

ORDER OF THE ENGINEER

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Letter from the Chair



There is no denying the tremendous impact that the recent and ongoing global health crisis associated with COVID-19 has had on every aspect of our lives. For some of you reading this, it may involve a very personal and lonely tragedy. For that, my thoughts and prayers go out to each one of you that may be suffering through these strange times.

I am writing this message from my “home office” and have not stepped into my physical office for about six weeks as is the case with most professionals, educators and students alike. While I understand that folks generally don’t want to term these times as our “new normal”, there is certainly a paradigm shift in how we live, communicate and conduct business that will continue to influence our lives long after the masks and gloves are discarded and we emerge from our home-shelters.

Amidst all the uncertainty, stress, chaos and tragedy, I have been genuinely impressed by the humanity and benevolence we witness every day as individuals and communities reach out to support each other by re-prioritizing and re-embracing the basic values and principles that formed our very culture and society.

As you can guess, The Order has not been immune to the social impact of this pandemic which has resulted in several changes in how our Board interacts and also to planned events such as the **50th Anniversary Celebration** that was to be held at Cleveland State University (CSU) in April 2020. It was late in March that our Planning Committee, in coordination with CSU made the difficult but necessary decision after 18 months of planning to postpone this important event that sought to celebrate the half-million engineers that have been inducted into The Order since 1970. At the same time, our semi-annual Executive Committee and Board of Governors meetings were shifted to a virtual forum and day

-long video conference [with full and enthusiastic participation by our entire Board!] allowing us to carry on with necessary business.

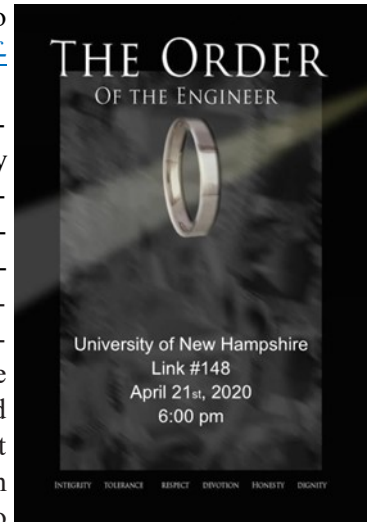
One wonderful update that I would like to provide is that after much coordination with CSU, our Board and Speakers, we have officially locked in a new date for the 50th Anniversary Celebration and Ethics Forum for this fall on Tuesday, October 20, 2020. Should COVID-19 extend into the Fall, a further delay may be required. If so, proper notifications would be made. I would like to thank and acknowledge the speakers, moderator, and administrative staff at CSU for their flexibility and am pleased that we were able to maintain the original program. As currently planned, this event will take place at Cleveland State University and will include a traditional Link Induction Ceremony, an ethics symposium [2 PDH’s] that will be moderated by none other than Mr. Arthur “Art” Schwartz, Deputy Executive Director and General Counsel for the National Society of Professional Engineers (NSPE), followed by a celebration and awards banquet all to be held on campus at CSU. Check out the included Ethics Symposium notice on pages 6 and 7, and be sure to check our website <https://order-of-the-engineer.org/about-the-order/50th-anniversary/> for more specifics on this in the coming months as we prepare to re-launch this event!

Speaking of websites! Although much of our focus and energy this year has been directed toward the planning of the 50th Anniversary event, there have been a number of significant initiatives that were set in motion by our Board last year — one of which was the reconstruction of our website. I am very pleased to report that the new site was launched at the end of February 2020 and includes many major updates for an overall fresh look, access to link resources and reference materials, a media gallery, an updated interface with our on-line ceremonial products, as well our new on-line store (Zazzle) and link to our new Facebook page. Special thanks go to our entire Communications

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Subcommittee with a special shout-out to Ms. Sarah Straub (Jakse) who worked tirelessly to make it all happen! Please take the time to visit the new site and take a tour at <https://order-of-the-engineer.org/>.

