On site Activities (preliminary) Program

NOVOTEL BARCELONA CORNELLÀ Avenida Maresme 78 08940, CORNELLA DE LLOBREGAT BARCELONA +34 934 74 70 00

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Updated as of Oct 23rd, 2025

The program will be continuously updated.

NetWare 2025: https://www.iaria.org/conferences2025/ProgramSECURWARE25.html

SocSys 2025: https://www.iaria.org/conferences2025/ProgramMODERNSYSTEMS25.html

TechWorld 2025: https://www.iaria.org/conferences2025/ProgramEXPLAINABILITY25.html

SustainableDigitalization 2025: https://www.iaria.org/conferences2025/ProgramCOCE25.html

Timezone converter: https://www.worldtimebuddy.com

Session conference	Room #A	Room #B	Room #C
rooms	Room #A	Room π b	Room #C
Plenaries		Room #A	

Sunday, Oct 26

11:00	Registration starts The registration desk is located in front of the conference rooms Open during the entire conference
12:30 - 12:45	Welcome session
	Tutorial I
	Theme: The Anatomy of Agentic Frameworks and Practical Use Cases
	Speaker
12:45 - 13:30	Prof. Dr. Petre Dini, IARIA, USA/EU
	Chair
	Ali Recai Yekta
13:30 - 13:45	Coffee
	- 1 11
13:45 - 14:30	Session 1 [GREEN]
14:30 - 14:45	Coffee Break
	Tutorial II
14:45 - 15:45	Theme: Building Security Monitoring Solutions with Open Source Tools
14.43 - 13.43	Speaker
	Co-Founder Ali Recai Yekta, Yekta IT GmbH, Germany

	Chair
	Petre Dini
15:45 - 16:15	Coffee
	Tutorial III
	Theme: Systems Thinking within the Systems Engineering Paradigm
	Speaker
16:15 - 17:15	Prof. Paul Martin, University of Maryland, USA / CEO SE-Scholar / INCOSE, USA
	Chair
	Aspen Olmsted
17:15 - 17:30	Coffee
	Tutorial IV
	Theme: Secure Software Development
17:30 - 18:45	Prof. Dr. Aspen Olmsted, Wentworth Institute of Technology, USA
	Chair
	Paul Martin
19:00 - 20:00	Welcome Cocktail

Monday, Oct 27

		Keynote Speech	
	Theme: Reconnaissance to Resilience: A Threat-Led Kill Chain Perspective on		
	Ransomware and Emerging AI-Driven Threats		
09:00 - 10:00	Speaker		
	Prof. Dr. Alexander Lawall, IU Internationale Hochschule GmbH, Germany		
		Chair	
10.00 10.20		Eugen Borcoci	
10:00 - 10:30	Coffee Break		
10:30 - 12:15	Session 2	Session 5	Session 8
12:15 - 12:30	Coffee		
12:30 - 14:00		Session 6	Session 9
14:00 - 15:30	Lunch on your own		
15:30 - 17:15	Session 4	Session 7	Session 10
17:15 - 17:45		Coffee break	
		Panel #1	
	Theme: Cybersecurity Resilience Challenges		
	Moderator		
	Prof. Dr. Alexander Lawall, IU International University of Applied Sciences, Germany		
17:45 - 19:30	Panelists		
17.43 17.50	Niklas Lindskog, Ericsson, Sweden		
	Prof. Dr. Aspen Olmsted, Wentworth Institute of Technology, USA		
	Co-Founder Ali Recai Yekta, Yekta IT GmbH, Germany		
	Prof. Dr. Yuichi Kaji, Nagoya University, Japan		
	Timm Bostelmann, FH Wedel (University of Applied Sciences), Germany		

