

# 2008-2009 Graduate Seminar Series

## The Department of Mechanical Engineering – Engineering Mechanics

Proudly Presents

### Professor Ozden O. Ochoa Texas A & M University



**Dr. Ozden Ochoa** is a professor of mechanical engineering at Texas A&M University ([www.tamu.edu](http://www.tamu.edu)). She is a Fellow of the American Society of Mechanical Engineers and the American Society for Composites. Her contributions in the past three decades are in a broad range of mechanics of composite materials and structures with applications in the aerospace, offshore, automotive and construction industries. Her research focus is on integrating computational and experimental mechanics to address material and structural characterization of fiber-reinforced polymer and ceramic matrix composites and, more recently, with high-temperature carbon foams.

Dr. Ochoa returned to campus in Fall 2006 after serving as the director of Aerospace Sciences and Materials Directorate at U.S. Air Force Office of Scientific Research in Arlington, Va. She actively conducted research and established focus areas in composites as senior technologist at the Materials and Manufacturing Technical Directorate at Wright Patterson AFB in Ohio from 2003 to 2005. Dr Ochoa served as the president of the American Society for Composites in 2006-2007 ([www.asc-composites.org](http://www.asc-composites.org)) and on the Board of Governors of ASME 2004-2007 ([www.asme.org](http://www.asme.org)). At present, she is on the executive committee of the International Conference for Composite Materials ([www.iccm-central.org](http://www.iccm-central.org)).

Among her many honors are the 2005 ASC – Destech Award in Composites. She has received the ASME Dedicated Service Award, the Texas A&M University International Excellence Award and the Texas A&M University Honors Program Teacher/Scholar Award. In 1997, Ochoa was named to the Texas A&M Mechanical Engineering Academy of Distinguished Graduates. She was recognized in 2003 as a Texas A&M Dwight Look College of Engineering Fellow.

Ochoa holds a bachelor's degree in mechanical engineering from Bogazici University (Robert College) in Turkey, and a master's degree in nuclear engineering and a Ph.D. in mechanical engineering, both from Texas A&M.

Thursday, Nov. 6, 2008      3:00 – 4:00 p.m.      Room 112, ME-EM Bldg.

### Designing in Multifunctionality: A Cellular Perspective

Cellular material systems offer great promise as a porous foundation to be infiltrated, coated and/or co-foamed with different materials to deliver multi-functional performance. Our objective is to develop computational models and complementary experiments at multiple scales to enable the processing efforts to design in physical and mechanical properties for biomedical, thermal management, and oil-field applications. The uniqueness of our approach is based on micro-CT driven microstructure images which are converted to solid models for comprehensive computational studies incorporating material anisotropy, coatings and multi-field loads.

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and the Department of Mechanical Engineering – Engineering Mechanics [www.me.mtu.edu/seminar](http://www.me.mtu.edu/seminar)