

**B**ernard Amadei is Professor of Civil Engineering at the University of Colorado at Boulder. He did his undergraduate work in Nancy, France, obtained his master's degree in Civil Engineering in 1979 from the University of Toronto, and his Ph.D. degree in Civil Engineering in 1982 from the University of California, Berkeley. His current interests cover the topics of sustainability and international development.



At the University of Colorado at Boulder, Professor Amadei directs a new program in Engineering for Developing Communities. Its overall mission is to educate globally responsible engineering students and professionals who can offer sustainable and appropriate solutions to the endemic problems faced by developing communities worldwide. He is also the Founding President of Engineers Without Borders - USA and the co-founder of Engineers Without Borders - International.

Professor Amadei is the recipient of several awards, including the 2005 AAES Norm Augustine Award; the 2005 Hassib J. Sabbagh Award for Excellence in Engineering Construction (with EWB-USA); the 2006 Ralph Coats Roe Medal from the American Society of Mechanical Engineers; the 2007 Hoover Medal from AIChE, AIME, ASCE, ASME, and IEEE; and the co-recipient of the 2007 Heinz Foundation Award for the Environment. He was elected to the National Academy of Engineering in 2008.

Professor Amadei's work has been featured on National Public Radio, the Public Broadcasting System's *NewsHour*, and *Time Magazine* (U.S.). He is working on a new book titled: *Engineering With Soul*.

Lecture Rescheduled from April



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

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The George W. Woodruff School of Mechanical Engineering  
Annual Distinguished Lecture

INVITATION

Lecture Rescheduled from April

## ***The Role of Engineers in Poverty Reduction: Challenges and Opportunities***



Dr. Bernard Amadei  
Founder, Engineers Without Borders - USA,  
Director, Engineering for Developing  
Communities Program, and  
Professor, University of Colorado

Tuesday, September 9, 2008  
11:00 a.m.  
Ferst Center for the Arts

In the next two decades, almost two billion additional people are expected to populate the Earth, ninety-five percent of them in developing or underdeveloped countries. This growth will create unprecedented demands for energy, food, land, water, transportation, materials, waste disposal, earth moving, health care, environmental cleanup, telecommunications, and infrastructure. The role of engineers will be critical in fulfilling those demands at various scales, ranging from remote small communities to large urban areas, mostly in the developing world. As we enter the first half of the 21st century, the engineering profession must embrace a new mission statement—to contribute to the building of a more sustainable, stable, and equitable world. In particular, we need to train a new generation of engineers who can better meet the challenges of the developing world and address the needs of the most destitute people on our planet. Today, an estimated twenty percent of the world's population lacks clean water, forty percent lacks adequate sanitation, and twenty percent lacks adequate housing.

This lecture will present the challenges and opportunities associated with practicing engineering in the developing world and the education of engineers through organizations such as Engineers Without Borders. The lecture will also discuss the importance of integrating engineering with nonengineering disciplines when addressing the needs of developing communities.

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 two faculty chairs—the George W. Woodruff Chair in Mechanical Systems and the George W. Woodruff Chair in Thermal 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.

Mechanical Engineering is the oldest degree granting program at Georgia Tech. Today, the Woodruff School of Mechanical Engineering offers academic and research programs in mechanical engineering, nuclear and radiological engineering, medical physics, bioengineering, paper science and engineering, and robotics. The enrollment includes 1765 undergraduate and 723 graduate students. Studies are directed by a full-time, tenure-track faculty of 94 professors, including ten joint appointments from other schools on campus. There are also 24 research faculty and six academic professionals. Support is provided by 52 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 additional information, contact Dr. William J. Wepfer, Eugene C. Gwaltney, Jr. Chair of the Woodruff School at:

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## 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
- 2001** Euan Baird, Chairman, President, and CEO, Schlumberger
- 2002** John H. Sununu, President, JHS Associates, Ltd. and former Governor of New Hampshire
- 2003** John B. Slaughter, President and CEO, National Action Council for Minorities in Engineering (NACME)
- 2005** Thomas A. Christopher, President and Chief Executive Officer Framatome ANP, Inc. and CEO and Vice Chairman, AREVA Enterprises, Inc.
- 2007** Steven E. Koonin, Chief Scientist, BP

## Lecture

Tuesday, Sept. 9, 2008, 11:00 a.m.  
in the Ferst Center for the Arts,  
Georgia Institute of Technology

## Reception

After the lecture, guests are invited to a reception in the Galleries of the Ferst Center to honor Dr. Amadei.

## Parking

Parking will be available in the Visitor Parking Lot (see the map). To arrange for parking, please call (404) 894-3200 by Friday, Sept. 5th.

