

Celebrating **50** Years
1964-2014

NATIONAL ACADEMY OF ENGINEERING



NAE 2014 ANNUAL MEETING
September 28~29 • Washington, DC



Dear Colleagues,

On behalf of the officers and councillors of the National Academy of Engineering (NAE), I invite you to attend the NAE 2014 Annual Meeting to join in the celebration of our 50th anniversary. The meeting will be held in the NAS Building, 2101 Constitution Avenue NW, Washington, DC.

Saturday, September 27, NAE Orientation for the Class of 2014 will take place in the afternoon.

Sunday, September 28, the day begins with a brunch followed by the public program at noon. Remarks by NAE Chair Charles O. Holliday, Jr., open the meeting, followed by the President's address and then the induction ceremony for the 67 new members and 11 foreign members who were elected in February 2014. The public program will continue with the presentation of the Simon Ramo Founders Award, the Arthur M. Bueche Award, and the Bernard M. Gordon Prize Lecture. After a short break, the afternoon program will continue with distinguished plenary speakers who will talk about the breadth and history of engineering. The program will also include screenings of the prize-winning videos from our 50th anniversary video contest, "Engineering for You" (E4U).

Monday, September 29, the NAE Business Session will be held at the NAS Building, followed by the Forum, *Celebrating the NAE's 50th Anniversary: The History of Engineering over the Past 50 Years and a Look Forward*. A panel of NAE members will highlight engineering accomplishments that have enhanced the quality of life in NAE's first half century and consider those that may lie ahead.

After lunch, the afternoon will be devoted to NAE section meetings. Some meetings will be held in the NAS Building and others in the Keck Center.

A choice of two tours is being offered for your guests on Monday morning: a docent-led tour of the Library of Congress or a visit to the National Gallery of Art for a tour of *Degas/Cassatt or Andrew Wyeth: Looking Out, Looking In*. After the tours lunch will be provided for the participants at the Occidental Restaurant. For those opting to stay at the NAS Building, the Academies' archivist will offer a tour of this recently restored historic building.

The day will conclude with the traditional reception, dinner, and dance at the JW Marriott Hotel. Michael Grandinetti, an illusionist, will provide the entertainment, making for a magical evening this year. And the *Odyssey Band* will play until midnight, giving you the opportunity to dance the night away.

I look forward to seeing you in September.

A handwritten signature in black ink that reads "C. D. Mote, Jr." in a cursive style.

C. D. Mote, Jr.
President
National Academy of Engineering

NAE 2014 Annual Meeting: September 28 – 29, 2014

All events held at the NAS Building, 2101 Constitution Avenue NW, Washington, DC, unless otherwise noted *.

Sunday, September 28

10:00 a.m. – 4:00 p.m.

Registration

10:30 a.m. – 12:00 Noon

Brunch

10:30 a.m. – 11:30 a.m.

The Tools of Domestic and International Asset Protection (brunch provided)

12:00 Noon – 5:00 p.m.

Public Program

Chair's Remarks

Charles O. Holliday, Jr.

President's Address

C. D. Mote, Jr.

Induction Ceremony for NAE Class of 2014

Awards Program

Plenary Speakers:

Eric Schmidt

Executive Chairman
Google, Inc.

Frances H. Arnold

Dick and Barbara Dickinson Professor of
Chemical Engineering, Bioengineering,
and Biochemistry
California Institute of Technology

Sally Jewell

Secretary
U.S. Department of the Interior

Engineering for You (E4U)

Video Presentation Award

5:00 p.m. – 6:30 p.m.

Reception

6:30 p.m. – 9:00 p.m.

Reception and Dinner for the
Golden Bridge Society
(* off-site and by invitation)

Monday, September 29

7:00 a.m. – 2:00 p.m.

Registration

7:00 a.m. – 8:30 a.m.

Continental Breakfast

Foreign Secretary Breakfast
(by invitation to the Foreign Members)
Home Secretary Breakfast (by invitation)

8:30 a.m. – 9:30 a.m.

NAE Business Session

9:30 a.m. – 12:30 Noon

Forum:

Celebrating the NAE's 50th Anniversary:

The History of Engineering over the Past 50 years and a Look Forward

Welcome

C. D. Mote, Jr.

President

National Academy of Engineering

Ali Velshi

Moderator

Panel

Wanda M. Austin

President and Chief Executive Officer

The Aerospace Corporation

Arnunava Majumdar

Vice President of Energy

Google, Inc.

