




ASME  
FOUNDATION

Newsletter

January 2021

## Stepping Up For Next Generation Engineers



CAMPAIGN FOR  
NEXT  
GENERATION  
ENGINEERS  
WHO TRANSFORM THE WORLD

ASME's Campaign For Next Generation Engineers officially launched last July and is off to a powerful start. By yearend, we achieved our goal of nearly 100% participation among the "insider" community—volunteer leadership and senior ASME staff—creating a solid foundation for extending our outreach beyond the ASME family and building critical momentum to carry us forward. Key to the success of any fundraising drive is recruiting a stellar group of leaders and advisors, and we're thrilled that so many engineering luminaries have joined our Campaign Cabinet.

Among them are **Gwynne Shotwell**, president and COO, SpaceX; **Chandrakant Patel**, P.E., Chief Engineer and Senior Fellow, Hewlett Packard; **Michelle Blaise**, P.E., SVP, ComEd, an Exelon Company; **Gwendolyn Boyd**, Ph.D., former president of Alabama State University; and **Jean Zu**, Ph.D., P.E., Dean of the Schaefer School of Engineering and Science, Stevens Institute of Technology.

The Campaign Cabinet also includes longtime ASME members and volunteers **Keith Roe**, **Ken Balkey**, **Bob Hauck**, **Tom Pestorius**, and **Terry Shoup**. The cabinet will meet regularly, starting this month, to provide advice and strategic direction to ensure the success of our campaign and its critical role in helping ASME in its mission to advance engineering for the benefit of humanity. Heartfelt thanks to all who've donated so far.

*Your donation is an expression of optimism  
—a belief in the promise of a better  
tomorrow made possible by the ingenuity of  
an engineer.*

To make a gift to the ASME Foundation and the Campaign For Next Generation Engineers, visit our [website](#) or contact Keith Miles, Director of Major gifts at [milesk@asme.org](mailto:milesk@asme.org).

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## Philanthropic Impact 2020

On November 10, people from around the world logged into Philanthropic Impact 2020, the second annual showcase of ASME’s drive to empower next generation engineers.

The event featured the presentation of two prestigious ASME society-level awards (see related story, below), and a keynote address by **Dr. Gwendolyn Boyd**, for decades a mechanical engineer at the Johns Hopkins University Applied Physics Lab, and more recently the first woman president of Alabama State University.



Dr. Gwendolyn Boyd

Dr. Boyd spoke movingly about her own journey—she was the first African American woman to graduate with a master’s in ME from Yale University—and the need to create a “bigger tent” across the engineering community by being more welcoming to those who are underrepresented in the profession.

The event also featured introductory remarks by ASME past president and current Philanthropy Committee chair Keith Roe, and a presentation of a video about ISHOW winner **QuickSee™**, a device developed with ASME support that enables eye-care professionals to produce an accurate eyeglass prescription in just ten seconds. A video of the entire event is available [here](#).



ISHOW winner QuickSee™

## Recognizing Extraordinary Women in Engineering

At its Philanthropic Impact 2020 event, the ASME Foundation virtually presented two society-level awards to women engineers, both past beneficiaries of ASME programs, for their outstanding achievements.

**Dr. Columbia Mishra** is the recipient of the inaugural ASME **Lakshmi Singh Early Career Leadership Award**, established in memory of a dedicated volunteer in ASME’s Petroleum Division. Dr. Mishra is a senior thermal engineer at Intel Corporation, and a participant in ASME’s ECLIPSE program (Early Career Leadership Intern Program to Serve Engineering), where she receives training and mentorship in preparation for a future volunteer leadership role in ASME.

She was the recipient of an ASME scholarship and an ASME grant to participate in Engineers Without Borders, where she applied her engineering skills to improve quality of life for residents of a small town in Mexico.



Dr. Columbia Mishra



Dr. Lisa Burton O'Toole

**Lisa Burton O’Toole, Ph.D.**, is a forceful advocate for innovative women and the recipient of ASME’s Kate Gleason Award, honoring women entrepreneurs who make a significant contribution to the engineering community.

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Dr. O’Toole is executive director of HearstLab, where she evaluates and invests in women-led technology startups. As an entrepreneur and engineer, Lisa was founder and chief data scientist at AdMass, Inc., overseeing technology and building the company’s product and data infrastructure.

While a doctoral candidate in ME at MIT, Lisa mentored undergraduate engineering students and volunteered as an instructor in the Women in Technology Program, where she led classes in physics, math, and mechanical engineering for 20 female high school juniors.

