

## Topics of the Conference

- Direct Digital Manufacturing in the Context of Industry 4.0
- Innovative Management Techniques and Methodologies
- Industrial Engineering and Lean Management
- Technology and Business for Circular Economy and Sustainable Production
- Wood Processing Technologies and Furniture Production

## Scientific Committee

Egidio Babuin, University of Trieste, Italy; Daria Battini, University of Padua, Italy; David Bogataj, University of Padua, Italy; Franco Bulian, CATAS S.p.A., Italy; Martina Calzavara, University of Padua, Italy; Raffaele Campanella, University of Trieste, Italy; Francesco Costantino, Sapienza University Rome, Italy; Goran Dukic, University of Zagreb, Croatia; Wilfried Jungkind, Ostwestfalen-Lippe University of Applied Sciences, Germany; Li Li, Ostwestfalen-Lippe University of Applied Sciences, Germany; Antonella Meneghetti, University of Udine, Italy; Marino Nicolich, University of Trieste, Italy; Fabio Nonino, Sapienza University Rome, Italy; Micael Öhman, Luleå University of Technology, Sweden; Roberto Pinto, University of Bergamo, Italy; Adrian Riegel, Ostwestfalen-Lippe University of Applied Sciences, Germany; Fabio Sgarbossa, University of Padua, Italy; Massimo Tronci, Sapienza University Rome, Italy; Franz-Josef Villmer, Ostwestfalen-Lippe University of Applied Sciences, Germany; Helmut Zsifkovits, Montanuniversität Leoben, Austria

The Conference is held in collaboration with



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UNIVERSITÀ  
DEGLI STUDI DI TRIESTE

Hochschule Ostwestfalen-Lippe  
University of Applied Sciences



## 7<sup>th</sup> INTERNATIONAL CONFERENCE

# PRODUCTION ENGINEERING AND MANAGEMENT

*For Industry Sustainability*

September 28th-29th, 2017

University Consortium  
of Pordenone  
Via Prasecco 3/A - Pordenone - Italy

## Thursday, 28th September 2017

**14.30-15.00** Conference opening  
**15.00-15.30** Invited lecture: Ing. Alberto Zanata CEO of Electrolux Professional

### 1st session (15.30-16.30)

Direct Digital Manufacturing in the context of Industry 4.0 (Chair: Prof. Wilfried Jungkind)

**15.30-15.50** E. M. Scheideler, A. Ahlemeyer-Stubbe: Quality control of additive manufacturing using statistical prediction methods  
**15.50-16.10** A. Huxol, E. Scheideler, F.-J. Villmer: Influencing factors on part quality in selective laser melting  
**16.10-16.30** T. Kleineberg, M. Eichelberg, S. Hinrichsen: Participative development of an implementation process for worker assistance systems

### 2nd session (17.00-18.40)

Innovative Management Techniques and Methodologies (Chair: Prof. Franz-Josef Villmer)

**17.00-17.20** A. Riegel, S. L. Tekpetey: Total Productive Manufacturing approach for quality management in the wood and furniture industry in Ghana  
**17.20-17.40** C. Keller-Ebert, J. Ebert: Successful application of agility management in consulting practice in China - how quality and human resources improve production and management  
**17.40-18.00** P. Pierdomenico: Use of discrete event computer simulation as a tool for planning and scheduling in machining shop  
**18.00-18.20** A. Huxol, A. Davis, F.-J. Villmer, E. Scheideler: Deployment of process capability analysis for single-part production  
**18.20-18.40** A. A. Ardebili, E. Padoano, F. Harsej: Prepare organizations to accept risks: a feasible risk management model

## Friday, 29th September 2017

**9.00-9.30** Invited lecture: Ing. Carlo Mario Caroni Senior vice-president Global Operations of Electrolux Professional

### 3rd session(9.30-10.50)

Direct Digital Manufacturing in the context of Industry 4.0 (Chair: Prof. Eva Scheideler)

**9.30-9.50** E. M. Scheideler, A. Huxol, F.-J. Villmer: Non-destructive quality check of additive manufactured parts using empirical models  
**9.50-10.10** O. Elstermeyer, F.-J. Villmer: SLM based tooling for injection molding – Focus on reduced effort in surface quality optimization  
**10.10-10.30** A. Deuter, A. Otte, M. Ebert: Extending the sliced V-model to smart product development  
**10.30-10.50** P. Ehlert, O. Stübbe, F.-J. Villmer: Investigation on the direct manufacturing of waveguides and sensors using FLM technology

### 4th session(11.00-12.40)

Industrial Engineering and Lean Management (Chair: Ing. Carlo Maria Caroni)

**11.00-11.20** L. Li: Optimization of automotive logistics network with late product individualization  
**11.20-11.40** D. Battini, M. Calzavara, A. Persona, F. Sgarbossa, V. Visentin: Innovative indoor positioning system for logistics activities monitoring  
**11.40-12.00** L. Schulze, L. Li: Logistics savings and improvement through customization of packaging boxes for E-Commerce  
**12.00-12.20** E. Pozzato, M. Nicolich, C. Poloni: Simulation tool for resources optimisation in a production department  
**12.20-12.40** F. Furlan, E. Padoano, E. Gasparini, A. Congregalli: An instructional program for assembly operators to support Early Equipment Management in a manufacturing company

### 5th session (14.00-15.20)

Technology and Business for Circular Economy and Sustainable Production (Chair: Prof. Mauro Reini)

**14.00-14.20** L. Da Re, E. Di Bernardo, D. Pozzetto, L. Talon, M. Zonta: Sustainable management of biogas produced with an anaerobic digestion plant  
**14.20-14.40** A. Fonovich, A. De Nardi: Energy Saving by preheating of raw material in a foundry  
**14.40-15.00** F. C. Grossi: An ergonomic project to increase factory efficiency

### 6th session(15.30-16.50)

Wood Processing Technologies and Furniture Production (Chair: Prof. Adrian Riegel)

**15.30-15.50** J. Tauber, J. Svoboda, Z. Holouš: Preparation of production and manufacturing documentation for design upholstered sofa  
**15.50-16.10** M. Merhar, D. G. Bučar, G. Fajdiga: The influence of geometrical and technological parameters on the cut quality when cutting melamine faced chipboard  
**16.10-16.30** A. Riegel, T. Hellmann, J. Hausmann: Autonomous sanding processes – An overview over analytical, experimental and fuzzy control process models  
**16.30-16.50** D. Tesařová, J. Hlavatý, E. Jeřábková: Durability Prediction of Wood Coatings

**16.50** Conference Closing Remarks  
Prof. Mauro Reini