International Scientific Symposium

Future Manufacturing & Human-Robot Synergy: Franco-Japanese Innovations in Industry 5.0

Venue : TMMF, Onnaing
Dates : 4 and 5 November 2026

Day 1

9:00 – 9:30: Welcome & coffee

9:30 – 10:00: Welcome address
Rodolphe DELAUNAY, CEO of Toyota Motors Manufacturing France (TMMF)
Abdelhakim ARTIBA, President of Université Polytechnique Hauts-de-France (UPHF)

10:00 – 10:45: Opening keynote : « The importance of future industries »
Erwan LE PICHOURON (TMMF)

10:45 – 12:15: Session 1 – Human-Robot Interaction & Socio-Technical Systems

- Makoto ITOH (University of Tsukuba) / Marie-Pierre PACAUX (UPHF) – *Our Cooperation for Human-Machine Cooperation*

- Genya ABE (University of Tsukuba) - *Scenario-Dependent Accident Risk in Drivers with Visual Field Impairment: Evidence from a Driving Simulator Study*

12:30 – 14:00: Networking lunch

14:00 – 15:30: Session 2 – Industrial Robotics & Advanced Processes

- Karl GROTZINGER, Center for Advanced Die Engineering and Technology (G-CADET), Gifu University, Japan - *Metal Forming Processes and Monitoring Systems for Smarter Manufacturing*

- *Speaker TBA*

15:30 – 15:45 : Coffee break

15:45 – 17:15 : Tour of TMMF ***(subject to registration, Included for speakers)***

Day 2

9:00 – 9:30: Welcome & coffee

9:30 – 11:00 : Session 3 – Additive Manufacturing & Hybrid Processes

- Benjamin GUENNEC (Tokyo Denki University) - *One of the Challenges in Additive Manufacturing: High- and Very-High-Cycle Fatigue*

- Yicha Zhang (UPHF) - *AI Practices and Emerging Opportunities in Industrial Remanufacturing*

11:00 – 11:30 : Coffee break

11:30 – 13:00: Session 4 – AI, Digital Twins, Quantum computation

- Hichem EL EUCH (UPHF) - *Quantum-Secure Networks for Autonomous Mobility*

- Abdessamad AIT EL CADI (UPHF) - *AI in Action for Industry 5.0: From Predictive Maintenance to Digital-Twin-Enabled Decision Making*

- Yoshinori YOSHIDA, Center for Advanced Die Engineering and Technology (G-CADET), Gifu University, Japan - *The State of Research at the Center for Advanced Die Engineering Technology: Smart Factories and Autonomous Production for a Declining Working-Age Population*

13:00– 14:30: Networking lunch

14:30 – 16:00: Session 5 - Sustainable Industry & Resilience

- Sondes Chaabane (UPHF) - *How to consider the resilience in manufacturing systems in the context of industry 5.0 ?*

- Gérôme Moroncini (Université de Mons) - *Comparative LCA of the replacement of a defective component by a new or a remanufactured one. Case study of an automatic transaxle*

- *Speaker TBC*

16:00 – 16:30 : Coffee break

16:30 – 17:15: Round table: "Towards a human-centred Industry 5.0 "

- *Olga Battaïa, KEDGE Business School*
- *Lucas Equeter, Université de Mons*
- *Damien Trentesaux, UPHF*
- *Participant TBA*

17:30 – 18:00: Official closing

Rodolphe DELAUNAY, CEO TMMF
Abdelhakim ARTIBA, President UPHF

18:00 – 19:00: Cocktail reception