

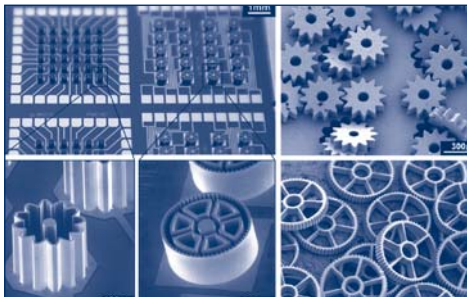
# EECS 514: Advanced MEMS Devices and Technologies

**Credits: 4**

**Prerequisite:** EECS 414

Distance Learning Option

EECS 514 covers advanced MEMS technologies, transduction mechanisms, and microfabricated sensors and actuators. Examples include: magnetic and piezoelectric devices, and micromachining methods for bulk metals and dielectrics. Students work in teams to design sensors and actuators as part of the project component.



Electroplated Cu tools (left) are used to micromachine WC-Co alloy gears (right) by  $\mu$ EDM technology.



Instructor:

**Yogesh B. Gianchandani** is a Professor in the EECS Department and holds a courtesy appointment in the Department of Mechanical Engineering at the University of Michigan, Ann Arbor. His research interests include all aspects of design, fabrication, and packaging of micromachined sensors and actuators and their interface circuits. Professor Gianchandani serves on the editorial boards of several journals, and is a co-editor-in-chief of *Comprehensive Microsystems* (Elsevier). He also served as a General Co-Chair for the IEEE/ASME International Conference on Micro Electro Mechanical Systems

(MEMS) in 2002. At the University of Michigan, Professor Gianchandani serves as the Director of the College of Engineering Interdisciplinary Professional Degree Program in Integrated Microsystems.