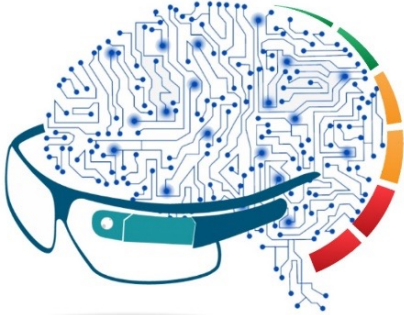




2024 IEEE INTERNATIONAL CONFERENCE ON



# Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering

ST ALBANS - LONDON, UK // // OCTOBER 21-23, 2024

## CALL FOR PAPERS

The 2024 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence, and Neural Engineering (*IEEE MetroXRAINE 2024*) will be an international event focused in advances in measurement methodologies, measurement systems, instrumentation and sensors and aimed at creating a synergy between experts in eXtended Reality, Brain-Computer Interface, and Artificial Intelligence.

Following the main idea of the previous editions, *MetroXRAINE* will be configured as an immersive collection of sessions organized by the individual members of the Scientific Committee. Round tables will be held for different projects and hot research topics. In addition to regular papers, many initiatives and opportunities such as industry sessions, exhibits, tutorials, demos, student contests, and others are planned to enhance your experience with the conference, and will make *MetroXRAINE 2024* a unique event to meet with people involved eXtended Reality, Artificial Intelligence, and Neural Engineering.

### MAIN 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 immersion
- Psychophysical condition monitoring
- Advanced machine learning techniques for XR-BCI
- Deep learning-based classification
- Human-in-the-loop AI
- 3D and True-Dimensional Visualization
- VR-supported mindfulness-based on EEG signals
- Immersive user experience with XR-BCI
- Bioengineering and rehabilitation
- Biosignal processing
- Law and Ethics
- Instrumental solutions and measurement principles for smart industry
- New challenge for Metrology in the Digital transformation scenario
- Metrology at the service of the economy, society, and citizens
- Measurement science and the environment
- Telepresence and Teleoperation

In addition to regular papers, many activities such as sessions, exhibits, tutorials, demos, student contests, journal papers, and others are planned to enhance the conference experience. Delegates will have opportunities to meet with professionals from around the world, making IEEE MetroXRAINE 2024 a vibrant and exciting event.

Papers that are accepted and presented will be submitted for inclusion in the IEEE Xplore Digital Library.

### ORGANIZERS

#### HONORARY CHAIR

**Damien Coyle**  
*University of Bath, UK*

#### GENERAL CHAIRS

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*University of Hertfordshire, UK*

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**Flaviana Tagliaferri**  
*Hochschule Mittweida-University of Applied Sciences, Germany*

#### DEPUTY CHAIR

**Antonio Esposito**  
*University of Naples Federico II, Italy*

### IMPORTANT DATES

Special Session Proposal Deadline  
**February 16, 2024**

Abstract Submission Deadline  
**April 10, 2024**

Full Paper Submission Deadline  
**May 15, 2024**

Full Paper Acceptance Notification  
**June 15, 2024**

Final Paper Submission Deadline  
**July 31, 2024**