As you are all aware, one of the major impacts of the pandemic has been the necessary closure of our university and college campuses as the nation has moved to on-line delivery through the end of the 2020 academic year. The consequence of this resulted in the cancellation or postponement of Commencement ceremonies for many, including scheduled Link Ceremonies for The Order since group events are not allowed at this time. Despite these challenges, The Order has been committed to working with each Link to find innovative means to allow as many graduating seniors and graduate students as possible to participate in a ring ceremony and accept the Obligation. As we saw the requests and suggestions come in it became apparent that we would need to develop an emergency protocol that could be temporarily and immediately implemented by each Link to allow continuity for prospective inductees. To that end, over the course of a single weekend in mid-March, our Executive and Communication Committees worked to define a set of Emergency Protocols that would set the parameters to allow for virtual ceremonies using video conferencing services such as Zoom, WebEx and Skype. This protocol was distributed to all Links on March 15, 2020, with overwhelming positive response. The result has been tremendous as we have watched many Links jump on planning and execution using available technology tools. I can say that we have been pleasantly surprised and impressed by the quality and professionalism in those events that we have seen to date.



As a New Hampshire native, I am proud to have participated in the “First in the Nation” virtual ceremony that was held at my alma mater, The University of New Hampshire (UNH) [Link #148] on April 21, 2020 where over 50 graduating seniors were inducted. This was a wonderfully choreographed event that maintained the dignity of the purpose of the ceremony and I specifically wish to thank ASCE-NH Student Chapter President Ryan Daley as well as Dr. Robert Henry, Dr. Raymond Cook, Dr. Kyle Kwiatkowski and Hugh Scott, ASCE-NH for their efforts in planning and executing this event.



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It could be seen as fitting given current events that one of our next initiatives is to republish *The Obligation-A History Of The Order Of The Engineer, 2012, Kip A. Wedel*. In fact, Kip was to attend the 50th Anniversary event in April and we are hopeful that he will attend the rescheduled event in October. I would like to thank our own J. Derald Morgan, Ph.D., PE, F.NSPE, Governor and Past-Chair who has been championing this effort as the resident steward of The Orders' history. Watch for more on this in the coming months as our October 50th Anniversary Event will become part of the next edition.

When it comes to stewards of our organization, we must acknowledge our link coordinators who work tirelessly to plan and execute our Link Ceremonies around the nation. This year I am very pleased to recognize this year's recipient of the Outstanding Link Coordinator Award, **Erin Reyes**, former Senior Manager of Professional Practice at the National Society of Professional Engineers (NSPE, Link 180) who was instrumental in orchestrating OE induction ceremonies at NSPE's Annual Meetings as well as helping to support induction ceremonies at NSPE Student Chapter events. See full article later in this newsletter and congrats Erin!

Last, as we move through the administrative year to October, our incoming Board of Directors and Executive Committee will take their place in The Order's history. While we are all in Cleveland for the 50th Anniversary Celebration we will hold our annual meeting and incoming Chair Steven Schreiner, Ph.D, P.E., my very excellent colleague and good friend, will take the reins for the next two years to lead The Order with his vision. In looking back (and forward), I am so pleased, humbled and grateful to have had the opportunity to serve this organization and to work with such a fine group of individuals who care so deeply about our great profession and the communities we serve. I am very much looking forward to working with our incoming Chair and the rest of our Board to build on the momentum we have gained over our first 50 years and to continue to be steadfast stewards of our profession! Stay safe everyone!

Sincerely,



Roch D. Larochelle, P.E., F.NSPE
Chair, Board of Governors

Virtual Induction Ceremony

On March 15, 2020, each of our Links received an email from Executive Director Paula Ostaff regarding Emergency Protocols for Virtual Ceremonies during the COVID-19 Pandemic. With classes being cancelled across the country, the Order was committed to working with the Universities to allow graduating seniors and graduate students to participate in a ring ceremony and accept the Obligation. The Order of the Engineer developed Emergency Protocols, or guidelines to be used in conducting virtual ceremonies:

1. *Links should consider facilitating a virtual ceremony using a video conferencing service or pre-recorded video to allow for synchronous or asynchronous remote participation - Zoom, WebEx, Skype, and Google Hangouts are some suggested options that will promote positive interaction between participants and officials.*
2. *Links should provide a ring and a certificate to each candidate to allow for remote participation - sending these materials in-advance via mail is suggested.*
3. *Links should confirm the candidate's participation in the virtual ceremony before sending final participant list to the Executive Director (orderofeng@gmail.com) - requesting an email from the candidates, or a survey submission, are suggested confirmation methods.*
4. *Links should consider other tactics to maximize ceremony flexibility based on specific Link circumstances - for example, only 1 current Order member involved in a ceremony (rather than 3 specified in the manual).*

These suggested guidelines are intended to provide flexibility, and the Links were advised that they should evaluate their own constraints and conditions to determine the most reasonable course of action for administering remote ceremonies, and proceed with whatever works best for them. These months have been challenging, and the Board of Governors wishes to thank all of the Link coordinators and facilitators for their continued diligence and support.

