

EUNICE SUMMER SCHOOL

# Integrated ENERGY SYSTEMS

24 - 28 June 2024

Santander  
SPAIN



**CHALLENGES FOR A SUSTAINABLE WORLD - SUMMER SCHOOL**

Multidisciplinary approach | Lectures | Team work | Cultural activities

**Pre-requisites:** Being specialised in any engineering related to the topics | Having B2 level of English

Venue: **Magdalena Palace (Santander)** | 20 hours (9:30 - 14:00)

### 24 June

Module 1  
**OPTIMAL OPERATION AND SIZING OF RENEWABLE ENERGY COMMUNITIES**

Module 2  
**ADEQUACY STUDIES IN MODERN POWER SYSTEMS**

Prof. Zacharie De Grève  
University of Mons

Prof. François Vallée  
University of Mons

### 25 June

Module 3  
**ZERO EMISSION DATA CENTRES FOR SUSTAINABLE AI**

Module 4  
**ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN POWER ELECTRONICS AND POWER SYSTEMS**

Prof. Petri Välisuo  
University of Vaasa

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University of Vaasa

### 26 June

Module 5  
**GRID-INTEGRATION OF RENEWABLE ENERGIES**

Module 6  
**POWER QUALITY IMPACT OF RENEWABLES IN POWER SYSTEMS**

Profs. Raquel Martínez and Pablo B. Castro  
University of Cantabria

Profs. Mario Mañana and Alberto Laso  
University of Cantabria

### 27 June

Module 7  
**ALTERNATIVE FUELS**

Module 8  
**GREEN GRASS TECHNOLOGIES IN INTEGRATED ENERGY SYSTEMS**

Prof. Rafał Ślęfarski  
Poznan University of Technology

Prof. Paweł Czyżewski  
Poznan University of Technology

### 28 June

Module 9  
**RECYCLING MATERIALS FROM ENERGY SYSTEMS**

Module 10  
**MATERIALS, PROCESSES AND PERFORMANCES**

Prof. El Hadj Dogheche  
Université Polytechnique Hauts-de-France

Prof. Marie Lasgorceix  
Université Polytechnique Hauts-de-France

**DIRECTOR** Mario Mañana, University of Cantabria - **SECRETARY** Gema Pérez, University of Cantabria