

סמינר - SEMINAR

הנך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה' 18.05.2017 (כב' באייר, תשע"ז), בבניין דן קאהן, אודיטוריום 1, 13:30.

ירצה:

Associate Prof. David Greenblatt
Faculty of Mechanical Engineering
Technion

על הנושא:

Recent Advances in Unsteady Low-Speed Experimental Aerodynamics

The seminar will be presented in English

להלן תקציר ההרצאה:

Unsteady aerodynamic loads on wind turbine rotor blades, rotorcraft and unmanned air vehicles present major design challenges, in part because the flow speed (surge) and geometric incidence (pitch) vary simultaneously. A low-speed wind tunnel was designed specifically for simulating these flow conditions and quantifying unsteady loading on various geometries. The theoretical basis of tunnel operation and design were developed. A technique which we term "adaptive blowing" was employed to reduce and virtually eliminate unsteady loads under extreme surge and pitch oscillations. I will describe the tunnel design and operational envelope, unsteady load measurements, and the flow control technique. Current modifications to the tunnel and collaborations involving CFD and closed-loop control will be described.

בברכה,

ד"ר דוד גרנבלט
מרכז הסמינרים