09:00 - 10:00	Keynote Speech Theme: Stochastic Spatiotemporal Multi-Agent Path Planning with Knowledge Graphs Speaker Dr. Edward Arthur Holmberg, University of New Orleans, USA Chair Eugen Borcoci		
10:00 - 10:30	Coffee Break		
10:30 - 12:15	Session 11	Session 14	Session 17
12:15 - 12:30	Coffee		
12:30 - 14:00	Session 12	Session 15	Session 18
14:00 - 15:30	Lunch on your own		
15:30 - 17:15	Session 13	Session 16	Session 19
17:15 -17:45		Coffee break	
17:45 - 19:30	Panel #2 Theme: Health and Digital Services Moderator Dr. Jamie McGlothlin, RSM US LLP, USA Panelists Dr. Thomas Michelitsch, Sorbonne Université, CNRS, France Dr. Francisco Javier Bermúdez Ruiz, University of Murcia, Spain Prof. Dr. Petre Dini, IARIA, USA/EU Prof. Dr. Mehluli Masuku, Sorbonne University Abu Dhabi, UAE Prof. Dr. Kristina Schaaff, IU International University of Applied Sciences, Germany		

Wednesday, Oct 29

09:00 - 10:00	Keynote Speech Theme: Enhancement of Medical Images for Improved Diagnosis and Treatment Speaker Dr. Simin Mirzaei, University of British Columbia, Canada Chair Edward Arthur Holmberg		
10:00 - 10:30	Coffee Break		
10:30 - 12:15	Session 20	Session 22	Session 24
12:15 - 12:30	Coffee		
12:30 - 14:00	Session 21	Session 23	
14:00 - 15:30		Lunch on your own	•
	Open Discussion #1 Theme: Digital and AI Literacy Moderators		
15:30 - 16:15			
	Prof. Dr. Petre Dini, IARIA, USA/EU		
	Timm Bostelmann, FH Wedel (University of Applied Sciences), Germany		
16:15 - 16:30	Coffee		
16 20 17 15		Meet an Expert	
16:30 - 17:15	Theme: Economic Growth and Water Management Challenges		

	Interviewer	
	Prof. Dr. Petre Dini, IARIA, USA/EU	
	Expert	
	CTO, Dr. Mahmood Ahmad, RKH-WEFnex, Thailand	
17:15 - 17:45	Coffee break	
	Panel #3	
	Theme: Complex Systems	
	Moderator	
	Prof. Dr. Fan Wu, Tuskegee University, USA	
17:45 - 19:30	Panelists	
17.43 - 19.30	Dr. Jyrki Penttinen, Alphacore Inc., USA	
	Prof. Dr. Sergei Sawitzki, FH Wedel (University of Applied Sciences), Germany	
	Prof. Paul Martin, University of Maryland, USA / CEO SE-Scholar / INCOSE, USA	
	M. Eng. Jessica Mueller, Bosch Rexroth AG, Germany	
	Prof. Dr. Ray Jones, University of Plymouth, UK	
10.20 22.20	Conference Dinner	
19:30 -23:30	Novotel Hotel	

Thursday, Oct 30

	Keynote Speech	
	Theme: Path Planning Advances in Multi-UAV Networks	
09:00 - 10:15	Speaker	
	Prof. Dr. Eugen Borcoci, National University of Science and Technology	
	POLITEHNICA Bucharest, Romania	
	Chair	
	Andre Schneider de Oliveira	
10:15 - 10:30	Coffee Break	
	Panel #4	
	Theme: Sustainability	
	Moderator	
	Dr. Mahmood Ahmad, RKH-WEFnex, Thailand	
	Panelists	
10:30 - 12:15	Prof. Dr. Mamadou-Baïlo Camara, University of Le Havre Normandy, France	
10.30 12.13	Dr Edward Arthur Holmberg, University of New Orleans, USA	
	Dr. Nils Olav Handegard, Institute of Marine Research, Norway	
	Dr. Amir Dadrasi, Univerzita Karlova, Czech Republic	
	Prof. Dr. Pedro Gonçalves, Escola Superior de Tecnologia e Gestão de Águeda and	
	Instituto de Telecomunicações, Portugal	
	Puja Bhetwal, RIZQ/YUNUS WEFnex Hub AIT, Thailand	
12:15 - 12:30	Coffee	
12:30 - 14:15	Session 26	
14:15 - 14:30	Coffee Break	
	Open Discussion #2	
	Theme: Complexity of Building Robust and Resilient Systems	
14:30 - 15:15	Moderators	
	Prof. Dr. Petre Dini, IARIA, USA/EU	
	Prof. Dr. Eugen Borcoci, National University of Science and Technology	

