issam Griche, Kamel Saoudi, Mourad Benziane, Mohamed Yaakoub Touafek and Abderrazak Arabi</i></p> <p>From Tradition to Digital: Transforming the Oil and Gas Landscape by Achieving Operational Efficiency Using On-premises Cloud-Based Remote Visualization <i>Monerah Al-Mekhlal, Abdulrahman Alamri, Mohammad Alghuson, Abdulaziz Al Hamidi, Murtadha Al-Habib, Hamad Al-Enazy, Muhannad Al-Hajri, Mohammed Alawadh, Yasre Alwadei, Muhammad Shakir and Syed Salman Ali</i></p> <p>NWSN: A New Nano-Wireless Sensor Network for Harvesting Electricity from Sound and Noise Vibrations <i>Adda Boualem and Abdelkader Berrouachedi</i></p> <p>Low-Power Real-Time TinyML Approach for Pothole and Speed Bump Classification Using IMU Data on FPGA</p>

		<p><i>César Melo, Pedro Delgado, Gabriel Carvalho, Rui Silva, Hugo Peixoto, José Machado</i></p> <p>Capacitive Energy Harvesting from the Electric Field of Overhead Power Lines <i>Jussi Kesikuru, Tuomas Rauta, Joel Haverinen, Qudrat Ullah and Pekka Ruuskanen</i></p> <p>Green by Design? Investigating the Energy and Carbon Footprint of Chia Network <i>Soraya Djerrab, Clémentine Gritti and Rahima Benzenati</i></p> <p>Energy Saving Strategy for Electric Vehicles During Car-Following Scenarios <i>Mohmmadsadegh Mokhtari and Mădălin-Dorin Pop</i></p> <p>A Serverless Architecture for Sustainable Design and Implementation Using AWS Lambda and NoSQL Database <i>Dipendra Kumar Sah, Yubraj Kumar Rauniyar, Om Kumar Kushwaha, Hridoy Barua, Minhazul Abedin and Ritika Choudhary</i></p> <p>Using Trend Analysis for Supporting Environment Monitoring Through IoT-based Systems <i>Willon Ferreira da Silva, Vitor Pereira de Souza, Francisco Gustavo Simão Gamileira, Evaldo Mendes Dos Santos Junior, Rafael Bezerra Chiavegatto, Gilberto Eduardo Santos, Allan Cruz de Brito and Eriky Rodrigues</i></p> <p>Safeguarding Computations in IoT Devices and AI/ML-enabled IoT Settings <i>Georgios Kornaros, Stavros Martini, Nicolas Spyridakis and Alexandra Polychronidou</i></p>
Wednesday 3 rd December 2025		
09:00 – 10:00	Keynote Speaker 2: Chair:	
10:00-10:30	Panel Chair:	
10:30-11:00	Coffee Break	
11:00 - 12:30	Session 5	<p>Chair:</p> <p>An Edge-Cloud Enabled Machine Learning Framework for Anomaly Detection and Predictive Analysis in Smart City Power Grids <i>Tamara Zhukabayeva, Zulfiqar Ahmad, Dina Satybaldina and Yerik Mardenov</i></p> <p>A Hybrid Ensemble Learning Approach for Intrusion Detection in Internet of Vehicles <i>Shamoon Muhammad, Gulzar Mehmood and Chrysostomos Chrysostomou</i></p> <p>Contextual Anomalous Behavior Detection in IoT Devices from Power Consumption Using LLM <i>Ryusei Eda, Hibiki Nakanishi and Nozomu Togawa</i></p> <p>Edge-based Lightweight AI for Real-Time Intrusion Detection in IoT Networks <i>Mohamed Raid Athamena, Zina Houhamdi and Belkacem Athamena</i></p> <p>Improved Detection and Prevention of Phishing URLs Using Ensemble Machine Learning Techniques <i>Tomiwa Oluwadare and Pantaleon Lutta</i></p>

