

# On site Activities (*preliminary*) Program

Conference Hotel  
Conference Venue Location  
The conference will be online and on location at

Mercure Lisboa  
Av Jose Malhoa 23  
1099-051 Lisboa  
Portugal

Updated as of March 5, 2025.

The program will be continuously updated.

InfoSys 2025: <https://www.iaria.org/conferences2025/ProgramICNS25.html>

InfoWare 2025: <https://www.iaria.org/conferences2025/ProgramINTERNET25.html>

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

Time slots	Activity
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## Sunday, March 9

10:30am	<b>Registration starts</b> The registration desk is in front of the conference rooms. The reception is operating during the entire conference.
12:15 - 12:30	<b>Opening session</b>
12:30 - 13:30	<b>Tutorial I</b> Multimedia Forensics: From Statistical Signal Processing to Deep Learning and Explainable Artificial Intelligence <b>Lecturer</b> Prof. Dr. Konstantinos (Constantine) Kotropoulos, Aristotle University of Thessaloniki, Greece <b>Chair</b> Malcolm Crowe
13:30 - 13:45	<b>Break</b>
13:45 - 14:45	<b>Tutorial II</b> Patterns of the Past: Exploring Art and Architecture Through Visual Intelligence <b>Lecturers</b> Prof. Dr. Sugata Banerji, Lake Forest College, IL, USA Prof. Dr. Atreyee Sinha, Edgewood College, WI, USA <b>Chair</b> Konstantinos (Constantine) Kotropoulos
14:45 - 15:15	<b>Coffee Break</b>

15:15 - 16:15	<p style="text-align: center;"><b>Tutorial III</b> On the Graph Query Language <b>Lecturers</b> Emeritus Prof. Dr. Malcolm Crowe, University of the West of Scotland, UK Emeritus Prof. Dr. Fritz Laux, Reutlingen University, Germany <b>Chair</b> Atreyee Sinha</p>
16:15 - 16:30	<b>Break</b>
16:30 - 17:30	<p style="text-align: center;"><b>Keynote Speech</b> Multimodal Data Collection and Processing for Modeling Forest Fires using Machine Learning Techniques <b>Speaker</b> Prof. Dr. Sagar Naik, University of Waterloo, Canada <b>Chair</b> Fritz Laux</p>
17:30 - 17:45	<b>Break</b>
17:45 - 18:30	<p style="text-align: center;"><b>Open Discussion I</b> A Point Anatomy on largeLM, smallLM and tinyLM (the DeepSeek case) <b>Coordinators</b> Prof. Dr. Petre Dini, IARIA, USA/EU Emeritus Prof. Dr. Goutam Chakraborty, Iwate Prefectural University, Japan / Distinguished Professor, Dean - Global Initiative for Innovation, MITS, India</p>
18:45 - 19:45	<b>Welcome Cocktail</b>

**Monday, March 10**

09:00 - 10:00	<p style="text-align: center;"><b>Keynote Speech</b> Diffusion Algorithms - Crucial for Efficient Solutions to Various Machine Learning Problems <b>Speaker</b> Emeritus Prof. Dr. Goutam Chakraborty, Iwate Prefectural University, Japan / Distinguished Professor, Dean - Global Initiative for Innovation, MITS, India <b>Chair</b> Sagar Naik</p>
10:00 - 10:30	<b>Coffee Break</b>
10:30 - 12:00	<b>Session 1 [DBKDA I]</b> <b>Session 10 [ICAS I, AIHealth]</b>
12:00 - 12:15	<b>Break</b>
12:15 - 13:15	<p style="text-align: center;"><b>Keynote Speech</b> Smart Grids Management and Control: A New Approach to Integrating Isolated Power Systems <b>Speaker</b> Prof. Dr. Michael Negnevitsky, University of Tasmania, Australia <b>Chair</b> Vivian Sultan</p>
13:15 - 14:00	Lunch on your own
14:00 - 15:45	<b>Session 2 [IFSEAI I]</b> <b>Session 11 [ICAS II]</b>
15:45 - 16:00	<b>Break</b>
16:00 - 17:45	<b>Session 3 [IFSEAI II]</b> <b>Session 12 [VEHICULAR, ICWMC,</b>

