

**National Academy of Engineering
Workshop on the Offshoring of Engineering:
Facts, Myths, Unknowns, and Implications**

Date: October 24–25, 2006

Auditorium

National Academies Building

The NAE is hosting a free public workshop October 24–25, 2006 (Tuesday-Wednesday) aimed at developing new data on the phenomenon of engineering offshoring and at exploring the implications for the U.S. engineering enterprise.

In recent years, there has been an intense debate over the shift of engineering and other high-skill services work from the United States to developing economies, known as "offshoring." Some see offshoring as a signal that U.S. technological leadership is weakening. They warn of a long-term erosion in U.S. engineering prowess and living standards unless the trend is halted. Others claim that offshoring is the inevitable "next stage" of globalization and that the United States is well positioned to reap the benefits of more efficient global innovation networks.

Recognizing that offshoring represents a significant challenge to U.S. engineers and that hard data has been difficult to come by, the NAE launched a study aimed at examining the offshoring of engineering and its implications. A committee of prominent industry and academic experts is leading this effort, which is supported by the National Science Foundation and the United Engineering Fund. The October meeting is the centerpiece of the committee's study process.

The meeting will feature talks by industry and academic engineering leaders. Original NAE-commissioned research papers exploring offshoring in key industries will be presented and discussed. The overall goal of the workshop is to bring together cutting-edge analysis of offshoring, explore a wide range of opinions and perspectives, and engage national leaders and the broad engineering profession in a discussion of the outlook for, and implications of, offshoring.

We hope that you can join the policy makers, industry representatives, academic experts, and other thought leaders who will be attending. There is no charge or fee. If you would like to register, please visit <http://www.nae.edu/registration>. To register by email or fax, return the attached form to Penelope Gibbs <pgibbs@nae.edu> or fax to 202-334-2290. The deadline for registration is September 29, 2006.

If you have questions about the workshop, please contact Tom Arrison, study director (tel. 202.334.3755; email: tarrison@nas.edu).

Location Details

The National Academies Building is located at 2101 Constitution Avenue, N.W., Washington, D.C.

Entrance to the building is at 2100 C Street, N.W.

Limited parking is available in the Visitors' Lot; the entrance to this lot is at the corner of 21st and C Streets.

Return the attached registration form to Penelope Gibbs <pgibbs@nae.edu> or fax it to 202-334-2290 by September 29, 2006.



NATIONAL ACADEMY OF ENGINEERING
THE OFFSHORING OF ENGINEERING:
FACTS, MYTHS, UNKNOWNNS, AND IMPLICATIONS

Auditorium
2100 C Street, N.W.
Washington, D.C.

October 24–25, 2006

AGENDA

Tuesday, October 24, 2006

- 8:00 a.m. Continental Breakfast
- 8:30 Welcome
Bill Spencer
- 8:40 Keynote Talks: The Globalization of Engineering
Charles M. Vest, President Emeritus, MIT
Robert Galvin, Chairman Emeritus, Motorola Inc.
- 9:50 Software
Rafiq Dossani, Senior Research Scholar, Stanford University
Alfred Spector, Vice President of Strategy and Technology, IBM Software Group
- 11:00 Break
- 11:15 Autos
John Moavenzadeh, Executive Director, MIT International Motor Vehicle Program
John D. Cohoon, Executive Director, Global Engineering Processes, General Motors Corporation
- 12:15 p.m. Lunch
- 1:15 Panel: Implications for the Engineering Workforce and Profession
Ralph Wyndrum, President, IEEE-USA
Richard Freeman, Herbert S. Ascherman Professor of Economics, Harvard, and NBER
Vivek Wadhwa, Executive-in-Residence, Pratt School of Engineering, Duke University
- 2:45 Break
- 3:00 Network Systems
Ted Rappaport, Director, Wireless Networking and Communications Group, University of Texas at Austin

- 3:30 PC manufacturing
Ken Kraemer, Director, Center on Information Technology and Organizations, University of California, Irvine
- 4:30 Pharmaceuticals
Charles Cooney, Professor of Chemistry and Biochemical Engineering, MIT
- 5:30 Adjourn to Public Reception

Wednesday, October 25, 2006

- 8:00 a.m. Continental Breakfast
- 8:30 a.m. Semiconductors
Clair Brown, Director, Center for Work, Technology, and Society, University of California, Berkeley
Robert Doering, Senior Fellow, Silicon Technology Development, Texas Instruments
- 9:30 Construction Engineering and Services
John Messner, Director, Computer Integrated Construction Research Program, Pennsylvania State University
Jan Tuchman, Editor-in-Chief, ENR
- 10:30 Break
- 10:45 Implications for Engineering Management and Education
Anne Stevens, COO for the Americas, Ford Motor Company
Rich Newton, Dean of Engineering, University of California, Berkeley
James Porter Jr., Chief Engineer and Vice President, DuPont Engineering and Operations
- 12:30 p.m. Adjourn Workshop

Committee on the Offshoring of Engineering

William J. Spencer (Chair)
Chairman Emeritus
SEMATECH

Linda M. Abriola
Dean of Engineering
Tufts University

Peter R. Bridenbaugh
Retired Executive Vice President, Automotive
Aluminum Company of America

Stephen W. Drew
Science Partners LLC

Samuel C. Florman
Chairman
Kreiser Borg Florman General
Construction Company

Susan L. Graham
Pehong Chen Distinguished Professor
Computer Science Division—EECS
University of California, Berkeley

Lori G. Kletzer
Professor of Economics and Department Chair
University of California, Santa Cruz

Anne L. Stevens
Chief Operating Officer, The Americas
Ford Motor Company

George J. Tamaro
Partner
Mueser Rutledge Consulting Engineers

Marie C. Thursby
Hal and John Smith Chair in Entrepreneurship
DuPree College of Management
Georgia Institute of Technology

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I will attend the workshop on October 24 ____ and October 25 ____.

I will stay for the reception on October 24 ____.

I will not be able to participate in the workshop ____ .

PLEASE TYPE OR PRINT CONTACT INFORMATION:

Name: _____

Title: _____

Organization: _____

Street Address: _____

City/State/Zip: _____

Phone: _____ Fax: _____

Email: _____

Return this form by Friday, September 29, 2006, by FAX or email to:

Penelope Gibbs
FAX: (202) 334-2290
Email: pgibbs@nae.edu