

## **Dr. Aurelian A. Simionescu**

Texas A&M University-Corpus Christi  
Science & Engineering, Engineering

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### **Education**

PhD, Auburn University, 2004.

Doctorate in Technical Sciences, University Politehnica of Bucharest, 1999.

BS, University Politehnica of Bucharest, 1992.

### **Licensures and Certifications**

Professional Engineer, Texas Board of Professional Engineers. (2016 - Present).

Engineer in Training, National Society of Professional Engineers (NSPE). (2009 - Present).

LMS Virtual Lab Motion, LMS International. (2011).

Small Wind Turbine Testing, NREL. (2010).

ASME Student Leadership Seminar, ASME. (2007).

Principles of Vibration Measurement and Analysis, Brüel & Kjær. (2006).

Principles of Acoustics and the Measurement of Sound, Brüel & Kjær. (2006).

### **Professional Employment**

Assistant Professor, University of Alabama at Birmingham. (June 2007 - December 2009).  
Teaching, Research and Service

Assistant Professor, The University of Tulsa. (January 2005 - May 2007).  
Teaching, Research and Service

Graduate/Teaching Assistant, Auburn University. (January 2003 - December 2004).  
Research, Class Lecturing, Student Project Advising

Visiting Scholar, Auburn University. (October 1999 - December 2002).  
Research and Teaching

Research/Teaching Assistant, University Politehnica of Bucharest. (September 1996 - August 1999).  
Class Lecturing, Laboratory Assistant, Research

Adjunct Instructor, Transilvania University of Brasov, Romania. (March 1994 - August 1996).  
Lecturing and Laboratory Instructing

Design/Research Engineer, Tractor Proiect S.A. (September 1992 - August 1996).  
Design and Testing of Components and Subassembly for Wheeled Tractors and Automobiles

### **Professional Memberships**

American Society for Engineering Education (ASEE)

American Society of Mechanical Engineers (ASME)

## **TEACHING**

## Teaching Experience

ENGR 1211, FOUNDATION OF ENGINEERING  
ENGR 2320, STRENGTHS OF MATERIALS  
ENGR 2350, MANUFACTURING PROCESSES  
ENGR 3320, STRENGTHS OF MATERIALS  
ENTC 2402, MANUFACTURING PROCESS  
ENTC 3408, STRENGTH OF MATERIALS  
ENTC 4360, MECHANICAL SYSTEM DESIGN  
ENTC 4496, Automotive Design Experience  
MEEN 3330, SOLID MECHANICS FOR MECH ENGR  
MEEN 4220, ENGINEERING LAB  
MEEN 4320, ENGINEERING LAB  
MEEN 4365, MECHANICAL SYSTEM DESIGN  
MEEN 4396, DIS: Design of Mechanical Systems

## Non-Credit Instruction

Basic Utility vehicle. (September 2015 - May 2016).  
Basic Utility Vehicle. (September 2014 - May 2016).  
Vertical Axis Casting Centrifuge. (September 2013 - May 2014).  
Dual Rotor Wind Turbine. (September 2012 - May 2013).  
"Slip Ring Design and Testing of a Wind Turbine". (September 2011 - May 2012).

## SCHOLARLY AND CREATIVE ACTIVITIES

### Publications

#### Refereed

##### Books

Simionescu, P.-A. (2014). *Computer-Aided Graphing and Simulation Tools for AutoCAD Users* (pp. 632). Boca Raton, Florida: Chapman & Hall/CRC.  
[www.crcpress.com/product/isbn/9781482252903](http://www.crcpress.com/product/isbn/9781482252903)

##### Conference Proceedings

Simionescu, P.-A. (2016). *MeKin2D: Suite for Planar Mechanism Kinematics* (pp. 10).  
Charlotte: ASME 2016 Design Engineering Technical Conferences and Computers and  
Information in Engineering Conference. [www.asme.org/events/idetccie](http://www.asme.org/events/idetccie)

Georgescu, A., Simionescu, P.-A., Talpasanu, I. (2014). *Design and prototyping of a cost-effective sun tracking system for photovoltaic panels*. Montreal: ASME 2014 International Mechanical Engineering Congress & Exposition.

