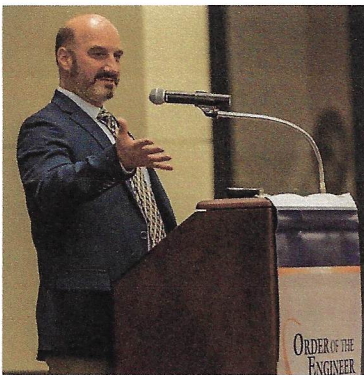


50th (+2) CELEBRATION

The Order of the Engineers Turns 50(+2)!



Thursday, April 7th 2022 marked the 50th (+2) Anniversary Celebration of the Order of the Engineer. After two years of Covid-related delays and almost four years of planning, the day-long celebration finally took place. This ceremony included an Ethics

Symposium, Link Induction Ceremony for student engineers and professionals, and a Celebration Banquet at Cleveland State University (CSU) Washkewicz College of Engineering (formerly the Fenn College of Engineering). It was at CSU in June of 1970 that 87 remarkable students and faculty members took The Oath and accepted The Ring thus forming the first Link of The Order of the Engineer! Since that time over a **half-million** engineers have followed their example and now wear the Engineer's Ring. These 500,000 engineers have all taken The Oath to practice engineering ethically and protect the health, safety and welfare of the general public that we all serve!

On behalf of the entire National Board of Governors for The Order, I would like to thank all those that were involved in planning this historic event. Thank you to

the *all-star* lineup of speakers listed on page 3 for the Ethics Program, and the CSU faculty and staff that helped to plan and flawlessly execute the Link Ceremony and Celebration-Awards Banquet. Special thanks to **Dr. Joanne Belovich, Ph.D** and **Joanie Hundt** (Administrative Coordinator) who were both instrumental in pulling off the event with perfection. We would also like to thank CSU President Harlan Sands; Dean Richard Schoephoerster, Ph.D; Provost Laura Bloomberg, Ph.D; and Associate Professor Brian Davis, Ph.D for their part in embracing the goals and history of The Order.

The pride that the faculty and staff at CSU feel for their part in the history of The Order is palpable in their vigorous and long-standing support of this important organization and what it means to our profession nationwide. Equally apparent is the pride of ownership felt by the original 1970 inductees who were able to attend this event. We were blessed to share their presence, stories and gratitude as they were recognized and stepped into their rightful place in history during this event.

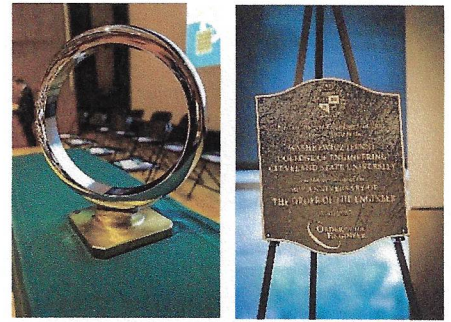
Lastly, we wish to again thank all those at **Link 001** for allowing us to participate in your wonderful celebration of this once in a lifetime historical event.

Respectfully Submitted,

Roch D. Larochelle, PE, F.NSPE
Past Chairman, National Board of Governors
The Order of the Engineer



“Our leaders should be engineers and our engineers should be leaders” – Dean Richard Schoephoerster, Ph.D



“It’s humbling to be here for the 50th Anniversary. Sitting here with the same ring on, I look back on how much has changed.” – Noel Sargent (1970 CSU Inductee)

“The Order of the Engineer made me feel like a part of something.” – Rebecca Bowan (1976 Inductee)



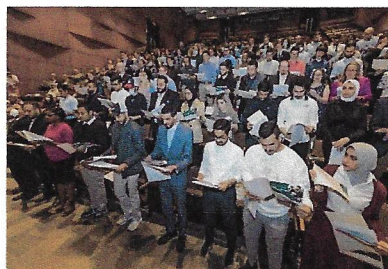
“I am an Engineer. In my profession I take deep pride. To it I owe solemn obligations. As an Engineer, I pledge to practice integrity and fair dealing, tolerance and respect; and to uphold devotion to the standards and the dignity of my profession, conscious always that my skill carries with it the obligation to serve humanity by making the best use of the Earth’s precious wealth. As an Engineer, I shall participate in none but honest enterprises. When needed, my skill and knowledge shall be given without reservation for the public good. In the performance of duty and in fidelity to my profession, I shall give my utmost.”



