

## סמינריון

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות שתתקיים ביום ה' 30.01.2020  
(ד' בשבט, תש"פ), בניין ליידי דייויס, אודיטוריום 250, 30:13.

מרצה: אביב טהר

מנחה: פרופ' ח אמיר גת

על הנושא:

### **Experimental investigation of impact mitigation properties of a thin viscous film**

The seminar will be given in Hebrew

#### תקציר ההרצאה

Impact mitigation is of importance in many fields such as sports, transportation, working protective gear, military gear and laboratory protection. In this work we examine the use of highly viscous fluid film as a means to create impact mitigation through its interaction with a flexible membrane, thus distributing localized (in space and time) forces over large areas and duration. I will present an experimental study on the effect of thin viscous film, located on top of a rigid aluminum plate and under a thin flexible PVC membrane. As opposed to common rigid and solid protection gear, our results show that in the case of the use of viscous fluid as a mechanism to create impact mitigation the expected linear correlation between protection gear's thicknesses and improved impact mitigation does not exist and in order to maximize the viscous fluid's ability to mitigate impact there are optimal settings for different magnitudes of impact.

בברכה,

ד"ר איתן סאס  
מרכז הסמינרים