



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/>]

and/or contact Professor **Oded Gottlieb** [oded@technion.ac.il].

**Nonlinear and Chaotic
Dynamical Systems Group**

