AM Feedstock: Characterization, Specification, and Reuse

Additive manufacturing (AM) feedstocks are available for a broad range of material types and come in various forms (e.g., powder, wire, filament, inks). New offerings are continuously introduced to the market with varied and unique characteristics. In some cases, critical feedstock characteristics that significantly impact the quality of each process step are not fully understood quantitatively. Therefore, a proper understanding of AM feedstock characteristics and the key variables contributing to their performance is essential for the production of AM parts with repeatable quality. New characterization methods, acceptance criteria, and standards need to be developed for the complete characterization of feedstock materials.

This symposium covers the following aspects of feedstock for AM:
- AM feedstock landscape and modality-specific requirements
- Influence of feedstock characteristics on the final part quality
- Advances in feedstock characterization methods and technologies
- New materials and novel production techniques for AM feedstock
- Economics of AM feedstock
- Developments/requirements for powder storage, handling, conditioning, and reuse strategies
- Developments in AM feedstock sustainability
- Standardization needs for AM feedstock
- Development of feedstock specifications based on characterization results