Corale L. Brierley

Vice President

National Academy of Engineering

Principal, Brierley Consultancy LLC

Roderic I. Pettigrew

Director

National Institute of Biomedical

Imaging and Bioengineering

Leonard Kleinrock

Distinguished Professor

Computer Science Department

University of California, Los Angeles

Alton D. Romig, Jr.

Vice President and General Manager

Skunk Works

Lockheed Martin Aeronautics Company

Robert W. Lucky

Corporate Vice President, Research (ret.)

Telcordia Technologies, Inc.

12:30 p.m. – 1:30 p.m.

Lunch

12:45 p.m. – 1:30 p.m.

Testifying Before Congress: A Tutorial

(lunch provided)

2:00 p.m. – 5:00 p.m.

Section Meetings

(* NAS Building and Keck Center)

6:30 p.m.

Reception

7:30 p.m. – 12:00 Midnight

Dinner, Dancing, and Entertainment

Special Programs

Sunday, September 28

10:30 a.m. – 11:30 a.m.

The Tools of Domestic and International Asset Protection

(advance registration required)
(brunch provided)

Asset or wealth preservation vehicles are no longer a luxury. They are necessary and we all need them to some degree. The greater your net worth, or the more vulnerable you are to regulatory, creditor, market, or jurisdictional risk, the more difficult it is to achieve asset protection without a protective trust or entity structure. This presentation will familiarize participants with the various tools available to achieve protection, including:

- risks to the accumulation or orderly disposition of wealth;
- statutorily exempted property, such as retirement plans, homestead, life insurance, annuities, and Section 529 plans;
- spendthrift trusts;
- protective entities such as limited partnerships, limited liability companies, and trusts;
- the use of domestic and foreign protected asset trusts;
- drafting that will maximize the protective nature of commonly utilized estate planning vehicles;
- analysis of traditional, established, and new “asset protection” jurisdictions; and
- tax and informational reporting for domestic and foreign trust structures.

Monday, September 29

12:45 p.m. – 1:30 p.m.

Testifying Before Congress: A Tutorial

(lunch provided)

It is essential that congressional policymakers hear a clear and objective interpretation of what science and technology bring to the policy agenda. This communication is a special type of oral presentation, and several elements are key to its success. Veteran congressional staff will offer their views during this lunchtime seminar.

6:30 p.m. – 12:00 Midnight

Reception/Dinner/Dancing/Entertainment

JW Marriott Hotel, 1331 Pennsylvania Ave. NW
Business attire/black tie optional

Dance until midnight to the Odyssey Band, with a repertoire ranging from swing to rock and roll.

Dinner seating assignments are normally made based on section affiliations. However, you may request special seating arrangements (see registration form; deadline is Friday, September 19, after that date requests will be honored only if possible.) Members and foreign members may register any number of guests for this event, and if possible guests will not be separated from their hosts. Dinner seating is limited to ten people per table.

Guest Program

On **Sunday, September 28**, guests are invited to join NAE members and foreign members for brunch, followed by the public program including the induction of new members and foreign members, and the awards ceremonies.

On the morning of **Monday, September 29**, guests are invited to a public forum on engineering or may choose to participate in one of the guest tours described below. Comfortable walking shoes are recommended for all the tours.

Lunch will be provided to those participating in the Monday Guest Program. For those touring the Library of Congress or the National Gallery of Art, a three course luncheon will be provided at the Occidental Restaurant, within walking distance of the JW Marriott Hotel. For guests attending the Forum and/or touring the NAS Building, a luncheon with the members will be provided in the tent on the West Lawn.

Library of Congress

Buses will leave the NAS Building at 8:15 a.m. for the drive to the Library of Congress, America's oldest cultural institution, where guests will be greeted by a docent who will conduct a guided tour of the historic Thomas Jefferson Building. The docent will highlight the art and architecture of the building and talk about the how the Library serves the Congress and the nation.



