

## 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



Electrolux



Valcucine



Unione Industriali  
Pordenone



Comune di Pordenone



ORDINE DEGLI INGEGNERI  
PROVINCIA DI PORDENONE



## Thursday, 28th September 2017

- 14.30-15.00** Conference opening  
University of Trieste  
Comune di Pordenone  
Unindustria Pordenone
- 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