General Topics in Additive Manufacturing: Design and Simulation, Materials and Processing, Post-Processing, Standardization, Qualification, and Safety

In order to produce end-use parts, Additive manufacturing (AM) involves many pre-processing and part finishing steps. These, sometimes non-obvious, steps result from different auxiliary requirements that are not always in the mainstream discussion.

This symposium aims to cover general AM topics including:

- Design for additive processes
- Topology optimization with process (such as build direction) and post processing (such as post machining and heat treatment) consideration
- Geometry-based process optimization
- Additive manufacturing process and microstructure simulations
- Process parameter and post-process (e.g. powder removal, heat treatment, surface treatment, etc) development for new materials and composites
- Combinatorial efforts in identifying and developing new materials
- Use of artificial intelligence and machine learning in additive manufacturing
- Powder feedstock development for additive manufacturing
- Development of process monitoring techniques for additive manufacturing
- Qualification of additive manufacturing technologies, materials, and components
- Safety requirement and assessment (both operation and facilities)
- Standardization needs for additive manufacturing technologies

ORGANIZERS

- **Christian Seidel**, Fraunhofer IGCV and University of Applied Sciences Munich, Germany
- **Nik Hrabe**, National Institute of Standards and Technology (NIST), USA
- **Frank Medina**, University of Texas-El Paso, USA

Submit an abstract by May 1, 2020 to:

www.amcoe.org/icam