



Pozvánka na přednášku / Lecture Announcement

Název / Title

Engineering Education and Careers in the Age of AI

Přednášející / Lecturer

K. C. Park

*Aerospace Mechanics Research Center
University of Colorado Boulder, USA*

Jazyk / Language Anglický/English

Monday 26. 10. 2026, 14:00 h

FCE BUT, Brno, Veveří 331/95, budova / Building C
místnost / Room 421 - zasedací místnost ústavu STM

Abstrakt / Abstract

Artificial intelligence is rapidly changing how engineers learn, compute, and design. AI can generate equations, write programs, suggest designs, and offer seemingly convincing explanations within seconds. For students, these capabilities raise two pressing questions: *What should I learn when AI can already provide so many answers? And how should I prepare for an engineering career in an AI-driven world?* This lecture addresses these questions through the recurring engineering tasks of **WHY-HOW-VERIFY**: understanding why a problem matters and how a physical system behaves; learning how to formulate, analyze, design, and implement a solution; and independently checking whether that solution is correct, reliable, and appropriate. Two demonstrations based on classical vibration-absorber problems illustrate both the opportunities and limitations of AI-assisted engineering. In particular, we ask: *Does adding more masses, springs, and dampers necessarily produce a better vibration absorber?* This deceptively simple question shows why plausible calculations and attractive plots cannot replace physical understanding, sound judgment, and experimental evidence. The lecture also considers independent thinking, laboratory experimentation, learning from unsuccessful designs, and a proposed 90-day engineering challenge combining fundamentals, AI assistance, computation, and experimental verification. Finally, it confronts the question of engineering employment in the age of AI—not by predicting which jobs will survive, but by examining the practical capabilities and professional judgment that aspiring engineers should develop. **The central message is that engineering education must prepare students not merely to obtain answers, but to ask meaningful questions, make solutions work, and establish why those solutions deserve to be trusted.**

Přednášející / Lecturer

K. C. Park is Professor Emeritus of Aerospace Engineering Sciences at the University of Colorado Boulder, where he directed the Center for Aerospace Structures (1987–1996). He received his Ph.D. from Clarkson College (1974), worked at the Lockheed Palo Alto Research Laboratory, and held visiting appointments at MIT, CNAM Paris and KAIST. His research focuses on computational mechanics, especially partitioned analysis of coupled multiphysics problems. He is a Fellow of ASME and received the USACM Computational Science and Engineering Award (2011).

Organizátor / Organizer

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