

Mechanical Engineering Fall Seminar

Introductions of Digital Technology Approach for Realization of Robust Engineering Products

Wed. Sept. 18, 2:00 pm-3:00 pm; Dean's Conf. Rm E-203E

Abstract: This seminar presents an overview of the introduction of digital technology approach for realization of robust engineering products and devices. Recent advances in computer-aided design, additive manufacturing, topology optimization, and industrial computed tomography (CT) scanning, have provided new opportunities for developing complex smart devices to meet the increasing demands for robust engineering products. The feasibility of the presented approach will be demonstrated using development of intelligent robot, components for aerospace industry, and implants for total knee reconstruction. This overview also identifies the limitations of current techniques and addresses the importance of including the new approach in engineering research and education.



Dr. Ahmed Sherif El-Gizawy

BIO: Dr.Ahmed Sherif El-Gizawy is a Professor in the Mechanical and Aerospace Engineering Department at the University of Missouri, USA. He is also Distinguished Adjunct Professor, King Abdul Aziz University, Jeddah, Saudi Arabia. Dr. El-Gizawy received Ph.D., Mechanical Engineering, University of Waterloo, Ontario, Canada, 1984. Dr. El-Gizawy's research focuses on developing mechanistic-based models to make the essential predictions of quality and damage management in engineering products and processes. He has published more than hundred technical papers in the open literature. Dr. El-Gizawy gave more than seventy technical presentations, seminars, and workshops in the United States, Canada, Europe and the Middle East.

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