The Ceremony Manual Committee will be incorporating Guidelines for Virtual Ceremonies for use in an emergency or other necessary situations as they arise in the future.

Respectfully Submitted,

David A. Janover, PE, F.NSPE, CFM
Secretary, Order of the Engineer

2020 Outstanding Link Coordinator

In 2020 the Order's Recognition Committee selected a single individual for our Outstanding Link Coordinator Award. This award was developed by the Order in 2013 to recognize the outstanding efforts of Link Coordinators throughout the Nation who have provided exemplary service to the Order in the development, organization, and administration of a Regional Link and their Ceremonies. Each year, up to four individual awards are available for presentation to eligible candidates representing each of the four US Regions.



Erin Reyes, former Senior Manager of Professional Practice at the National Society of Professional Engineers (NSPE, Link 180), served as the Order of the Engineer Link Coordinator for more than 15 years. She worked with numerous leaders from the NSPE Professional Engineers in Government Board, NSPE Board of Directors, NSPE New Professionals, and membership to promote Order of the Engineer within the organization at the local, state, and national levels. This included the coordination of OOE induction ceremonies at NSPE's Annual Meetings (PECON) as well as helping to support induction ceremonies at NSPE Student Chapter events. David Janover, the current Secretary of the Order, was first introduced to Erin in 2011 when he served as the Chair of the NSPE Professional Engineers in Government Interest Group. Since that time, David has worked with Erin each year on coordinating the Order of the Engineer Ceremony at PECON, and has witnessed her tireless preparation and attention to detail regarding all aspects of the Ceremony, attributing to its ongoing success. Erin's dedication deserves our heartfelt recognition, and she has been a pleasure to work with.

Engineering Legacy Lives On

Nine family members, six engineers across three generations, three Milwaukee School of Engineering (MSOE) grads, one happy family. The Kubicek family lives by the motto, "It's all about efficiency," which shines true for each member of this engineering-centric family.



Bernice Kubicek, a 2019 MSOE graduate double majoring in electrical engineering and mechanical engineering, grew up with a passion for physics and math and desire to follow the engineering footsteps of her dad and grandpa.

Her grandpa, Edward Kubicek, kicked off the engineer lineage in 1946 where he received training through the U.S. Army. After serving in the Army, he went on to work as a systems engineer on various projects including the first moon rover, Titan missile control systems and many others.

Todd Kubicek, Bernice's dad, continued the engineering legacy at MSOE. An '84 graduate with a bachelor's degree in mechanical engineering technology and an associate degree in applied science in mechanical design engineering technology, he designed specialized equipment for the railroad industry, food industry and foundries. MSOE is where he met Bernice's mom, Virginia, who also graduated from MSOE in '84 with a bachelor's degree in business administration.

Bernice wasn't the only one influenced by her dad's and grandpa's careers, three of her six siblings also pursued engineering paths. Her older sister Veronica graduated from the University of Minnesota with a bachelor's degree in civil engineering. Her older brother Ben was trained in the Navy as a nuclear engineer and is currently deployed on a submarine. Rose, Bernice's younger sister, is currently studying mechanical engineering at Iowa State University.

Bernice has three more younger sisters who are continuing their education as well. Andrea is studying education at Marian University, Julia recently applied to the radiology program at the University of Iowa, and her youngest sister, Viki, is in high school and looking at colleges offering mechanical engineering degrees—Bernice has her fingers crossed for Viki to choose MSOE.

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Growing up in a large family of technical thinkers is where the family motto around efficiency evolved. Both parents supported their kids to explore whatever field they were interested in.

“As the parents of seven children, we encouraged success in math and science classes, setting up their foundation for their choices in engineering, healthcare or education. It was their interests and talents that led to four, possibly five with Viki, into engineering, one into education and one pursuing radiology,” said Virginia.

