On site Activities (preliminary) Program

Conference Hotel
Conference Venue Location

Hotel Novotel Cap 3000 in Nice / Saint Laurent du Var
40 avenue du Verdun
06700 Saint Laurent du Var
Tel (+33)4/93195555 - Fax (+33)4/93195559
Email h0414@accor.com

Updated as of June 21st, 2023

The program will be continuously updated

DataSys 2023: https://www.iaria.org/conferences2023/DataSys23.html
Timezone converter: https://www.worldtimebuddy.com/

<table>
<thead>
<tr>
<th>Time slots</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30am</td>
<td><strong>Registration starts</strong>&lt;br&gt;The registration desk is located in front of the conference rooms&lt;br&gt;The reception is operating during the entire conference</td>
</tr>
<tr>
<td>12:15 - 12:30</td>
<td><strong>Opening session</strong>&lt;br&gt;Prof. Dr. Petre Dini</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td><strong>Interactive Tutorial I</strong>&lt;br&gt;A 360° View on AI: An Educated Take on Using AI-based Services for the Societal Wellbeing&lt;br&gt;Lecturer&lt;br&gt;Prof. Dr. Petre Dini, IARIA, USA/EU</td>
</tr>
<tr>
<td>14:00 - 14:30</td>
<td><strong>Coffee</strong></td>
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<tr>
<td>14:30 - 16:15</td>
<td><strong>Session 1 [DAMIA/PATTERNS, COGNITIVE]</strong></td>
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<tr>
<td>16:15 - 16:45</td>
<td><strong>Coffee</strong></td>
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<tr>
<td>16:45 - 18:30</td>
<td><strong>Panel #1</strong>&lt;br&gt;Theme: The Brain and the Immersive Environments&lt;br&gt;Moderator&lt;br&gt;Prof. Dr. Ricardo Ron-Angevin, University of Málaga, Spain&lt;br&gt;Panelists&lt;br&gt;Dr Aurelie Mailloux, Reims Hospital, URCA Reims, France&lt;br&gt;Pr. Lect. Dr. Lodewijk Arntzen, The Hague University of Applied Sciences, The Netherlands</td>
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<tr>
<td>Time</td>
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</tbody>
</table>
| 09:00 - 10:00 | **Keynote Speech**  
ChatGPT for Scientific Writing: Navigating Potentials and Challenges  
**Speaker**  
Assoc. Prof. Dr. Simone Silvestri, University of Kentucky, USA  
**Chair:** Petre Dini |
| 10:00 - 10:30 | **Coffee Break**                                                      |
| 10:30 - 12:15 | **Session 2**  
[FAST-CAMS I / CLOUD]  
**Session 3**  
[COGNITIVE] |
| 12:15 - 14:00 | Lunch on your own                                                      |
| 14:00 - 16:00 | **Panel #2**  
Theme: Awareness on AI-Tools in Education  
**Moderator**  
Assoc. Prof. Dr. Simone Silvestri, University of Kentucky, USA  
**Panelists**  
Prof. Dr. Hanen Ochi, EFREI Lab Research, France  
Prof. Dr. Petre Dini, IARIA, USA/Europe  
Prof. Dr. Robert Laurini, KSI Fellow and Professor Emeritus INSA Lyon, University of Lyon, France |
| 16:00 - 16:30 | **Coffee**                                                            |
| 16:30 - 18:15 | **Session 4**  
[FAST-CAMS II / CLOUD]  
**Session 5**  
[AICT, MOBILITY] |
| 18:15 - 18:45 | **Coffee Break**                                                      |
| 18:45 - 20:45 | **Panel #3**  
Theme: Security Threats in Cloud-based Services  
**Moderator**  
Prof. Dr. Andreas Aßmuth, Ostbayerische Technische Hochschule Amberg-Weiden, Germany  
**Panelists**  
Sr Lect. Dr. Ian Ferguson, Abertay University, UK  
Prof. Dr. Christoph P. Neumann, Ostbayerische Technische Hochschule Amberg-Weiden, Germany  
Lieutenant Colonel Dr. Gerhard Schwarz, Bundeswehr (German Armed Forces), Germany  
Strategy Director, Dr. Jyrki Penttinen, Syniverse, USA |