	POLITEHNICA Bucharest, Romania
15:15 - 15:30	Closing Session Farewell

Recommended tourist objectives to be visited on your own:

• General information: www.barcelonatourguides.com

• Contact: info@barcelonatourguides.com

Barcelona

Prepare your best places to see in Barcelona: https://youtu.be/XVqpOCPg_Y4

- Park Güell
- Sagrada Familia
- Picasso Museum
- Gaudi Museum
- Museum of Catalan Art
- Montjuic Hill
- La Rambla
- La Marina

Girona

Salvador Dali Museum [one day trip from Barcelona]

Detailed Sessions

Session 1 [GREEN] Room A Sunday - early afternoon

Session Chair: Petre Dini

80014 Brains Without Brawn: Evaluating CPU Performance for Code Generation with Large Language Models Miren Illarramendi Rezabal, Mondragon Goi Eskola Politeknikoa JMA S.Coop, Spain

Session 2 [SECURWARE] Room A Monday - morning

Session Chair: Jalpa Soni

30036 Comparison of Password-Authenticated Key Exchange Schemes on Android Jörn-Marc Schmidt, IU Internationale Hochschule GmbH, Germany

30046 The Balanced Chance & Cyber Risk Card: Extending Reichmann's Multidimensional Controlling Framework for C Level Steering in German SMEs Maik Drozdzynski, IU International University, Germany

30071 Quantifying Persuasion - A Comparative Analysis of Cialdini's Principles in Phishing Attacks Alexander Lawall, IU International University of Applied Sciences, Germany

30085 A Comparative Study of Machine Learning and Quantum Models for Spam Email Detection Fan Wu, Tuskegee University, USA

Session 4 [MODERN SYSTEMS, SENSORCOMM] Room A Monday - afternoon

Session Chair: Maik Drozdzynski

10019 Q-Learning Performance on the CartPole Environment Under Observation Noise and Reward Variants Fan Wu, Tuskegee University, USA

10011 A Group-Based Access Coordination Scheme for Low-Latency and High-Throughput IoT over IEEE 802.11ah

Seung-ha Jee, Sungshin Women's University, Republic of Korea

Il-Gu Lee, Sungshin Women's University, Republic of Korea

10025 A Time-based Sensor Data Analysis for Pre-Fall Prediction using Machine and Deep Learning Approaches

Nazia Pathan, Queen Margaret University, UK

Session 5 [SENSORCOMM] Room B Monday - morning

Session Chair: Mathias Gerstner

10030 Machine Learning-Based Joint TX Power and RX Sensitivity Control for Overlapping Basic Service Set Interference Mitigation in Dense Internet of Things Wireless Networks Jin-Min Lee, Sungshin Women's University, Republic of Korea

10034 ScreenLeak: Exploiting Screen Savers for Covert Long-Distance Data Exfiltration and Defense Ye-Rim Jeong, Sungshin Women's University, Republic of Korea

10038 Invisible Watermarking for Image Data Protection in Sensor Network Environments Seo-Yi Kim, Sungshin Women's University, Republic of Korea

Session 6 [VEHICULAR, HEALTHINFO, SENSORDEVICES] Room B Monday - early afternoon Session Chair: Haadia Amjad

30005 Context-Aware Forecasting of Mobile Network Quality for Autonomous Vehicle Connectivity Mathias Gerstner, OTH Regensburg, Germany

20022 Development of an Artificial Fingertip with a High-Sensitivity 3-Axis Force Tactile Sensor Embedded for Robotic Hands

Bo-Gyu Bok, Korea Research Institute of Standards and Science, Republic of Korea

Session 7 [EXPLAINABILITY] Room B Monday - afternoon

Session Chair: Emre Atilgan

10009 Identifying Confusion Trends in Concept-based XAI for Multi-Label Classification Haadia Amjad, TUD | Dresden University of Technology, Germany

10012 CAT in the box: A CausalAI - Tsetlin machine duo Jalpa Soni, Capitole Consulting, Spain

Session 8 [CSRF] Room C Monday - morning

Session Chair: Mohamed Lamine Toure

10052 Agrotourism Gamification for Farmer Empowerment Pedro Goncalves, Instituto de Telecomunicacoes, Portugal

10064 Efficiency of Rainfed Wheat Production: A Global Assessment Using Data Envelopment Analysis Amir Dadrasi, Univerzita Karlova, Czech Republic

