



סמינר - SEMINAR

הנדך מוזמנת/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ב' 8.06.15 (כא' בסיון, תשע"ה), בבניין דן-קאהן, קומה 0, אודיטוריום 1, שעה 14:30.

ירצה:

Assistant Professor Jack Ya-Tang Yang
Electrical Engineering, National Tsing Hua University, Taiwan

על הנושא:

Trapping of nano particles in two dimensional nano plasmonic optical lattice

להלן תקציר ההרצאה:

Recent advances in optical manipulation have made it an ideal tool to create one, two, and three dimensional periodic optical potential. Such periodic potentials have found interesting applications such as micro particle sorting, optical binding, kinetic lock-in, and thermal ratchet. Plasmon optical trapping (POT) can overcome the diffraction limits of conventional far-field optical trap techniques and permit trapping of nano objects as small as a single protein molecule. I will discuss our work on the trapping of nanoparticles for plasmon-enhanced two dimensional optical lattices. Compared to typical holographic techniques, the plasmonic optical lattice requires much less optical power and is very suitable for lab-on-a-chip applications for nano particle manipulation. Such a system will also enable observation of many statistic transport phenomena as nanoscale. Besides, I will also discuss the work done on microfluidic serial dilution bioreactor based on highly integrated microfluidics. Such a device enables us to maintain cyclic growth of microbial population with only nano liter working volume.

המארח: פרופ"מ גלעד יוסיפון

בברכה,

פ' 19/01/11 א.א.י. א.ת.
מרכז הסמינרים