## New Impact Dashboards Show Programs' SROI

New social impact dashboards on the ASME Foundation website vividly depict the global reach and meaningful impact of six (so far) of ASME’s notable philanthropic programs.

At <https://www.asmefoundation.org/our-impact/data/> donors can easily access a variety of metrics to help them visualize and understand the scope and efficacy of ASME philanthropic programs and the impact of their contributions. Developed with pro-bono assistance from JPMorgan Chase’s Force for Good initiative, the dashboards quantify the “social return on investment,” or SROI, of ASME programs.

**"We want to show our stakeholders not only our extraordinary progress, but inspire them with what is possible."**

"We want to show our stakeholders not only our extraordinary progress, but inspire them with what is possible," said **Kathleen Lobb**, executive director of the ASME Foundation.

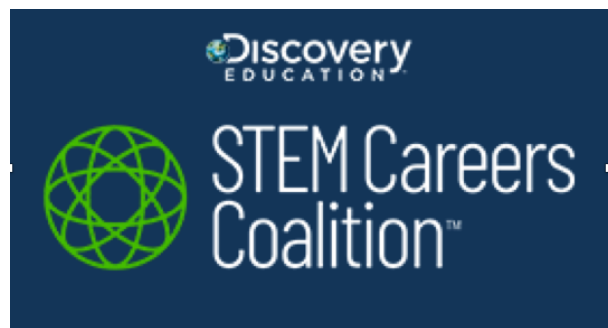
With our new SROI dashboards, current and prospective donors can see the measurable impact our programs are having in local communities and among underserved groups."



## ASME Joins Discovery Education's STEM Careers Coalition

ASME is now the engineering content collaborator in the STEM Careers Coalition, an initiative by Discovery Education to boost STEM education in the nation’s K-12 schools and open a window onto engineering careers for up to one million students annually.

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The goal of the STEM Careers Coalition—which includes engineering leaders like Boeing, Microsoft, Procter & Gamble, Chevron, and API—is to connect industry leaders to help build a pipeline of innovative problem-solvers to join the STEM workforce of tomorrow. Discovery Education is the global leader in standards-aligned digital curriculum resources and professional learning for K-12 classrooms.

“In the face of a global pandemic, it’s important to spotlight how STEM-focused careers can help us overcome today’s greatest challenges,” said Thomas Costabile, ASME’s executive director/CEO. “We are proud to amplify the role engineering plays in changing the world for the better and look forward to working with Discovery Education and our coalition partners to inspire and empower today’s students.”

Learn more about STEM Careers Coalition at [STEMCareersCoalition.org](http://STEMCareersCoalition.org).




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## Impact.Engineered Celebrates Sustainable Development

ASME’s annual (and first-ever virtual) Impact.Engineered event convened an array of engineers, impact investors, scholars, social entrepreneurs, and philanthropists for two days in early December to explore critical issues and recognize outstanding achievement in the global development community.

The opening keynote by **Asha Varghese**, president of the Caterpillar Foundation, set the tone with an impassioned call to action, citing the urgency of developing engineered solutions to a range of pressing development imperatives.

**Jenny Frankel-Reed**, climate adaptation strategy lead at the Bill & Melinda Gates Foundation, delivered the closing keynote with a focus on the central role engineers must play in the effort to mitigate climate-related threats.

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Asha Varghese



Jenny Frankel-Reed

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“Our Impact.Engineered event is one of the ways ASME is driving the agenda for a multidisciplinary and human-centered approach to international development,” said **Iana Aranda**, director of Engineering for Global Development at ASME and president of Engineering for Change.

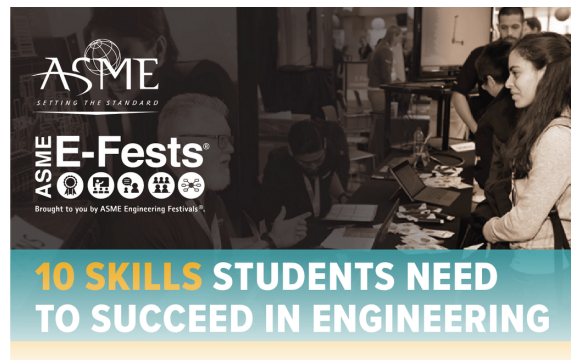
E4C, which this year celebrates its 10th anniversary, is ASME’s knowledge organization and global community of over one million individuals dedicated to the design and delivery of essential technologies that advance sustainable development.

