Session Title: Recent trends on modeling and optimization algorithms for smart manufacturing systems

Description and Aim:
With the emergence of the new manufacturing revolution, often called Industry 4.0, new manufacturing configurations, enhanced with advanced robotics and data acquisition, are being used. Companies and factories, faced with increasing competitiveness, are working on the development of new algorithms and systems to cope with the increasing use of autonomous machines, the demand load and environmental constraints. Moreover, they consistently deal with a dynamic and agile environment, characterized by a considerable amount of data, a changing manufacturing process and uncertain inputs. This Special Session is devoted to the novel intelligent algorithms and systems tackling the manufacturing problems such as: production lines design, production planning and scheduling, energy efficient-manufacturing systems, etc. We aim that this special session gathers researchers and practitioners working on promising research directions and recent advances in these topics.

The potential topics include (but are not limited to):
- Energy-efficient manufacturing systems
- Human related Factors in remanufacturing
- Reverse logistic management for remanufacturing
- Remanufacturing for circularity
- Energy-aware production planning and scheduling problems
- Robust optimization for scheduling and production planning
- Heuristic, meta-heuristic and matheuristic methods

Expected number of papers: ~5

Organizers:
Dr. Yassine Ouazne
Computer Science and Digital Society Lab
University of Technology of Troyes, France
E-mail: yassine.ouazene@utt.fr
Dr. Fabio Fruggiero
School of Engineering - SdI - University of Basilicata
C.da Macchia Romana, via Ateneo Lucano 85100 Potenza (PZ) - Italy
E-mail : fabio.fruggiero@unibas.it