



Workshop on Robotics in Education
**Educational Robotics for tomorrow's roboticists
and forthcoming non-roboticists users**

of service robots

Better tools, improved methodology

Odense, Denmark

Magasinet, Farvergården 19

5000 Odense C

March 6, 15:30 – 18:00

“Educational robotics” has been proved to be valuable not only for its motivational effects to excite students about science and technology, and to prepare future robotics engineers, but also as a growing commercial sector.

This workshop will address the new horizons of “learning about robotics, learning through robotics”, featuring methodology and tools from elementary school grades to PhD's.

A new class of robotic engineers could come out from well tuned application of educational robotics to the educational system, so widening the research areas and market products.

Furthermore, a new class of non-roboticists end users of robots (medical doctors, nurses, clerks, employees, ecc.) are to be considered: they will need easy-to-learn training courses where the whole methodology and tools studied and tested in the educational robotics classes will be employed.

Organizers:

- Center for Experimental Surgical Robotics, Verona, Paolo Fiorini (paolo.fiorini@univr.it)
- Master RIS, University of Naples Federico II, Bruno Siciliano (siciliano@unina.it)
- School of Robotics, Genoa, Emanuele Micheli (micheli@scuoladirobotica.it)

For information: micheli@scuoladirobotica.it



GENOVARCHITETTURA



Università degli Studi di Genova
Facoltà di Architettura
University of Genoa
Faculty of Architecture



Scuola di
Robotica





PROGRAM

15:30 *Introduction*: Bruno Siciliano, University of Naples Federico II

15:40 Paolo Fiorini, Center for Experimental Surgical Robotics, Verona:
From LEGO to YouBot, a new education path in service robotics

16:00 Emanuele Micheli, School of Robotics:
Verticality and continuity in educational robotics' programming languages

16:20 Rodolphe Gelin, Aldebaran: *Humanoid robots for education*

16:40 David Cuartielles, Arduino: *Arduino platform for robotics*

17:00 Bruno Siciliano: *The Master's on Robotics and Intelligent Systems at University of Naples Federico II*

17:20 Niccolò Casiddu, University of Genoa: *Design and Robotics for people with special needs: An academic experience*

17:40 Conclusions

Objectives:

- Featuring new educational robotics platforms (Nao, YouBot; The Arduino platform for robots)
- Promoting new learning methodologies (Virtual Lab, synergies among scientific subjects, starting research)
- Presenting some case studies where professional tools (LabVIEW, Autodesk Inventor, Kuka Sim.Pro, et al.) applied to educational robotics have been profitably used in school;
- Outline the beneficial feedback effects –from school to research and industry– of some interesting robotics applications.



GENOVARCHITETTURA



Università degli Studi di Genova
Facoltà di Architettura
University of Genoa
Faculty of Architecture



Scuola di
Robotica

