BIP: AI and IoT in Measurement Systems for the Energy and Healthcare Sectors

Program Overview

We are thrilled to announce an upcoming Erasmus Blended Intensive Programme (BIP) on the topic of AI and IoT in Measurement Systems for the Energy and Healthcare Sectors. The BIP 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 innovating measurement systems in Energy and Health sectors, driven by Digital Transformation.

Introduction

The AI and IoT in Measurement Systems for the Energy and Healthcare Sectors course is designed to give students basic knowledge of the latest technologies such as Artificial Intelligence (AI), Machine Learning, Deep Learning, Internet of Things (IoT), and distributed measurement systems. Participants will learn about the implications of these technologies in the field of measurement systems, exploring their innovative 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 course aims to provide participants with the skills to understand and apply these technologies, fostering innovation and interdisciplinary collaboration.

Participants

- **University of Cordoba, Spain.**
- **University of Applied Sciences, Hochschule Mittweida, Germany.**
- **University of Nova Gorica, Slovenia**
- **Silesian University of Technology, Poland.**
- **University of Tuscia, Viterbo, Italy**
- **University of Niccolò Cusano, Rome, Italy.**

Course Details

• Title: AI and IoT in Measurement Systems for the Energy and Healthcare Sectors
• For students: Bachelor's degree, Master's degree, and Doctorate.
• Dates:
- Online classes: Every Friday in June.
- In-person teaching: First week of July 2025 in Rome, Italy at the Cusano CAMPUS.
• Structure:

- Online Component: Four online classes, 2 sessions each (total: 8 sessions). These sessions will be held weekly throughout June.
- Face-to-Face Component: Five days of intensive teaching and learning activities in Rome.

Main Topics Addressed

1. Fundamentals of Artificial Intelligence (AI) and Internet of Things (IoT)
2. Machine Learning and Deep Learning for Measurement/Classification techniques
3. Distributed systems and their role in IoT applications
4. Sector-specific technologies and methodologies in Healthcare and Energy
5. Practical applications and implications of AI and IoT in Measurement/Diagnostic Systems

Main Learning Outcomes

By the end of the program, participants will:

1. Understand the core principles of AI, IoT, and related technologies Measurement/Classification devices.
2. Develop skills to apply AI and IoT solutions to real-world problems in Energy and Healthcare.
3. Gain hands-on experience through collaborative hackathons tailored to sector-specific challenges.
4. Build connections with international peers, faculty, and industry professionals

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