Simionescu, P.-A., Mehrubeoglu, R., Caruso, K., Reuter, G. R. (2011). *A Metal Casting Laboratory Exercise - Collaboration Between the Engineering and Art Department at Texas A&M University Corpus Christi*. Vancouver BC: ASEE Annual Conference.  
[www.asee.org/conferences-and-events/conferences/annual-conference/2011](http://www.asee.org/conferences-and-events/conferences/annual-conference/2011)

Simionescu, P.-A. (2008). *Interactive Involute Gear Analysis and Tooth Profile Generation using Working Model 2D*. Proceedings of the ASEE Annual Conference & Exposition.

Simionescu, P.-A., Daily, J. S., Shadley, J. M. (2007). *Data Acquisition and Computer Simulation Integrated Experiment for an Undergraduate Machine Dynamics Laboratory*. Proceedings of the ASEE Annual Conference & Exposition.

Simionescu, P.-A., Dozier, G. V., Wainwright, R. L. (2006). *A Two-Population Evolutionary Algorithm for Constrained Optimization Problems*. IEEE World Congress on Computational Intelligence.

Simionescu, P.-A. (2005). *A General Method of Kinematic Analysis of Parallel Axes Epicyclic Gear Trains Based on Graph-Cycle Matroid Theory*. Proceedings of the 2005 ASME DETC/CIE Conference.

Simionescu, P.-A., Beale, D. G., Dozier, G. V. (2004). *Constrained Optimization Problem Solving Using Estimation of Distribution Algorithms*. IEEE World Congress on Evolutionary Computation.

Simionescu, P.-A., Beale, D. G. (2002). *New Concepts in Graphic Visualization of Objective Functions*. Proceedings of the 2002 ASME DETC/CIE Conference.

Beale, D. G., Simionescu, P.-A., Dyer, D. (2001). *Grading and Motivation of Student Teams Working on Industry Sponsored Mechanical Design Projects*. ASME IMECE.

Simionescu, P.-A., Beale, D. G. (2001). D3D - A Software for Graphical Representation of Objective Functions. *Proceedings of the Artificial Neural Networks in Engineering Conference (Annie 2001), Nov. 4-7, 2001, St. Louis MO* (vol. 11). New York: ASME Press.

Simionescu, P.-A. (2001). Optimization of the Mold Orientation on an Investment Casting Centrifuge. *Proceedings of the Artificial Neural Networks in Engineering Conference (Annie 2001), Nov. 4-7, 2001, St. Louis MO* (vol. 11). New York: ASME Press.

Simionescu, P.-A., Beale, D. G. (2000). *Optimum Synthesis of the Slider-rocker Planar Mechanism for Two Prescribed Positions*. Proceedings of the 2000 ASME DETC/CIE Conference.

#### Journal Articles

Simionescu, P.-A. (2016). A unified approach to the kinematic synthesis of five-link, four-link, and double-wishbone suspension mechanisms with rack-and-pinion steering control. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*. <http://journals.sagepub.com/doi/abs/10.1177/0954407016672775>

Simionescu, P.-A. (2016). A restatement of the optimum synthesis of function generators with planar four-bar and slider-crank mechanisms examples. *International Journal of Mechanisms and Robotic Systems*, 3, 60-79.  
[www.inderscienceonline.com/doi/abs/10.1504/IJMRS.2016.077038](http://www.inderscienceonline.com/doi/abs/10.1504/IJMRS.2016.077038)

Simionescu, P.-A. (2015). Design of planar slider-rocker mechanisms for imposed limit positions, with transmission angle and uniform motion controls. *Mechanism and Machine Theory*, 97, 14. [www.sciencedirect.com/science/article/pii/S0094114X15002426](http://www.sciencedirect.com/science/article/pii/S0094114X15002426)

Simionescu, P.-A. (2015). Kinematics of the eccentric RPRPR chain with applications to robotics, materials handling and manipulation. *International Journal of Mechanisms and Robotic Systems*, 2(3-4), 27.  
[www.inderscienceonline.com/doi/abs/10.1504/IJMRS.2015.074109](http://www.inderscienceonline.com/doi/abs/10.1504/IJMRS.2015.074109)

