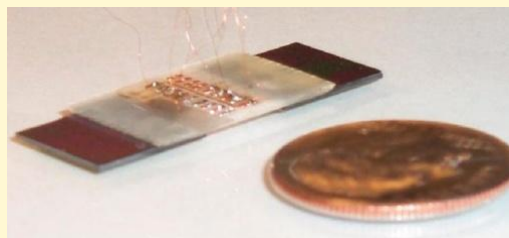


Staff: 1 professor, 10 PhD students, post-docs and temporary staff

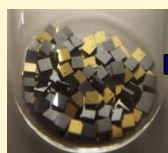
Research fields: MEMS/NEMS, microfabrication, self-assembly, microrobotics

Research Topics in Microelectromechanical Systems

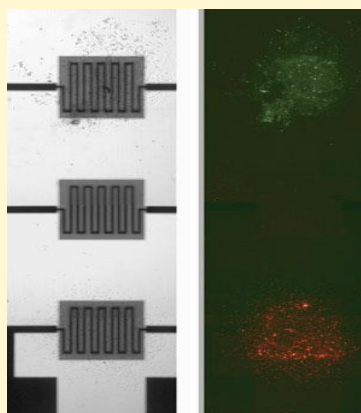
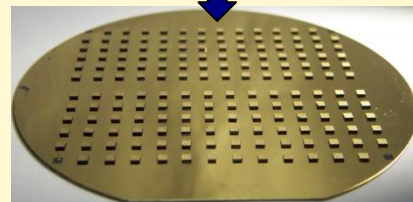
- Assembly from nano to milli scales
- Heterogeneous system integration
- Self-assembly
- Protein-guided nanomanufacturing
- Protein and cell chips
- Microrobotics
- Droplet-based microfluidics



Insect-like walking microrobot



Self-assembly of microchips



(a)

(b)

Cell chip on a thermoresponsive bio-polymer. (a) Resistive heater array with ppNIPAM coating. (b) Immobilized cells.

Technology/Methods

- Silicon, glass, and polymer processing
- Design and layout with 2D and 3D CAD
- Compact and FEM modeling
- Academic and industrial partnerships

Design, Simulation & Characterization Tools

- Probe stations
- Laser vibrometer
- Goniometer (contact angle measurement)
- High-speed camera and motion tracking
- LabView laboratory automation

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