



# NSPE-NM™ NEW MEXICO SOCIETY OF PROFESSIONAL ENGINEERS

Fall 2016

## Letter from the President Walter Gerstle, UNM



The need for professional engineering licensure is more urgent than ever in an increasingly technological society. In 1907 the state of Wyoming passed the first engineering registration law. In 1935, when Clyde Tingley was governor, New Mexico passed its first engineering licensure law. Montana, in 1947, was the last of the 48 states to require engineering licensure. Recent engineering disasters such as the Flint lead contamination calamity, Deepwater Horizon blowout, numerous train crashes, and the Gold King Mine spill all point to the need for highly educated, ethical, and professional engineers to be engaged in the decisions of our increasingly technological society. To prevent further disastrous climate change and ocean acidification, our world must reduce its dependence upon burning hydrocarbons, and professional engineers must step up and play a leading role to design alternative methods of energy production and distribution. In fact, we must reinvent our society.

Recently, Governor Mike Pence of Indiana came out against a misguided effort, under the guise of “deregulation”, to end professional engineering licensure in Indiana. The National Society of Professional Engineers was a strong voice of reason in preserving licensure in Indiana.

Although engineering licensure is very important, membership in NMSPE has been slipping in recent years. New Mexico membership in NMSPE is down from 800 twenty years ago to just 130 active members currently. This is likely due to the competition from the recent explosion of engineering societies representing engineering sub-disciplines. Yet the need to protect the public safety and to protect the integrity of the engineering profession has never been greater. I encourage all members to recruit young professional engineers into NMSPE. By working together, we elevate the engineering profession.

NMSPE is involved with many activities, including monthly luncheon meetings of the Albuquerque Branch of NSPE, the Annual NMSPE conference held in June, E-Week activities in February, MathCounts, the “Dream Big” initiative, support for student activities at the three schools of engineering in New Mexico, and engineering student scholarships.

The NMSPE Issues Conference will take place in Albuquerque on Friday, November 4. We have developed an excellent program with expert speakers on the topics of climate change, renewable energy, professional engineering licensure, Albuquerque public works projects, engineering research at all three New Mexico research universities, and an hour of ethics. I ask all NMSPE members to attend the conference.

I hope you will enjoy this newsletter, and will be an active NMSPE member!

*“The professional engineering license is the currency of our profession, and it needs to be valued and protected. I encourage all professional engineers to become active in our professional society, and I encourage all engineers to become licensed. Only by actively working together can we elevate our chosen profession!”*

**~Walter Gerstle  
NMSPE 2016-17  
President**



[Click here to Register for the Issues Conference!!](#)



## President Elect, NMSPE, State Governing Board



### Professor Becomes a Fellow of ASME, NSPE, SAE



**Dr. Nadir Yilmaz** has recently been elected a Fellow of NSPE (Mar Dr. Nadir Yilmaz has recently been elected a Fellow of NSPE (March 2016), a Fellow of ASME (September 2016) and a Fellow of SAE (September 2016). Yilmaz is a Professor and the Associate Department Chair of Mechanical Engineering at New Mexico Institute of Mining and Technology. He is a registered professional engineer in New Mexico.

The National Society of Professional Engineers (NSPE) is a member-centric, nimble, future-focused, and responsive organization, serving as the recognized voice and advocate of licensed Professional Engineers. Founded in 1934, NSPE serves more than 31,000 members and the public through 52 state and territorial societies and

founded in 1880 by a small group of leading industrialists, American Society of Mechanical Engineers (ASME International) has grown through the decades to include more than 140,000 members in 151 countries. The ASME Committee of Past Presidents confers the Fellow distinction on worthy candidates to recognize their outstanding engineering achievements.

Founded in 1905, Society of Automotive Engineers (SAE International) is a global association of more than 138,000 engineers and related technical experts in the aerospace, automotive and commercial-vehicle industries. Established in 1975, SAE Fellow distinction recognizes and honors long-term SAE members who have made a significant impact on the society's mobility technology through leadership, research, and innovation. Election to Fellow is an exceptional professional distinction bestowed on around 20 recipients each year.