		<b>WEB]</b>
17:45 - 18:15	<b>Coffee Break</b>	
18:15 - 20:00	<p align="center"><b>Panel #1</b>  <b>Theme:</b> Data, Social Media and Trust  <b>Moderator</b>  Prof. Dr. Andreas Schmidt, University of Applied Sciences, Karlsruhe &amp; Karlsruhe  Institute of Technology, Germany</p> <p align="center"><b>Panelists</b>  Emeritus Prof. Dr. Malcolm Crowe, University of the West of Scotland, UK  Prof. Dr. Sagar Naik, University of Waterloo, Canada  Dr. Michiel Willocx, DistriNet, KU Leuven, Belgium  Emeritus Prof. Dr. Fritz Laux, Reutlingen University, Germany  Prof. Dr. Atreyee Sinha, Edgewood College, WI, USA</p>	

**Tuesday, March 11**

09:00 - 10:00	<p align="center"><b>Keynote Speech</b>  Crossroads of AI, Philosophy, and Abstraction  <b>Speaker</b>  Prof. Dr. Fernanda Elliott, Grinnell College, USA</p> <p align="center"><b>Chair</b>  Claudius Stern</p>	
10:00 - 10:30	<b>Coffee Break</b>	
10:30 - 12:00	<b>Session 4 [DBKDA II]</b>	<b>Session 13 [ISME]</b>
12:00 - 12:15	<b>Break</b>	
12:15 - 13:15	<p align="center"><b>Keynote Speech</b>  Containers, Continuous Integration, and Cyber-Physical Systems: A Modern  Development Paradigm  <b>Speaker</b>  Prof. Dr. Claudius Stern, FOM University of Applied Sciences - Essen, Germany</p> <p align="center"><b>Chair</b>  Fernanda Elliott</p>	
13:15 - 14:00	Lunch on your own	
14:00 - 15:45	<b>Session 5 [INTERNET, ENERGY]</b>	<b>Session 14 [SIGNAL I]</b>
15:45 - 16:00	<b>Break</b>	
16:00 - 17:45	<b>Session 6 [ENERGY I]</b>	<b>Session 15 [SIGNAL II]</b>
17:45 - 18:15	<b>Coffee Break</b>	
18:15 - 20:00	<p align="center"><b>Panel #2</b>  <b>Theme:</b> Energy Analytics  <b>Moderator</b>  Prof. Dr. Vivian Sultan, California State University, USA</p> <p align="center"><b>Panelists</b>  Prof. Dr. Wallis Alexander, HAW Landshut, Deutschland  Prof. Dr. Michael Negnevitsky, University of Tasmania, Australia  Prof. Dr. Ahmad Karfoul, Université de Rennes, France</p>	
20:15 - 23:15	<p align="center"><b>Conference Dinner</b>  <b>Hotel Mercure, DJ</b></p>	

**Wednesday, March 12**

09:00 - 10:00	<p align="center"><b>Keynote Speech</b> Visible Light Communication Technology - Challenges and Potentials for Connected and Autonomous Mobility Systems</p> <p align="center"><b>Speaker</b> Prof. Dr.-Ing. Oliver Michler, Technical University Dresden, Germany</p> <p align="center"><b>Chair</b> Jacek Plesnar</p>	
10:00 - 10:30	<b>Coffee Break</b>	
10:30 - 12:00	<b>Session 7 [ENERGY II]</b>	<b>Session 16 [DMTKD]</b>
12:00 - 12:15	<b>Break</b>	
12:15 - 13:15	<p align="center"><b>Keynote Speech</b> Voice in the Head: Prospects for Discrete Real Time Social Analytics.</p> <p align="center"><b>Speaker</b> Dennis Folds, Lowell Scientific Enterprises, USA</p> <p align="center"><b>Chair</b> Oliver Michler</p>	
13:15 - 14:00	Lunch on your own	
14:00 - 15:45	<b>Session 8 [BIOTECHNO I, DBKDA]</b>	<b>Session 17 [BIOSIG]</b>
15:45 - 16:00	<b>Break</b>	
16:00 - 17:45	<b>Session 9 [BIOTECHNO II, DBKDA]</b>	<b>Session 18 [INTELLI]</b>
17:45 - 18:15	<b>Coffee Break</b>	
18:15 - 20:00	<p align="center"><b>Panel #3</b> <b>Theme:</b> Cognition, Intelligence, and AI</p> <p align="center"><b>Moderator</b> Dennis Folds, Lowell Scientific Enterprises, USA</p> <p align="center"><b>Panelists</b> Prof. Dr. Fernanda Elliott, Grinnell College, USA Ping Wang, Jinqi-Micro, China Dr. Leigh Johnston, Ulster University, Northern Ireland, UK Dr. Martin Zinner, Technische Universität Dresden, Germany</p>	

