

Advancing Technology for Humanity



### **Albuquerque Section IEEE**

Officers:

- Chair Jason Neely
- Vice Chair Ray Byrne
- Treasurer Gilberto Zamora
- Secretary Lee Rashkin
- Educational Outreach Hy Tran

Student Chairs:

- UNM Co-Chairs Rebecca Kreitinger, Francisco Viramontes
- NMT Chair Alejandra Mayorga del Valle



### Section Report

#### Status

- Higher Grade Members: from 1,008 (2017) to 981 (2018), -2.7%
- Student Members: from 120 (2017) to 131 (2018), +9.2%
- Total Members: from 1,128 (2017) to 1,112 (2018), -1.4%

#### Successes

- Student branches engaged and active
- Active collaborations with other organizations
- Continued activities: public talks and awards
- New: YPAG, SPS
- Obstacles
  - Recruitment and retention
  - Membership at-large engagement
  - WIE lacks continuity







### Student Branches are Active

- NMT student branch
  - hosted a through-hole and surface-mount soldering workshop last week, many enjoyed that and we will have one again soon
  - supervised two events at the Science Olympiad State Competition held at NMT
  - attended 2018 Rising Stars conference
- UNM student branch
  - Participated at IEEEXtreme programming competition
  - Holds periodic meeting to help and recruit students
  - Holds tutorials on EE basic skills
- Working on setting up other student branches
  - CNM
  - Navajo Technical Institute









# 2018 Rising Stars Conference

#### January, 2018

• NMT and UNM took the podium at IEEE Rising Stars 2018! We received awards for first, second, and third place in their Cyber Security Capture-the-Flag competition.







### Section Awards Banquet Ceremony

#### May 26<sup>th</sup>, 2018

- Each year the IEEE Albuquerque Section, in collaboration with the UNM Sigma Xi Chapter, recognizes the efforts of its membership to improve the organization and bring merit to our profession.
- <u>Astronaut Dr. Harrison H. Schmitt</u>, presenting his talk "A Voyage to the Moon on Saturn's Wings."





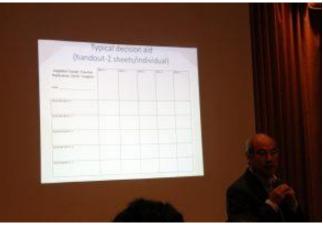




# STEM Symposium 2018

#### June 1<sup>st</sup>, 2018

- IEEE Albuquerque Section had another successful participation at the 2018 New Mexico Public Education Department's STEM Symposium
- The workshop, titled "Breaking Chocolate" was presented by:
  - Turtle Haste, NBCT, MSED
  - Rebecca Kreitinger, Student Member IEEE
  - Zane Kominek, Student Member IEEE
  - Hy Tran, Senior Member, IEEE.
- 50 teachers participated in the session (this was the room limit); and teachers participated in discovering the importance of standards in measurements



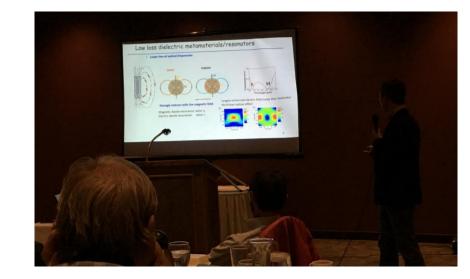






# Technical Talks

• The Albuquerque Section IEEE Joint Chapter hosts several technical talks each year

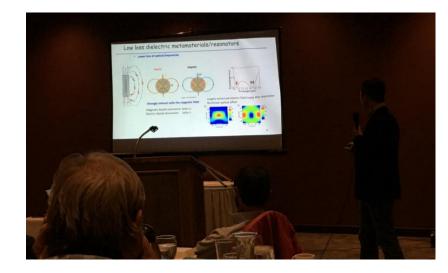


- Recent talks include:
  - Nov 14, 2018 "Therapeutic and Diagnostic Uses of Electromagnetic Energy in Emerging Medical Technologies" by Dr. David Giri, ECE, UNM
  - Sept 19, 2018 "Overview of Wideband Antenna Concepts, Applications to CWI and Pulse Testing" by Bill Prather, USAF Research Lab, Directed Energy Directorate
  - Oct 5, 2017 "Novel functional photonic devices enabled by nanostructures" by Dr. Sheng Liu, Sandia Labs



### Technical Talks

- The Albuquerque Section co-sponsors a prolific distinguished public talks series with the UNM chapter of Sigma-Xi
- Recent talks include:
  - Nov 14, 2018 "Therapeutic and Diagnostic Uses of Electromagnetic Energy in Emerging Medical Technologies" by Dr. David Giri, ECE, UNM
  - Oct 17, 2018 "Energy Storage and Modernization of the Electric Grid" by Dr. Babu Chalamala, Sandia National Laboratories, Albuquerque, NM
  - Sept 19, 2018 "Overview of Wideband Antenna Concepts, Applications to CWI and Pulse Testing" by Bill Prather, USAF Research Lab, Directed Energy Directorate
  - May 2, 2018 "Statistical Topological Approach using Wave-chaos for Electromagnetic Effects (STUWEE)" by Ghadeh M. Hadi, Ph.D., Verus Research, Albuquerque, NM
  - April 4, 2018 "Switches for Emerging Applications in High Power Electromagnetics" by Dr. Jane Lehr, Electrical & Computer Engineering Dept, University of New Mexico
  - March 7, 2018 "Double-Pulse Technique for Defending from Hostile Systems" by Dr. Dave Giri, President, Pro-Tech, Brooklyn, NY, and Adjunct Professor, EECE, University of New Mexico
  - Feb 7, 2018 "Shiva Star: Pioneering Megagauss Science and Technology" by Dr. Matt Domonkos, Air Force Research Laboratory, Kirtland AFB, NM
  - Nov 16, 2017 "Fundamental Antenna Terms that Do Not Appear in Any Textbook... Yet!" by Dr. Everett G. Farr, Farr Fields, LC, Albuquerque, NM





# Collaborations

- The Albuquerque Section collaborates with local organizations
  - Sigma-Xi (UNM Chapter): Public Talks series co-sponsor
  - Materials-related Inter-Society (SAMPE, ASME, ASM, AWS, IEEE, Sigma Xi): Member
  - Solar Splash (national): Report judging, local team sponsor











# Section Supports Local Conferences

#### Nov 12-16, 2018

- The Albuquerque Section IEEE is supporting the WEEF-GEDC 2018 Conference
  - World Engineering Education Forum (WEEF)
  - Global Engineering Deans Council (GEDC)

