AI and IoT for Measurement Systems in Health and Energy Sectors

Erasmus+ Blended Intensive Programme (BIP)

Program Overview

We are thrilled to announce an upcoming Erasmus Blended Intensive Programme (BIP) on the topic of **AI and IoT for Measurement Systems in Health and Energy Sectors**. This innovative programme combines online learning with in-person teaching, providing participants with a comprehensive understanding of how Artificial Intelligence (AI) and the Internet of Things (IoT) are revolutionizing modern measurement systems in these critical sectors.

Introduction

The **AI and IoT for Measurement Systems in Health and Energy Sectors** programme is designed to equip students with foundational and advanced knowledge in cutting-edge technologies such as Artificial Intelligence (AI), Machine Learning, Deep Learning, Internet of Things (IoT), distributed systems, and more. Participants will delve into the implications of these technologies in the field of measurement systems, exploring their transformative impact on key sectors such as energy and healthcare. In the energy sector, these technologies enable more accurate resource forecasting, real-time grid management, and enhanced monitoring of renewable energy systems, contributing to greater efficiency and sustainability. Meanwhile, in healthcare, AI and IoT are driving advancements in diagnostics, personalized treatment, and remote patient monitoring, ultimately improving patient outcomes and the overall efficiency of medical services. Through theoretical and practical activities, the programme aims to provide participants with the skills to understand and apply these technologies, fostering innovation and interdisciplinary collaboration.

Course Details

- **Title:** AI and IoT for Measurement Systems in Health and Energy Sectors
- **Credits:** 3 ECTS (Bachelor level)

Dates:

- **Online classes:** Every Friday in June after 2:30 PM
- **In-person teaching:** First week of July 2025 in Rome, Italy

Structure:

Online Component: Four online classes, 2 hours each. These sessions will be held weekly throughout June.

- **Face-to-Face Component:** Five days of intensive teaching and learning activities in Rome, including: General lectures on cross-cutting topics in AI and IoT (first day), and specialized sessions for energy and health (second day).
- **Hackathons:** Two separate hackathons will be organized—one focusing on health sector challenges and another on energy sector challenges, culminating in a final presentation that will serve as the final examination (third and fourth day).
- Visits to Cusano partner companies in the health and energy sectors (fifth day).

Main Topics Addressed

- Fundamentals of Artificial Intelligence (AI) and Internet of Things (IoT)
- Machine Learning and Deep Learning in measurement systems
- Distributed systems and their role in IoT applications
- Sector-specific technologies and methodologies in health and energy
- Practical applications and implications of AI and IoT in measurement systems

Main Learning Outcomes

By the end of the program, participants will:

- Understand the core principles of AI, IoT, and related technologies in measurement systems.
- Develop skills to apply AI and IoT solutions to real-world problems in health and energy.
- Gain hands-on experience through collaborative hackathons tailored to sector-specific challenges.
- Build connections with international peers, faculty, and industry professionals.

Participating Institutions

- **Receiving Institution:** Università degli Studi Niccolò Cusano, Rome, Italy
- **Partners:**
    - University of Cordoba, Spain
    - University of Applied Sciences, Hochschule Mittweida, Germany
    - University of Nova Gorica, Slovenia
    - Silesian University of Technology, Poland

Feedback and Contact

Given the tight timeline, we kindly request partner universities to provide feedback as soon as possible. We are also happy to arrange a call to discuss details or address any queries. For more information or to confirm participation, please contact: **Fabrizio.patane@unicusano.it**, **Ilaria.mileti@unicusano.it**, **erasmus@unicusano.it**, **laura.pecetta@unicusano.it**