



Faculty Member

Timken Foundation Center for Precision Manufacturing

Contact Information



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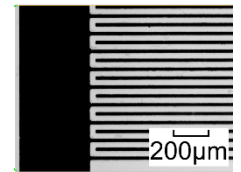
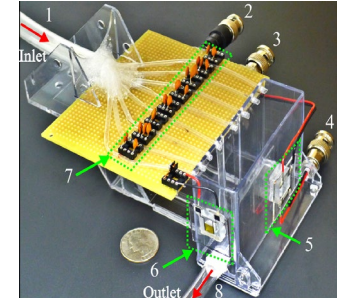
Research Interests

- Design and manufacturing of micro and nano devices
- Micro/Nano sensors and actuators
- Micromachining
- Biosensors and bioinstrument
- Machine health monitoring

Sample Research I:

Sensing System for Machine Health Monitoring

- Developed an intelligent system consisting of micromachined sensors that can:
- Monitor the entire wear process in term of monitoring wear debris (20 to 200 microns)
- Water, base, acid, soot contents with high accuracy
- Provide diagnosis of and prognostics of machine health status



Sample Research II:

Microsystem for Cell and Biomarker Detection

- Developed and fabricated microsystems for fast, onsite cell and biomolecules detection
- Achieve single cell detection
- Achieve pM resolution for biomolecules detection
- Useful tools for drug screening, clinics and environmental protection.