**Wednesday, June 28**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 09:00 - 10:00 | **Keynote Speech**  
A Research Agenda on Knowledge Management for Regional Policies  
**Speaker**  
Prof. Dr. Robert Laurini, KSI Fellow and Professor Emeritus INSA Lyon, University of Lyon, France  
**Chair:** Przemyslaw Pochec |
<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1 [COGNITIVE, PATTERNS]</th>
<th>Session 7 [SPWID, ACCSE, INFOCOMP]</th>
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<tbody>
<tr>
<td>10:00 - 10:30</td>
<td>Coffee Break</td>
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<tr>
<td>10:30 - 12:15</td>
<td>Session 6 [COGNITIVE, PATTERNS]</td>
<td>Session 7 [SPWID, ACCSE, INFOCOMP]</td>
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<tr>
<td>12:15 - 14:00</td>
<td>Lunch on your own</td>
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<tr>
<td>14:00 - 15:45</td>
<td>Keynote Speech</td>
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<tr>
<td></td>
<td>Aggregators in Collaborative Prosumer Networks</td>
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<td></td>
<td>Prof. Dr. Lasse Berntzen, University of South-Eastern Norway, Norway</td>
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<td></td>
<td>Chair: Robert Laurini</td>
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<tr>
<td>15:45 - 16:15</td>
<td>Coffee Break</td>
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<tr>
<td>16:15 - 18:00</td>
<td>Panel #4</td>
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<tr>
<td></td>
<td>Theme: Challenges on Explainability of AI-based Decisions</td>
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<td></td>
<td>Moderator</td>
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<td></td>
<td>Prof. Dr. Panos Nasiopoulos, University of British Columbia, Canada</td>
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<td></td>
<td>Panelists</td>
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<td></td>
<td>Prof. Dr. Anders Fongen, Norwegian Defence University College, Norway</td>
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<td>Prof. Dr. Przemyslaw Pochec, University of New Brunswick, Canada</td>
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<td>Prof. Dr. Subhasish Mazumdar, New Mexico Tech, USA</td>
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<tr>
<td>18:00 - 18:15</td>
<td>Coffee</td>
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<tr>
<td>18:15 - 19:30</td>
<td>Open Discussion I</td>
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<td></td>
<td>Quality of Data/Information and the Accuracy AI-based Tools</td>
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<td></td>
<td>Coordinators</td>
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<td>Mgr Dr. Mirmig Alexander, AIT Austrian Institute of Technology, Center for Technology Experience, Austria</td>
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<td>Prof. Dr. Petre Dini, IARIA, USA/EU</td>
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<tr>
<td>19:30 - 23:00</td>
<td>Conference Dinner</td>
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<td>Novotel Hotel</td>
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Thursday, June 29

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 8 [AIBAI/BUSTECH]</th>
<th>Session 9 [SMART]</th>
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</thead>
<tbody>
<tr>
<td>09:00 - 10:00</td>
<td>Keynote Speech</td>
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<tr>
<td></td>
<td>Quantum Technology, Present Status and Future Possibilities</td>
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<tr>
<td></td>
<td>Speaker</td>
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<td></td>
<td>Pr. Lect. Dr. Lodewijk Arntzen, The Hague University of Applied Sciences, The Netherlands</td>
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<td></td>
<td>Chair: Marc Kurz</td>
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<tr>
<td>10:00 - 10:30</td>
<td>Coffee Break</td>
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<tr>
<td>10:30 - 12:15</td>
<td>Session 10 [ICIW, IMM, BUSTECH]</td>
<td>Session 11 [SMART]</td>
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<tr>
<td>12:15 - 14:00</td>
<td>Lunch on your own</td>
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</tr>
<tr>
<td>14:00 - 15:45</td>
<td>Session 10 [ICIW, IMM, BUSTECH]</td>
<td>Session 11 [SMART]</td>
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<tr>
<td>15:45 - 16:15</td>
<td>Coffee</td>
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<tr>
<td>16:15 - 18:00</td>
<td>Session 12 [PATTERNS, ADAPTIVE]</td>
<td>Session 13 [MOBILITY, INFOCOMP, PATTERNS]</td>
</tr>
<tr>
<td>18:00 - 18:30</td>
<td>Coffee Break</td>
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<tr>
<td>18:30 - 20:30</td>
<td>Panel #5</td>
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<td></td>
<td>Theme: Cognition Challenges in Digital Society</td>
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<td></td>
<td>Moderator</td>
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<td></td>
<td>Pr. Lect. Dr. Lodewijk Arntzen, The Hague University of Applied Sciences, The</td>
<td></td>
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</tbody>
</table>
### Netherlands

