FEMS EUROMAT 23

03 - 07 Sep 2023 (Frankfurt)

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FEMS EUROMAT is the most important international congress in materials science and technology in Europe. It continues a successful congress series promoting the transfer of knowledge and the exchange of experience between academia and industry. **Submission deadline: 31 January 2023**

Area C: Processing

C02: Additive Manufacturing of Non-Metalic Materials

The innovative nature of additive manufacturing with non-metallic materials leads to a disruptive transformation in how products are manufactured and designed. Other traditional processes are not able to provide designs with a comparable complexity of geometrical structures that a layer-by-layer build process offers. Continuous research and development of processes and materials in additive manufacturing of non-metallic materials has already established the technology as the primary production process for low volumes, advanced high-performance components. This covers a broad range of applications in the field of processing plastics, ceramics, composites, or bio-printing. However, fundamental challenges such as a limited range of non-metallic materials, insufficient process robustness and part properties, qualification aspect, low processing speeds, scaling of production, and low economic competitiveness still limit a widespread industrial adaption.

We invite authors from academia and industry to submit research papers that focus on the processing of non-metallic materials in additive manufacturing. Submissions based on experimental work or a combination of simulation and experimental validation are welcome. Topics of particular interest include, but are not limited to:

- Innovative process strategies
- Process monitoring and control
- Process and part qualification
- Ground-breaking AM systems
- Robotic-based and large-scale AM
- Processing and development of new materials in additive manufacturing
- Functionally graded structures
- Multimaterials or composite parts
- Advanced process or material simulation
- Data-driven modeling and prediction approaches
- Fundamental investigations
- Novel applications of additive manufacturing
- Other advancements in additive manufacturing processes

Authors will be invited to publish their research in a Special issue of European Journal of Materials.

Symposium Organizer


Prof. Dr. Oana Ghita
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Dr. Ugo Lafont
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