



# International Workshop MEEBAI '24

A Methodology for Emotion-Aware Education  
Based on Artificial Intelligence

Educational Neurotechnology in the Age of Artificial Intelligence

4 July 2024

Campus of the University of Alicante

<https://www.meebai.ua.es/workshop/>

Organisers:



## Presentation

In an increasingly interconnected and technologically advanced world, the relevance of Artificial Intelligence (AI) in all aspects of society continues to grow at a rapid pace. From education to health, and through any field linked to research and development, AI is transforming how we interact, learn, and work. However, the rapid adoption of these technologies also poses significant challenges in terms of ethics, privacy, employment, and equity, among others, that must be urgently addressed.

The I International Workshop MEEBAI (IWMEEBAI '24) arises as a response to the pressing need to discuss and analyze these critical issues. The motto of this edition, namely "**Educational Neurotechnology in the Age of Artificial Intelligence**", directly indicates the main theme of this meeting. We explore Educational Neurotechnology in the era of Artificial Intelligence, a promising field that merges brain science with advanced technology to revolutionize the way we learn

It is not only an opportunity to stay up-to-date with the latest trends and developments in the application of AI, but it also fosters essential dialogue on how we can guide the evolution of AI to ensure that its benefits are maximized and its risks minimized when it comes to Education. It is crucial that we collectively understand how AI can be used to empower rather than limit, to include rather than exclude, thereby ensuring a future that reflects our shared values and common aspirations.

IWMEEBAI '24 stems from the MEEBAI Project: A Methodology for Emotion-Aware Education Based on Artificial Intelligence. The funding entity is the Generalitat Valenciana, Conselleria d'Innovació, Universitats, Ciència i Societat Digital, Direcció General de Ciència i Investigació (convocatoria DOGV núm. 8919 / 05.10.2020), Project reference: CIPROM/2021/017.

The MEEBAI project is led by Profs. Miguel Cazorla and Rosabel Roig Vila, Professors at the University of Alicante and directors of the research groups Robotics & Tridimensional Vision Research Group (RoViT) & Interdisciplinary Research in University Teaching – Education and Information and Communication Technologies / Inclusive Education (GIDU-EDUTIC/IN), respectively.

## Objective

The main objective of IWMEEBAI is to provide a space for reflection on the possibilities offered by technology in the field of psychoeducation in a context mediated by Artificial Intelligence.

During this meeting, researchers from the fields of computer science, psychology and education will share their knowledge and experiences on how applying technological systems to neurons can be key to empowering older people and fostering their independence.

Participants will be able to explore a wide range of topics, from innovative medical devices to mobile health applications, home assistance systems, wearables and much more. In addition to expert presentations, there will be space for interaction and discussion. Attendees will have the opportunity to ask questions, share experiences and make connections with other professionals, researchers and people interested in the field.

In addition, there will be the opportunity to participate as speakers in the scheduled paper sessions. The contributions received will be evaluated by a double peer review and those accepted will be included in the conference programme.

In short, this conference is a space where the aim is to promote research, talent, learning, collaboration and innovation in the field of technology and active ageing.

We look forward to seeing you and sharing this journey towards a healthier and technologically empowered future.

## PROGRAMME

### Work sessions

#### July 4th 2024

9:30 – 10:00

Workshop registration

10:00 – 11:00

Opening session and welcome  
Communications session

11:00 – 11:30

Coffee Break

11:30 – 12:30

Communications session

12:30 – 14:00

Working Session MEEBAI Project

14:00 – 15:30

Break

15:30 – 16:30

"Social robotic and Education"  
Coord.: Prof. Beatriz Cebreiro & Prof. Carmen Fernández, University of Santiago de Compostela

16:30 – 17:30

Invited papers (digital format)



### Keynote speakers

#### ROGER AZEVEDO, University of Central Florida

Dr. Azevedo is a Professor in the School of Modeling Simulation and Training at the University of Central Florida. He is also an affiliated faculty in the Departments of Computer Science and Internal Medicine at the University of Central Florida and the lead scientist for the Learning Sciences Faculty Cluster Initiative. His main research area includes examining the role of cognitive, metacognitive, affective, and motivational self-regulatory processes during learning with advanced learning technologies (e.g., intelligent tutoring systems, hypermedia, multimedia, simulations, serious games, immersive virtual learning environments). He has published over 300 peer-reviewed papers, chapters, and refereed conference proceedings in the areas of educational, learning, cognitive, educational, and computational sciences. He is a fellow of the American Psychological Association and the recipient of the prestigious Early Faculty Career Award from the National Science Foundation.

