

Distinguished Lecturer Series “Leon the Mathematician” at the Department of Informatics, Aristotle University of Thessaloniki Greece (<http://dls.csd.auth.gr>)



INVITED LECTURE

Angelo Cangelosi (Professor, School of Computing and Mathematics, University of Plymouth, UK) is going to lecture on

Embodied Language Learning with the Humanoid Robot iCub

at **Room A**, Department of Informatics, Aristotle University of Thessaloniki, **Ethnikis Antistaseos 16 (2nd floor)**, **Thessaloniki 55133** on **Friday October 12th, 2012** at **12:30**.

ABSTRACT

Growing theoretical and experimental research on action and language processing and on number learning and space representation clearly demonstrates the role of embodiment in cognition. These studies have important implications for the design of communication and linguistic capabilities in cognitive systems and robots, and have led to the new interdisciplinary approach of Cognitive Developmental Robotics. In the European FP7 project “ITALK” (www.italkproject.org) and the Marie Curie ITN “RobotDoC” (www.robotdoc.org) we follow this integrated view of action and language to develop cognitive capabilities in the humanoid robot iCub. During the talk we will present ongoing results from iCub experiments on embodiment biases in early word acquisition studies, word order cues for lexical development and number and space interaction effects. The talk will also introduce the simulation software of the iCub robot, an open source software tool to perform cognitive modeling experiments in simulation.

About the Speaker:

Angelo Cangelosi

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Angelo Cangelosi is Professor of Artificial Intelligence and Cognition and the Director of the Centre for Robotics and Neural Systems at Plymouth University (UK). Cangelosi studied psychology and cognitive science at the Universities of Rome La Sapienza and at the University of Genoa, and has been visiting scholar at the University of California San Diego and the University of Southampton. Cangelosi's main research expertise is on language and cognitive modelling in humanoid robots, on language evolution in multi-agent systems, and the application of bio-inspired techniques to robot control (e.g. swarm of UAVs). He is the coordinator of the Marie Curie ITN "RobotDoC: Robotics for Development of Cognition" (2009-2013) and the UK EPSRC project "BABEL: Bio-inspired Architecture for Brain Embodied Language" (2012-2016), and of the FP7 project "ITALK" completed in 2012. Cangelosi has produced more than 200 scientific publications, is Editor-in-Chief of the journal Interaction Studies, and has chaired numerous workshops and conferences including the IEEE ICDL-EpiRob 2011 Conference (Frankfurt, August 2011). In 2012 he was nominated Chair of the International IEEE Technical Committee on Autonomous Mental Development.

Off campus premises of the Department of Informatics, Aristotle University of Thessaloniki:

