

The Department of Mechanical Engineering presents:

Dr. Ankur Jain

**Senior Microsystems Technology Engineer
Tessera MEMS Technologies, Inc.**

**Friday, November 19, 2010
11:10AM-12:00PM
Bourns Hall A265**

MEMS Actuators for Optical Scanning & Imaging Applications

Abstract: This seminar will provide an overview of optical MEMS (micro-electro-mechanical systems) scanners, with an emphasis on devices actuated using electro-thermal transduction. These optical scanners have been packaged within slender endoscopes for in vivo imaging of pre-cancerous cells. Single and dual-axes micromirrors that enable optically scanning in the rotational and axial directions; as well as microlens scanners that can shift the image plane for microscopy applications will be discussed in detail. The small size and low operating voltage of these scanners make these devices ideal for use in endoscopic biomedical imaging applications.

Bio: Dr. Ankur Jain is a Senior Microsystems Technology Engineer at Tessera MEMS Technologies in Arcadia, CA where he is working on the design and development of the next generation auto-focus camera modules for the mobile handset market. He received the B.E. (honors) degree in electrical and electronics from the Birla Institute of Technology and Science (BITS), Pilani, India; and the M.S. and Ph.D. degrees in electrical engineering from the University of Florida, Gainesville, FL. His doctoral research involved the development of optical MEMS scanners for endoscopic biomedical imaging systems. He is a member of Eta Kappa Nu and Tau Beta Pi, and has contributed to over 20 technical publications.

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