## Virtual E-Fest Careers 2020 Debuts

Interactive online sessions like “Getting Noticed on LinkedIn” and “Live Interview Simulation” were popular draws at ASME’s first-ever online career development event. Featuring speakers from industry, non-profits, and academia, the day-long program included 20 distinct sessions, all focused on finding, landing, and advancing in engineering-related jobs.

Nearly 2,000 students and early-career engineers registered to interact with industry leaders like **Chris Yahnker** of NASA Jet Propulsion Lab and ASME president-elect **Mahantesh Hiremath**, vice president of operations at SC Solutions. Kate Gleason award winner **Lisa Burton O’Toole**, vice president of HearstLab, delivered a keynote address on entrepreneurship.

Other speakers included representatives of Tesla, Blue Origin, Space X, Honeywell, LinkedIn, Siemens, and Boeing, among many others. “During the current challenging economic environment, E-Fest Careers 2020 provides college students and early-career engineers with critically valuable information about the current state and future direction of the engineering workforce, and how to shape a forward career strategy,” said **Anand Sethupathy**, ASME’s managing director of programs and chief architect of the event. Information about E-Fest Careers 2020 is available [here](#).



## Goldstein Award Honoree James Truchard Gives Back

When he was named the recipient of ASME’s 2020 Richard J. Goldstein Energy Lecture Award, **Dr. James Truchard** elected to donate his \$10,000 honorarium to the ASME Foundation to fund a scholarship for a deserving engineering student.

That student is **Johane Bracamonte**, a doctoral candidate in mechanical engineering at Virginia Commonwealth University (VCU) and a second-year student member of ASME. “It is a great honor to receive the **James J. Truchard Scholarship**,” Bracamonte said. “It’s particularly meaningful and thrilling, since LabView and other National Instruments products have an immeasurable impact on my professional career.”

National Instruments, which Dr. Truchard co-founded and led as president and CEO, is a leading global producer of automated test equipment and virtual instrumentation software.

After earning bachelor’s and master’s degrees in physics, Dr. Truchard received a Ph.D. in electrical engineering, all at the University of Texas at Austin.

Recognizing the limited opportunities for advancement in his job as managing director of the acoustical measurements division at the U.T. Applied Research Laboratories, he and two colleagues founded National Instruments in 1976 in his garage.

Says Dr. Truchard, “I didn’t see a job I wanted [in Austin], so I created one!” Ten years later, NI released its ground-breaking LabView graphical programming interface and the rest, as the saying goes, is history. Though he retired from his roles as president and CEO of the company in 2017 after nearly four decades, he continues to serve as chairman of the board.

Dr. Truchard delivered the Goldstein Energy Lecture during IMECE in November. He is only the second person to receive the prestigious honor (the first was Nobel laureate and former U.S. Secretary of Energy Steven Chu). Established in 2019, the Richard J. Goldstein Energy Lecture Award “recognizes pioneering contribution(s) to the frontiers of energy leading to a breakthrough(s) in existing technology, leading to new applications or new areas of engineering endeavor, or leading to policy initiatives.”



Dr. James Truchard



Johane Bracamonte

***Dr. James Truchard, recipient of the Richard J. Goldstein Energy Lecture Award, elected to donate his \$10,000 honorarium to the ASME Foundation to fund a scholarship for a deserving engineering student.***

## Upcoming Events

- January 13/14: [Increasing Women in Mechanical Engineering \(IWME\)](#)
- January 29: Webinar: Student Internships in the COVID-19 World  
[REGISTER HERE](#)
- February 4: [Student and Early Career Town Hall – Feb 4 2021, 10 AM - 2 PM EST](#)
- February 18: [Deadline to apply for undergraduate Engineering Scholarships for ME Students 2021-22](#)
- March 4: [Deadline to apply for graduate Engineering Scholarships for ME Students 2021-22](#)
- March 16: [Deadline for high school seniors to apply for Engineering Scholarships for ME Students 2021-22](#)
- April 4: [ASME E-Fests® Digital](#)
- April 21: [ISHOW India](#)

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**Engineers Build the Future.  
The ASME Foundation Builds Engineers.**

With your support, the possibilities are infinite.

**Donate Today.**

[\*\*www.asmefoundation.org/donate\*\*](http://www.asmefoundation.org/donate)

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