

Recognition of Excellence

Texas Recipients of Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring

April 25, 2019



2018 PAESMEM Recipients from Texas

- Dan G. Dimitriu, Ph.D., P.E., Professor and Engineering Program Coordinator, San Antonio College
- Tanja Karp, Ph.D., Associate Professor, Electrical and Computer Engineering, Texas Tech University
- Jorge A. López, Ph.D., Shumaker Professor of the Physics Department, The University of Texas at El Paso
- Joshua Villalobos, Dean of Instructional Programs and Campus Dean of the Mission del Paso Campus, El Paso Community College



Dan G. Dimitriu, Ph.D., P.E.

- There's an urgency for improving the mentoring skills of engineering faculty.
- In an academic setting, engineering students don't have the environment, responsibilities, demands, or interactions with other members of an engineering team; they don't face the real-life situations and challenges that a practicing engineer faces daily.
- Our mentorship must have as many professional engineering aspects as academic ones.

Dan G. Dimitriu, Ph.D., P.E.

The mentoring role should include being part **coach**, part **advisor**, part **trainer**, part **counselor**, part **cheerleader**, and above everything else, being a **role model**.



Dan G. Dimitriu, Ph.D., P.E.

- I approach every mentee following a problem-solving approach by:
 - Evaluating the student's personality, background, and needs
 - Selecting activities and interactions that seem appropriate for that mentee
 - Reviewing the results
 - Choosing the best course of action to implement what works best
 - Having constantly their success in mind
- My ASEE paper "Mentoring is a Full Contact Activity in Engineering Education" is online at <https://www.asee.org/public/conferences/106/papers/21149/view>

Tanja Karp, Ph.D.



- As a STEM mentor, I see my role in
 - assisting mentees to succeed in their careers
 - helping them to meet their goals
 - broadening their horizons
 - listening to what they have to say
 - creating accessible opportunities for underrepresented groups
 - promoting STEM careers



Tanja Karp, Ph.D.



- STEM Mentoring Network created through Robotics

- K-12 students and their parents
- Engineering undergraduate students
- Educators (teachers/club coaches)
- University faculty and staff
- Industry
- International colleagues



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Tanja Karp, Ph.D.



<https://youtu.be/3-bTIdXX0X4>



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Jorge A. López, Ph.D.

<https://youtu.be/LOsfO7ymIVM>

Jorge A. López, Ph.D.

Question: "What mentoring methodology do you use in this bicultural-bilingual-binational area?" Answer: "Whatever works," responds Dr. López.

"Mentoring is not a goal but a tool to improve the well-being of students, and as such it must adapt to the conditions."

Joshua Villalobos

“Our students deserve someone who inspires them to do better than they think they can do.”



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Geoscience Program at El Paso Community College

Joshua Villalobos
Dean Mission del Paso Campus





Questions?