The George W. Woodruff School of Mechanical Engineering

Annual Distinguished Lecture

I N V I T A T I O N

The Societal Responsibility of Engineers

(And Its Implications for Engineering Education)

To view the video, you need

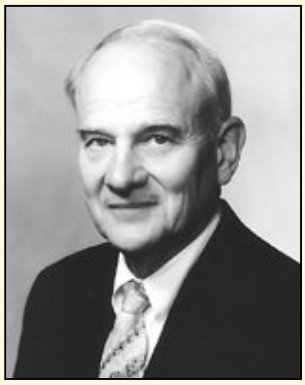
Additional Requirements:

- 120MHz Intel Pentium processor or equivalent
- 16MB of RAM
- 28.8Kbps or faster modem
- 16-bit sound card and speakers
- 65,000-color video display card
- Windows 95, Windows 98, or Windows NT 4.0 with Service Pack 3
- Internet connection and web browser

William A. Wulf
President
National Academy of Engineering

Tuesday, April 25, 2000
3:30 p.m.
Auditorium in the Van Leer
(Electrical Engineering) Building
Georgia Institute of Technology

BIOGRAPHY



Dr. Wulf is on leave from the University of Virginia to serve as President of the National Academy of Engineering. Together with the National Academy of Sciences, the NAE operates under a Congressional Charter to provide advice to the government on issues of science and technology. Much of this advice is provided through the National Research Council, the operating arm of the two Academies; Dr. Wulf serves as Vice Chair of the NRC.

At Virginia, Dr. Wulf is a University Professor and holds the AT&T Chair in Engineering and Applied Science; among his activities at the university are a complete revision of the undergraduate Computer Science curriculum, research on computer architecture and computer security, and an effort to assist humanities scholars exploit information technology.

Prior to joining Virginia, Dr. Wulf founded Tartan Laboratories and served as its Chairman and Chief Executive Officer. Before returning to academe, Dr. Wulf grew the company to about a hundred employees. Tartan developed and marketed optimizing compilers - programs that translate high-level languages such as FORTRAN or C into highly efficient computer codes. The technical basis for Tartan was research by Dr. Wulf while he was a Professor of Computer Science at Carnegie-Mellon University.

While at Carnegie-Mellon and Tartan, Dr. Wulf was active in the "high tech" community in Pittsburgh. He helped found the Pittsburgh High Technology Council and served as Vice President and Director from its creation. In 1983 he was awarded the Enterprise "Man of the Year" Award.

Dr. Wulf has been a consultant to numerous computing and telecommunications companies. Dr. Wulf is a member of the National Academy of Engineering and a Fellow of the American Academy of Arts and Sciences. He is also a Fellow of three professional societies: the ACM, the IEEE, and the AAAS. He is the author of over 80 papers and technical reports, has written three books, holds one U. S. Patent, and has supervised over 25 Ph.D.'s in Computer Science.

Dr. Wulf received his bachelor's degree in engineering physics in 1961 and his M. S. in electrical engineering in 1963, both from the University of Illinois. He received his Ph.D. in computer science from the University of Virginia in 1968. He was born in Chicago, Illinois in 1939.

SYNOPSIS

Engineering has a strong tradition of ethics, rooted in its responsibility to the public to produce effective, safe, and reliable products and infrastructure.

However, the responsibility of engineers to society is now much broader. Engineering and its product, technology, have had a profound impact on society; one has only to compare the life of the average citizen of 1900 with that of the average citizen of 2000 to realize that virtually all of the differences are the result of engineering. Moreover, the impact in the 21st century will undoubtedly be even greater than in the 20th century, and will be felt in every aspect of our lives, from our personal health to our collective governance. Engineers must no longer limit their sense of responsibility to the products and infrastructure we design, but must include the larger effects they have. Doing that implies assuming roles in society, such as public servants, we have not traditionally filled.

There are interesting implications of this for engineering education, or at least there are interesting questions we can ask based on this premise. Should engineering education include some preparation for these other roles, and if so, how can they fit into an already overcrowded curriculum? Alternatively, should engineering schools provide the means for liberal arts majors to acquire some minimal understanding of the engineering process?

THE WOODRUFF SCHOOL

The George W. Woodruff School of Mechanical Engineering Annual Distinguished Lecture was established in 1990 to honor an engineer who has made a significant contribution to society and to provide a forum for that person to interact with the Georgia Tech community.

Support for the lecture is made possible by the generosity of the late George W. Woodruff, an alumnus and influential Atlanta businessman, civic leader, and philanthropist. In September 1985, at the age of 90, Mr. Woodruff attended the ceremonies to rename the School of Mechanical Engineering in his honor. Today, the Woodruff benevolence continues to benefit Georgia Tech through the support of two major scholarship funds and a significant, unrestricted endowment. The Woodruff bequest to the School of Mechanical Engineering underwrites a faculty chair - the George W. Woodruff Chair in Mechanical Systems - and activities such as the Woodruff Faculty Fellows Program, the Woodruff Graduate Fellowship Program, the Woodruff Teaching Intern Program, and research and teaching assistantships for graduate students.

The Woodruff School of Mechanical Engineering is the oldest and second largest of nine divisions in the College of Engineering at Georgia Tech. The School offers academic and research programs in mechanical engineering, nuclear and radiological engineering, and health physics. The enrollment includes 1300 undergraduates (excluding co-ops at work) and more than 500 graduate students. Studies are directed by a full-time faculty of 70 professors, 16 research faculty, and two academic professionals, who are supported by 47 staff members.

For additional information, contact Dr. Ward O. Winer, Eugene C. Gwaltney, Jr. Chair in Manufacturing and Chair of the Woodruff School at:

The George W. Woodruff School of Mechanical Engineering
Georgia Institute of Technology
Atlanta, Georgia 30332-0405

Phone: (404) 894-3200

Fax: (404) 894-8336
E-mail: menehp.info@me.gatech.edu
Web: http://www.me.gatech.edu/
http://www.me.gatech.edu/ne_re_hp

Distinguished Lecturers

1990	Donald E. Petersen, Chairman and CEO, Ford Motor Company
1991	Samuel C. Florman, Author and Professional Engineer
1992	Chang-Lin Tien, Chancellor and A. Martin Berlin Professor of Mechanical Engineering, University of California, Berkeley
1993	Sheila E. Widnall, Associate Provost and Abby Rockefeller Mauze Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology
1994	Roberto C. Goizueta, Chairman of the Board and CEO, The Coca-Cola Company
1995	James J. Duderstadt, President, The University of Michigan
1996	Norman R. Augustine, Chairman and CEO, Lockheed Martin Corporation
1997	Charles M. Vest, President and Professor of Mechanical Engineering, Massachusetts Institute of Technology
1998	Robert A. Lutz, Vice Chairman, Chrysler Corporation
1999	George H. Heilmeier, Chairman Emeritus, Bellcore
2000	William A. Wulf, President, National Academy of Engineering

Lecture

Tuesday, April 25, 2000, 3:30 p.m. in the Auditorium of the Van Leer (Electrical Engineering) Building, Georgia Institute of Technology

Reception

After the lecture, guests are invited to a reception (under the yellow tents) in the courtyard of the Joseph M. Pettit Microelectronics Research Center (MiRC). Free parking will be available in the Visitor Parking Lot. A shuttle van will operate between the parking lot and the auditorium (see the map for locations).

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GWW/RG00-0201