

Research Infrastructure Automation Workshop

Date : 24.09.2024

Time: 13:00 until 18:00

Place : DTU-Risø Campus

Date : 25.09.2024

Time: 09:00 until 14:00

Place : DTU-Risø Campus



Day 1

Agenda

Session 1: Collaboration: metadata and digital tools for facilitating research collaboration and data exchange

13:00 - 13:20 Workshop opening

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|---------------|------------------------|--|
| 13:20 - 13:40 | Oliver Werth, OFFIS | Presentation 1: Towards a National Research Data Infrastructure for Interdisciplinary Energy System Research (NFDI4Energy) |
| 13:40 - 14:00 | Jawad Kazmi, AIT | Presentation 2: Dataspaces for Research – Technology, maturity, use cases |
| 14:00 - 14:20 | Artjoms Obusevs, ZHAW | Presentation 3: Overview of IEEE working group on big data and analytics |
| 14:20 - 14:40 | Sebastian Dupraz, BRGM | Presentation 4: Digital Twins Interoperability: challenge and perspectives |
| 14:40 - 15:00 | Q&A | |

15:00 - 15:20 coffee break

Session 2: Automation: how energy system test setups become can repeatable and reproducible (and less complex to handle)

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| 15:20 - 15:40 | Kourosh Malek, FZ Jülich | Presentation 1: The role of ontology and data management in cloud-connected automated labs |
| 15:40 - 16:00 | Ammar Malik and Terence O'Donnell, University College Dublin | Presentation 2: Automated Testing of Distributed Energy Resources (DER) : Use of an open source testing platform (OpenSVP) for testing smart inverters against European network connection standards EN50549 and VDE 4105 |
| 16:00 - 16:20 | Filip Prössl Andren, AIT | Presentation 3: Automated Test Setup Generation for Validating Smart Grids Software Ecosystems |
| 16:20 - 16:40 | Santiago Sanchez Acevedo, SINTEF | Presentation 4: Cyber-physical metropolitan area digital substations test bench for evaluating intrusion detection systems |
| 17:00 | | Laboratory tour & demo |
| | Oliver Gehrke, DTU | Global configuration management for multi-site experiments |
| | Oliver Gehrke, DTU | Configuration Management Demo |

19:00

Dinner

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Day 2

Agenda

Session 3: Coupling of Testing Facilities: Methods, Techniques and Technologies to couple large scale test resources from multiple RIs

09:00 - 09:20 Workshop opening

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| 09:20 - 09:40 | Giuseppe Silano,
RSE | Presentation 1: Integrating Power-to-Heat Services in Geographically Distributed Multi-Energy Systems |
| 09:40 - 10:00 | Vetrivel
Subramaniam and
Andres Acosta | Presentation 2: Towards simplified and standardized experiments combining multiple research infrastructures: The ERIGrid 2.0 Universal API approach |
| 10:00 - 10:20 | Oliver Gehrke,
Tefaye Amare
Zerihun | Presentation 3: Laboratory validation of event-driven cosimulation |
| 10:20 - 10:40 | Coffee break | |
| 10:40 - 11:00 | Steffen Vogel,
OpalRT | Presentation 4: Simplifying real-time peer-to-peer data exchange between RIs using WebRTC protocols with VILLASnode |
| 11:00 - 11:20 | Kontou, University
of Athens | Presentation 5: Advanced Techniques for Extended-Range, High-Fidelity PHIL and GDRTS Testing Alkistis |
| 11:20 - 11:40 | Luca Barbierato,
University of
Torino | Presentation 6: Local Digital Real-Time Power System Co-simulation via Multi-phase Distributed Transmission Line Model |
| 11:40 - 12:00 | Q&A | |
| 12:00 - 13:00 | Networking lunch | |
| 13:00 - 13:30 | Heat system demo final results | |
| 13:30 - 14:00 | Wrap-up | |