

915.747.6939
STELLAQ@UTEP.EDU
500 W. UNIVERSITY AVE
EL PASO, TEXAS 79968

STELLA A QUINONES
CHAIR
ASSOCIATE PROFESSOR
METALLURGICAL, MATERIALS AND BIOMEDICAL
ENGINEERING
THE UNIVERSITY OF TEXAS AT EL PASO

EDUCATION

- Ph.D., The University of Texas at El Paso
Major: Materials Science and Engineering
Dissertation: Microstructural Characterization of Low and Hypervelocity Impact Crater Cross-Sections in OFHC Copper targets
- M.S., The University of Texas at El Paso
Major: Metallurgical and Materials Engineering
Thesis: Micro-Particle Impact and Related Surface-Phenomena for Aluminum 6061-T6 Exposed to Low-Earth Orbit (University Thesis Award)
- B.S., The University of Texas at El Paso
Major: Metallurgical Engineering

EMPLOYMENT

- Sept 2018 – present. Chair and UTEP Distinguished Teaching Professor, Freeport-McMoRan Distinguished Chair in Metallurgical Engineering
- Sept 2010 – August 2018. Associate Professor, Electrical and Computer Engineering, The University of Texas at El Paso
- Sept 2014 – Dec 2014. Visiting Professor, Olin College of Engineering
- Sept 2004 – Aug 2010. Assistant Professor, Electrical and Computer Engineering, The University of Texas at El Paso
- June 2008 – August 2008. Summer Faculty Research Experience - National Nanotechnology Infrastructure Network (NNIN), Microelectronics Research Center, The University of Texas at Austin
- Sept 1998 – June 2004. Full-Time Lecturer, Metallurgical and Materials Engineering, The University of Texas at El Paso
- January 1997 – May 1998. Part-Time Lecturer, Metallurgical and Materials Engineering, The University of Texas at El Paso
- September 1990 – December 1996. Research Assistant, Metallurgical and Materials Engineering, The University of Texas at El Paso
- June 1986 – November 1988. Resource Engineer, El Paso Electric Co., El Paso, TX.

AWARDS

- UTEP Distinguished Teaching Professor, 2019
- Miguel Izquierdo Teaching Excellence Award, Electrical and Computer Engineering, UTEP, 2014
- Dean Eugene Thomas Award for Outstanding Faculty Member in Electrical and Computer Engineering, UTEP, 2011
- UTEP Distinguished Achievement Award for Teaching Excellence, 2011
- Frontiers of Engineering Education Innovative Early-Career Engineering Faculty, National Academy of Engineering (NAE), 2010
- UTEP Academy of Distinguished Teachers, 2010
- US Professor of the Year Nomination, Carnegie Foundation for the Advancement of Teaching, 2010
- Board of UT Regents' Outstanding Teaching Award, University of Texas System, 2010
- Forest O. and Henrietta Lewis Professorship in Electrical Engineering, UTEP, October 2007 – September 2011
- UTEP Engineering and University Graduate Thesis Award, 1993
- HENAAC Award for Student Leadership, October 1992

RESEARCH INTERESTS

- Corrosion of High Entropy Alloys and Additive Manufactured Parts
- Performance Improvement of 3D/Additive Manufacturing
- Non-Invasive Optical Sensor for glucose detection

- Engineering Education
- Selective Growth and Materials Characterization of CdTe.
- Electron Beam Melting of Ti-6Al-4V
- Electroless Nickel Plating
- Characterization and Simulation of High Strain Rate Deformation Cu Targets

BOOKS AND BOOK CHAPTERS

- W.W. Fisher, P. Golding, S.A. Quiñones, **Basic Engineering Analysis Design and Problem Solving**, Pearson Custom Publishing, Needham Heights, MA, 2001.
- L. Murr, S. Gaytan, S. Quinones, et.al. **Microstructure and Mechanical Properties of Ti-6Al-4V for Biomedical and Related Applications Involving Rapid-Layer Powder Manufacturing** in *Advances in Biomedical and Biomimetic Materials*, Vol. 206, R. Narayan, P. N. Kumta, W. R. Wagner, Eds, Hoboken, New Jersey: John Wiley & Sons, 2009, pp. 71–82.