Session 9 [PANDEMICS ANALYTICS, HEALTHINFO] Room C Monday - early afternoon Session Chair: Ketil Malde

20005 Stochastic compartment model of epidemic spreading in complex networks with mortality and resetting Thomas Michelitsch, CNRS/Sorbonne Université, France

20008 Statistical and Predictive Analysis to Identify Risk Factors and Effects of Post COVID-19 Syndrome Milad Leyli-abadi, IRT SystemX, France

90080 Machine Learning-Driven Support Algorithm for Skin Ulcers Preliminary Diagnosis: A Lightweight Approach for Digital Images Semantic Segmentation and Color-Based Classification Debora Beneduce, LINKS Foundation, Italy

Session 10 [COCE] Room C Monday - afternoon

Session Chair: Austin Schmidt

30008 Multi-source Constrained Machine Learning for Oceanic Parameters Forecasting Austin Schmidt, University of New Orleans, USA

30031 Machine learning using physics-based backscattering modeling for acoustic identification of mesopelagic organisms

Sander Andre Berg Marx, University of Bergen (UIB), Norway

30035 Accelerating HEC-RAS: A Recurrent Neural Operator for Rapid River Forecasting Edward Holmberg, University of New Orleans, USA

30053 Integrated Design and Field Validation of MoBI: An Intelligent Buoy for Environmental Data Acquisition

Mariella Sole, University of Cagliari, Italy

Session 11 [GREEN, SOCIETY TRENDS, CSRF] Room A Tuesday - morning

Session Chair: Yoshitaka Ooyashiki

80021 Energy Management of PV-Batteries System for a Rural Micro-Grid Application in Guinea Mohamed Lamine Toure, Universite Le Havre Normandie, France

80029 Electric behavior characterization of lithium iron phosphate batteries as a function of operating

temperature

Ibrahima Toure, Universite Le Havre Normandie, France

40008 Using 2D and 3D Desktop Based Virtual Avatar Environments to weaken Zoom Fatigue in Tertiary Education

Gerhard Hube, University of Applied Sciences Würzburg-Schweinfurt, Germany

10059 Differences in Exit Propagation of by Cuttings for Cistus ladanifer and Cistus Cyprius Pedro Vicente Mauri Ablanque, Instituto madrileño de Investigación y desarrollo rural, agrario y almientario (IMIDRA), Spain

Session 12 [HEALTHINFO] Room A Tuesday - early afternoon

Session Chair: Sebastian Kraust

90061 Discrimination by Deep Learning of 1Hz Difference in Auditory Cortex using fMRI Activation Patterns Kyoko Shibata, Kochi University of Technology, Japan Yoshitaka Ooyashiki, Kochi University of Technology, Japan

90067 From Text to Code: Predicting Abbreviated Injury Scale 2015 from Clinical Narratives Chien-Ming Lee, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Taiwan

90072 Hypothermia and Its Association with Mortality Among Major Trauma Patients in a Tropical Climate: A Retrospective Study from Southern Taiwan Pei-Ling Lee, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Taiwan

Session 13 [HEALTHINFO] Room A Tuesday - afternoon

Session Chair: George Adamides

90076 From Hospitals to Researchers: A Data-Trustee Infrastructure to Search and Use FHIR-Data for Retrospective Medical Research Carolin Poschen, Trier University of Applied Sciences, Germany

90094 Using a Large Data Model Explorer to Maintain a Healthcare Information System Francisco Javier Bermúdez Ruiz, University of Murcia, Spain

90115 Using Data and Artificial Intelligence to Enable Successful Hospital at Home Programs Jamie McGlothlin, RSM US LLP, United States

Session 14 [EXPLAINABILITY, SECURWARE] Room B Tuesday - morning

Session Chair: Jyrki Penttinen

10024 RanXplain: Explaining Rankings in Recommendation Systems Atakan Yilmaz, Trendyol, Turkey Nuray Eylul Erler, Trendyol, Turkey Emre Atilgan, Trendyol, Turkey