### Thursday, March 13

09:00 - 10:00	<p align="center"><b>Industrial Speech</b> Why Primes Have Been Laughed at as Beautiful but Useless Theory and now is Crucial in Digital Era: How RSA Works Internally?</p> <p align="center"><b>Speaker</b> Jacek Plesnar, ABB, Poland</p> <p align="center"><b>Chair</b> Dirceu Cavendish</p>	
10:00 - 10:30	<b>Coffee Break</b>	
10:30 - 12:00	<p align="center"><b>Panel #4</b> <b>Theme:</b> Internet and Future Networking</p> <p align="center"><b>Moderator</b> Prof. Dr. Dirceu Cavendish, Kyushu Institute of Technology/UCLA, Japan/USA</p> <p align="center"><b>Panelists</b> Prof. Dr.-Ing. Oliver Michler, Technical University Dresden, Germany Jacek Plesnar, ABB, Poland Prof. Dr. Philippe Martinet, INRIA Sophia Antipolis, France Dr. Martin Zinner, Technische Universität Dresden, Germany</p>	

12:00 - 12:15	<b>Break</b>
12:15 - 13:15	<b>Session 19 [WEB]</b>
13:15 - 13:45	<b>Coffee Break</b>
13:45 - 15:15	<b>Session 20 [VISUAL, HUSO, BRAININFO]</b>
15:15 - 15:30	<b>Break</b>
15:30 - 16:30	<b>Open Discussion II</b> AI, Water, and Energy <b>Coordinators</b> Prof. Dr. Petre Dini, IARIA, USA/EU Dr. Martin Zinner, Technische Universität Dresden, Germany
16:30 - 17:00	<b>Farewell and Closing Session</b>

**Recommended tourist objectives to be visited on your own:**

**Sintra**

Sintra - National Palace  
Pena Palace - São Pedro de Penaferrim

**Lisbon**

The Medieval Borough of Alfama  
Lisbon's Borough of Belém  
Tower of Belém  
National Coaches Museum  
Monastery of the Jerónimos (Hieronymite Monks, built in 1502)  
Panoramic: Commerce Square, Downtown, Rossio Square, Avenue da Liberdade and Campo Grande

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## **Session 1 [DBKDA I]**

Session Chair: Malcolm Crowe

50030 An Enhanced Semantic Framework for Time-Constrained Clinical Decision-Making in Emergency Settings

Dizza Beimel, Ruppin Accademic Center, Israel

50039 An Evaluation of Reliability on Pair-wise Comparison Matrix in Fuzzy Data AHP

Shin-ichi Ohnishi, Hokkai-Gakuen University, Japan

50048 A Low-Code Approach for Creating Dynamic Map-Based Web Applications Using W3C Web Components

Andreas Schmidt, University of Applied Sciences, Karlsruhe & Karlsruhe Institute of Technology, Germany

## **Session 2 [IFSEAI I]: Interpretable Feature Selection for Explainable Artificial Intelligence**

Session Chairs: Basabi Chakraborty, Ashis Kumar Mandal

### Introduction

Basabi Chakraborty, Iwate Prefectural University, Iwate, Japan & Madanapalle Institute of Technology and Science, AP, India

58001 Exploring Latent Concepts in SHAP Values -A New Approach Using Singular Value Decomposition  
Yukari Shirota, Gakushuin University, Japan