After the guided tour, participants will have time for a self-guided tour of the exhibit *Mapping a New Nation: Abel Buell's Map of the United States, 1784*. As explained on the Library's website, "*Abel Buell's New and Correct Map of the United States of North America* is the first map of the newly independent United States compiled, printed, and published in America by an American." It is one of only seven known copies.

Among the Library's other exhibits are *Exploring the Early Americas*, which examines "indigenous cultures, the drama of the encounters between Native Americans and Europeans..., and the pivotal changes that resulted from the meeting of the two worlds. This exhibit features Martin Waldseemüller's 1507 map of the world—the first on which the word 'America' appears. Or visit *Thomas Jefferson's Library*, a re-created version of Jefferson's library, which assembles 6,487 volumes that founded the Library of Congress."

This program will include a 1-hour walking tour and 2 hours to explore the Library. Note: The docents use Whisper Technology, a device that allows visitors to hear the docent more easily. You may use your own ear phones if you wish to bring them. For more information on the Library, visit www.loc.gov/.

The National Gallery of Art

Buses will leave the NAS Building at 9:15 a.m. for the drive to the National Gallery of Art. After the tour featuring highlights of major collections at the National Gallery, there will be ample time to see the special exhibits, *Degas/Cassatt* or *Andrew Wyeth: Looking Out, Looking In*.

As the museum notes about the *Degas/Cassatt* exhibit,

Cassatt stated that her first encounter with Degas's art "changed my life," while Degas, upon seeing Cassatt's art for the first time, reportedly remarked, "there is someone who feels as I do." It was this shared sensibility as much as Cassatt's extraordinary talent that drew Degas's attention.



The affinity between the two artists is undeniable. Both were realists who drew their inspiration from the human figure and the depiction of modern life. They remained devoted friends for forty years, until Degas's death. For more information, visit www.nga.gov/content/ngaweb/exhibitions/2014/degas-cassatt.html.

The *Andrew Wyeth* exhibit examines his images of windows. As the museum writes,

Andrew Wyeth: Looking Out, Looking In gathers together, for the first time, a select group of Wyeth's images of windows. Included in the exhibition are watercolor studies quickly executed to capture a momentary impression as well as tempera paintings created over an extended period of distillation and simplification. The exhibition begins with *Wind from the Sea* and proceeds to galleries of images that reflect his extended study of windows at other sites. Visit <http://www.nga.gov/content/ngaweb/exhibitions/2014/andrew-wyeth.html>

This program will include a 1-hour walking tour followed by an hour to explore the museum.

Historic NAS Building

The Academies' knowledgeable and engaging archivist Janice Goldblum will lead a tour of the recently restored historic National Academy of Sciences Building. Starting in the foyer, she will talk about the bronze and glass doors and then



visit the Members' Center, the adjacent Members Room, and the Lecture Room. Find out about the painting of President Lincoln signing the charter for the National Academy of Sciences in the beautiful Board Room. The tour will end with an in-depth look at the Great Hall and its ornate decorations, all restored

in 2012. Weather permitting the tour will review the exterior of the building and the Einstein statue. The program will begin in the West Court at 10:00 a.m. and last approximately 1 hour.



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Hotel Information

Hotel rooms are available at a reduced rate. Please use the meeting code listed below when making your reservation. Taxes and parking charges are not included in the price.

JW Marriott Hotel

1331 Pennsylvania Avenue NW
Washington, DC 20004

Reservations: (202) 393-2000 or (800) 228-9290

Book your stay online:

<https://aws.passkey.com/event/11501225/owner/599/home>

Meeting Code: NAE Annual Meeting 2014

Rates: Single/Double \$219.00

Reservation Cutoff Date: September 4, 2014

The JW Marriott Hotel is a luxury hotel situated near some of the most recognizable landmarks. The hotel provides easy access to the monuments, the National Mall, museums, and a host of other cultural venues around the city. It is conveniently located around the corner from the White House, one block from the Metro, and 15 minutes from Reagan National Airport. All of the hotel's 737 luxurious rooms are equipped with high-speed Internet access and 37" HD TVs with connections for your MP3 player and video camera. Onsite dining is available at the Avenue Grill or 1331 Bar and Lounge, and for coffee and light fare there is a Starbuck's café.

visit

<http://services.nae.edu/QCommerceNet/meetings/index.aspx>
to register for the NAE 2014 Annual Meeting