11:00-12:30	Session 6	<p>Chair:</p> <p>Predictive Modeling of Emerging Security Threats in Blockchain-Based Healthcare Systems <i>Haitham Assiri</i></p> <p>Privacy-Preserving Federated Learning for Secure Healthcare Data Processing <i>Ateeq Ur Rehman, Sara Shar Faiz Alshehri, Anoud Bani Hani and Sana Maroof.</i></p> <p>AACNN-ViT: Adaptive Attention-Augmented Convolutional and Vision Transformer Fusion for Lung Cancer Detection <i>Mohammad Ishtiaque Rahman and Amrina Rahman</i></p> <p>Enhancing Patient Privacy with Transaction Pseudonyms for Secure EHR Access <i>Bermad Nabila, Salah Zemmoudj, Lyes Khoukhi and Kamal Singh</i></p> <p>Data-Driven Health Monitoring of Platform Ecosystems: A Systematic Literature Review <i>Shady Hegazy, Muhammad Ammar, Christoph Elsner, Jan Bosch and Helena Holmström Olsson</i></p> <p>A Comparative Study of Machine Learning Models for Breast Cancer Diagnosis Using the Wisconsin Diagnostic Dataset <i>Masum Billah, Mohammad Hasan and Abeda Raiyan</i></p>
12:30 - 14:00	LUNCH	
14:00 - 17:00	Session 7	<p>Chair:</p> <p>IoT Smart Door Lock with Wireless Key Sharing for Short Term Multi-Level Building Access <i>Rui Policarpo Duarte, Miguel Pardal and Bernardo Marques</i></p> <p>An IoT Low-Cost Optical Sensor to Detect the Presence of Diluted Drugs in Water <i>Sandra Viciano-Tudela, Iman Valizadeh, Lorena Parra, Sandra Sendra and Jaime Lloret</i></p> <p>A Hybrid Mobile System for Indoor Navigation and Product Localization in Supermarkets <i>Leonardo Picinin, Luisa Jorge and Paulo Melo</i></p> <p>A Modular Architecture for Inter-Fog Environments <i>Henrique Buzin, Alysson Oliveira, Mauro Marques and Patricia Della M��a Plentz</i></p> <p>Deep Learning Approach for Animal Classification and Detection: Leveraging ResNeXt, MaXViT and K-D Trees for Accurate and Scalable Wildlife Monitoring <i>Kanda Tshinu, Chunling Du, Owolawi Pius Adewale and Antonie Smith</i></p> <p>Exploring Human-in-the-Loop Integration in the Operation of Digital Twin Applications <i>Johannes Deufel and Sanja Lazarova-Molnar</i></p> <p>Automation of Decision Support in Simulation-Based Digital Twins in Manufacturing: A Survey <i>Ohad Daniel and Sanja Lazarova-Molnar</i></p> <p>Exploring the Role of Artificial Intelligence in Closed-Loop Supply Chain <i>Shahbaz Khan and Zafar Husain.</i></p> <p>Open Source Platforms for Digital Twin Development: Implementation of a Simplified Case Study <i>Alexandre Costa, Luisa Jorge and Paulo Melo</i></p> <p>A Digital Twin Architecture for Real-Time Supervision of an Olive Oil Production Mill <i>Hendrick Scheifer, Luisa Jorge, Fl��via Pires and Clara Vaz</i></p>

14:00 - 17:00	Session 8	<p>Chair:</p> <p>Lightweight Cryptography for IoT Systems with Compression: A Novel Compression-Security Efficiency Index <i>Raunak Kumar Singh</i></p> <p>Navigating the New Frontier: Security Vulnerabilities in Social IoT Compared to Conventional IoT</p> <p>Neural Network-Powered Finger-Drawn Biometric Authentication <i>Maan Al Balkhi, Kordian Gontarska, Marko Harasic and Adrian Paschke</i></p> <p>The Protection of The Right To Privacy In Criminal Proceedings Under The EU AI Regulation <i>Suhail Albaloushi, Ibrahim Al Qatawneh, Moustafa Kandeel, Mansour Alnuaimi, Ali Aldarmaki and Saeed Alkalbani</i></p> <p>Machine Learning Assessment of Data Recoverability in Digital Forensics <i>Leila Rzayeva, Abilkair Imanberdi, Madi Shayakhmetov, Assel Khassanova, Alisher Batkuldin and Yerassyl Yermekov</i></p> <p>Tracing The Untraceable: A Hybrid OSINT-Blockchain Framework for Identity Resolution in Cryptocurrency Forensics <i>Aditi Jha, Ekhomen Ehimen-Ebitibituwa, Rudresh Kale and Srivardhan Nagaram</i></p> <p>Detection lane, curve and potholes using YOLOv8 <i>Hajar Ouhmidou, Abdellah Nabou, Moulay Ahmed El Kiram</i></p> <p>RFID-Based Electronic Voting Framework for Secure and Transparent Elections <i>Stella N. Arinze, Patrick U. Okafor, Onyekachi M. Egwuagu and Augustine O. Nwajana</i></p> <p>Click Smart, Stay Safe: A universal Defence Curriculum Against Phishing Hoaxers <i>Aditi Jha, Ekhomen Ehimen-Ebitibituwa, Rudresh Kale and Srivardhan Nagaram</i></p> <p>Generative Adversarial Networks for Facies Prediction in Subsurface Modeling <i>Ajeet Ram Pathak</i></p>
14:00 - 17:00	Session 9	<p>WASAS Project Workshop</p>
19:00- 22:30	Gala Dinner & and Awards	

