

EINLADUNG

zum Gastvortrag

von

Prof. Ing Jaroslav MENČIK, CSc.

(University of Pardubice, Pardubice, Czech Republic)

am

Donnerstag, 03.12.2015, 14.00 (c.t.) Uhr

Technische Universität Wien, Karlsplatz 13, 1040 Wien
Sem 202 (Stiege 2, 2. Obergeschoß + Halbstock)

SOURCES OF UNCERTAINTIES AND ERRORS IN NANOINDENTATION

Content: Models used for data evaluation; Indenter properties; Contact profile, pile-up; Indentation size effect; and many more

und

FAILURE ANALYSIS - A VALUABLE TOOL FOR RELIABILITY INCREASING

Content: Examples of failures, their analysis and contribution to the development of mechanics. Approaches to failure analysis: analysis of individual failures and statistical analysis. Various criteria for sorting of failures.

EFFICIENT TOOLS FOR MANAGING UNCERTAINTIES IN DESIGN (AND OPERATION) OF ENGINEERING STRUCTURES

Content: Nonprobabilistic methods (e.g. FMEA, FTA) and probabilistic (e.g. Load-Resistance interference method, the Monte Carlo simulation method). Robust design, sensitivity analysis, setting the tolerances.

BRIEF BIOGRAPHY:

Jaroslav Mencik, (Ing., CSc.), Professor in applied mechanics at the University of Pardubice, Department of Mechanics of the Jan Perner Transport Faculty. He studied mechanical engineering, the PhD thesis was related to fractures in glass-making technology. 1 year a research fellow at CSIRO, Sydney and 1 year at KIT, Karlsruhe, in both cases nanoindentation. At the University of Pardubice he was engaged in the reliability of structures. The leader of 3 national grants. Two monographs (Strength and Fracture of Glass and Ceramics, and Mechanics of Components with Treated or Coated Surfaces), one on reliability in preparation. Also chapters in three other monographs, about 100 papers, about 1000 citations.