FAKULTA STROJNÍHO INŽENÝRSTVÍ ústav mechaniky těles, mechatroniky a biomechaniky

ČSM

Pozvánka na přednášku, kterou pořádá

Ústav mechaniky těles, mechatroniky a biomechaniky, Fakulta Strojního inženýrství, Vysoké učení technické v Brně ve spolupráci s Českou společností pro mechaniku, pobočka Brno

která se bude konat

v pondělí 3. 6. 2019 od 9:00 do 10:00 v učebně A2/617 (Technická 2, Brno)

a kterou přednese

profesor Tasnim Hassan

na téma

Development of a multiaxial miniature testing system with high temperature and in-situ scanning electron microscope testing capabilities

Abstract

A multiaxial miniature testing system (MMTS) has been developed for axial, torsional, internal pressure and high temperature testing of tubular specimen of 1–2 mm outer diameter (OD). In addition, MMTS has been developed for testing inside a scanning electron microscope (SEM). The primary objective of MMTS development was to enable research community with material testing capabilities currently not available. Such capabilities will accelerate development of new material, development of micro-structure-informed multiscale constitutive modeling, and enhance understanding of deformation and failure mechanisms under realistic loading conditions.

Biographical Sketch: Professor Tasnim Hassan has been a faculty member in the Department of Civil Engineering at North Carolina State University since 1995 after receiving his PhD from the University of Texas at Austin. His research areas include experimentation and numerical analysis at the material and component levels involving thermomechanical fatigue and seismic failures of critical components and welded joints. His research has been improving constitutive models for simulation of ratcheting and fatigue-creep responses of high temperature alloys and steels. The primary goal of Hassan's research group has been to improve inelastic analysis based design for enhancing life prediction of critical components.

prof. Ing. Jindřich Petruška, CSc.
ředitel ústavu