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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 Brasília.

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

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

Sundeeep 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

John Dunagan	Microsoft Research
Richard T. Elander	National Renewable Energy Laboratory
Christian Lebiere	Carnegie Mellon University
Donald J. Leo	Defense Advanced Research Projects Agency
Carol R. Rego	CDM
Vijay Singh	University of Illinois, Urbana-Champaign
Paul K. Westerhoff	Arizona State University
Robert Wray	Soar Technology Inc.

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>.