

Open House

30 giugno 2017



POLO
MECCATRONICA

[Pro]^M
MECHATRONICS
PROTOTYPING
FACILITY

ProM Facility

Polo Meccatronica, Via Fortunato Zeni 8

38068 Rovereto, Italia

Agenda:

30 June 2017

- 08:45 Arrival and registration of participants
- 09:00 Opening ceremony (Sala Piave, Trentino Sviluppo HQ)
- 09:30 Round table: "Perspectives of Industry 4.0" with representatives of: Cluster Fabbrica Intelligente, Porsche Consulting Srl, Siemens SpA and ANIE Automazione.
- 11:00 Workshop - Session 1
- 13:00 Light lunch
- 14:00 Workshop - Session 2
- 17:00 End of workshop – transfer to the ProM Facility
- 21:00 End of guided visits to the ProM Facility

Information:

Workshop's talks will be in English. The translation service will be available on participant's request.

The guided visits to the ProM Facility are free, after registration (www.promfacility.eu) and will be organized in groups of 15 people during the all day (10:00 - 21:00).

Workshop – Abstract

“Implications of additive manufacturing in design and production”

The aim of the workshop is to bring together people from industry and academia working on a wide range of applications of additive manufacturing.

Additive Manufacturing (AM), aka 3D printing, comprises technologies that build a solid object from a series of layers - each one printed directly on top of the previous one. These layers, which correspond to the virtual cross sections of the computer-aided design (CAD) model of the work-piece, are joined or fused to create the final shape. Nowadays, AM is becoming a key enabling technology for direct fabrication of functional or structural end-use products and is already revolutionising not only the way we produce, but also the design guidelines.

This workshop is part of the activity of the strategic research project “3D printed metallic foams for biomedical applications: understanding and improving their mechanical behaviour”, funded by the University of Trento and jointly coordinated by the Department of Industrial Engineering and the Department of Civil, Environmental and Mechanical Engineering.

The workshop will be hosted by the ProM Facility, an industry-university joint research laboratory, in connection with the inauguration of an innovative CNC machine combining subtractive and additive machining techniques.

Organizing Committee:

Matteo Benedetti (Chairman), Department of Industrial Engineering, University of Trento

Paolo Bosetti, Department of Industrial Engineering, University of Trento

Matteo Leoni, Department of Civil, Environmental and Mechanical Engineering, University of Trento

Amos Collini, Centre for Materials and Microsystems, Bruno Kessler Foundation

Invited Talks:

- 11:00 D. Pasini (McGill University, Canada), “3D-printed metallic lattices: Mechanics and functional applications for bone replacement”
- 11:30 D. East (CSIRO, Melbourne, Australia), “CSIRO Lab22: Science and Industry collaboration in additive manufacturing”
- 12:00 Ho Chaw Sing (National Additive Manufacturing Innovation Cluster, Singapore), “Singapore experience in Additive Manufacturing”
- 12:30 G. Zappini and E. Magalini (Eurocoating SpA, Italy), “Additive Manufacturing Technology for Medical Implants”
- 12:50 Final Remarks (10 min)
- 14:00 F. Berto (NTNU, Trondheim, Norway), “Mechanical design and structural integrity of additively manufactured materials”
- 14:30 E. Orsi (Renishaw Spa, Italy), “Additive Manufacturing: false myths and real benefits”

- 15:00 F. Zanini and S. Carmignato (University of Padua, Italy), "X-Ray Computer Tomography of additively manufactured parts"
- 15:30 M. Bandini (Peen Service, Italy), "Sand-blasting and shot peening of additively manufactured materials"
- 15:50 A. Pieroni (Ridix SpA, Italy), "Additive Manufacturing: state of art and future developments"
- 16:20 M. Benedetti, M. Leoni and M. Dallago (University of Trento, Italy), C. Potrich (FBK, Italy), "Fatigue and biological properties of parts manufactured by selective laser melting"
- 16.50 Final Remarks (10 min)