“It was through their passion and diligence that we worked through two years of Covid-related delays to come to this day... I am so honored to have worked with these folks to plan such an important and historical event.” – Roch Larochelle, PE



“Engineering ethics can be taught... Ethics is not just avoiding evil but also doing good” – Michael Loui Ph.D., University of Illinois Urbana-Champaign & Purdue University



“It’s so important to have people who know what they are doing, and for them to care to do the right thing.” – Joe Zenter (1970 CSU Inductee)



Attendees of Link 001 Induction Ceremony June 4, 1970

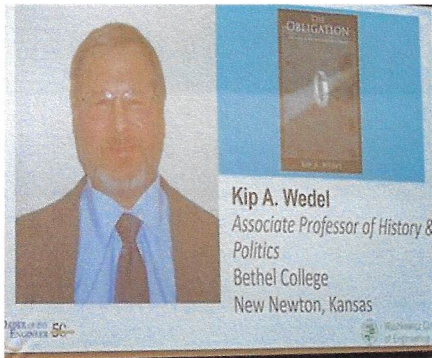


Family of “The Ring Maker”



Natalie Romeo, Owner of J&J Machine Company and family members, including Grandson Alan Irving. They have been the fabricators of every ring that is worn by inductees since 1976.

Author of “The Obligation”



Kip A. Wedel, Associate Professor of History & Politics, Bethel College, and author of the book of our history.

Congratulations for attending this historic inspirational event!

OE Communications Committee:

- Sarah E. Straub Jakse—Chair
- Mandi M. Petrella, P.E.
- Judy L. Cezeaux, Ph.D
- Ken McGowan, P.E., FNSPE
- Kris McGowan—Newsletter Editor

Highlights of Speaker Presentations

MODERATOR



Arthur Schwartz,
Former Executive Director
and General Counsel,
National Society of
Professional Engineers (NSPE)

SPEAKERS



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



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



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



Debbie Wells,
Deputy Program Manager,
Amentum Services, Inc.,
Kennedy Space Center

*Ethics in Engineering
Education*

*Engineer's Role in
Artificial Intelligence
and Technology*

*Medical Device Failures
- Ethics and Cost*

*Commercial Human
Space Flight*

Michael C. Loui, Ph.D

- Engineers are always responsible for safety no matter where or when.
- ABET has required ethics instruction since 1986.
- Engineers need the skill of recognition and judgment.
- Engineers should not just avoid evil, but to do good.
- Briefly discussed the Challenger Spaceship Explosion, Kansas City Hyatt Disaster, and the Ford Pinto Case.

Ben Amada, Ph.D.

- Spoke about Artificial Intelligence and Data Analytics (one of the hardest things to access).
- The industrialized community has been using data analytics for some time.
- Now engineers and developers need to pick up the slack.
- With these tools, a speed improvement of 10 times can be realized.
- AI interacts with the Internet of Things and the profession.
- AI is no longer science fiction but rather scientific fact.

Brian Davis, Ph.D.

- Several medical device failures and lawsuits were discussed, including the ethics and cost of them.
- Johnson & Johnson Baby Powder Case where 38,000 lawsuits were blocked by spinning them off to a separate co.
- Theranos CEO and founder Elizabeth Holmes used fake data and was convicted of fraud on January 23, 2022.
- Stevie Wonder was exposed to too much oxygen in the incubator which caused detached retinas and his blindness.
- Some hospitals are using a shredding device to shred tissue that spreads cancer cells throughout the abdomen.
- Symphysiotomy (outdated surgical procedure) – women can only use caesarean section 3 times for birth control (hospitals in Ireland would not listen to women).

Debbie Wells, Deputy Program Manager for Amentum Services at Kennedy Space Center

- On May 8, 2022, the first commercial astronaut took off for the moon.
- Space X is manufacturing and launching advanced rockets and spacecraft.
- The following 4 companies are at the forefront of space exploration: Axiom Space (ISS Module), Blue Origin, Northrup Grumman and Nanoracks.
- United State Space Force (part of the Dept of the Air Force) was founded in December, 2019.
- Three tragedies were briefly discussed: Apollo 1 Cabin Fire, Challenger O-Ring disaster (Morton Thiokol), and the Feb. 2003 NASA Space Shuttle Columbia Orbiter disaster.