Creative Young Engineers Selected to Participate in NAE's 2007 U.S. Frontiers of Engineering Symposium

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WASHINGTON — Eighty-three of the nation's brightest young engineers have been selected to take part in the National Academy of Engineering's (NAE) 13th annual U.S. Frontiers of Engineering symposium. The 2½-day event will bring together engineers ages 30 to 45 who are performing exceptional engineering research and technical work in a variety of disciplines. The participants — from industry, academia, and government — were nominated by fellow engineers or organizations and chosen from more than 260 applicants.

"It is exciting to witness the energy when outstanding engineers from many different fields come together in this unique venue," said NAE President Wm. A. Wulf. "Frontiers of Engineering is a proven mechanism for traversing engineering disciplines. By exposing bright young minds to developments in areas other than their own — and giving them lots of time to interact — Frontiers enables advances in approaches and thinking that would not have occurred otherwise."

The symposium will be held Sept. 24-26 at Microsoft Research in Redmond, Wash., and will examine trustworthy computer systems, safe water technologies, modeling and simulating human behavior, biotechnology for fuels and chemicals, and the control of protein conformations. Dr. Henrique Malvar, Microsoft Distinguished Engineer and managing director, Microsoft Research, will be a featured speaker. His research at Microsoft has focused on audio and video signal enhancement and compression, multirate signal processing, and signal decompositions. Prior to joining Microsoft Research, Malvar headed research and advanced technology at PictureTel and the Digital Signal Processing Research Group at Universidade de Brasilia.

The following engineers were selected as general participants:

- **Dongchan Ahn**
  Dow Corning Corp.
- **Vitaly Aizenberg**
  Exxon Mobil Corp.
- **Matthew Andrews**
  Alcatel-Lucent, Bell Labs
- **David A. Bader**
  Georgia Institute of Technology
- **Randy A. Bartels**
  Colorado State University
- **Jennifer T. Bernhard**
  University of Illinois, Urbana-Champaign
- **Joshua Binder**
  Boeing Co.
- **Markus J. Buehler**
  Massachusetts Institute of Technology
- **Wai Kin Chan**
  Rensselaer Polytechnic Institute
- **Eric Pei-Yu Chiou**
  University of California, Los Angeles
- **Alfred J. Crosby**
  University of Massachusetts, Amherst
Rula A. Deeb  
Malcolm Pirnie Inc.  

Shrikant Dhodapkar  
Dow Chemical Co.  

Peter A. Dinda  
Northwestern University  

Michael J. Fasolka  
National Institute of Standards and Technology  

Andrew Fernandez  
Agilent Technologies Inc.  

Timothy Fisher  
Purdue University  

Raja N. Ghanem  
Medtronic Inc.  

Reza Ghodssi  
University of Maryland  

Rajat S. Ghosh  
Alcoa Inc.  

Anouck Girard  
University of Michigan, Ann Arbor  

Samuel Graham  
Georgia Institute of Technology  

Tyrone W. Grandison  
IBM Almaden Research Center  

Johney Green  
Oak Ridge National Laboratory  

Michelle L. Gregory  
Pacific Northwest National Laboratory  

John Hecht  
Procter & Gamble Co.  

Hugh W. Hillhouse  
Purdue University  

Jeffrey Kanel  
Eastman Chemical Co.  

Jeffrey M. Karp  
Harvard University  

Theodore J. Kim  
Sandia National Laboratories  

Fred A. Kish  
Infinera Corp.  

Efrosini Kokkoli  
University of Minnesota, Minneapolis  

Ilya Kolmanovsky  
Ford Research and Advanced Engineering  

Michael R. Krames  
Philips Lumileds Lighting Co.  

Raj Krishnaswamy  
Metabolix Inc.  

Rajesh Kumar  
Intel Corp.  