58002 Route Planning in Wildfire Areas by Integrating a Modified A\* Algorithm with Deep Learning

Manavjit Singh Dhindsa, University of Waterloo, Canada

Kshirasagar Naik, University of Waterloo, Canada

58003 Time-Series Topic Analysis of Large-Scale Social Media Data using Two-stage Clustering

Takako Hashimoto, Chiba University of Commerce, Japan

## **Session 3 [IFSEAI II]: Interpretable Feature Selection for Explainable Artificial Intelligence**

Session Chair: Basabi Chakraborty, Ashis Kumar Mandal

58004 Evaluating the Potential of SHAP-Based Feature Selection for Classification Problems

Basabi Chakraborty, Iwate Prefectural University, Iwate, Japan & Madanapalle Institute of Technology and Science, AP, India

58005 Visualizing Proximity of Audio Signals from Different Musical Instruments - A Two Step Approach

Cedric Bornand, Technical University of Canton Vaud, Yverdon-les-Bains, Switzerland

50012 Privacy-preserving data sharing collaborations: architectural solutions and trade-off analysis.

Michiel Willocx, DistriNet, KU Leuven, Belgium

### Open Discussion and Closing Remarks

Moderator: Basabi Chakraborty, Iwate Prefectural University, Iwate, Japan & Madanapalle Institute of Technology and Science, AP, India

## **Session 4 [DBKDA II]**

Session Chair: Fritz Laux

50005 Exploring the Impact of Blockchain Technology in the Energy Industry  
Steve B. Zhou, University of Houston Downtown, USA

50022 Evolving the automated search for clusters of similar trajectory groups  
Schwenkreis, Friedemann, Baden-Wuerttemberg Cooperative State University Stuttgart, Germany

50025 On the Performance of Query Optimization Without Cost Functions and Very Simple Cardinality Estimation  
Daniel Flachs, University of Mannheim, Germany

### **Session 5 [INTERNET, ENERGY]**

Session Chair: Anwar Ahmed Khan

40005 Design concepts to satisfy user data accessibility of IoT devices postulated by the EU Data Act  
Felix Fischer, Hochschule Mittweida, Germany

40013 On the FullMesh Path Selection of Multipath TCP Video Streaming  
Yosuke Komatsu, Kyushu Institute of Technology, Japan  
Takeshi Ikenaga, Kyushu Institute of Technology, Japan  
Dirceu Galvao Cavendish Jr, Kyushu Institute of Technology, USA

30068 Offline Reinforcement Learning Agents for Adaptive Reactive Power Control with Renewable Energy Sources  
Tejashri Bhatt, OFFIS - Institut für Informatik, Germany

### **Session 6 [ENERGY I]**

Session Chair: Wallis Alexander

30031 Power Grid Vulnerability and Secure Infrastructure for Energy Transmission  
Vivian Sultan, California State University, Los Angeles, USA

30066 Potential for Wind Energy on the Fort Bidwell Reservation  
Vivian Sultan, California State University, Los Angeles, USA

30034 On Zero-shot Learning in Neural State Estimation of Power Distribution Systems  
Aleksandr Berezin, OFFIS - Institute for Information Technology, Germany

### **Session 7 [ENERGY II]**

Session Chair: Michael Negnevitsky

30028 Analysis of Data from a 5G-Based Photovoltaic Plant Monitoring System  
Sofia Diniz de Carvalho, IFCE, Brazil  
Paulo Carvalho, UFC, Brazil

30038 Federated Learning for Distributed Load Forecasting: Addressing Data Imbalance in Prosumer Smart Grids  
Wallis Alexander, HAW Landshut, Deutschland

30050 Analyzing Electric Vehicle Charging Infrastructure Accessibility in Los Angeles, CA  
Vivian Sultan, California State University, Los Angeles, USA

### **Session 8 [BIOTECHNO I, DBKDA]**

Session Chair: Ryo Kohsaka

70005 Cardiomyopathy Mechanisms: Meta-analysis of Expression Profiles for Z-disc-associated Genes Across Multiple Microarray Datasets

