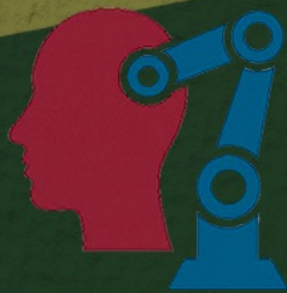


BLENDED INTENSIVE PROGRAMME



BIP

BLENDED
INTENSIVE
PROGRAMME

UNIVERSITY OF PORTO UNIVERSITY OF AVEIRO



universidade
de aveiro

**BioMedical engineering: the state of the art, the
challenges and future perspectives**

(21-25 July 2025 Pescara)

21 July 2025

- **9:30** – *Opening and overview of BIP* Dr. Cristina Falcinelli (University G d'Annunzio)
- **10:00–11:45** – Prof. Alessia Amelio (University G d'Annunzio):
Artificial Intelligence and Machine Learning for Engineering
- **11:45–13:45** – Prof. Joana Loureiro (University of Porto):
Advances in the Development of Nanoformulations for Biomedical Applications
- **13:45–14:45** – Lunch
- **15:00–17:00** – Dr. Maria João Ramalho (University of Porto):
Nanoparticle-Based Cancer Therapies: Advances and Challenges

22 July 2025

- **10:00–12:30** – Prof. Laura Marzetti (University G d'Annunzio):
Next-Generation TMS-EEG: Real-Time Control Algorithms and Custom Hardware for State-Dependent Brain Stimulation
- **12:30–14:00** – Lunch
- **14:00–15:00** – Prof. Ana Luisa Silva and Dr. Pedro Correia (University of Aveiro):
Targeted Alpha Therapy - The role of alpha and gamma radiation in modern Theranostic
- **15:00–18:00** – Dr. Pedro Correia and Prof. Ana Luisa Silva (University of Aveiro):
MiniPIX practical session: Real-time radiation detection and imaging

23 July 2025

- **9:00–11:00** – Prof. Arcangelo Merla (University G d'Annunzio):
Biomedical Engineering for Human-Machine Interaction
- **11:00–12:00** – Dr. Andrea di Credico (University G d'Annunzio):
Engineering the Brain: Stem Cells and Organoids in Regenerative Medicine
- **12:15–13:30** – Lunch
- **13:30–17:30** – Prof. Ana Luisa Silva and Dr. Pedro Correia (University of Aveiro):
Hands-on challenge: Programming a robotic hand

24 July 2025

- **10:00–13:00** – Prof. Serena Doria (University G d'Annunzio):
Managing Uncertainty in Complex Biomedical Systems: A Bayesian Framework with Hausdorff and Fractal Measures
- **13:00–14:00** – Lunch
- **14:00–18:00** – Prof. Joana Loureiro and Dr. Maria João Ramalho (University of Porto):
Practical Class

25 July 2025

- *Excursion day*

