

**M.I.M.E. Fall 2009  
Graduate Seminar Series**

**Friday, October 23, 2009  
12:00—1:00 PM  
Nitschke Auditorium (NA 1000)**

***Computational Fluid Dynamic  
Simulation and Analysis  
in Support of Modern  
Air Vehicles Design***

**Speaker: Chunhua Sheng, Associate Professor  
in Mechanical Engineering**

**Abstract:**

In this presentation, Dr. Sheng will present his research activities using Computational Fluid Dynamic tools to support the design and analysis of modern air vehicles, particularly for rotorcraft, propulsor/turbomachinery, and missile systems. Challenges and difficulties faced by modern CFD tools will be addressed, and plausible solutions to them suggested. Research topics will be covered for the development of highly efficient solution algorithms in all flow regimes, high-order unstructured grid schemes, hybrid coupling simulation, and fluid-structure interactions.

**Short Bio:**

Dr. Sheng earned his Ph.D. in Aerospace Engineering from Mississippi State University in 1994, and worked as an associate research professor at the High Performance Computing Collaboratory at Mississippi State University. Currently he is an associate professor in the Department of Mechanical, Industrial, and Manufacturing Engineering at The University of Toledo.



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