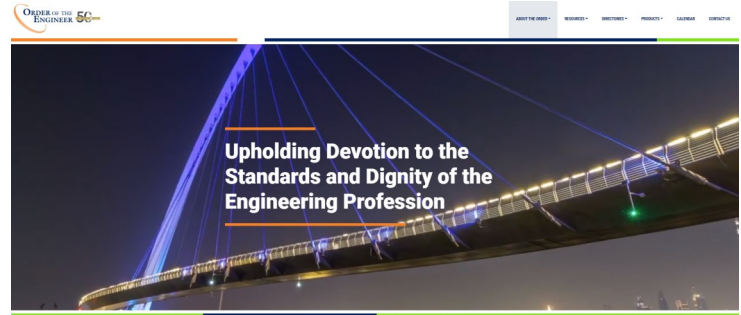
Bernice graduated in May 2019 with bachelor’s degrees in electrical engineering and mechanical engineering, and received her Order of the Engineer ring during a ceremony held the evening prior to Commencement. The event is extra special for Bernice as her grandpa and dad joined her on stage to receive their rings as well.

“I consider my father and grandpa to be two of the smartest men I know. My dad is my role model. I am excited and honored to receive my ring with both of them. My family is thrilled, too, and the majority of them were there to cheer us on!”

After graduation Bernice is attending the University of Iowa to pursue a doctorate in electrical engineering with a focus on signal processing. She began her research assistantship summer 2019 where she is working on developing computational techniques using signal processing, informatics and machine learning approaches to enhance the understanding of information collected about the environment via raw signals from instruments.

Communications Update

The Order of the Engineer Communications Committee is continuing to work hard on some exciting initiatives in 2020. Have you checked out the new and improved Order of the Engineer website? The site is at the same address (order-of-the-engineer.org/), but now with a new look and functionality. We are also establishing social media, starting with a Facebook page ([facebook.com/OrderoftheEngineer/](https://www.facebook.com/OrderoftheEngineer/)) and LinkedIn group ([linkedin.com/groups/12378132/](https://www.linkedin.com/groups/12378132/)) to connect with links across the country. Our goal is to share more content and better promote the great things going on with the Order of the Engineer.



As we progress these initiatives, we recommend that Links review the guidelines below and continue to document and share induction ceremony photos as usual.

Social Media Guidelines for Links

Identify a volunteer to take photos throughout each induction ceremony including the audience, inductees, and presenters (you can still take a screenshot, if it’s virtual!)

Share induction ceremony photos on Facebook and LinkedIn with the tag #OrderoftheEngineer

Consider sharing the best photos directly to the Facebook page and LinkedIn group

[https://www.facebook.com/](https://www.facebook.com/OrderoftheEngineer)

[OrderoftheEngineer](https://www.facebook.com/OrderoftheEngineer)

<https://www.linkedin.com/groups/12378132/>

Social Media posts which are associated with the Order of the Engineer are monitored and should not include content which is unrelated, inappropriate, advertisements, spam, or opinions on topics such as politics, or religion

We look forward to continuing to advance our connection with all 230 Links. If you have anything to share such as photos, comments, or questions on our communications initiatives, don’t hesitate to contact Sarah Straub Jakse (SarEliStraub@gmail.com).

ORDER OF THE ENGINEER 50TH ANNIVERSARY CELEBRATION

Ethics Symposium

TUESDAY, OCTOBER 20, 2020 | TIME & ROOM TBD

FREE AND OPEN TO THE PUBLIC

On June 4, 1970, students and faculty of the Fenn College of Engineering launched a new organization committed to professional responsibility based upon each participant accepting an obligation: individually pledging themselves to a lifetime of unwavering commitment to the ethical practice of engineering while upholding devotion to the standards and dignity of the engineering profession. It was, and remains today, a formal recognition of two basic principles — namely that the primary purpose of engineering is service to the public, and that all engineers share a common bond. Since 1970, over 500,000 individuals have proudly accepted this obligation.

From the beginning of the Order of the Engineer, the torch of ethics has often been carried by civil engineers. As we have moved into the digital era, this topic has a renewed relevance among all disciplines. It is ingrained in academic accreditation, as well as government and corporate cultures. Whether it is a computer-controlled implantable device or a self-driving automobile or plane, the issue of public safety and ethics touch each sub-discipline of science and engineering.