- Talpasanu, I., Simionescu, P.-A. (2012). Kinematic Analysis of Epicyclic Bevel Gear Trains With Matroid Method. *ASME Journal of Mechanical Design*, 134, 8. [asmedl.aip.org/MechanicalDesign](http://asmedl.aip.org/MechanicalDesign)
- Simionescu, P.-A., Mehrubeoglu, R. (2012). New Concepts on 2D Data Visualization with Applications in Engineering Analysis and Design. *ASME Journal of Computing and Information Science in Engineering*, 12(2), 10. [scitation.aip.org/ASMEJournals/JCISE/](http://scitation.aip.org/ASMEJournals/JCISE/)
- Simionescu, P.-A. (2011). Some Advancements to Visualizing Constrained Functions and Inequalities of Two Variables. *ASME Journal Computing and Information Science in Engineering*, 11(1), 7 pages. <http://asmedl.aip.org/JCISE>
- Simionescu, P.-A., Talpasanu, I., Di Gregorio, R. (2010). Instant-Center Based Force Transmissivity and Singularity Analysis of Planar Linkages. *ASME J. of Mechanisms and Robotics*, 2(2), 12. [asmedl.aip.org/JMR/](http://asmedl.aip.org/JMR/)
- Simionescu, P.-A., Talpasanu, I. (2007). Dynamic Effect of the Bump-Steer in a Wheeled Tractor. *Mechanism and Machine Theory*. [www.elsevier.com/locate/mechmt](http://www.elsevier.com/locate/mechmt)
- Talpasanu, I., Yih, T. C., Simionescu, P.-A. (2006). Application of Matroid Method in Kinematic Analysis of Parallel Axes Epicyclic Gear Trains. *ASME Journal of Mechanical Design*, 128, 1307-1314. [asmedl.aip.org/MechanicalDesign/](http://asmedl.aip.org/MechanicalDesign/)
- Simionescu, P.-A., Beale, D. G., Dozier, G. V. (2006). Teeth-Number Synthesis of a Multispeed Planetary Transmission using an Estimation of Distribution Algorithm. *ASME Journal of Mechanical Design*, 128, 108-115. [www.asmedl.org/MechanicalDesign](http://www.asmedl.org/MechanicalDesign)
- Raper, R. L., Simionescu, P.-A., Kornecki, T. S., Price, A. J., Reeves, D. W. (2004). Reducing Vibration While Maintaining Efficacy of Rollers to Terminate Cover Crops. *ASAE Journal of Applied Engineering in Agriculture*, 20, 581-584. [www.asabe.org/pubs/applied.html](http://www.asabe.org/pubs/applied.html)
- Simionescu, P.-A. (2002). Initial Estimates in the Design of Central-Lever Steering Linkages," *ASME J. of Mechanical Design*. *ASME Journal of Mechanical Design*, 124, 646-651. [www.asmedl.org/MechanicalDesign](http://www.asmedl.org/MechanicalDesign)
- Simionescu, P.-A., Beale, D. G. (2002). Optimum Synthesis of the Four-Bar Function Generator in its Symmetric Embodiment: the Ackermann Steering Linkage. *Mechanism and Machine Theory*, 37, 1487-1504. [www.sciencedirect.com/science/journal/0094114X](http://www.sciencedirect.com/science/journal/0094114X)
- Simionescu, P.-A., Smith, M. R. (2001). Four and Six-bar Function Cognates and Overconstrained Mechanisms," *Mechanism and Machine Theory*. *Mechanism and Machine Theory*, 36, 913-924.
- Simionescu, P.-A., Tempea, I., Loch, N. (2001). Kinematic Analysis of a Two-Degree-of-Freedom Steering Mechanism Used in Rigid-Axle Vehicles. *Journal of Automobile Engineering*, 215, 803-812. [journals.pepublishing.com/content/119783](http://journals.pepublishing.com/content/119783)
- Simionescu, P.-A. (2000). Applications of Watt II Function Generation Cognates. *Mechanism and Machine Theory*, 35, 1535-1549. [www.elsevier.com/locate/mechmt](http://www.elsevier.com/locate/mechmt)
- Simionescu, P.-A. (2000). Initial Estimates in the Design of Rack-and-pinion Steering Linkages. *ASME Journal of Mechanical Design*, 122, 194-201. [www.asmedl.org/MechanicalDesign](http://www.asmedl.org/MechanicalDesign)

Simionescu, P.-A., Smith, M. R. (2000). Single Valued Functions Graphical Representations in Linkage Mechanisms Design," *Mechanism and Machine Theory. Mechanism and Machine Theory*, 35, 1709-1726.

