



Detroit - USA | June 19-23, 2022
Annual Conference



31st International Conference on Flexible Automation and Intelligent Manufacturing

— Call for Papers —

A Special Session on

Digital Convergent Manufacturing by Hybridization of additive manufacturing technology

Technical Focus

Additive manufacturing (AM) is considered as one of novel digital manufacturing processes to produce complex design of components layer by layer with high flexibility and low cost. Considering the whole production chain, AM is not only a single manufacturing procedure to the final products, but also a hybrid digital manufacturing technology for the industrial production. Thus, the scientific and technique issues of convergence by hybridization AM with traditional manufacturing processes (subtractive and transformative processes) should also be considered and investigated from the convergence of designs, materials, and processes to augment product functionality. Hybrid digital convergent manufacturing through AM technology topic is first inclined to think the acknowledge the innovative nature of additive manufacturing and its broad applications to outline the current and future developments in the field of convergent manufacturing.

This topic focus on the new development in the integrated process-materials-functional properties guided additive manufacturing technologies, including but not limited in:

Topics of interest for this special session include, but are not limited to the following:

- Laser based additive manufacturing technologies;
- In-situ and ex-situ treatment for Laser-AM processed component;
- Simulation of thermal-stress-strain fields in AM process;
- AM process guided materials and structure design;
- 3D or 4D AM for multi-functional applications;
- Multi-scales characteristic of AM processes and components.

High visibility refereed publications

All accepted papers presented at FAIM 2022 will be published in *Lecture Notes in Mechanical Engineering* (Springer), indexed by Scopus. Alternatively, authors may opt for submission to *Robotics and Computer-Integrated Manufacturing* (Elsevier), *International Journal of Advanced Manufacturing Technology* (Springer) or *SME Journal of Manufacturing Systems* (Elsevier), following a special 'fast-track' reviewing process. Post-conference special issues for selected papers will appear in the *International Journal of Computer Integrated Manufacturing* (Taylor and Francis) and *Machines* (MDPI).

Paper Submission

Site: www.faimconference.org, email: faim2022conference@gmail.com.

Abstract submission: immediately (optional); Full paper submission deadline: February 14, 2022; Review results: March 31, 2022; Revised manuscript deadline: April 20, 2022; Final paper acceptance: April 30, 2022.

Additional Special Session Activities

To highlight advancements in this technical area, session organizers will:

- work to attract a high-profile international keynote speaker
- organize a special issue in the *International Journal of Advanced Manufacturing Technology* or *Robotics and Computer-Integrated Manufacturing*
- organize a state-of-the-art paper that will be the lead article in the special issue

Organizers

Chair : Prof. Dr. Mohamed EL MANSORI (Arts et Metiers Paristech), Aix-en-Provence, France, Ph. +33 (0)442938264, mohamed.elmansori@ensam.eu

Co-chair : Associate Prof. Dr. Nan KANG, (Arts et Metiers Paristech), Châlons-en-Champagne, France, Ph. +33 (0)3 26 69 91 21 nan.kang@ensam.eu