**Panelists**
- Prof. Dr. Marc Kurz, University of Applied Sciences, Austria
- Prof. Dr. Ahmed Kamel, Concordia College - Moorhead, USA
- Prof. Dr. Robert Laurini, KSI Fellow and Professor Emeritus INSA Lyon, University of Lyon, France
- Dr. Christoph Knieke, Technische Universität Clausthal, Germany
- Prof. Dr. Isaac Caicedo-Castro, University of Córdoba, Colombia

### Friday, June 30

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09:00 - 10:00</td>
<td><strong>Interactive Tutorial II</strong>&lt;br&gt;A Common-sense Take on Awareness about AI-induced Human Society&lt;br&gt;&lt;br<em>Lecturer</em>&lt;br&gt;Prof. Dr. Petre Dini, IARIA, USA/EU</td>
</tr>
<tr>
<td>10:00 - 10:30</td>
<td><strong>Coffee Break</strong></td>
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<tr>
<td>10:30 - 12:15</td>
<td><strong>Session 14 [CONTENT, FUTURE COMPUTING]</strong></td>
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<tr>
<td>12:15 - 12:30</td>
<td><strong>Coffee</strong></td>
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<tr>
<td>12:30 - 14:15</td>
<td><strong>Open Discussion II</strong>&lt;br&gt;Chasing the Wind: Emotional Intelligence of AI systems&lt;br&gt;&lt;br<strong>Coordinators</strong>&lt;br&gt;Prof. Dr. Anders Fongen, Norwegian Defence University College, Norway&lt;br&gt;Prof. Dr. Petre Dini, IARIA, USA/EU</td>
</tr>
<tr>
<td>14:15 - 14:30</td>
<td><strong>Farewell and Coffee</strong>&lt;br&gt;Closing session: Petre Dini</td>
</tr>
</tbody>
</table>

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

- Nice (direct bus, ~25 minutes/one way, every 15 minutes)
- Monaco/Monte Carlo (trains, every 30 minutes)
- Cannes (trains, every 30 minutes)
- Saint-Tropez (see agency offers at Novotel Hotel)

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**Session 1 [DaMIA / PATTERNS, COGNITIVE]**

Session Chair: Jens Weber

**Introduction**

*Jens Weber, Baden-Wuerttemberg Cooperative State University Loerrach/ Mercedes-Benz AG, Germany*

**40027** Evaluation of different types of stimuli in a ERP-based BCI Speller under RSVP<br>*Ricardo Ron-Angevin, University of Málaga, Spain*

**78001** Protecting Your Online Privacy: Insights on Digital Twins and Threat Detection<br>*Sergej Schultenkämper, Bielefeld University of Applied Sciences, Germany*
78002 Architecture Options to orchestrate Digital Twins in an Industrial Metaverse for the Predictive Production with AI methods
Bernd Lüdemann-Ravit, University of Applied Science Kempten, Germany

78003 Requirements for the Application of Knowledge Graphs in Body-In-White Manufacturing
Christian Graewe, NTT Data Deutschland AG, Germany

Open discussion and Closing remarks
Moderator: Jens Weber

Session 2 [FAST-CAMS I / CLOUD]
Session Chair: Andreas Aßmuth

Introduction
Andreas Aßmuth, Technical University of Applied Sciences OTH Amberg-Weiden, Germany

28001 Encrypted Container File: Design and Implementation of a Hybrid-Encrypted Multi-Recipient File Structure
Tobias Bauer, Technical University of Applied Sciences OTH Amberg-Weiden, Germany

28002 Generation of Distributed Denial of Service Network Data with Phyton and Scapy
Stefan Görtz, Ostbayerische Technische Hochschule, Germany

