סמינריון

הנך מוזמן/ת להרצאה סמינריונית **במסגרת הדוקטורט** של הפקולטה להנדסת מכונות שתתקיים ביום ה' 31.10.2019 (ב' בחשון, תש"פ), בניין דן קאהן, אודיטוריום 1, 13:45.

מרצה: רפי פדידה

מנחה: פרופ' דניאל ריטל

מנחה שותף: ד"ר אמנון שיריזלי

על הנושא:

The Mechanical Response of Additively Manufactured Ti6Al4V Specimens Containing Discrete Artificial Voids

The seminar will be given in Hebrew

תקציר ההרצאה :

Until the advent of 3D printing, the introduction of controlled fully enclosed 3D voids into a material was almost impossible. We report on the mechanical response of additively manufactured Ti6Al4V specimens containing discrete artificial voids under quasi-static and dynamic loading. Different configurations of specimens containing voids with varying size, shape and distribution were tested under uniaxial tension and shear-dominated stress sates. The research highlights two basic results: first, artificial voids can mimic the behavior of realistic flaws in the material, and second that their presence can substantially affect the mechanical properties of the material. Additive manufacturing can therefore serve as a tool to validate or refine existing analytical models dealing with the effect of porosity on plastic flow of metals. Along with the experimental results, numerical and SEM fractographic analyses complement the understanding of the effect of voids on the mechanical response.

בברכה,

פרופ"א מתי סאס

מרכז הסמינרים