Simionescu, P.-A. (2000). Synthesis and Analysis of the Two-loop Translational Input Steering Mechanism. *Mechanism and Machine Theory*, 35, 927-943.  
[www.elsevier.com/locate/mechmt](http://www.elsevier.com/locate/mechmt)

Simionescu, P.-A. (1998). A Unified Approach to the Assembly Condition of Epicyclic Gears. *ASME Journal of Mechanical Design*, 120, 448-452. [www.asmedl.org/MechanicalDesign](http://www.asmedl.org/MechanicalDesign)

#### Other Publications

Simionescu, P.-A., A. (2016). *A Cost-Effective Computerized Data Acquisition and Motor Current Signature Analysis Demonstrator for Industry and Academia* (pp. 9). Charlotte: ASME 2016 Design Engineering Technical Conferences and Computers and Information in Engineering Conference. [www.asme.org/events/idetccie](http://www.asme.org/events/idetccie)

#### Non-Refereed

##### Conference Proceedings

Simionescu, P.-A. (2016). *Example of a High-Speed, Side-Impact, Car Crash Reconstruction Using a Planar Multibody Software*. Brasov: International Congress of Automotive and Transport Engineering. [http://link.springer.com/chapter/10.1007/978-3-319-45447-4\\_91](http://link.springer.com/chapter/10.1007/978-3-319-45447-4_91)

Simionescu, P.-A., Lumkes, J., Austin, W. (2015). *Automobile Tractorization, American Concept Applicable to Eastern European Agriculture* (pp. 6). Bucharest: [isb.pub.ro/isbinmateh/2015/Volume\\_Symposium\\_2015.pdf](http://isb.pub.ro/isbinmateh/2015/Volume_Symposium_2015.pdf)

Raper, R. L., Simionescu, P.-A., Kornecki, T. S. (2004). *Cover Crop Rollers: A New Component of Conservation Tillage Systems*. 2003 ASAE Annual International Meeting.

Simionescu, P.-A. (2003). *Improved Roller Technology For Cover Crop Management*. Proceedings of the II Congresso Mundial sobre Agricultura Conservacionista.

Simionescu, P.-A., Tempea, I., Smith, M. R. (1999). *Kinematic and Kinetostatic Simulation of a Leg Mechanism*. Proceedings of the 10th World Congress on the Theory of Machines and Mechanisms.

Simionescu, P.-A., Fawcett, J. N. (1997). *Static Equilibrium Determination of Multi DOF Systems*. Proc. of the 7th Symposium on Linkages and CAD Methods, Syrom'97.

Simionescu, P.-A., Alexandru, P. (1995). *Synthesis of Function Generators Using the Method of Increasing the Degree of Freedom of the Mechanism*. Proceedings of the 9th World Congress on the Theory of Machines and Mechanisms.

##### Presentation - School of Engineering and Computing Science Seminar

Simionescu, P.-A. (2015). *Innovations on One, Two and Multi-Dimensional Data Visualization, and on Cam and Linkage Mechanism Design and Simulation*. TAMUCC.

#### **Presentations**

Robinson, S., Mehrubeoglu, R., Simionescu, P.-A., "Comparative Analysis of Multiple Vision Systems for Metal Surface Defect Detection," 12th Annual Undergraduate Research Symposium, College of Science and Engineering and South Texas Chapter of Sigma Xi, Harte Research Institute, Texas A&M University-Corpus Christi. (March 2, 2013).

Smith, D., Smith, S., Mehrubeoglu, R., Smee, D. L., Simionescu, P.-A., "Investigating Oyster Shell Thickness and Strength Using Three Imaging Modalities: Hyperspectral Imaging Thermal Imaging, and Digital Photography," 12th Annual Undergraduate Research Symposium, College of Science and Engineering and South Texas Chapter of Sigma Xi, Harte Research Institute, Texas A&M University-Corpus Christi. (March 2, 2013).

Simionescu, P.-A., ""Renewable Energy Research at Texas A&M University Corpus Christi ", "Romanian Diaspora in Scientific Research and Higher Education", Romanian Government, Bucuresti, 25-28 Septembrie 2012. (September 2012).

## **Contracts, Grants and Sponsored Research**

### **Grant**

Simionescu, Petru-Aurelian (Principal), "\*\* NASA Lunabotics Mining Competition," Sponsored by NASA Minority Innovation Challenges Institute, Federal, \$4,000.00. (January 15, 2014 - June 15, 2014).