Yulia Einav, Holon Institute of Technology, Israel

70018 A Computational Tool Supporting the Diagnosis of Age-Related Macular Degeneration

Piotr Wąż, Medical University of Gdansk, Poland

50017 Towards Extracting Entity Relationship Diagrams from Unstructured Text using Natural Language Process

Vaihunthan Vyramuthu, Aalen University, Germany

### **Session 9 [BIOTECHNO II, DBKDA]**

Session Chair: Yulia Einav

70016 A Four-Dimensional Mathematical Model for DNA/RNA Classification

Dorota Bielińska-Wąż, Medical University of Gdansk, Poland

70014 Advancing Biomimicry with Consideration of ELSI - Biomimicry 4.0

Ryo Kohsaka, The University of Tokyo, Japan

50057 Runtime-configurable data correlation - A C++-template-based Framework for the Automatic Generation of Data Accessors with a Focus on Low Programmer effort and Low Code Repetition

Birk Martin Magnussen, FreeSpace 2 Source Code Project, Germany

### **Session 10 [ICAS I, AIHealth]**

Session Chair: Robert Richter

20009 Pipe Climbing Robot TAOYAKA VII

Kazuyuki Ito, Hosei University, Japan

Saya Eguchi, Hosei University, Japan

20016 Applying Q-Learning Agents to Distributed Graph Problems

Jeffrey McCrea, University of Washington Bothell, USA

80019 Hybrid Machine Learning Approach for Improved Skin Cancer Diagnosis Using CNN, SVM, and Gradient Boosting

Adedayo Olowolayemo, Canterbury Christ Church University, UK

### **Session 11 [ICAS II]**

Session Chair: Jeffrey McCrea

20020 Hybrid visual SLAM for Multi-session Precise Localization: Application to a Coastal Cliff in Normandy

Diego Navarro, CEREMA & INRIA, France

Philippe Martinet, INRIA Sophia Antipolis, France

20024 Automated Coupling of Freight Wagons using a Road-rail Vehicle and Innovative Communication and Positioning Technologies

Robert Richter, Technical University Dresden, Germany



20011 Next-Generation Automotive Radar: Pioneering Safety and Driving Autonomy  
Asgarifar Sanaz, Bosch Car MultiMedia, Portugal

**Session 12 [VEHICULAR, ICWMC, WEB]**

Session Chair: Asgarifar Sanaz

30005 Context-Aware Collaborative Perception: Estimating Relevance Through Knowledge Representation  
Romain Tessier, ENSTA, France

20018 Comparative analysis of 130nm PDSOI and 28nm FDSOI technologies for 5G Power  
Amplifier Applications  
Marcos Lajovic Carneiro, Université de Bordeaux/Pontifica Universidad Catolica de Goias, France

40012 An Architectural Framework for Consistent UI in Android App Development  
Abdul-Rahman Mawlood-Yunis, Wilfrid Laurier University, Canada

40017 A Web Service Tool for Real Estate Price Estimation Powered by Machine Learning - **virtual** -  
Youssef Roman, Wilfrid Laurier University, Canada  
Abdul-Rahman Mawlood-Yunis, Wilfrid Laurier University, Canada

**Session 13 [ISME]: Intelligent Systems for Real-Time Monitoring and Smart Environments**

Chairs: Rui Pinto, Gil Gonçalves, Udayanto Atmojo

Introduction

Rui Pinto, Faculty of Engineering, University of Porto, Portugal

68001 Fursight: A Fully Integrated Solution for Pet Monitoring via CPS and IoT

Rui Pinto, Faculty of Engineering, University of Porto, Portugal

68002 Automation Of Beer Dispensers: A Cyber-Physical System Solution

Rui Pinto, Faculty of Engineering, University of Porto, Portugal

68003 SmartPool: An Automated CPS-Based System for Real-Time Water Quality Management

Rui Pinto, Faculty of Engineering, University of Porto, Portugal

Open Discussion and Closing Remarks

Moderator: Rui Pinto, Faculty of Engineering, University of Porto, Portugal

**Session 14 [SIGNAL I]**

Session Chair: Irina Gladkova

60012 FMSTFnet: Feature-Modulation Spatio-Temporal Fusion Network for HDR Video Reconstruction  
Gangyi Jiang, Ningbo University, China

60016 InterGridNet: An Electric Network Frequency Approach for Audio Source Location Classification Using  
Convolutional Neural Networks

Konstantinos (Constantine) Kotropoulos, Aristotle University of Thessaloniki, Greece

