

Martin Knecht, M.S., Physical Science and Engineering Department, South Texas College, McAllen, TX

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Education:

- M.S., Mechanical Engineering, University of Texas-Pan American (UTPA), Edinburg, TX 78539, 2010
- M.S., Physics, University of Illinois at Urbana Champaign, Champaign, IL 61820, 1999
- B.S., Engineering Physics, University of Illinois at Urbana Champaign, Champaign, IL 61820, 1997
- A.S. Engineering, Lincoln Land Community College, Springfield, IL 62749, 1995

Employment History:

- 2008-Present (15 years), Engineering Program Coordinator, Physical Science and Engineering Department, South Texas College, McAllen, TX
- 2000-Present (23 years), Fulltime Engineering Faculty, Physical Science and Engineering Department, South Texas College, McAllen, TX
- 1997-1999 (3 years), Teaching Assistant, Physics Department, University of Illinois at Urbana Champaign, Champaign, IL

Relevant Publications:

- Caruntu, D.I., Martinez, I., **Knecht, M.W.**, 2016. Parametric resonance voltage response of electrostatically actuated micro-electro-mechanical system cantilever resonators. *Journal of Sound and Vibration*, vol. 362: pp. 203 – 213.
- Caruntu, D.I., **Knecht, M.**, 2015. MEMS cantilever resonators under soft AC voltage of frequency near natural frequency. *Journal of Dynamic Systems, Measurement and Control*, vol. 137.
- Caruntu, D.I., Martinez, I., **Knecht, M.W.**, 2013. Reduced order model analysis of frequency response of alternating current near half natural frequency electrostatically actuated MEMS cantilevers. *Journal of Computational and Nonlinear Dynamics*, Vol. 8.
- Kypuros, J.A., Vasquez, H., Tarawneh, C., **Knecht, M.**, and Wrinkle, R., 2012, AC 2012-4151, “Guided Discovery Modules for Statics,” *Proceedings of the 2012 ASEE Conference and Exposition*, June 10 – 13, 2012, San Antonio, TX.
- J.A. Kypuros, **M. Knecht**, H. Vasquez, C. Tarawneh, and R. Wrinkle, “Lessons Learned Implementing and Optimizing Guided Discovery Modules,” *Proceeding of the Frontiers in Education Conference*, Seattle, WA, October 3-6, 2012.
- J. A. Kypuros, H. Vasquez, C. Tarawneh, **M. Knecht**, and R. Wrinkle “An Overview of the Guided Discovery Pedagogy,” *Proceedings of the 2012 ASEE-GSW Annual Conference*, El-Paso, TX, 2012.

Relevant External Service:

- (2020-Present) Member of the Lower Rio Grande Valley Regional Water Resource Advisory Committee
- (2015-2018) Member of the Texas Higher Education Coordinating Board (THECB) Engineering Field of Study Advisory Committee, Voting Community College Representative, provide recommendations in the development of a state-wide engineering field of study
- (2010-2011) Texas Tuning Oversight Council for Engineering, Member of Mechanical Engineering Tuning Committee, developed horizontal and vertical alignment of engineering curriculum and courses within the state of Texas