

סמינריון

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ב' 23.11.15 (יא' בכסלו, תשע"ו), בבניין דן-קאהן, קומה 0, באודיטוריום 1 בשעה 14:30.

ירצה : אורן ריז'נסקי

מנחה : פרופ' דניאל ריטל

על הנושא :

Dynamic behavior of polyurea coated aluminum plates under hydrodynamic loads

להלן תקציר ההרצאה :

Wave slamming causes severe shocks to planning boats and creates a serious threat to the hull's integrity at high cruising speeds. A suggested way to reduce this threat and increase the boat's performance is to coat the hull plates with polyurea. An experimental approach was taken to study the behavior of such plates and their interaction with the water generated pressure waves (hydrodynamic loads).

A dynamic bulge test setup, capable of mimicking shock waves associated with wave slamming, was designed to test the plate's dynamic behavior, with emphasis on repeated shocks and accumulated damage.

Numerical simulations as well as full field 3D-DIC (digital image correlation) measurements obtained by ultra-fast photography will be presented. The discussion will focus on the polyurea's influence on the overall structural stiffness, interaction between the water and the structure, and the optimal configuration required for the plates's effectiveness.

בברכה,

ד"ר/אמ"ר איתן
מרכז הסמינרים