Graduate Students

in Nonlinear NANO-Mechanics

Applications are invited for qualified Graduate Students in Nonlinear NANO-Mechanics at the Technion.

Positions are available for students interested in obtaining a MSc/PhD in the groundbreaking interdisciplinary domain of ‘nonlinear dynamics, stability and control of nano-electro-mechanical systems [NEMS]’.

Specific topics of interest include:

(i) synchronization and complexity in nonlinear thermo-visco-elastic micro/nano-resonator arrays that are subject to laser irradiation.

(ii) nonlinear dynamics, orbital stability, and control of scanning probe microscopy [SPM], and magnetic resonance force microscopy [MRFM].

(iii) bifurcations and non-stationary/chaotic dynamics of nanowires subject to severe electromechanical excitation.

This theoretical program in the Nonlinear and Chaotic Dynamics Systems Group incorporates both analytical *multiple-scale asymptotics* and *numerical bifurcation analysis* for the weakly and strongly nonlinear regimes, respectively.

The candidate must have a BSc/MSc degree obtained recently in any Engineering, Physics, or Applied Math programs. A strong background in dynamical systems/control and mathematical physics is recommended.

For details, please visit our research website [https://ncds.technion.ac.il/](https://ncds.technion.ac.il/) and/or contact Professor Oded Gottlieb [oded@technion.ac.il].