10030 Bridging the Domain Gap: Evaluating Fact-Grounded Knowledge Graph Narratives for Explainable AI in Clinical Decision Support Valentin Göttisheim, Furtwangen University, Germany

30061 A Modular and Flexible OPC UA Testbed Prototype for Cybersecurity Research Sebastian Kraust, OTH Regensburg, Germany

Session 15 [MODERN SYSTEMS, AIVTS] Room B Tuesday - early afternoon

Session Chair: Valentin Göttisheim

10016 An Interference-Aware vCPU Scheduling Framework for Paravirtualized Real-Time Industrial Control Systems

Jessica Müller, Bosch Rexroth AG, Germany

50022 Design Feasibility and Link Budget Assessment of Aerial 5G IoT and eMBB Connectivity Jyrki Penttinen, Alphacore Inc., USA

50032 Design of Infrastructure-Based Prescriptive Control Use Cases in Cooperative Autonomous Driving Ki hun Jang, ITS KOREA, South Korea

Session 16 [SECURWARE] Room B Tuesday - afternoon

Session Chair: Logan McMahon

30028 General Conversion Scheme of Card-based Protocols for Two-colored Cards to Updown Cards - The Number of Cards for Computing an Arbitrary Function Takumi Sakurai, Nagoya University, Japan Yuichi Kaji, Nagoya University, Japan

30030 From ECU to VSOC: UDS Security Monitoring Strategies Ali Recai Yekta, Yekta IT GmbH, Germany

30034 DeepAuthVerify - A Modular Framework for Deepfake Detection in Facial Authentication Systems Kristina Schaaff, IU International University of Applied Sciences, Germany

30049 Supporting the Security Modelling in Operational Technology by identifying capacities of Hidden Channels in ICS protocols

Sönke Otten, Otto-von-Guericke University, Germany

Session 17 [COCE] Room C Tuesday - morning

Session Chair: Anna Wenda-Piesik

30003 Evaluating Hyperparameter Selection Techniques for the Ratio-Coupled Loss Function Austin Schmidt, University of New Orleans, USA

30016 Simulation-Based Study of Propulsion and Control of an AUV in Current-Affected Environments Mefti Aymen, Ecole Militaire Polytechniques, Algeria

30021 Operationalizing and Testing Machine Learning Models for Acoustic Target Classification Nils Olav Handegard, Institute of Marine Research, Norway

30028 Semi-Supervised Object Detection for Marine Life Monitoring using Temporal Information Ketil Malde, Institute of Marine Research, Norway

Session 18 [CEEE, CSRF] Room C Tuesday – early afternoon

Session Chair: Dariusz Piesik

40019 Global Energy Transition – Issues and Options Puja Bhetwal, RIZQ/YUNUS WEFnex Hub AIT, Thailand Mahmood Ahmad, RKH-WEFnex, Thailand

40023 Comparative Analysis of PM2.5 Air Quality Between Old and Newly Developed Residential Areas in Karbala City Using a Low-Cost Monitoring System Hussein Abd Ali Hatif Alsaadi, Al-Zahrawi University College, Karbala, Iraq

10045 Effect of Mobile Agrivoltaic Shading on the Growth and Yield of Coriander (Coriandrum Sativum L.) under Field Conditions in Poland

Anna Wenda-Piesik, Bydgoszcz University of Science and Technology, Poland

Session 19 [CSRF] Room C Tuesday - afternoon

Session Chair: Niklas Lindskog

10014 An Evaluation of the Use of Sensors for the Detection of Emissions in Slurry Management Jacqueline Humphries, Technological University of the Shannon, Ireland

10023 Cereals Supply-chain Traceability using Blockchain and IoT Technology George Adamides, Agricultural Research Institute, Cyprus

10047 Induction of Volatile Organic Compounds in Chrysanthemum Plants Following Infection by Rhizoctonia Solani [PRESENTATION]
Dariusz Piesik, PBS Bydgoszcz University of Science and Technology, Poland

Session 20 [SECURWARE] Room A Wednesday - morning

Session Chair: Tobias Frauenschläger

30015 Threat-Based Vulnerability Management: Mapping CVEs to the MITRE ATT&CK Framework Logan McMahon, Queen's University Belfast, Northern Ireland