## New Mexico Tech Welcomes New President!



A new chapter in the history of the New Mexico Institute of Mining and Technology has begun with Dr. Stephen G. Wells officially beginning his duties as the University's 17<sup>th</sup> president. Dr. Wells is the first new president at New Mexico Tech in 23 years and has strong ties to the Land of Enchantment. Dr. Stephen G. Wells was the president of the Desert Research Institute in Nevada since 1999. He had previously served as the graduate program director for the Department of Earth Science at the University of California-Riverside from 1991 to 1995. He also served on the faculty in the Department of Geology at the University of New Mexico from 1976 to 1991. Dr. Wells earned his bachelor's in geology from Indiana University in 1971, and his master's and doctorate, both in geology, from the University of Cincinnati in 1973 and 1976, respectively. New Mexico Tech Board of Regents chair Deborah Peacock, P.E., said, "Dr. Wells understands how universities fit in with the community, state, national and international environments – and with other universities, community colleges and K-12."





**Mike Anderson,  
M.B.A., P.E.**

Terracon, Geotechnical  
Dept.

**The Albuquerque Chapter** of NMSPE has secured the venue and started preparations for next Year's E-week. The event will be held on February 24, 2017 at the Uptown Marriott. This event promises to bring a lot of diverse and interesting topics relevant to the members of NMSPE as well as people living in New Mexico. The day will start off with a complimentary Continental breakfast followed by 2 breakout sessions. Lunch will follow the morning sessions with one breakout session and ethics training in the afternoon.

Professional Engineers (P.E.) recognition ceremony tentatively scheduled for January 2017. This is an important time to recognize engineers for their dedication, hard work and major accomplishments. NMSPE Joint Membership Holiday Social Event scheduled for December 12, 2016. This is a great time to enjoy the Holiday season and get to know your Board of Directors and members of both the ABQ chapter and State Governing Board. The venue will likely be either the Rio Bravo Brewery or Chama River Brewery. Date, time and place to be announced soon on the ABQ Chapter website.



**Matt Cramer, P.E.**

Geomat Engineering  
& Testing

**The San Juan Chapter** had an Ethics meeting on September 9<sup>th</sup> conducted by Brian Legan of NMDOT at the San Juan College School of Energy. The meeting was attended by approximately 30 professional engineers. The last monthly meeting was October 19<sup>th</sup> and the speaker presented "CentriPipe, Structural Spin casting of Existing Culverts". The November meeting will be held on 16<sup>th</sup> and the presenter will be Colin Daly, P.E. on "From Toilet to Tap? The Future of Drinking Water".

The San Juan branch of NMSPE will once again put on the local MATHCOUNTS competition. This year's competition will be held at McGee Park on Saturday, February 11, 2017. Last year approximately 60 students competed representing 7 local middle schools. This year the goal is to raise those numbers to 100 students and 10 local middle schools. Requests for volunteers for the event will begin in October.



**Joe Barela, P.E.**

Joe B Engineering

**The Northern New Mexico Chapter** of the NMSPE held its Annual Fall meeting on Thursday, October 20, 2016.

The meeting agenda focused on preparations for the upcoming Math Counts competition which will be held in February 2017. The competition is usually held at Pojoaque High School and we do not expect the location to change.

Another important topic which is discussed at all our meetings is recruitment of new members to the Chapter. We will continue to focus on recruiting new members not only to the Northern, but also the State Society and of course the Society at the National level. We will have a presentation at our October 2016 meeting. Mr. Derek R. Bohannon, VoloPervidi, LLC will speak on the use of drones to conduct engineering inspections.





Past events...

Thank you Sponsor!



