

**“Benchmarking the Competitiveness of the United States
in Mechanical Engineering Basic Research”**

Tuesday, June 9, 2009

11:00 a.m.

MRDC, Room 4211

Hosted by: Bill Wepfer

Abstract:

A study by the National Research Council, sponsored by the National Science Foundation, was undertaken to determine the competitiveness of the United States in Mechanical Engineering Basic Research. The report was published by the National Academies Press in 2007. The study found that U.S. leadership in mechanical engineering basic research overall will continue to be strong. Contributions of U.S. mechanical engineers to journal articles will increase, but so will the contributions from other growing economies such as China and India. At the same time, the supply of U.S. mechanical engineers is in jeopardy, because of declines in the number of U.S. citizens obtaining advanced degrees and uncertain prospects for continuing to attract foreign students. U.S. funding of mechanical engineering basic research and infrastructure will remain level, with strong leadership in emerging areas.

Bio – Ward Winer:

Ward Winer is Chair Emeritus of the Mechanical Engineering Department at Georgia Tech. He received his BS, MS and PhD at the University of Michigan and a PhD from Cambridge University. His research focused on high pressure lubricant rheology, lubrication, tribology, thermomechanics and mechanical systems diagnostics which involved the development of techniques and instrumentation to detect incipient failures in mechanical systems. He led a Defense Department MURI on integrated diagnostics of machinery. This initiative involved twenty-one co-principal investigators at three universities with goal being the development of protocols for repair of machinery prior to failure.

Winer is a member of the National Academy of Engineering, Fellow of the AAAS, ASEE, and STLE. He is a Life Fellow and Honorary Member of ASME.

He is the recipient of ASEE's Benjamin Garver Lamme Award and the ASME's Melville Medal, Russ Richards Memorial Award and Mayo D. Hersey Award. He also has received the Tribology Gold Medal from the Tribology Trust of the Institution of Mechanical Engineers, Institution of Production Engineers, the Royal Aeronautical Society, and the Department of Industry and Trade in the UK.

Prior to his arrival at Georgia Tech in 1969, he was assistant and associate professor of mechanical engineering at the University of Michigan. He has served on several mechanical engineering department advisory boards, including the boards of the University of Michigan, MIT, CMU, University of Maryland-College Park, and the University of California-Berkeley.

Refreshments will be served. For more information, contact Bill Wepfer or

Melody Foster at 4-7478.