

**Workshop on Smart Connected Manufacturing**  
**October 8<sup>th</sup>, 2019**  
**Local: Cultural Center Martha Watts**

- 08h30 Internal Meeting CAPES and DFG with BRAGECRIM Chairs
- 09h30 Registration and Delivery of Materials
- 10h00 Official Opening
- 10h30 Meeting CAPES and DFG with Project Coordinators of BRAGECRIM and PIPC
- 11h30 Lunch

**BRAGECRIM Session**

**Chairperson: Prof. Dr.-Ing. Klaus Schützer**

- 13h00 **Influence of the Manufacturing Process on the Subsequent Residual Stress Relaxation in AISI 4140 Steel**  
*Prof. Alexandre M. Abrão – Universidade Federal de Minas Gerais*  
*Prof. Dr.-Ing. Berend Denkena – Leibniz Universität Hannover*
- 13h30 **Non-Destructive Impact Damage Detection on Carbon Fiber Reinforced Plastics IDD**  
*Prof. Dr. Eng. Armando A. Gonçalves Jr. – Universidade Federal de Santa Catarina*  
*Prof. Dr.-Ing. Robert Schmitt – RWTH Aachen*
- 14h00 **Evaluation of Sheet Metal Covers to Improve Tool Life in Forging**  
*Prof. Dr. Eng. Lirio Schaeffer – Universidade Federal do Rio Grande do Sul*  
*Prof. Dr.-Ing. Gerard Hirt – RWTH Aachen*
- 14h30 **Energy Efficient Manufacturing Chain for Advanced Bainitic Forging Steels Based on Thermo-Mechanical Processing**  
*Prof. Dr. Alexandre da Silva Rocha – Universidade Federal do Rio Grande do Sul*  
*Prof. Dr.-Ing. Hans-Werner. Zoch – Leibniz IWT Bremen*
- 15h00 **Manufacturing of Ceramic Membranes for oil-in-water Emulsification and Oil Recovery from Wastewater**  
*Prof. Dr. Darchamir Hotza – Universidade Federal de Santa Catarina*  
*Dr. Michaela Wilhelm – University of Bremen*
- 15h30 *Coffee Break*

**PIPC Session**

**Chairperson: Prof. Dr. Carlos Eduardo Pereira**

- 16h00 **MetaMaintain - Meta-aprendizagem aplicada à Manutenção Preditiva de Sistemas Avançados de Manufatura**  
*Prof. Dr.-Ing. Enzo Morosini Frazzon – Universidade Federal de Santa Catarina*  
*Prof. Dr.-Ing. Michael Freitag – University of Bremen*
- 16h30 **OWIND - Optical wireless systems with MIMO architecture in an industrial environment**  
*Prof. Dr. Marcelo Eduardo Vieira Segatto – Universidade Federal do Espírito Santo*  
*Prof. Dr. Ronald Freund*



Laboratory for Computer Integrated  
Design and Manufacturing  
Unimep  
Prof. Dr.-Ing. K. Schützer

17h00 **Integrated Process Simulation of Powder Metallurgical Shaping and Sintering Applied to the Optimization of Porcelain Tile Manufacturing**

*Prof. Dr. Agenor de Noni Junior – Universidade Federal de Santa Catarina  
Prof. Dr.-Ing. Maksym Dosta; Dr.-Ing. Rolf Janssen*

17h30 **Modelos de manufatura para indústria 4.0 baseado em dados altamente heterogêneos e não estruturados**

*Prof. Dr. Rubens M. do Nascimento – Universidade Federal do Rio Grande do Norte  
Prof. Dr.-Ing. Jan C. Aurich*

18h00 Official Closing

19h30

Workshop Dinner (Project partners, CAPES and DFG)

22h00

**Obs:** this program can be modified according to CAPES and DFG

## Workshop on Smart Connected Manufacturing October 9<sup>th</sup>, 2019 Local: Teatro do Engenho

- 08h00 Registration and Delivery of Materials  
09h00 Opening Session  
09h30 **Contribution to the development of a Digital Twin based on product lifecycle to support the manufacturing process**  
*Prof. Dr.-Ing. Klaus Schützer – Universidade Metodista de Piracicaba*

### Chairperson: Prof. Dr.-Ing. Klaus Schützer

- 10h00 **Lecture from Industry ???**  
**???**  
10h40 **SCoPE – Smart Componentes within Smart Production Processes and Environments**  
*Prof. Dr.-Ing. Klaus Schützer – Universidade Metodista de Piracicaba*  
*Prof. Dr.-Ing. Reiner Anderl – TU Darmstadt*  
11h20 *Coffee Break*

### Chairperson: Prof. Dr.-Ing. Tilo Pfeifer

- 11h50 **Lecture from Industry ???**  
**???**  
12h30 **Development of Learnstruments based on gamification approaches for ensuring the transition of Brazilian and German manufacturing companies to Industry 4.0**  
*Prof. Dr.-Ing. Henrique Rozenfeld – Escola de Engenharia de São Carlos – USP*  
*Prof. Dr. Daniel Braatz – Universidade Federal de São Carlos*  
13h10 *Lunch Break*

### Chairperson: Prof. Dr. Eduardo de Senzi Zancul

- 14h30 **Lecture from Industry ???**  
**???**  
15h10 **Micro-O – Micro Milling Process Optimization**  
*Dr. Luciana Wasnievski da Silva de Luca Ramos – Instituto de Pesquisas Tecnológicas*  
*Prof. Dr. h. c. Dr.-Ing. Eckart Uhlmann – TU Berlin*  
15h50 *Coffee Break*

### Chairperson: Dr.-Ing. Reinhard Freudenberg

- 16h20 **Lecture from Industry ???**  
**???**



Laboratory for Computer Integrated  
Design and Manufacturing  
Unimep  
Prof. Dr.-Ing. K. Schützer

- 17h00 **AdaptiveSBO – An Adaptive Simulation-Based Optimisation Approach for the Scheduling and Control of Dynamic Manufacturing Systems**  
*Prof. Dr.-Ing. Enzo Morosini Frazzon – Universidade Federal de Santa Catarina*
- 17h40 Closing Session – CAPES and DFG
- 18h00 Official Closing

**Obs:** this program can be modified according to the Organization Committe