Thursday 4 th December 2025		
09:30-10:30	Keynote Speaker 3: Chair:	
10:30-12:00	Session 10	Chair:
		<p>Cognitive Security in IoT: A UTAUT-Based Model of Trust, Privacy, and Adoption <i>Shirin Alimour and Dr.Khawlah M. Al-Tkhayneh</i></p> <p>Protection Against Cyber Threats by Integrating SIEM Solutions in a Demilitarized Zone: A University Network Environment as a Case Study <i>Abdullah Aldhafari, Mohammed Aldunaifat, Abdullah Al-Nakheai, Shehab Gubari, Sahel Alouneh and Faten F. Kharbat</i></p> <p>Meta-Ensemble Deep Learning Framework with Grad-CAM Explainability for Robust Image-Based Malware Detection in Industrial IoT Networks <i>Tamara Zhukabayeva, Zulfiqar Ahmad, Jamil Abedalrahim Jamil Alsayaydeh, Nurdaulet Karabayev, Yerik Mardenov and Dilaram Baumuratova</i></p> <p>ABDA-IoB: Affective Behavior-Driven Adaptation for Internet of Behaviors <i>Mina Alipour and Mahyar Turchi Moghaddam</i></p> <p>Multimodal Fusion of Sign Language and Emotion for Real-Time Kazakh Sign Language Translation <i>Miras Mussabek, Miras Kabykenov, Beibut Amirgaliyev and Ainur Zhuamdillayeva</i></p>
10:30-12:00	Session 11	Chair:
		<p>An application of Neural Network for Human Performance Modelling <i>Keattikorn Samarngoon, Mohammad Hasan, Hongnian Yu and Russell Campion</i></p> <p>Neuro-Cognitive Entropy in the Age of Hyperconnectivity: AI, Immersive Tech, and the Digital Mind <i>Shirin Alimour, Khawlah M. Al-Takhayneh and Samira Brahmia</i></p> <p>Modelling of Enablers of Eco-Innovation for SMEs: An ISM Approach <i>Mohammad Aalam, Md Nahid Akhtar, Zafar Husain, Abid Haleem and Shahbaz Khan</i></p> <p>Green Technology Innovation and Firm-Level Technical Efficiency: A Two-Stage Analysis in the Philippines <i>Ibrahim Niankara</i></p> <p>The Concept of a Forecasting System for the Sustainable Development of SMEs in Kazakhstan <i>Shara Toibayeva, Irbulat Utepbergenov, Dina Abylkhasanova, Baurzhan Zholdybaev, Fariza Zainolda and Ablay Aldabergenov</i></p>
		chair
		<p>AI-Powered Early Warning Systems for Resource-Constrained Schools: A Lightweight Machine Learning Framework for Predicting Student Performance <i>Alidor Mbayandjambe Masheke, Grevi B. Nkwim, Fiston O. Oshasha, Jean Didier M. Batubenga, Vladislav Slavov, Tasho Tashev, Kyandoghere Kyamakya and Selain K. Kasereka.</i></p>