28003 Side Channel Monitoring for Fuzz Testing of Future Mobility Systems
Philipp Fuxen, OTH Regensburg, Germany

Session 3 [COGNITIVE]
Session Chair: Manuel Caro

40011 'A Multi-Agent Control and Automation Architecture with Integrated Flexible User Communication Agents
Ahmed Kamel, Concordia College - Moorhead, USA

40016 'ECG-based Seizure Prediction Utilizing Transfer Learning with CNN'
Chia-Yen Yang, Ming-Chuan University, Taiwan

40099 Design of an Innovative Simulation Device Dedicated to the Learning of Biomechanics applied to Orthodontics
Aurelie Mailloux, Reims Hospital, URCA Reims, France

Session 4 [FAST-CAMS II / CLOUD]
Session Chair: Sebastian Fischer

28004 Security Challenges for Cloud or Fog Computing-Based AI Applications
Andreas Aßmuth, Technical University of Applied Sciences OTH Amberg-Weiden, Germany
28005 On the Creation of a Secure Key Enclave via the Use of Memory Isolation in Systems Management Mode
Ian Ferguson, Abertay University, UK

28006 FoodFresh: Multi-Chain Design for an Inter-Institutional Food Supply Chain Network
Christoph P. Neumann, Technical University of Applied Sciences OTH Amberg-Weiden, Germany

28007 Information Dominance: Multi Level Security enabled Shared Information Space
Gerhard Schwarz, Bundeswehr, Germany

Open discussion and Closing remarks
Moderator: Andreas Aßmuth

Session 5 [AICT, MOBILITY]
Session Chair: Hendrik Nolte

10003 On Techno-Economic Optimization of Non-Public Networks for Industrial 5G Applications
Jyrki Penttinen, Syniverse Technologies, USA

10019 Movement generators in Mobile Medium Ad Hoc Network Simulation
Przemyslaw Pochec, University of New Brunswick, Canada

70004 A Real-time Multiple People Tracking System in Complex Environment
Shi-Jinn Horng, Department of Computer Science and Information Engineering, Asia University, Taiwan

Session 6 [COGNITIVE, PATTERNS]
Session Chair: Isaac Caicedo-Castro

40061 Enhancing Cognitive Robots’ Knowledge Transfer through Metacognitive Strategies
Manuel Caro, Universidad de Cordoba, Colombia

40075 DailyExp : A Tool for Collecting Cognitive Performance and Physiological Data in Daily Life with Engaging Behavioral Design
Xianyin, Hu, The University of Tokyo, Japan

40107 NN2EQCDT: Equivalent transformation of feed-forward neural networks as DRL policies into compressed decision trees'
Torben Logemann, Carl von Ossietzky University Oldenburg, Germany

70040 Best Practices (and Stumbling Blocks) for Diversity-Sensitive Behavior Change in Persuasive Application Design
Alexander G. Mirmig, AIT Austrian Institute of Technology, Center for Technology Experience, Austria

Session 7 [SPWID, ACCSE, INFOCOMP]
Session Chair: Subhasish Mazumdar

80002 A prototype towards a test bench for noninvasive transcutaneous carbon dioxide monitoring devices
Zakaria Tichout, CEA, France
80005 Skin Lesion Segmentation and Classification using Deep Learning Methods
Isidoros Perikos, Computer Technology Institute and Press Diophantus, Greece

90007 A Color Preserving Down-sampling Approach for 8K to 4K HDR Images
Panos Nasiopoulos, UBC, Canada

60018 Governance-Centric Paradigm: Overcoming the Information Gap between Users and Systems by Enforcing Data Management Plans on HPC-Systems
Hendrik Nolte, Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen, Germany,

Session 8 [AIBAI/BUSTECH]
Session Chair: Hanen Ochi

Introduction
Hanen Ochi, EFREI Lab Research, France

98001 Supervised classification with Deep Graph CNN
Rakia Jaziri, Paris 8 University, Saint Denis - France

98003 Blockchain For Optimized Digital Identity (DIDOs)
Abdessamad El Akroudi, Paris 8 University, Saint Denis - France

98004 BeeKnote: Voice Chatbot Assistant for the Beekeepers
Sid Ahmed Metidji, Efrei Research Lab, France

Open discussion and Closing remarks
Moderator: Hanen Ochi

Session 9 [SMART]
Session Chair: Zhenchao Ma

40019 Augmented-Reality Optical Narrowcasting (ARON)
Mark Squire, Surefire, LLC, USA
Narkis Shatz, SureFire LLC, USA

40030 Demonstration of Free-Space Optical Communications
Narkis Shatz, SureFire LLC, USA

40034 Driving the Future - A Comparative Analysis of Electric Vehicle Trends in Norway and Spain
Lasse Berntzen, University of South-Eastern Norway, Norway

