EMBODYⁱ Projects



COORD: Scuola Superiore Sant'Anna, Pisa, Italy

OCTOPUS

Novel Design Principles and Technologies for a New Generation of High Dexterity Soft-bodied Robots Inspired by the Morphology and Behaviour of the Octopus



ANGELS

Anguilliform swimming robot with a bio-inspired electrical sense

COORD: Ecole Nationale Supérieure de Nantes, France



EMORPH

Biologically-inspired visual sensor

COORD: Italian Institure of Technology, Genova, Italy



COORD: University Campus Biomedico, Rome, Italy



COORD: University of Zurich, Switzerland



COORD: DLR, Germany

EVRYON

Wearable robots for functional restoration, substitution, rehabilitation, augmentation

LOCOMORPH

Locomotion and movement in robots, with enhanced manoeuvrability, selfstabilization, energy efficiency and adaptation, thanks to morphology and morphosis

VIACTORS

Safe, energy-efficient and highly dynamic variable impedance actuators





Program Committee

Rolf Pfeifer (UZH) Paolo Dario (SSSA) Cecilia Laschi (SSSA)

Organizers

Cecilia Laschi (SSSA) OCTOPUS IP Coord.
Chiara Bartolozzi (IIT) EMORPH Coord.
Frederic Boyer (EC-Nantes) ANGELS Coord.
Eugenio Guglielmelli (UniCampus) EVRYON Coord.
Lijin Aryananda (UZH) LOCOMORPH Coord.
Alin Albu-Schaeffer (DLR) VIACTORS Coord.

Local Organizing Committee

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www.octopus-project.eu/summerschool

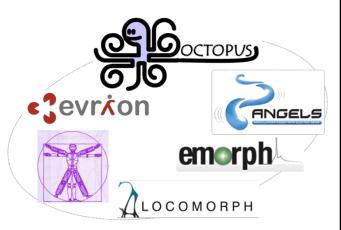




EMBODYi

Embodied Intelligence Summer School

September 20-24, 2010 Livorno, Italy



www.actopus-project.eu/summerschool













School Program

"The nature of the human mind is largely determined by the form of the human body." Rodney A. Brooks, 1999

"Artificial intelligence can only be achieved by machines that have sensory and motor skills and are connected to the world through a body."

R. Pfeifer and J. C. Bongard, 2007 How the Body Shapes the Way We Think a new view of intelligence

The Embodied Intelligence Summer School will cover the concepts of the Embodied Intelligence theory through the integration of many disciplines viewpoint, as robotics, biology, neuroscience, medicine, physiology, psychology, as well as sociology and ethics.

Monday 20 September

15.00-19.30 Technical Tour to SSSA Labs

19.30-20.30 Welcome Party

9.00-9.45 Registration and Opening 9.45-10.30 Lecture 1: Rolf Pfeifer 10.30-11.00 Coffee Break 11.00-11.30 EMBODYi Projects Students Presentation 11.30-12.30 EMBODYi Projects Group Discussion 12.30-13.00 Students Poster Session 13.00-14.30 Lunch Break 14.30-15.00 Assignment of Group Work



Tuesday 21 September

9.00-9.45 Lecture 2: Auke Jan Ijspeert 9.45-10.30 Lecture 3: Benny Hochner 10.30-11.00 Coffee Break 11.00-11.45 Lecture 4: Barbara Webb 11.45-13.00 Students Poster Session 13.00-14.30 Lunch Break

14.30-16.00 Group Work 16.00-16.30 Coffee Break 16.30-19.30 Group Work



Wednesday 22 September

9.00-9.45 Group Work 9.45-10.30 Group Work 10.30-11.00 Coffee Break 11.00-12.00 Students Poster Session 12.00-12.45 Lecture 5: Eugenio Guglielmelli 13.00- Lunch Break and-23.00 Social Activity: Tour to Florence





Thursday 23 September

9.00-9.45 Lecture 6: Paolo Dario

9.45-10.30 Lecture 7: Tamar Flash

10.30-11.00 Coffee Break

11.00-12.00 Group Work

12.00-13.00 Students Poster Session

13.00-14.30 Lunch Break

14.30-16.00 Group Work

16.00-16.30 Coffee Break

16.30-20.00 Group Work

20.30-23.00 Farewell Party

@ Fortezza Vecchia



9.00-10.30 Group Work Students Presentations

10.30-11.00 Coffee Break

11.00-12.00 Group Work Students Presentations

12.00-13.30 Closing

LECTURES LOCATION: L.E.M.

Livorno Euro Mediterranea Piazza del Pamiglione 1/2 Livorno, Italy