		<p>Innovative Sustainable Technology-Based Education: A Bibliometric Exploration of the Frontiers of Knowledge <i>Najah Al Mohammedi, Hanan Shaher Almarashdi, Jihan Yousef, Baderaddin Yassin, Wafaa El Zaatari and Maha Alhabbash</i></p> <p>Mapping the Landscape of Mathematics Education Research in the Digital Era: A Bibliometric Analysis <i>Hanan Almarashdi, Najah Al Mohammedi, Khaleel Alarabi, Eman Abed, Ibrahim Maqableh and Enas Abulebdeh</i></p> <p>The Impact of Artificial Intelligence on Fresh Graduate Labor Demand: A Theoretical and Empirical Analysis with Industry and Firm Heterogeneity <i>Ibrahim Niankara, Yahya Aljallad, Ons Soussi, Kareem Maghrabi, Madheya Alkhyeli and Sara Alghool</i></p> <p>The Evolution of AI Applications in Educational Assessment Research: A Bibliometric Analysis <i>Hanan Shaher Almarashdi, Enas Abulibdeh, Najah Al Mohammedi, Maha Alhabbash, Saif Alneyadi and Abdulrahman Almekhlaf</i></p>
12:00-13:30		lunch
13:30-16:30	Session 12	<p>Chair:</p> <p>Resilient SDR-Based Remote Sensing with Asynchronous Edge Upload and Cloud-Native Parallel Processing <i>Sonny Wandel and Michael Einhaus</i></p> <p>Enhancing Security and Performance in Software-Defined Networks Using AI-Driven Automation <i>Suha Alqaruty, Reema Al Qaruty, Khawlah M. al-Tkhayneh and Samer Abdel Hadi</i></p> <p>Optimization of Control Plane for Load Balancing in SD-Wi-Fi Networks <i>Belkacem Athamena, Mohamed Raid Athamena and Zina Houhamdi</i></p> <p>Enhancing Security and Performance in Software-Defined Networks Using AI-Driven Automation <i>Suha Alqaruty, Reema Al Qaruty, Khawlah Mitib al-Tkhayneh and Samer Abdel Hadi</i></p> <p>Automated Security Compliance Evaluation Using Hierarchical RAG for IoT Devices with Large-Scale Documentation <i>Yuka Ikegami, Kento Hasegawa, Seira Hidano, Kazuhide Fukushima, Kazuo Hashimoto and Nozomu Togawa</i></p> <p>A Framework for Operationalizing Cooperative Principles in Data Governance <i>Francisco Mendonça, Giovanna Di Marzo Serugendo and Nabil Abdennadher</i></p> <p>The Legislative Combating of Deepfake using Artificial Intelligence Applications: A Comparative Study <i>Tariq Kameel, Nadine Soboh, Abdulla Alnuaimi, Humaid Alblooshi, Mohammed A. Alblooshi and Sultan Alblooshi.</i></p> <p>ANALYSIS OF SECURITY ASSESSMENT METHODOLOGIES FOR WIRELESS IoT NETWORKS USING VULNERABILITY TAXONOMY <i>Tamara Zhukabayeva, Yerik Mardenov, Nurdaulet Karabayev, Zulfiqar Ahmad and Dina Satybaldina</i></p>

		<p>The Impact of Jailbreaking on IOS Device Security: an Analysis of The Risks and Consequences <i>Daffa Fazli</i></p> <p>An Automated Scanner for Detecting Common Web Application Vulnerabilities with a Focus on Enhanced Performance and Security. <i>Anthonia Taiwo and Pantaleon Lutta</i></p>
13:30-16:30	Session 13	<p>Chair:</p> <p>AI Voice Sudoku Solver for Visually Impaired Persons <i>Shailaja Uke, Prakash Sharma, Manasi Mhatre, Dattatray Kshirsagar, Payal Kudale and Devraj Lokhande</i></p> <p>SMART DEVICES INTEGRATION FOR CLINICAL TRIALS : PROTOCOL PERSPECTIVE <i>Shashi Shekhar and Shashi Shekhar</i></p> <p>An IoT E-Nose for Real-Time Olive Oil Quality Monitoring <i>Najla Abou Ghaouche Ahmad, Luisa Maria Garcia Jorge, Clara Bento Vaz and Leandro Herculano da Silva</i></p> <p>HYDROSENSE: A SMART IOT-BASED NFT HYDROPONIC SYSTEM FOR SUSTAINABLE CROP PRODUCTION <i>Coleen Viance Cruz, David Charles Mendoza, Carlo Morallo and Carlos Miguel Narito</i></p> <p>Automated IoT-based Monitoring and Control System for Hydroponic Agriculture <i>Khaled Riad and Badar Almarri</i></p> <p>Functional Size Measurement of Hybrid Classical Quantum Software Systems <i>Hassan Soubra, Tuna Hacaloglu, Alain Abran, Pierre Bourque and Sylvain B��land</i></p> <p>Insights on Quantum Software Functional Size Measurement: Key Concepts, Challenges and Motivations <i>Tuna Hacaloglu, Hassan Soubra, Youssef Adel, Pierre Bourque and Alain Abran</i></p> <p>From Qubits to Classrooms: Emerging Technologies for Quantum Education and Strategic Literacy <i>Jeremy Green</i></p> <p>Analytical Survey of Post-Quantum Cryptography Integration in the Internet of Medical Things (IoMT) <i>Moussa Diop</i></p>
16:30	Closing & Networking – Coffee/Tea and refreshments	

KEYNOTE SPEAKERS

1. Prof. Azzedine Boukerche, University of Ottawa,
2. Prof. Ali Kashif, Manchester Metropolitan University, UK.
3. Prof. Guizzardi, Giancarlo, University of Twente, Netherlands.

