סמינריון

הנך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה׳ 14.07.16
(ח׳ בתמוז, תשע״ו), בבניין דן-קאהן, קומה 5, אודיטוריום 1, 14:30.

ירצה :   שי רונן

מנחה :   פרופ׳ יצחק עציון

על הנושא:

Elastic-plastic model for a coated sphere compressed by a rigid flat under full stick contact conditions

The seminar will be given in Hebrew

להלן תקציר ההרצאה:

Coatings are widely used to enhance tribological performance such as reducing friction and wear. However, the selection of coatings properties is done mainly by trial and error and is not based on a scientific theory. In this study a finite element analysis is used to investigate the elastic-plastic contact of a coated sphere compressed by a rigid flat under stick (infinite friction) contact condition. This is done for hard coatings with moderate to large thicknesses and a wide range of material properties. Empirical expressions are provided for an optimum value of the coating thickness for best resistance to onset of plasticity and critical interferences of the first and second yield inceptions, in the coating and on the substrate side of the interface, respectively. A comparison to the opposite slip (frictionless) contact condition is presented .This study will enable future research of a coated spherical contact under combined normal and tangential loading.

בברכה,

פרופ׳/א אמיר שלו
מרכז הסמינרים