

סמינריון

הנדך מוזמנ/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה' 14.05.15 (כה' באייר, תשע"ה), בבניין דן-קאהן, קומה 0, באודיטוריום 1 בשעה 14:30.

ירצה: רומן גולצברג

מנחה: פרופ' יצחק עציון

על הנושא:

Contact Mechanics of Coatings

להלן תקציר ההרצאה:

Coatings are widely used to enhance tribological performance such as reducing friction and increasing conductivity, to name a few. However, the selection of coatings is done mainly by trial and error and is not based on a scientific theory. Hence, this study aims to come up with a theoretical model that will enable optimization in coating design for different applications.

Finite element analysis was used in order to investigate the elastic contact of a coated sphere with a rigid flat under normal loading. A proper normalization of the dimensional results yielded universal solutions and physical insights regarding the onset of plasticity in a coated system and relations between different tribological parameters such as load, interference and contact area. The effect of coating thickness and stiffness compared to the substrate material, for a wide range of mechanical and geometrical properties, is analyzed and presented.

בברכה,

פרופ' ארי ארי ארי

מרכז הסמינרים