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

סמינריון

הנך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה' 15.01.15 (כד' בטבת, תשע"ה), באודיטוריום 1 בבניין דן-קאהן, קומה 0, בשעה 14:30.

יוצא: עידו ניצן

מנחה: פרופ"מ שלי צליל

על הנושא:

Mechanical communication in cardiac cell beating

להלן תקציר ההרצאה:

Cell-cell communication enables cells to coordinate their activity and is essential for growth, development and function. Intercellular communication is discussed almost exclusively as having a chemical or an electrical origin; however, recent lines of evidence suggest that cells are able to sense each other by generating deformations in the underlying substrate and respond to them. In the talk I will show that an isolated cardiac cell can be trained to beat at a given frequency by mechanically stimulating its underlying substrate, and that this phenomenon is long lived after mechanical stimulation had stopped. Our results demonstrate that elastic interaction, mediated by cell-generated mechanical deformations, can act as a long range interaction force between cells even up to hundreds of microns away. In addition I will discuss our progress towards a design of protein-engineered biomaterials that promote mechanical coupling between cells.

בברכה,

פרופ'/א אמיר שמ

מרכז הסמינרים