Session 10 [ICIW, IMM, BUSTECH]
Session Chair: Samuel Kosolapov

Hafida Hammadi, Gustave Eiffel University, France

*Marie-Noëlle Forget, ESG UQAM, Canada*

A Swin Transformer Based Restoration Scheme for VVC Compressed Images

*Zhenchao Ma, The University of British Columbia, Canada*

Strategic Agility of an Incumbent Firm and Chief Digital Officer in the Face of digital innovation: A microfoundation approach

*Marie-Noëlle Forget, ESG UQAM, Canada*

**Session 11 [SMART]**

Session Chair: Narkis Shatz

Using Convolutional Neural Networks for Parking Sign Detection

*Parnia Haji Faraji, University of British Columbia, Canada*

Technology Acceptance of Older People (55+) in Complex Sociotechnical Systems such as Smart Homes

*Lucie Schmidt, Ernst-Abbe-Hochschule Jena, University of Applied Sciences, Germany*

Inspiration from Systematic Literature Reviews to Predict the Future of Food Services in Smart Cities

*Ana Sofia Freitas, Wish And Cook, Portugal*
*Anaísa Lucena, University of Aveiro, Portugal*

**Session 12 [PATTERNS, ADAPTIVE, CLOUD]**

Session Chair: Marie-Noëlle Forget

Early Forecasting of At-Risk Students of Failing or Dropping Out of a Bachelor's Course Given Their Academic History - The Case Study of Numerical Methods

*Isaac Caicedo-Castro, University of Córdoba, Colombia*

Towards Self-Adaptive User Interfaces by Holding Posture Recognition for Smartphones

*Kurz Marc, University of Applied Sciences, Austria*

Challenges and Solutions in IoT Security: A Cross-Industry Perspective

*Ibrahim A El-Shekeil, Metropolitan State University, USA*

**Session 13 [MOBILITY, INFOCOMP, PATTERNS]**

Session Chair: Przemyslaw Pochec

Exploring Spatial Transformation-Based Privacy in a Small Town

*Subhashish Mazumdar, New Mexico Institute of Mining and Technology, USA*

Accuracy of Simulation of Wireless Technology using MATLAB and NS-3

*David Newell, Bournemouth University, UK*

Spatiotemporal Modeling of Urban Sprawl Using Machine Learning and Satellite Data

*Alexander Trousov, International Research Laboratory for Mathematical Methods for Social Network Mining, RANEPA, Russia*
Session 14 [CONTENT, FUTURE COMPUTING, PATTERNS]
Session Chair: Kurz Marc

60002 Color Manipulation in Images by Using a Modified HSV Algorithm
Samuel Kosolapov, Braude Academic College of Engineering, Israel

60016 On the Generation of External Representations of Semantically Rich Content for API-driven Document Delivery in the Headless Approach
Hans-Werner Sehring, Tallence AG, Hamburg, Germany

30008 Scalable Detection of chatGPT-generated text
Anders Fongen, Norwegian Defence University College, Norway

70009 Patterns for Quantum Software Development
Fabian Bühler, Institute of Architecture of Application Systems, University of Stuttgart, Germany

Session 15 [EASCI/ADAPTIVE]
Session Chair: Christoph Knieke

Introduction
Christoph Knieke, TU-Clausthal, Germany

58001 Tailored Digital Twins for LCA & LCM - Stakeholder centered Digital Twin Framework Design for Product Lifecycle Managements and Assessment
Dominique Briechle, University of Technology Clausthal, Germany

58002 Emergent Software Service Platform and its Application in a Smart Mobility Setting
Nils Wilken, University of Mannheim, Germany

58003 Towards Transforming OpenAPI Specified Web Services into PDDL Actions for Automatic Web Service Composition
Christian Schindler, Technische Universität Clausthal, Germany

Open discussion and closing remarks
Moderator: Christoph Knieke

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