



## SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

### MECHANICS OF MATERIALS

## Tribology: Advances in Friction, Wear and Lubrication of Interfaces

Tribology is the science of friction, wear, and lubrication between contacting surfaces. The importance of reducing friction and wear in engineering materials is significant across various sectors of industry such as energy, transportation, aerospace and national security. This symposium broadly encompasses many aspects of Tribological research and development such as materials tribology, synthetic lubricants and additives, advanced tribotesting methods, contact mechanics and applications of modeling/simulation and AI/ML approaches to understand tribological phenomena.

The topics will include, but will not be limited to the following:

- Tribology of metals, ceramics, soft matter, polymers, composites and biomaterials.
- Lubrication of gears, bearings, seals, compressors and engines.
- Solid lubricants and tribology of thin films and coatings.
- Contact mechanics, modeling, and simulation of interfaces.
- Advanced, high-throughput, and in situ tribological testing.
- Effect of material/surface processing on tribological behavior.
- Tribological understanding of additively manufactured parts.
- Applications of AI/ML to understand complex tribological phenomena & accelerate material discovery

#### **SPONSORED BY:**

TMS Materials Processing & Manufacturing Division; TMS Surface Engineering Committee

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