**JOIN US AND DUKE CITY PEDALER FOR BREWERY STOPS ON THE PARTY BIKE!**

**FRIDAY OCTOBER 14<sup>TH</sup>**  
**MEET US AT**  
**219 CENTRAL AVE NW**  
**AT 6 PM**

**OUR BREWERY STOPS ARE:**  
 DUAL BREWERY,  
 RED DOOR BREWING &  
 BOESE BROTHERS BREWERY.

**THANK YOU TO OUR SPONSOR!**




~HOSTED BY~  
 YOUNG ENGINEERS COUNCIL  
 CHAIRMAN: JOE HIGHAM

**NSPE-NM** NEW MEXICO SOCIETY OF PROFESSIONAL ENGINEERS

**TO SIGN UP PLEASE EMAIL**  
**NMSPE.STATE@GMAIL.COM**  
**HURRY, SEATS ARE LIMITED!!**



## NMSPE Bike and Brew Networking and Membership Event

On Friday October 14, NMSPE hosted a networking and membership event with Duke City Pedaler. We had engineers out from M&E Engineering, Emec LLC, Bridger's & Paxton Consulting Engineers, University of New Mexico and Varitec Solutions. The Duke City Pedaler is a multi-passenger human powered vehicle which allowed attendees to get some exercise in between stops at three local breweries.

NMSPE President Walter Gerstle and VP Young Engineers Council Joe Higham educated the non-members in attendance about the benefits of membership and the efforts of NPSE and NMSPE in protecting the public and promoting the interests of licensed professional engineers. For many of the attendees, this event was their first exposure to NMSPE and certainly not their last.



### Business/Real Estate/Construction Candidate Forum : The NM House & Senate Moderator: Kent Walz, Editor ABQ Journal On September 19th

**"The NM House & Senate...Crucial Races"**

**NM Senate Candidates:**  
 Senate District 15  
 Daniel Ivy-Soto - Incumbent (D)  
 Eric Burton - (R)

**Senate District 9**  
 John Sapien - Incumbent (D)  
 Diego Espinoza - (R)

**Senate District 29**  
 Michael Sanchez—Incumbent (D); Respectfully Declined  
 Greg Baca - (R)

**NM House Candidates:**  
 House District 15  
 Sarah Maestas Barnes - Incumbent (R)  
 Ane Romero - (D)

**House District 24 (No Incumbent Conrad James retired from the seat)**  
 Christina Hall - (R)  
 Elizabeth Thomson - (D) (formerly held the seat)



**HOSTED BY:**  
 Apartment Association of NM (AANM)  
 Associated Builders & Contractors (ABC)  
 American Council of Engineering Companies (ACEC)  
 NM Association of Commerce & Industry (ACI)  
 Associated General Contractors (AGC)  
 American Subcontractors Association (ASA)  
 Building Owners & Managers Association NM (BOMA)  
 Commercial Association of REALTORS® NM (CARNM)  
 Certified Commercial Investment Member (CCIM)  
 Commercial Real Estate Women (CREW) NM  
 Greater Albuquerque Association of REALTORS® (GAAR)  
 Home Builders Association (HBA)  
 (Institute of Real Estate Management) IREM  
 NAIOP Commercial Real Estate Development Association  
 NM Society of Professional Engineers  
 NM Utility Contractors Association  
 Society of Industrial & Office Realtors®

Albuquerque Marriott @ Louisiana @ 1-40;  
 1:30—1:15; \$35.00 all seats; www.naiopnm.org

Upcoming events...



