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Italy Section



## Lecture Series 2024 - IEEE SMC Italy Chapter Towards Robot Consciousness

Prof. Antonio Chella

RoboticsLab, Department of Engineering - Università degli Studi di Palermo, Italy

[antonio.chella@unipa.it](mailto:antonio.chella@unipa.it)

**Friday 26.1.2024 @3pm**

In presence: aula P1.1 ed. DIEF- Modena - Università di Modena e Reggio Emilia

On line: [LINK](#)

### Abstract:

Developing a conscious robot is a significant scientific and technological challenge. The debates about the possibility of creating conscious robots and the potential benefits and risks for humans are no longer limited to philosophical circles. Robot consciousness is a field of research that aims to achieve two objectives. Firstly, scientists in this field draw inspiration from biological consciousness to create robots that can demonstrate experiential and functional consciousness. Secondly, scientists use robots as tools to understand biological consciousness better. The ultimate goal of robot consciousness is to replicate various aspects of biological consciousness in robots by combining different approaches from AI and robotics, cognitive robotics, epigenetic and affective robotics, situated and embodied robotics, developmental robotics, anticipatory systems, and biomimetic robotics. The other objective of robot consciousness is to employ robots to make progress in studying consciousness in humans and animals. It is worth noting that neuroscientists involved in the study of consciousness do not rule out the possibility that robots may be conscious. The talk will discuss recent theoretical studies, models, and case studies of machine consciousness that use robots as a reference frame.

### Bio:

Antonio Chella is a Professor of Robotics and Director of RoboticsLab at the Department of Engineering, University of Palermo, and a research associate at the ICAR-CNR, Palermo. He is a former Director of the Interdepartmental Center for Knowledge Technologies (CITC), Director of the Department of Computer Engineering (DINFO), Chairman of the Computer Engineering Graduate Program, and Coordinator of the Ph.D. Program in Technological Innovation Engineering. He coordinated several Italian and European research projects. He is the author of more than 200 publications and an editorial director of scientific journals and book series in the fields of Robot Consciousness, Computational Creativity, Cognitive Science, and Artificial Intelligence. The research activities have been the subject of many articles and interviews in national and international magazines and newspapers, including The New York Times, New Scientist, and The Guardian.