



We are excited to announce that registration is open for the 3rd Global Grand Challenges Summit on **July 18 to 20, 2017** in Washington DC. Please click <http://ggcs2017.org/> for the GGCS website and to register.

The [NAE Grand Challenges for Engineering](#) represent the *first* global calling to engineering on behalf of the planet, a call that transcends countries, cultures and continents. The Challenges have captured the imagination of engineers, engineering educators and engineering students, and begun to garner attention of the general public as well. Join us at the Summit to learn more about how engineers are applying the principles of engineering, the findings of science, the aesthetics of art, and the spark of creative imagination to seek solutions to humanity's grand challenges and inspire future generations as they continue their tradition of forging a better future through engineering.

The Summit is sponsored by the US National Academy of Engineering (NAE), the UK Royal Academy of Engineering (RAE), and the Chinese Academy of Engineering (CAE), and is the third in a series, which began with the [inaugural GGCS](#) in London in 2013 and the second in Beijing in 2015.

The Grand Challenges for Engineering range from advances to ensure sustainable life on the planet, to improving health outcomes for individuals through engineering, to addressing threats to our security generated by humans or nature, to engineering that amazes us in the way it improves our quality of life. We will hear about sustainability efforts in China, bioengineering advances in the UK and US and efforts to advance the human experience through virtual reality and artificial intelligence. We will hear about education and public engagement related to the grand challenges as well. Throughout the summit there will be ample time for audience engagement, discussion and networking.

Confirmed speakers to date include:

Michael Abrash, chief scientist of Oculus, on virtual reality

Jeffrey Dean, Google Senior Fellow, on artificial intelligence

Christof Koch, president and CSO of the Allen Institute for Brain Science, on understanding the circuit elements that make up a brain

Rikky Muller, co-founder of Cortera Neurotechnologies and professor at UC Berkeley, on minimally invasive interfaces to the brain

Ding Yihui, senior advisor of China Meteorological Administration, on sustainability

Deanne Bell, CNBC television host, on public engagement

Molly Stevens, professor at Imperial College, on regenerative medicine

Dame Sally Davies, chief medical officer, United Kingdom

Additional speakers from the UK, China and the US are in process. Audience discussions will be moderated by Ali Velshi of MSNBC.

Logistics: The 2017 GGCS will be held at George Washington University to accommodate what we believe will be the largest meeting ever hosted by the NAE and will be held in conjunction with the



inaugural *FIRST* Global robotics competition on July 17-18, 2017 in nearby DAR Constitution Hall. The *FIRST* competition goal will be based on the NAE Grand Challenges and those who attend the GGCS opening reception at Constitution Hall on the evening of July 18 will be able to watch the *FIRST* competition finals. In addition, an undergraduate Student Day Business Plan Competition (by invitation) based on the grand challenges will be held as a companion event on July 18 at the National Academy of Sciences building and the winners will be presented at the Summit. Students will also have an opportunity to present research posters at the Summit. More information is available on *FIRST* Global, Student Day and the student poster session on the GGCS website.

We are expecting about 800 participants, evenly split between students and professionals. The registration fee for the two-day event is \$200; for current students it is \$50, nominal amounts intended to signal an earnest intent to attend the Summit. Free lodging in GWU dormitories will be made available for all students and the NAE will provide a travel allowance of up to \$500 per student against actual expenses for students from U.S. academic institutions, with a limit of five student registrants per institution as endorsed by the dean.

Poster Session: In your capacity as a dean, coordinator of a Grand Challenges Scholars Program, or faculty member, we urge you to bring the opportunity to present a poster and attend the Summit to the attention of your students as soon as possible. To allow for early notification to students whose posters are accepted for presentation at the Summit, the website for abstract submission is open [here](#) and the deadline for submission will be February 6. There will be several \$2000 prizes for winning posters. Your assistance in arranging for students to attend the summit will be greatly appreciated.

Based on past experience, we may have to close registration for U.S. participants fairly early in order to preserve slots for our overseas partners. If you are interested in attending, we urge you to register at your earliest convenience; registrations will be accepted in the order in which they are received. If you have any questions please contact info@ggcs2017.org.

We are very pleased to thank our founding principal sponsor Lockheed Martin, principal sponsors Boeing and Northrop Grumman, and contributing sponsor Shell for their generosity. The 2017 GGCS would not be possible without their substantial support.

We hope you will join us for this exciting opportunity to explore pathways for developing the collaborations, networks, and tools necessary both to address complex problems on a global scale and, most importantly, to engage young people worldwide in addressing the Grand Challenges for Engineering.

Yours sincerely,

C. D. Mote, Jr.

Dame Ann Dowling

Zhou Ji