



The Abdus Salam  
**International Centre  
for Theoretical Physics**



# School on Applied AI for Sustainable Development

## DESCRIPTION:

The School covers key aspects of applied AI, focusing on designing, developing, and deploying practical solutions to real-world problems. It aims to equip scientists, primarily from developing countries, to tackle local challenges and contribute to global sustainability goals.

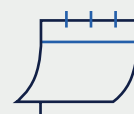
## MORE INFORMATION:

Embedded devices running ML models are becoming increasingly powerful, evolving from Cloud-based AI to EdgeAI. This shift enables the creation of more complex, sustainable, and real-time AI solutions for applications such as environmental monitoring, particle detection and classification, radiation monitoring, smart agriculture, waste management, and beyond.

The School includes hands-on exercises, group discussions, and case studies to reinforce key concepts. Participants will be introduced to open-source methods, software tools, and hardware platforms relevant to real-world deployment. The School is linked to multiple MSCA EU-funded projects (ROBUST / AIAS / ANTIDOTE), and the Annual Workshop of the Rural Environmental Monitoring via ultra wide-Area networks And distributed federated Learning (REMARKABLE) EU project.

## TOPICS:

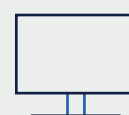
- Foundations of AI & Sustainable Development Goals (SDGs)
- Sector-Specific AI Tools and Technologies
- Introduction to TinyML and EdgeAI
- Data cleaning
- Heterogeneous Computing
- Fundamentals of Applied ML
- Sensors and Data Collection
- ML and Model Compression for FPGA-based EdgeAI Devices
- Edge AI for the Internet of Things: Insights from Real-World Projects
- Ethical & Sustainable AI



**23 - 27 March 2026**



**Trieste, Italy**



**Deadline:  
1 December 2025**

## DIRECTORS:

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## LOCAL ORGANIZER:

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## FURTHER INFORMATION:

E-mail: [smr4210@ictp.it](mailto:smr4210@ictp.it)



Web: <https://indico.ictp.it/event/11136/>

Female scientists are encouraged to apply.

## GRANTS:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