30018 Secure Software Brownfield Engineering – Sequence Diagram Identification Aspen Olmsted, Wentworth Institute of Technology, USA

30023 Identification of Dual Processes Using Power Side-channels Niklas Lindskog, Ericsson, Sweden

Session 21 [SECURWARE] Room A Wednesday - early afternoon

Session Chair: Kévin Touchet

30066 Towards Post-Quantum-Ready Automated Certificate Lifecycle Management in Operational Technology Ayham Alhulaibi, Maschinenfabrik Reinhausen Regnsburg, Germany

30074 A Modified Schnorr Sigma Protocol and Its Application to Isogeny-Based Identification Mahda Mahdavi Oliaee, Fundació per a la Unversitat Oberta e Catalunya, Spain

30057 Improving Crypto-Agility in Operational Technology through Exchangeable Smart Cards Tobias Frauenschläger, OTH Regensburg, Germany

Session 22 [SENSORDEVICES, CENICS, PREDICTIONS] Room B Wednesday - morning

Session Chair: Edward Holmberg

30006 Prioritization of 9-1-1 Emergency Calls Using Fusion of Audio Signal Analysis and Speech-to-Text Transcription for Accurate Urgency Classification

Simin Mirzaei, UBC, Canada

20026 Fast, Sensitive and Distributed Optical Fiber Detection of Hydrogen Gas [PRESENTATION] Kévin Touchet, CEA, France

50006 Adaptive Architectures for Forward Error Correction Sergei Sawitzki, FH Wedel (University of Applied Sciences), Germany

Session 23 [PANDEMICS ANALYTICS/COAI special track] Room B Wednesday - early afternoon

Session Chair: Les Sztandera

Introduction

Les Sztandera, Thomas Jefferson University, USA - On Site

28001 Socially Responsible Artificial Intelligence Empowered People Analytics: A Novel Framework Towards Sustainability - Hybrid

Otabek Khamidov, Thomas Jefferson University, USA

28002 Integrating Social Media Sentiment and Clinical Records for Pandemic Mental Health Analytics:

Towards Real-Time Early Warning and Intervention Systems - Hybrid

Sujata Patil, KLE Technological University, Hubli, Karnataka, India

Les Sztandera, Thomas Jefferson University, USA

28003 Best Practices in Online Teaching With Generative AI: Enhancing AI Literacy for Students and Faculty Myles Bassell, Brooklyn College, USA - Virtual (Keynote)

Open Discussion and Closing remarks

Moderator: Les Sztandera

Session 24 [HEALTHINFO] Room C Wednesday - morning

Session Chair: Timm Bostelmann

90119 Leveraging Observational Medical Outcomes Partnership (OMOP) Data to Populate Disease Registries Jamie McGlothlin, RSM US LLP, USA

90105 Electronic Health Records and the Archival Question: Shared Responsibility as a Panacea Mehluli Masuku, Sorbonne University Abu Dhabi, United Arab Emirates

Session 26 [CADAT, SENSORS, EXPLAINABILITY, HEALTHINFO] Room A Thursday - early afternoon

Session Chair: Eugen Borcoci

20014 Advanced Statistical Analysis of Physiological and Spectral Traits for the Early Detection of Xylella fastidiosa in Almond Trees

José Ramón Torres-Martín, Universidad Rey Juan Carlos, Spain

10019 Explainability Analysis for Skill Execution Khatina Sari, Hochschule Bonn-Rhein-Sieg, Germany

20037 Spectral and Angular Analysis of Reflectance in Mobile Robot Prototypes under Controlled Artificial Lighting

Andre Schneider de Oliveira, Universidade Tecnológica Federal do Paraná, Brazil Ronnier Frates Rohrich, Universidade Tecnológica Federal do Paraná, Brazil

20015 Predictive Inspection of Vegetation Encroachment on Power Lines using Line-Crawling Robot and Multimodal Sensor

Ronnier Frates Rohrich, Universidade Tecnológica Federal do Paraná, Brazil Andre Schneider de Oliveira, Universidade Tecnológica Federal do Paraná, Brazil

90063 Encouraging Physical Activity among High School Students Maria Luiza Calisto dos Santos, Federal Institute of Maranhão (IFMA), Brazil