We dedicate this symposium to those 87 forward-thinking individuals, students, faculty and engineering professionals who created the ritual, accepted the obligation and placed a symbol of unity, the steel ring, on the last digit of their working hand. We celebrate this founding event that occurred 50 years ago creating Link 1 at Cleveland State University.



Washkewicz College
of Engineering



MODERATOR



Arthur Schwartz,
Deputy Executive Director
and General Counsel,
National Society of
Professional Engineers



Michael C. Loui, Ph.D.,
Professor Emeritus,
University of Illinois
at Urbana-Champaign

*Ethics in Engineering
Education*



Ben Amaba, Ph.D.,
Chief Technology Officer,
IBM Data Sciences

*Engineer's Role in
Artificial Intelligence
and Technology*



Brian Davis, Ph.D.,
Professor and Interim
Associate Dean, Washkewicz
College of Engineering,
Cleveland State University

*Medical Device Failures
- Ethics and Cost*



Debbie Wells,
Deputy Program
Manager, AECOM,
Kennedy Space Center

*Commercial Human
Space Flight*

MODERATOR

Arthur Schwartz, Deputy Executive Director and General Counsel, National Society of Professional Engineers

Schwartz holds a bachelor of arts degree from the State University of New York at Buffalo (1977) and a juris doctor degree from the American University/Washington College of Law (1980). Schwartz is a member of the American Bar Association, as well as the District of Columbia, Florida and Virginia Bar Associations. Additionally, he is a certified association executive (CAE). Schwartz has authored more than 400 published ethics decisions and has written dozens of articles and papers addressing such topics as the protection of the public health and safety, conflicts of interest, duty of confidentiality and more.

SPEAKERS

Michael C. Loui, Ph.D., Professor Emeritus, University of Illinois at Urbana-Champaign

Recently retired, Loui was the Dale and Suzi Gallagher Professor of Engineering Education at Purdue University from 2014 to 2019. He was previously professor of electrical and computer engineering and University Distinguished Teacher-Scholar at the University of Illinois at Urbana-Champaign. He currently serves on the Advisory Group for the Online Ethics Center at the National Academy of Engineering. He previously served on the executive board of the National Institute for Engineering Ethics. He is a Carnegie Scholar, a Fellow of the IEEE and a Fellow of the American Society for Engineering Education. He earned his Ph.D. at the Massachusetts Institute of Technology in 1980.

Ben Amaba, Ph.D., Chief Technology Officer, IBM Data Sciences

Amaba holds a doctorate degree in industrial and systems engineering, an MBA/M.S. degree in engineering and operations and a B.S. degree in electrical engineering. He is a registered and licensed professional engineer in several states with international registry; certified in production, operations and inventory management by APICS; LEED-accredited professional (Leadership in Energy & Environmental Design); and certified in corporate strategy by Massachusetts Institute of Technology. He is responsible for industrial manufacturing, infrastructure, engineering and supply chain solutions. Amaba's focus and interest is in artificial intelligence, data sciences and cloud technology.

Brian Davis, Ph.D., Professor and Interim Associate Dean, Washkewicz College of Engineering, Cleveland State University

Davis has over 25 years of experience with medical devices, sensor-based systems and biomedical engineering. He has represented the field at the international level, including serving as president of the International Society of Biomechanics. Prior to joining CSU, he served as chairman of Biomedical Engineering at the University of Akron and vice president and director of the Medical Device Development Center within the Austen BioInnovation Institute in Akron. From 1992 to 2010, he held various leadership positions at the Cleveland Clinic, including vice chairman of the Department of Biomedical Engineering and founding director of the Medical Device Solutions group.

Debbie Wells, Deputy Program Manager, AECOM, Kennedy Space Center

Wells is a biomedical engineer with an MBA who has 31 years of space industry experience. Since 1988, she has contributed to over 100 space shuttle missions and the experiments aboard those flights. After completing her MBA in 2006, Wells transitioned to a Florida venture capital firm to evaluate new business opportunities and recommend investment strategies. Today, Wells serves as deputy program manager for AECOM, managing research and operational laboratories at Kennedy Space Center. Her focus is on acquiring new research funding, establishing collaborations and pushing the boundaries to prepare for the new economy of space.

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