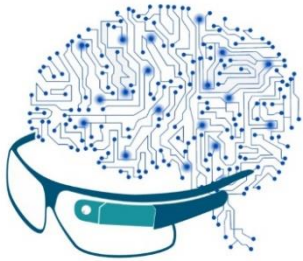**2022 IEEE INTERNATIONAL CONFERENCE ON**

METROLOGY FOR
EXTENDED REALITY, ARTIFICIAL INTELLIGENCE AND NEURAL ENGINEERING

IEEE MetroXRAINE 2022

NATIONAL RESEARCH COUNCIL (CNR), ROME, ITALY / **OCT 26 - 28, 2022**

The **2022 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence, and Neural Engineering** (*IEEE MetroXRAINE 2022*) will be an international event mainly aimed at creating a synergy between experts in eXtended Reality, Brain-Computer Interface, and Artificial Intelligence, with special attention to the measurement.

The conference will be a unique opportunity for discussion among scientists, technologists, and companies on very specific sectors in order to increase the visibility and the scientific impact for the participants. The organizing formula will be original owing to the emphasis on the interaction between the participants to exchange ideas and material useful for their research activities.

MetroXRAINE will be configured as a synergistic collection of sessions organized by the individual members of the Scientific Committee. Round tables will be held for different projects and hot research topics. Moreover, we will have demo sessions, students contests, interactive company expositions, awards, and so on.

The Conference will be a hybrid conference, with the possibility of attendance remotely or in presence.

ORGANIZERS

HONORARY CHAIR
Damien Coyle
Ulster University, Ireland

GENERAL CHAIRS
Pasquale Arpaia
University of Naples Federico II
Lucio Tommaso De Paolis,
University of Salento, Italy

TECHNICAL PROGRAM CHAIRS
Sergi Bermudez I Badia
Universidade da Madeira, Portugal
Egidio De Benedetto
University of Naples Federico II, Italy

TOPICS

- ✓ Instrumental solutions and measurement principles for enhancing the accuracy and robustness of XR-BCI systems
- ✓ Display technologies and human vision
- ✓ Wearable sensors for neuroimaging
- ✓ User experience, perception, and interactions in XR and BCI
- ✓ Multisensory experiences and improved immersion
- ✓ Psychophysical condition monitoring
- ✓ Advanced machine learning techniques for XR-BCI
- ✓ Deep learning-based classification
- ✓ VR-supported mindfulness-based on EEG signals
- ✓ Immersive user experience with XR-BCI
- ✓ Human-in-the-loop AI
- ✓ Bioengineering and rehabilitation
- ✓ Biosignal processing
- ✓ Law and Ethics

SPECIAL SESSIONS

Special sessions mostly aimed at creating mini-workshops on specific topics, where researchers working on the same field can meet, familiarize, exchange ideas, and create cooperation.
Special Sessions are being developed by designated chairs.
Special sessions will be organized on specific topics, see online at
https://www.metroxraine.org/special-sessions

IMPORTANT DATES

Abstract submission deadline: **April 15, 2022**
Abstract acceptance notification: **April 27, 2022**
Full paper submission deadline: **June 3, 2022**
Full Paper Acceptance Notification: **July 4, 2022**
Final Paper Submission Deadline: **July 30, 2022**

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