The George W. Woodruff School of Mechanical Engineering at Georgia Tech Presents
The Annual Harold W. Gegenheimer Lecture Series on Innovation

Featuring:
Woodie Flowers
Pappalardo Professor of Mechanical Engineering,
Massachusetts Institute of Technology

Speaking About:
Innovator, Innovatee, or Somewhere Between?

Tuesday, October 10, 2000, 3:30 P.M.
Manufacturing Research Center Auditorium
Georgia Tech Campus, Atlanta, Georgia

Biographical Sketch

Woodie Flowers is the Pappalardo Professor of Mechanical Engineering at MIT. He received a B.S. degree from Louisiana Tech University and S.M., M.E., and Ph.D. degrees from MIT. His current research includes work on the creative design process and product development systems. He helped create MIT's renowned course: "Introduction to Design." Dr. Flowers also received national recognition in his role as host for the PBS television series "Scientific American Frontiers" from 1990 to 1993 and he received a New England EMMY Award for a special PBS program on design. Dr. Flowers is a member of the National Academy of Engineering, a Fellow of the American Association for the Advancement of Science, and he received an Honorary Doctor of Humane Letters from Daniel Webster College. He was recently selected to receive a Public Service Medal from NASA and the Tower Medallion from Louisiana Tech University. He is a MacVicar Faculty Fellow at MIT for extraordinary contributions to undergraduate education. He was also the Inaugural Recipient of the Woodie Flowers Award by FIRST (For Inspiration and Recognition of Science and Technology).

Currently, Dr. Flowers is a director of four companies, and he is on the board of Technology Review magazine. He is a member of The Lemelson-MIT Prize Board Executive Committee and is National Advisor and Vice Chairman of the Executive Advisory Board for FIRST. He is a member of the Historical Commission in Weston, Massachusetts, where he lives with his wife, Margaret.

Synopsis of the 2000 Gegenheimer Lecture
Erik Hoffer said, "In a time of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists." The famous Chinese curse says, "May you live in interesting times." Most people agree that we are living in times so interesting that continuous learning, and maybe even continuous innovation, are essential. As aspiring and/or learned professionals, how innovative ought we be?

In both engineering and education, commodity is becoming a more common adjective. Typically, about 90 percent of the advertisements in Mechanical Engineering magazine are for software products. Most are designed as a replacement for activities once at the core of the engineering profession. Commodity engineers who simply run simulations can be bought and sold like sacks of grain. What parts of engineering will not likely become commodified? Is innovation the key?

Educators are rapidly coming to understand that our cottage-industry style of teaching may die. If or when Disney does new-media calculus, those who use chalk and talk will face empty lecture halls. What part of our profession will be commodified by new-media pedagogy and telepresence? Is innovation the key?

To be effective, we must practice informed creative thinking. To feel good about our lives, we must also practice gracious professionalism. Ideal innovators practice both. Are we?

**About the Lecture Series**

The Lecture Series on Innovation was established in 1995 through an endowment from Mr. Harold W. Gegenheimer (Class of 1933) to support student programs that encourage creativity, innovation, and design. Through the lecture series and support of capstone design projects, students are exposed to processes that stimulate creativity and lead to inventions and patents. The previous Gegenheimer lecturers were:

1995 Dr. Jerry M. Woodall Distinguished Professor of Microelectronics at Purdue University *Necessity Is the Mother of Invention, But Curiosity and Persistence Make It Happen*

1996 Mr. Burt Rutan President and CEO of Scaled Composites, Inc. *Innovation: Use It or Lose It*

1997 Dr. Jim Adams Professor at Stanford University *Creativity Versus Control: Their Impact on Innovation*

1998 Dr. George N. Hatsopoulos Founder of Thermo-Electron Corporation *Thermo Electron and the Spin-Out Business Design*

1999 Mr. Richard Teerlink Retired President and CEO of Harley Davidson, Inc. *Our Learning Journey*

**About the Woodruff School**

The Woodruff School of Mechanical Engineering is the oldest and second largest of the ten divisions in the College of Engineering at Georgia Tech. The School offers academic and research programs in mechanical engineering, nuclear and radiological engineering/medical physics, paper science and engineering, and bioengineering. The enrollment includes 1674 undergraduates and 696 graduate students. Studies are directed by a full-time staff of 72
professors, ten joint faculty, 23 research faculty, and five academic professionals, who are supported by 43 staff members. The George W. Woodruff School of Mechanical Engineering is the only educational institution to be designated a Mechanical Engineering Heritage Site by the American Society of Mechanical Engineers. For more information about the Woodruff School contact:

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