

סמינר בביומכניקה - Biomechanics Seminar

הנדך מוזמנת לסמינר משותף של הפקולטה להנדסת מכונות וביומכניקה, שיתקיים ביום ד' 11.11.2015 (כט' בחשוון, תשע"ו), בבניין דן-קאהן, קומה 0, באודיטוריום 1, שעה 13:30.

ירצה:

**Dr. Govind Kaigala**

IBM Research – Zurich, Switzerland

על הנושא:

**Microfluidics in the open space: from surface patterning to pathology**

להלן תקציר ההרצאה:

In contrast to standard microfluidics, which are typically closed, we developed a scanning, non-contact microfluidic technology that can shape liquids in the "open space" over surfaces. This technology utilizes a microfluidic probe (MFP) having microfabricated structures for localizing a liquid of interest on a surface using hydrodynamic flow confinement. The MFP permits patterning surfaces with proteins in an additive and subtractive manner, forming gradients of proteins on surfaces, and interacting with cells on surfaces. With flow confinement operating at volumes smaller than 1 nanoliter, a few cells can be targeted in a human tissue section for the specific staining of disease markers. Flow confinement and efficient use of chemicals can be further optimized using a new concept called "hierarchical" hydrodynamic flow confinement. I will show how the MFP and new concepts pertaining to tissue microprocessing may contribute to the analysis of critical samples in the context of pathology and cell biology.

המארח: פרופ"מ מורן ברקוביץ'

בברכה,

פרופ' נח אמיר אלת  
מרכז הסמינרים

