הטכניון – מכון טכנולוגי לישראל **הפקולטה להנדסת מכונות**

סמינריון

הנך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה' 29.09.16 (כו' באלול, תשע"ו), בבניין דן-קאהן, קומה 0, אודיטוריום 1, 14:30.

יצרה: דקל אברהם

מנחה: פרופ'/ח דורון שילה

על הנושא:

Self-Propagating Miniature Device Based on Shape Memory Alloy

The seminar will be given in Hebrew

להלן תקציר ההרצאה:

In recent years, there has been a growing amount of research in the field of self-propagating mechanical devices. Many concepts of propagation mechanisms were investigated, aiming to mimic animal locomotion. Such propagating devices range over many sizes. However, miniaturization is typically restricted by the size of the electrical and mechanical components required for autonomic motion.

Here, we present the modeling, design, manufacturing and experimental testing of a novel terrestrial propagating device based on an active element of shape memory alloy (SMA). Propagation originates from repeated changes in the ambient temperature that lead to consecutive elongation and contraction of the SMA element. The present device propagates through legged locomotion and scratches the surface as it propagates. Since no additional energy sources and electronic components are required, the present device can be miniaturized down to a size invisible to the human eye.

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בברכה,

פרופ'/א אמיר שפת

מרכז הסמינרים