Simionescu, Petru-Aurelian (Principal), Karayaka, Hayrettin (Co-Principal), Chen, Lea-Der (Co-Principal), "Curriculum and Laboratory Development on Condition Monitoring and Diagnosis with Application to Nuclear Power Generation," Sponsored by Nuclear Regulatory Commission, Federal, \$150,000.00. (August 31, 2011 - December 31, 2013).

Simionescu, Petru-Aurelian (Principal), Um, Dugan (Supporting), Mahdy, Ahmed Mahmoud (Supporting), "\*\* NASA Lunabotics Mining Competition," Sponsored by NASA Minority Innovation Challenges Institute, Federal, \$4,000.00. (January 15, 2013 - June 30, 2013).

Simionescu, Petru-Aurelian (Principal), "\*\* Travel Grant," Sponsored by Romanian Government, Other, \$1,250.00. (September 22, 2012 - September 28, 2012).

Simionescu, Petru-Aurelian (Principal), Mahdy, Ahmed Mahmoud (Supporting), Um, Dugan (Supporting), "\*\* NASA Lunabotics Mining Competition," Sponsored by NASA Minority Innovation Challenges Institute, Federal, \$4,000.00. (September 1, 2011 - June 30, 2012).

Simionescu, Petru-Aurelian (Principal), "NPI workforce development subcontract," Sponsored by Nuclear Power Institute, State, \$28,000.00. (May 31, 2011 - June 1, 2012).

Karayaka, Hayrettin (Supporting), Simionescu, Petru-Aurelian (Supporting), Chen, Lea-Der (Supporting), Um, Dugan (Supporting), Nelsen, Jody (Principal), "THE DISTRIBUTED RENEWABLE ENERGY TECHNOLOGY PROGRAM," Sponsored by THE TEXAS COMPTROLLER OF PUBLIC ACCOUNTANTS, State, \$1,184,900.00. (January 1, 2011 - December 31, 2011).

Simionescu, Petru-Aurelian (Principal), Karayaka, Hayrettin (Co-Principal), Mehrubeoglu, Ruby (Co-Principal), "\*\* THECB - Engineering Summer Program for High School Juniors and Seniors," Sponsored by Texas Higher Education Coordinating Board, State, \$20,000.00. (May 15, 2011 - August 31, 2011).

Simionescu, Petru-Aurelian (Principal), Karayaka, Hayrettin (Co-Principal), Um, Dugan (Co-Principal), "\*\* Investigations Into the Effectiveness of a Novel Dual-Rotor Wind Turbine

Arrangement," Sponsored by Texas Research Development Fund, State, \$39,000.00. (September 1, 2010 - August 31, 2011).

Simionescu, Petru-Aurelian (Principal), "\* THECB - Engineering Summer Program," Sponsored by Texas Higher Education Coordination Board, State, \$18,000.00. (June 15, 2010 - August 31, 2010).

## **Scholarly and Creative Awards and Honors**

Best Paper Award Nomination, American Society for Engineering Education. (2007).  
Second Place in the 1990 Annual Undergraduate Student Research Competition - Robotics and Mechanisms division, Polytechnic University Bucharest. (1990).

## **SERVICE**

### **Department**

Attendee, Meeting, Undergraduate Laboratory. (May 2010 - Present).  
Committee Member, External Funding Committee/Research & Scholarship. (October 2010 - May 2011).

### **College**

Committee Member, College of S&E Curriculum Committee. (September 2015 - August 2017).

### **University**

Student Org Advisor (Professional Org), ASME Student Chapter. (September 2013 - Present).  
Faculty Advisor, TAMUCC Sandpipers Lunabotic Club. (September 2011 - Present).  
Task Force Member, 1st Annual STEA Engineering Design Fair. (May 2011 - Present).  
Task Force Member, 2nd Annual Coastal Bend Engineering Competition. (March 2011 - Present).  
Session Chair, Science Olympiad. (March 2014).  
Judge, First Tech Challenge. (December 2013).  
Session Chair, Science Olympiad. (February 2013).  
Judge, First Tech Challenge. (February 2013).  
Task Force Member, Third Annual Coastal Bend Engineering Competition. (March 2012).  
Session Chair, Science Olympiad. (February 2012).  
Faculty Mentor, Alternative Energy Organization. (March 2011 - December 2011).  
Attendee, Meeting, Nuclear Power Institute Advisory Council Meeting. (October 2011).  
Judge, Sigma Xi Undergraduate Research Symposium. (October 2011).  
Session Chair, Science Olympiad. (March 2011).  
Judge, Graduate Student Organization. Scholarly Work Symposium. (April 2010).

