Masters and Ph.D. students are welcome to apply to a new research group for exciting new research exploring a new type of microstructures. The study is focused on coupled micro-meta-structures, comprised of several coupled sub-structures. This new construct has recently shown remarkable load-displacement responses and new stability profiles, stemming from interactions between its components. The study aims to achieve full static and static and dynamic characterisation of coupled micro-meta-structures, find nonlinear transient dynamics phenomena, as well as characterise its chaotic behaviour.

The research is aiming toward the following applications:

- Multi-bit non-volatile mechanical memories
- Authentication devices
- Multi-bit MEMS-based sensors
- Multistable, broadband micro-energy harvesters
- Pseudo-random number generator

Initially curved, coupled double clamped beam meta-structure. Evidence of self-excitation and gained amplitude

For more details, please contact Dr. Leor Medina at tauex.tau.ac.il.