

Franco-Portuguese Days on Intelligent Energy Systems

30 April 2025

Venue: ISEP, Building E - “Parlamento Inglês”

9:00 Registration & arrival

9:30 Welcome message

Session 1: Electric Vehicles

09:40 - 10:00

Electric Vehicle Charging Patterns and Behavior

Matheus Pazini Pereira, University of Lille, L2EP, JUNIA-HEI, France

10:00 - 10:20

Electric Vehicles in a Flexibility Management System: A Digital Twin Based Approach

Mohamad El IALLI, L2EP, France and GECAD, ISEP, Polytechnic of Porto, Portugal

10:20 - 10:50 Coffee Break

Session 2: Smart Buildings

10:50 - 11:10

Smart Grid and Smart Building Solutions Empowered by the Internet of Things

Luis Gomes, GECAD, ISEP, Polytechnic of Porto, Portugal

11:10 - 11:30

Optimizing Predictive Models for Smart Building Energy Management

Brígida Teixeira, GECAD, ISEP, Polytechnic of Porto, Portugal

Session 3: AI & Blockchain in Energy Systems

11:40 - 12:00

Explainability Approaches for Evolutionary Computation in Energy

José Almeida

GECAD, ISEP, Polytechnic of Porto, Portugal

12:00 - 12:20

AI and Blockchain for Decentralized Energy Management

Amira Dhorbani, JUNIA-HEI, Centrale Lille, L2EP, France

12:20 – 12:40

Ethereum 2.0 Framework for Distributed Energy Management (Online)

Juan Pablo Sepulveda Adriaola, JUNIA-HEI, France

12:40 – 13:00

A Comparative Study of Genetic Algorithm and Particle Swarm Optimization for Hybrid Renewable Systems (Online)

Aqib Khan, JUNIA-HEI, France

13:00 – 14:30 Lunch & networking

Session 4: Energy Communities & Microgrids

14:30 - 14:50

Optimal Formation of Energy Communities with Fairness Consideration

Ehsan Aliyan, GECAD, ISEP, Polytechnic of Porto, Portugal

14:50 - 15:10

Optimization Tool for Micro-grids Powering Telecom Stations (Online)

Soufian Ghafiri, JUNIA-HEI, France

15:10 - 15:30

Fuzzy Logic Management for Energy Communities

Willy Magloire Nkouna, JUNIA-HEI, France

15:30 - 16:00 Coffee Break

Session 5: Optimal Planning

16:00 – 16:20

Battery Degradation Analysis in Smart Energy Management

Tayenne Lima, GECAD, ISEP, Polytechnic of Porto, Portugal

16:20 - 16:40

Optimal Distribution Network Planning – Risk-Aware Model

Fábio Castro, GECAD, ISEP, Polytechnic of Porto, Portugal

16:40 - 17:00

Contracted Power Optimization for Industry Consumers in Spain

Theophile Mounier, GECAD, ISEP, Polytechnic of Porto, Portugal

Close 17:00