Sanjay Lall  
Stanford University  

Eugene J. LeBoeuf  
Vanderbilt University  

K. Rustan Leino  
Microsoft Research  

Philip Levis  
Stanford University  

Mark E. Lewis  
Cornell University  

Ju Li  
Ohio State University
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Jennifer Lukes</td>
<td>University of Pennsylvania</td>
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<td>Yiorgos Makris</td>
<td>Yale University</td>
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<td>Ajay P. Malshe</td>
<td>University of Arkansas</td>
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<td>Michele Marcolongo</td>
<td>Drexel University</td>
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<td>Wade Martinson</td>
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<td>Katherine McMahon</td>
<td>University of Wisconsin, Madison</td>
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<td>Swarup Medasani</td>
<td>HRL Laboratories LLC</td>
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<td>Edward S. Miller</td>
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<td>Wilbur L. Myrick</td>
<td>SAIC</td>
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<td>Priya Narasimhan</td>
<td>Carnegie Mellon University</td>
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<td>Ravi Narasimhan</td>
<td>University of California, Santa Cruz</td>
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<td>Roseanna M. Neupauer</td>
<td>University of Colorado, Boulder</td>
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<td>Sissy Nikolaou</td>
<td>Mueser Rutledge Consulting Engineers</td>
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<td>Burak Ozdoganlar</td>
<td>Carnegie Mellon University</td>
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<td>Jianbiao Pan</td>
<td>California Polytech State University</td>
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<td>Alexander Parkhomovsky</td>
<td>Seagate Technology LLC</td>
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<td>Arshan Poursohi</td>
<td>Sun Microsystems Inc.</td>
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<td>Lisa Purvis</td>
<td>Xerox Corp.</td>
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<td>Marcus Quigley</td>
<td>Geosyntec Consultants</td>
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<td>R. Michael Raab</td>
<td>Agrivida Inc.</td>
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<td>Lee Rosen</td>
<td>Praxair Inc.</td>
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<td>Rachel A. Segalman</td>
<td>University of California, Berkeley</td>
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<td>Deborah Shands</td>
<td>Aerospace Corp.</td>
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<td>Samuel Sia</td>
<td>Columbia University</td>
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<td>John E. Smee</td>
<td>QUALCOMM Inc.</td>
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<td>Lydia L. Sohn</td>
<td>University of California, Berkeley</td>
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<td>Randy Stiles</td>
<td>Lockheed Martin Space Systems Co.</td>
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<td>Michael S. Strano</td>
<td>University of Illinois, Urbana-Champaign</td>
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<td>Joseph Szczerba</td>
<td>General Motors Corp.</td>
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<td>David N. Thompson</td>
<td>Idaho National Laboratory</td>
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<td>Jean W. Tom</td>
<td>Bristol-Myers Squibb Co.</td>
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Sundeep N. Vani  
Archer Daniels Midland Co.

James Scott Vartuli  
GE Global Research

S. Travis Waller  
University of Texas, Austin

Helen J. Wang  
Microsoft Research

Annemarie Ott Weist  
Air Products and Chemicals Inc.

Mei Wen  
Arkema Inc.

Joan Wills  
Cummins Inc.

Lifang Yuan  
EDO Corp.

Randy Zachery  
U.S. Army Research Office

Xin Zhang  
Boston University

Speakers at this year’s event are:

Carina Maria Alles  
DuPont Co.

Jess Brown  
Carollo Engineers, P.C.

Amy Childress  
University of Nevada, Reno

Bruce Dien  
National Center for Agricultural Utilization Research

Edward W. Felton  
Princeton University

Kevin Gluck  
Air Force Research Laboratory

Laurent Itti  
University of Southern California

Matthew J. Lang  
Massachusetts Institute of Technology

Karl G. Linden  
Duke University

Sanjay Malhotra  
National Cancer Institute

Greg Morrisett  
Harvard University

Rama Ranganathan  
University of Texas Southwestern Medical School

Diana K. Smetters  
PARC

Vanessa L. Speight  
Malcolm Pirnie Inc.

Michael van Lent  
University of Southern California

Rebecca N. Wright  
Stevens Institute of Technology

The organizers of the 2007 symposium are:

Julia M. Phillips (chair)  
Sandia National Laboratories

Ana I. Antón  
North Carolina State University
Sponsors for the 2007 U.S. Frontiers of Engineering are the Air Force Office of Scientific Research, the U.S. Department of Defense (DDR&E-Research), DARPA, the National Science Foundation, Microsoft Corp., Cummins Inc., and numerous individual donors.

The National Academy of Engineering is an independent, nonprofit institution that serves as an adviser to government and the public on issues in engineering and technology. Its members consist of the nation's premier engineers, who are elected by their peers for their distinguished achievements. Established in 1964, NAE operates under the congressional charter granted to the National Academy of Sciences in 1863.

A meeting program and more information about Frontiers of Engineering is available at <http://www.nae.edu/frontiers>.