## 2016 NMSPE Issues Conference

November 4, 2016

7:30 AM ~ 4:00 PM Program

4:45 PM ~ 7:00 PM Reception to follow the Conference at Kelly's Brewery

UNM Science & Technology Park, "The Rotunda"

801 University Blvd. SE, Albuquerque, NM



[Click here to Register!!](#)



## SAVE THE DATE ENGINEERS WEEK

Friday, February 24, 2017 | The Albuquerque Marriott Hotel

EARN UP TO 7 PDHS INCLUDING 2 ETHICS

*presented by*  
The Albuquerque Chapter of the  
New Mexico Society of Professional Engineers

DiscoverE.org | #Eweek2017 | nmspealbuquerque.org



# News from UNM



**By Walter Gerstle**

Provost Chaouki Abdallah has announced the kickoff of a search for a new dean of the School of Engineering. The new dean will have an endowed position under the title of the “Jim and Ellen King Dean of Engineering and Computing”. The new dean will take over leadership of the School from Joseph L. Cecchi, who has held the dean position since 2014, and also previously from 2000-2009. Cecchi was the first dean endowed by the Jim and Ellen King Dean of Engineering and Computing.

Dear colleagues,

I serve on an advisory council to the NM Public Education Department (PED) to help on STEM education in New Mexico. Over the past three years, PED has organized a teacher professional development symposium in Albuquerque in June.

Emerging standards for science education in K-12 include engineering practices and inquiry-based teaching strategies. PED is very interested in having practicing engineering and science professionals help develop or curate content that New Mexico teachers can use.

Would you kindly disseminate the attached letter to your membership? Kevin Strong, representing the Ceramics society in Albuquerque, and I, representing NCSLI, are coordinating a volunteer effort to help NM PED.

Best regards,

Hy D. Tran, PhD, PE

Senior Scientist/Engineer, Center 02500

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Dear colleagues,

October 12, 2016

We would like to invite the Albuquerque technical professional societies to participate in the 2017 STEM Symposium, a K-12 teacher professional development conference sponsored by the Math & Science Bureau of the New Mexico Public Education Department (MSB, NM PED: [http://ped.state.nm.us/ped/MathandScience\\_Index.html](http://ped.state.nm.us/ped/MathandScience_Index.html)).

This event typically occurs in early June, and brings together K-12 math and science teachers from all over New Mexico to look for ways to more effectively teach math, science, engineering, and technology (STEM).

The math and science outcomes for K-12 education in New Mexico, on average, have been poor. The science standards currently in use date from 2003—consider that this is before the iPhone! NM PED is recommending changing the science standards to an integrated standard that includes inquiry-based teaching, engineering practices, and crosscutting concepts. A major component of NM PED's plans is greater professional development for the K-12 teachers in science and engineering content.

What better source for content than us, the professional scientists and engineers in New Mexico?

We would like to propose that the professional societies jointly develop a short workshop (say 90 minutes) addressing the following topics:

- Elementary school content, middle school content, high school content, aligned with Next Generation Science Standards (NGSS, see [www.nextgenscience.org](http://www.nextgenscience.org))
- Content involving crosscutting engineering science practices, appropriate to the student groups (elementary, middle, high school)
- A scalable curriculum that teachers who attend can not only teach, but can also use easily to train other teachers at their home schools

If you decide to do this as a community service project, I can facilitate conversations with math and science teachers, and with NM PED (I currently serve on its Math & Science Advisory Council, a citizen advisory board to MSB that includes teachers and administrators). Some funding can be provided for materials through NCSL International ([www.ncsli.org](http://www.ncsli.org), a professional organization for standards and calibration laboratories; I serve on their board of directors).

Why should we, the professional engineers and scientists in New Mexico do this?

- This is important to society. Well educated populations, whose education includes STEM topics and engineering practices, whether or not they pursue a science or engineering career, are good for all of us.
- Teachers are a great leveraging entry point. While many of us enjoy volunteering in classrooms, helping teachers has much greater impact in addressing a larger population.
- You get to work with engineers and scientists in other disciplines.
- You get to exercise your creativity and skills! This should be a really fun activity!

Hy Tran (ASME, NCSLI; [hdtran@sandia.gov](mailto:hdtran@sandia.gov))



# ~Thank you, Have a wonderful Fall Season~

President & Education UNM  
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**Joe Barela, P.E., CFM**

San Juan Chapter Liaison  
**Matt Cramer, P.E.**

**Thank You  
2016-17  
Board of Directors**



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