**Pre-Conference Workshop**

**Mechanical Testing of Alloys and Composites**

**About the Workshop**

Materials are an integral part of technological development and play a vital role in a variety of engineering applications. Interestingly, a good knowledge of material testing and characterization techniques allows researchers to identify how material will act in certain technological applications. Being conversant with mechanical testing and characterization of materials is very important and beneficial for the manufacturing industry. This allows engineers/ researchers to predict failures, behaviors and tendencies of materials during forming processes. Also, evaluation of mechanical properties can aid in the decision-making process for material selection by quantifying the information.

This workshop shall provide basic knowledge about various mechanical testing techniques to the students and personnel from industries and corporate offices. The workshop focuses on translating complex principles and procedures into easy-to-understand terms that will enable participants to gain valuable understanding of metallurgy/materials, basic properties and their evaluation with hands-on experience on state-of-the-art equipment.

**Who Should Attend?**

This workshop is aimed at imparting metallurgical/ materials concepts to the students, research scholars and practicing technical personnel, who desire to acquire metallurgical/ materials knowledge, to combat metallurgical situations and problems.

Personnel working in R&D / Production / Purchase / Maintenance of automobile, auto ancillary, aerospace, cement, mining, chemical, cement plants, power plants and suppliers to these industries, will be highly benefitted from this workshop. Those who would like to start a career in the metallurgical and materials domain will also benefit from the workshop as it will provide hands-on experience in quantifying the mechanical properties of materials.

**What You'll Learn**

Upon completion of this workshop, participants will understand the important principles of engineering involving the properties and characteristics of different materials. Besides, they will be practically exposed to different techniques to quantify the mechanical properties of the materials based on their engineering applications.

**The course broadly covers**

Brief introduction about Tensile Testing, Low cycle fatigue (LCF), High cycle fatigue (HCF) and Creep followed by demonstration of these high-end techniques.