



Séminaire ISIR

Mardi 7 février 2017 à 11H

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Salle de réunion 304

Towards Robot Consciousness

Abstract : Robot consciousness is an emerging field that addresses the problems of designing and implementing computational models of consciousness in a robot. The target of robot consciousness research is twofold: the possibility of building conscious robots and the analysis of the active role of consciousness in controlling and planning the behavior of a robot. Robot consciousness is placed at the crossing between technical disciplines as AI, robotics, computer science and engineering, theoretical disciplines as philosophy of mind, linguistics, logic, and empirical disciplines as psychology and neuroscience. It focuses on attempts to apply the methods of AI, robotics and computer science to understand consciousness and to examine the possible role of consciousness in Robotics. On the one hand there is the hope that facing the problem of consciousness would be a decisive move to design autonomous robots, on the other hand the implementations of robotic models of consciousness could be helpful for understanding natural consciousness. The talk will present the current state of research in robot consciousness and it will discuss the theoretical foundations and the experimental results of the field and their importance for the Robotics community. The talk will be divided in four parts: i) theoretical issues of consciousness, ii) models of robot consciousness, iii) case studies and implemented robots, iv) discussions and perspectives of robot consciousness.

Short bio : Antonio Chella is a full professor in Robotics at the University of Palermo. He has been a coordinator of the course of study in Computer Engineering, a Director of the Department of Computer Engineering and a Coordinator of the PhD Course in Technological Innovation Engineering at the University of Palermo. Currently he is the Director of the RoboticsLab at the University of Palermo. He published more than 200 papers on international journals on machine consciousness, cognitive systems, robotics and neural networks. He is a referee of international scientific journals and he has been a member of the program committee of several international conferences. He edited, together with Riccardo Manzotti, the book "Artificial Consciousness", by Imprint Academic, UK, considered in the literature as the state of the art in the field.