



23rd International Conference & Exhibition – 12th-16th June 2023, Copenhagen, Denmark

Workshop 1: Horizon2020 Marie Skłodowska-Curie Innovative Training Network Project

DIGIMAN4.0 – Digital Manufacturing Technologies for Zero-defect Industry 4.0 Production

June 12th, 2023, 14:00-17:00 – Technical University of Denmark (DTU), Anker Engelunds Vej 1
2800 Kgs. Lyngby, Denmark – Building 101, DTU Meeting Centre, ground floor

Program:

Part 1 (14:00 – 14:45)

Welcome and program introduction (Guido Tosello, DIGIMAN 4.0 Project Coordinator)

1. **DIGIMAN4.0 – Horizon2020 MSCA ITN Digital manufacturing technologies for zero-defect Industry 4.0 production**
 - a. Guido Tosello (Technical University of Denmark)
2. **Digital technologies for automated silicon production**
 - a. Christian Hindrichsen (Topsil A/S, Denmark)
3. **Explainable reinforcement learning for semiconductor production control improvement**
 - a. Marvin Carl May and Dr.-Ing. Florian Stamer (Karlsruhe Institute of Technology, Germany)
4. **Simulation in Lean 4.0 – Case of flexible assembly lines for high-mix low-volume demand**
 - a. José A. Yagüe-Fabra (University of Zaragoza, Spain)

----- Coffee break -----

Part 2 (15:00 – 15:45)

5. **Digital Micro Manufacturing – Disrupting plastic micro component production by micro moulding and micro additive manufacturing integration**
 - a. Domenico Foglia (NanoVoxel GmbH, Austria)
6. **Robust scheduling framework for re-manufacturing activities of turbine blades**
 - a. Marcello Urgo (Politecnico of Milan, Italy)
7. **Industrial Augmented Reality and Quality Control 4.0**
 - a. Ho Phuong Thao (University of Zaragoza, Spain)
8. **Extrusion 4.0 – Integration of additive manufacturing and process simulation in polymer extrusion**
 - a. Arhimny H Aimon (Technical University of Denmark)

----- Coffee break -----

Part 3 (16:00 – 17:00)

9. **Optimization of blush defect in plastic injection moulding by integrating machine learning and numerical process simulation**
 - a. Alireza Ardestani (Technical University of Denmark)
10. **Semantic technology and application to machine tool configuration and tending**
 - a. Beatriz Olarte Martinez (Politecnico di Milano, Italy)
11. **Development of a novel smart surface for material flow handling**
 - a. Edoardo Bianchi (University of Zaragoza, Spain and University of Pisa, Italy)
12. **Deep learning applications in float-zone crystal growth silicon production**
 - a. Tingting Chen (Technical University of Denmark)

Summary and Closure (Guido Tosello, DIGIMAN 4.0 Project Coordinator)