#### BEATRIZ CEBREIRO, University of Santiago de Compostela

Dr. Cebreiro is Associated Professor of the Department of Pedagogy and Didactics at University of Santiago de Compostela; specialist in Educational Technology. Doctor of Educational Sciences. Director of the Educational Technology Research Group (GI-1438) at University of Santiago de Compostela. Regarding the research trajectory in the area of Didactics and School Organization, notable experience since 1997 in competitive European projects, where she was coordinator in 6 projects, PI in 14 projects, and researcher in 6. Two of these projects received awards: from UNESCO, the EU, and nationally. Research lines: e-learning; Educational possibilities of ICT; Design, development, and evaluation of flexible online learning environments and educational multimedia; Integration and use of ICT in educational institutions and other training contexts; Training in digital competence and ICT use in the professional field; Educational challenges in the face of the social transformation of ICT: Inclusion, equity, gender, access, participation, and socialization in diverse contexts.

#### CARMEN FERNÁNDEZ, University of Santiago de Compostela

Dr. Fernández is Lecturer in the Department of Didactics and School Organisation at the University of Santiago de Compostela. Degree in Philosophy and Educational Sciences from the University of Santiago de Compostela in 1995 (extraordinary prize). PhD in Education Sciences in 2002 (extraordinary prize). She was Vice-Rector of Degrees and Teaching and Research Staff at the University of Santiago de Compostela and Dean of the Faculty of Education. She is currently Director of the Institute of Education Sciences at the University of Santiago de Compostela.

She is a specialist in Educational Technology. She belongs to the Educational Technology Research Group of the USC (GI-1438) and participated in numerous publications and research projects in collaboration with other research groups from the Universities of Seville, Basque Country, Balearic Islands, Murcia, Barcelona, Rovira i Virgili, Huelva or La Laguna. Computer World Award 2007, Recognition by the Observatory "University and Social Commitment" (GUNI-UNESCO) as an example of Good Practice 2009.

#### SÉBASTIEN LALLÉ, Sorbonnes University

S. Lallé is an associate professor of computer science at Sorbonnes University in Paris (France). Before that, he was a postdoctoral research fellow and a research associate at the University of British Columbia (Canada), and an AI researcher at UME Academy Ltd. He received his PhD degree in computer science from the University of Grenoble (France) in 2013. His research is in human-centered AI, at the crosswalk of AI, HCI and Cognitive Science, with applications to education, public engagement, and information visualizations. He has won a Best Paper Award at IVA'16 (Intel. Virtual Agents) and was runner-up for Best Student Paper at AI in Education'13.

#### FRANCESCA LATINO, "Pegaso" University of Naples

Researcher in Special Pedagogy and Educational Research at the "Pegaso" University of Naples – Department of Psychology and Education. She is author of several publication about the methodology of teaching-learning of physical education at different ages in national and international journals, targeting her interest of study to the promotion of pedagogical interventions aimed at improving learning, the prevention of sedentarism and the acquisition of motor competences. Moreover, the inclusion methodologies and the consideration of the different educational systems with regard to students' education are among her main research interests.

#### FRANCESCO TAFURI, Niccolò Cusano University

PhD in "Epistemology and Neuroscience applied to Education" from the Niccolò Cusano Telematics University of Rome, Member of the Scientific and Editorial Committees of the Pedagogical and Motorsport Sector.

He is a member of the research team of the Heracle Lab Research in Educational Neuroscience, at the Niccolò Cusano University. Current and main research topics refer to the Didactics of Motor and Sports Activities, Special Pedagogy and, in particular, the Pedagogy of Marginality and Deviation. He is Author of numerous scientific publications in national and international journals, including monographs, volume essays, and articles in international journals.

### Committees

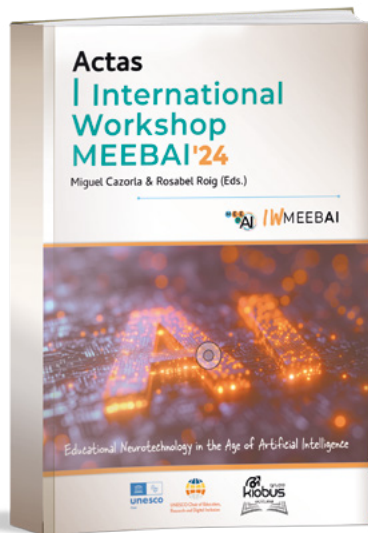
#### Coordination Committee

Miguel Cazorla, University of Alicante (coord.)  
Rosabel Roig Vila, University of Alicante (coord.)  
Julio Cabero Almenara, University of Sevilla  
Francisco Gómez Donoso, University of Alicante  
M<sup>a</sup> Paz Prendes Espinosa, University of Murcia  
Maria Dolores Sancerni Beitia, University of Valencia

#### International Scientific Committee

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Prof. Sébastien Lallé, Sorbonne Université, Francia  
Prof. Eduardo Nebot, University of Sydney, Australia  
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Prof. Fabrizio Manuel Sirignano, Università degli Studi Suor Orsola Benincasa, Italia  
Prof. Dr. María Aragonés González, University of Alicante





**Book of Abstracts**  
(download from the platform)



**Full program**



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