

EI.A 2024 Workshop on Energy System Resilience

Overview

Energy systems worldwide face increasing challenges from natural disasters, cyber-attacks, and other high-impact, low-probability events. These challenges necessitate the development of resilient energy systems capable of maintaining functionality during and after such disruptions. Energy informatics plays a pivotal role in this effort by transforming raw data into actionable insights, thus enabling better decision-making and real-time responses to unforeseen events. By leveraging data-driven approaches, energy systems can achieve higher levels of resilience, ensuring continuous and reliable energy supply even under significant disruptions.

This workshop will focus on exploring innovative technologies, methodologies, and strategies that enhance the resilience of energy systems through informatics. It aims to bring together researchers, practitioners, policymakers, and industry experts to share knowledge, present cutting-edge research, and collaborate on developing robust informatics-based solutions for energy system resilience.

The workshop is organized by [TECH-IN project - Microgrid Technologies for Remote Indonesian Islands](#), and is part of the [Energy Informatics Academy Conference 2024 \(EI.A 2024\)](#).

Topics

Topics of interest include, but are not limited to:

Technological Innovations for Resilient Energy Systems

- Development and deployment of advanced microgrids
- Energy storage solutions for enhanced system resilience

Resilient Control Systems

- Development of robust control algorithms for energy systems
- Distributed control strategies for microgrids and decentralized systems

Data Analytics and Machine Learning

- Big data analytics for anticipating system disruptions, and decision-making
- Machine learning models for energy demand forecasting and load management

Digital Twins and Simulation

- Use of digital twins for system resilience planning and testing
- Simulation techniques for scenario analysis and resilience enhancement
- Virtual environments for training and preparedness

Case Studies and Best Practices

- Lessons learned from past disruptions and system recoveries
- Geographical and sector-specific case studies
- Standards and regulations, policy frameworks for enhancing data-driven resilient energy systems

Organizing Committee

Juan C. Vasquez (Aalborg University, Denmark)

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Important Dates

- Paper submission for workshop deadline: **31 July 2024**
- Notification of acceptance: 9 August 2024
- Camera-ready paper due: 21 August 2024
- Registration deadline: 23 August 2024

Paper submission

EI.A 2024 workshop accepts three types of submissions:

- **Full Papers:** 12-15 pages (excluding references)
- **Short Papers:** 6-11 pages (including references)
- **Abstracts:** Maximum 250 words (excluding references)

Please check the conference webpage for the details: <https://www.energyinformatics.academy/2024-ei-a-submission>