



Ecographic Techniques and Virtual reality approaches for telemedicine

24 February 2025 3:00 pm  zoom

Welcome message by the Chair

Telemedicine emerged as an effective solution to support continuity of care during the COVID-19 pandemic and there is a clear consensus that this shift to telehealth may be here to stay even in the future. Moreover, telemedicine can be an important asset to assist patients that live in regions with limited mobility, such as some internal mountainous regions of Italy. However, establishing a good provider-patient connection via telemedicine is difficult due to limited visibility of body language and physical presence. Thus, novel approaches are needed to optimize patient outcomes by restoring critical aspects of in-person healthcare for remote implementations and expanding clinical options to deliver health services at a distance. In this regard, technologies that evoke presence (e.g. the perception, feeling, and interaction with simulations as if they were real) can significantly impact the outcomes of telemedicine. These approaches, collectively referred to as extended reality (XR) technologies, include fully simulated virtual reality (VR), overlay of simulated objects onto users' real sight in augmented reality (AR) or direct interaction between virtual objects and the physical world in mixed reality (MR). Another critical aspect of telemedicine is the limited capability of advanced diagnostic measurements when compared to clinical investigation in hospitals. While some physiological parameters such as blood pressure, glycaemia and oxygen saturation are easy to measure with at home procedures, diagnostics based on imaging techniques is much more difficult. In this regard, recent evidence pointed out the feasibility to perform ecographic examination with portable ultrasound probes that may be useful for the follow up of chronic pathologies.

In this webinar, recent advancements of XR and ultrasound technologies will be discussed.

Per partecipare:

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Chairs



Name	Prof. Antonio Ferretti
Affiliation	Department of Neuroscience, Imaging and Clinical Sciences, University G. d'Annunzio of Chieti-Pescara
Short bio	Antonio Ferretti is Full Professor of Biomedical Engineering. His research activity is focused on neuroimaging using structural and functional MRI to study the human brain in health and disease. He authored more than 140 publications, with h-index 41.
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Name	Prof. Raffaella Franciotti
Affiliation	Department of Neuroscience, Imaging and Clinical Sciences, University G. d'Annunzio of Chieti-Pescara
Short bio	Raffaella Franciotti is Associate Professor in Science of Health Professions, Diagnostic Techniques, Welfare and Prevention. Her research activity is focused on the application of neuroimaging techniques to Neuroscience to study brain activity in health and disease. Currently she is working on the application of AI algorithms to identify biomarkers useful for early diagnosis of Alzheimer's disease and to predict eating behaviors. She authored 84 publications, with H-index 32.
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Speakers



Title	Virtual reality for cognitive and motor assessment
Name	Prof. Cosimo Tuena
Affiliation	Faculty of Psychology, eCampus University Applied Technology for Neuro-Psychology Lab, IRCCS Istituto Auxologico Italiano
Short bio	Cosimo Tuena is Associate Professor of General Psychology at eCampus University and clinical researcher at IRCCS Istituto Auxologico Italiano and focuses on the assessment and rehabilitation of cognition with virtual reality in aging.
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Title	The role of ultrasounds in telemedicine
Name	Dr. Andrea Boccatonda
Affiliation	Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy
Short bio	Andrea Boccatonda is a Permanent Medical Officer in Internal Medicine at AUSL Bologna, Bentivoglio Hospital, Center for Internal, Interventional, and Vascular Ultrasound, and a PhD candidate in General Medical Sciences and Health Services at Alma Mater Studiorum - University of Bologna. He has authored 80 publications and holds a Scopus H-index of 16
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Program

Time	Presentations	Speakers
3:00 - 3:10 pm	Chair Introduction	Antonio Ferretti
3:10 - 3:30 pm	Virtual reality for cognitive and motor assessment	Cosimo Tuena
3:30 - 3:40 pm	Q&A	
3:40 - 4:00 pm	The role of ultrasounds in telemedicine	Andrea Boccatonda
4:00 - 4:10 pm	Q&A	
4:10 - 4:20 pm	Closing of Webinar	Raffaella Franciotti