60034 Calibration and Stereo via a Single Image of a Spherical Mirror

Nissim Barzilay, The Hebrew University, Israel

**Session 15 [SIGNAL II]**

Session Chair: Nissim Barzilay

60037 Efficient Implementation of CNN in Deep Learning by using Multirate Algorithms  
Ping Wang, Jinqi-Micro, China

60041 High Resolution Ocean Thermal Fronts from Satellite Derived SST Imagery  
Irina Gladkova, City College of New York, USA

60044 Finite Word Length Effect in Practical Block-Floating-Point FFT  
Gil Naveh, Huawei Technologies Co. Ltd, Israel

**Session 16 [DMTKD]: Data Mining Tools for Knowledge Discovery**

Chair: Les Sztandera

Introduction

Les Sztandera, Thomas Jefferson University, USA

88001 Revolutionizing Prostate Cancer Diagnosis: An Integrated Approach with Cutting-Edge Techniques and Advanced Algorithms for Gleason Grade Classification and Explainability - **virtual**

Anil B. Gavade, KLS Gogte Institute of Technology, Belagavi, India

Les Sztandera, Thomas Jefferson University, USA

88002 Heavy Metals in Human Health and Pregnancy: How Data Analysis, Mining, and Modeling Present a Solution

Emma Frennborn, Thomas Jefferson University, USA

Khalil Rust, Thomas Jefferson University, USA

88003 Recent Advances in Machine Learning for Log File-Based PSQA for IMRT and VMAT

Kellin DeJesus, Thomas Jefferson University, USA

Les Sztandera, Thomas Jefferson University, USA

88004 Data Mining Techniques in Online Health Communities

Cali Sweitzer, Thomas Jefferson University, USA

Open Discussion and Closing Remarks

Moderator: Les Sztandera, Thomas Jefferson University, USA

**Session 17 [BIOSIG]: Advances in Biomedical Signal Processing**

Chairs: Ahmad Karfoul, Amar Kachenoura

Introduction

Ahmad Karfoul, University of Rennes, France

**68003** Combined EEG/ERG measurements for bipolar disorders diagnosis

Julie Muzzolon, Université de Lorraine, CNRS, CRAN, France

68006 A new 1D-CNN paradigm for onset detection of absence seizures in Children

Kachenoura Amar, University of Rennes, France

68010 An Integrative Strategy for solving the EEG inverse problem and the estimation of brain effective connectivity in epilepsy. A proof-of-concept study.

Ahmad Karfoul, University of Rennes, France

Open Discussion and Closing Remarks

Moderator: Ahmad Karfoul, University of Rennes, France

### **Session 18 [INTELLI]**

Session Chair: Hassan Hussein

60005 Situated Independent Learners in a Sequential Decision-Making Setting

Fernanda Monteiro Elliott, Noyce Science Center - Grinnell College, USA

60016 Exploring the Role of User Experience in Enhancing IoT Applications for Smart Manufacturing: A Review

Leigh Johnston, Ulster University, Northern Ireland, UK

60028 Contributions to an FMEA/FMSA Based Methodology to Improve Data Quality of Machine Tools Through Digitalisation: A Use Case Approach

Martin Zinner, Technische Universität Dresden, Germany

### **Session 19 [WEB]**

Session Chair: Andrei-Cristian Florea

40005 ORKGEx: Leveraging Language and Vision Models with Knowledge Graphs for Research Contribution Annotation

Hassan Hussein, TIB, Germany

40008 How to Interpret an Economic Index? Generating Reports with Topic Sentiment Analysis

Kazuhiro Seki, Konan University, Japan

### **Session 20 [VISUAL, HUSO, BRAININFO]**

Session Chair: Leigh Johnston

70004 Exploring Natural Language Processing on Enhancing Learning in Immersive Applications

Andrei-Cristian Florea, Universität of Bundeswehr München, Germany

80013 Resilience and Node Impact Assessment in YouTube Commenter Networks Leveraging Focal Structure Analysis

Nitin Agarwal, COSMOS Research Center, UA - Little Rock; University of California, Berkeley, USA

90044 Administration of neuropeptide QRFP into the lateral hypothalamus affects social memory in Wistar Rats [PRESENTATION]

Olga Zagorác, University of Pécs Medical School, Institute of Physiology, Hungary