### **Professional**

Editorial Review Board Member, International Journal of Mechanisms and Robotic Systems. (May 2016 - Present).  
External PhD Dissertation reviewer, Technical University of Moldova. (March 2017 - April 2017).  
Reviewer, Journal Article, ASME Journal of Mechanisms and Robotics. (March 2017).  
Reviewer, Book, Taylor & Francis / CRC Press. (January 2017).  
Reviewer, Conference Paper, 2016 CONAT International Congress of Automotive and Transport Engineering. (October 2016).  
Reviewer, Journal Article, Mechanism and Machine Theory journal. (September 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).

Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Conference Paper, 2016 ASME Conference. (March 2016).  
Reviewer, Journal Article, ASME Journal of Mechanisms and Robotics. (March 2015 - April 2015).  
Reviewer, Journal Article, Applied Mathematical Modelling - Elsevier. (April 2015).  
PhD Dissertation - External Reviewer, Technical University of Moldova. (January 2015).  
Reviewer, Journal Article, Journal of Mechanical Science and Technology. (December 2014).  
Reviewer, Journal Article, Journal of Mechanical Science and Technology. (November 2014 - December 2014).  
Reviewer, Journal Article, Mechanism and Machine Theory. (November 2014).  
Reviewer, Journal Article, Mechanism and Machine Theory. (September 2014).  
Reviewer, Book, CRC Press. (August 2014).  
Reviewer, Journal Article, Mechanism and Machine Theory. (May 2014).  
Reviewer, Journal Article, Mechanism and Machine Theory Journal. (March 2014).  
Reviewer, Book, CRC Press. (January 2014).  
Reviewer, Journal Article, Strain. (August 2013).  
Reviewer, Journal Article, Journal of Mechanical Science and Technology. (April 2013 - July 2013).  
Reviewer, Journal Article, ASME Journal of Mechanisms and Robotics. (December 2012).  
Reviewer, Journal Article, ASME Journal of Mechanical Design. (October 2012).  
Reviewer, Journal Article, Mechanism and Machine Theory Journal. (July 2012).  
Reviewer, Journal Article, Mechanism and Machine Theory Journal. (July 2012).  
Reviewer, Journal Article, Mechanism and Machine Theory Journal. (July 2011).  
Reviewer, Journal Article, ASME Journal of Mechanical Design. (July 2011).  
Reviewer, Journal Article, ASME Journal of Mechanisms and Robotics. (January 2011).  
Reviewer, Journal Article, Elsevier - Mechanism and Machine Theory journal. (January 2011).  
Promotion Reviewer, Wentworth Institute of Technology. (October 2010).  
Reviewer, Book, John Willey & Sons Inc. (May 2010 - September 2010).  
Reviewer, Journal Article, Mechanism and Machine Theory. (September 2010).  
Reviewer, Journal Article, Mechanism and Machine Theory. (September 2010).  
PhD Dissertation - External Reviewer, Technical University of Moldova. (June 2010).  
Reviewer, Journal Article, Mechanism and Machine Theory. (April 2010).  
Judge, Institute for Affordable Transportation. (April 2010).  
Reviewer, Journal Article, ASME Journal of Mechanical Design. (February 2010).

## **Consulting**

For Profit Organization, 3eWerks, TAMUCC campus. (June 15, 2011 - July 9, 2011).  
For Profit Organization, Vulcan Engineering, Birmingham Alabama. (April 1, 2008 - April 30, 2008).

## **Public**

Judge, Coastal Bend Science Fair. (January 2012).  
Co-adviser, Collegiate High School First Robotics. (February 2011 - April 2011).  
Program Organizer, THECB Engineering Summer Program. (July 2010).  
Workshop Organizer, Engineering Robotic Competition. (May 2010).  
Attendee, Meeting, Collegiate High School. (April 2010).  
Task Force Member, Coastal Bend Engineering Competition. (March 2010).

Judge, Center for Community Outreach Development (CORD). (March 2008).

### **Service Awards and Honors**

2nd Place in the 2001 ASME Student Manufacturing Competition, ASME International. (2001).