PUBLICATIONS (REFEREED JOURNALS)

- M. Shokrehodaiei, D.P. Cistola, R.C. Roberts, S. Quinones, “**Non-Invasive Glucose Monitoring Using Optical Sensor and Machine Learning Techniques for Diabetes Applications**,” IEEE Access, vol. 9, 2021, 73029-73045, doi: 10.1109/ACCESS.2021.3079182.
- A. Martinez-Acosta, R. R. Tafoya, S.A. Quinones, E.B. Secor, “**Modular Motion Control Software Development to Support a Versatile, Low Cost Aerosol Jet Platform for Printed Electronics**,” Additive Manufacturing, vol. 40, 2021, <https://doi.org/10.1016/j.addma.2021.101932>.
- M. Shokrehodaiei, S. Quinones, “**Review of Non-Invasive Glucose Sensing Techniques: Optical, Electrical and Breath Acetone**,” Sensors, vol. 20, 2020.
- M. Shokrehodaiei, S. Quinones, Z. Fazel, H. Nazeran, “**Signal Processing of Amperometric Biosensors for Emerging Blood Glucose Measurement/Monitoring**,” Advances in Electrical and Electronic Engineering, vol 17, 2019.
- M. Shokrehodaiei, S. A. Quinones, R. Martinek, H. Nazeran, **A Robust PPG-based Heart Rate Monitor for Fitness and eHealth Applications**, to be presented at 2018 IEEE 20th Conference on e-Health Networking, Applications and Services, Ostrava, Czech Republic, September 2018.
- F.S. Manciu, J.G. Salazar, A. Diaz, S.A. Quinones, **Spectroscopic, Microscopic, and Internal Stress Analysis in Cadmium Telluride Grown by Close-Space Sublimation**, Thin Solid Films, 589, (2015): 298-302.
- A. Diaz, S.A. Quinones, D.A. Ferrer, **Selective CdTe Nanoheteroepitaxial Growth on Si(100) Substrates Using the Close-Spaced Sublimation (CSS) Technique Without the Use of a Mask**, Journal of Electronic Materials, 42(6) (2013): 1092-1100.
- A. Escobedo, S.A. Quinones, M. Adame, J. McClure, D. Zubia, G. Brill, **Characterization of Smooth CdTe(111) Films by the Conventional Close-Spaced Sublimation (CSS) Technique**, Journal of Electronic Materials, 39(4) (2010): 400-409.
- L.E. Murr, S.A. Quinones, S.M. Gaytan, M.I. Lopez, A. Rodela, E.Y. Martinez, D.H. Hernandez, E. Martinez, F. Medina, R.B. Wicker, **Microstructure and Mechanical Behavior of Ti-6Al-4V for Biomedical Applications Produced by Rapid-Layer-Based Manufacturing** (review article), Journal of Mechanical Behavior of Biomedical Materials, 2 (2009): 20-32.
- L. E. Murr, E. V. Esquivel, S. A. Quinones, S. M. Gaytan, M. I. Lopez, E. Y. Martinez, F. Medina, D. H. Hernandez, E. Martinez, J. L. Martinez, S. W. Stafford, D.K. Brown, T. Hoppe, W. Meyers, U. Lindhe, R. B. Wicker, **Microstructures and Mechanical Properties of Electron Beam-Rapid Manufactured Ti-6Al-4V Biomedical Prototypes Compared to Wrought Ti-6Al-4V**, Microstructural Characterization, 60 (2009): 96-105.
- D. Zubia, C. Lopez, M. Rodriguez, A. Escobedo, S. Oyer, L. Romo, S. Rogers, S. Quinones, J. McClure, **Ordered CdTe/CdS Arrays for High-Performance Solar Cells**, Journal of Electronic Materials 36 (2007): 1599-1603.
- S.A. Quiñones, S.M. Ammu, A. Escobedo, M. Rodriguez, Jose Cruz-Campa, J. McClure, D. Zubia, **SEM Characterization of CdTe Growth on CdTe(111) by Close-Spaced Sublimation**, J Mater Sci: Mater Electron 18 (2007): 1085-1091.
- S.L. Lair, W.C. Herndon, L.E. Murr, S.A. Quiñones, **End Cap Nucleation of Carbon Nanotubes**, Carbon 44 (2006): 447-455
- O. L. Valerio-Flores, L. E. Murr, V. S. Hernandez, S. A. Quiñones, **Observations and Simulations of the Low Velocity-to-Hypervelocity Impact Crater Transition for a Range of Penetrator Densities into Thick Aluminum Targets**, Journal of Materials Science 39 (2004): 6271 – 6289.
- F.M. Randriananarivony, S. Lair, S.A. Quinones, L.E. Murr, **Experimental Observations and Computer Simulations of Spherical Aluminum-Alloy Projectiles Impacting Plane Limestone Targets**, Journal of Materials Science, V 37 (2002) 5197 – 5207.
- S.A. Quiñones and L.E. Murr, **Correlations of Computed Simulations with Residual Hardness Mappings and Microstructural Observations of High Velocity and Hypervelocity Impact Craters in Copper**, PHYSICA STATUS SOLIDI (A), V 166 (1998) 763-789.

- S.A. Quiñones, J.M. Rivas, E.P. Garcia and L.E. Murr, **Direct Observations and Comparison of Crater Cross-Section Microstructures in Copper Targets for Aluminum Projectiles Impacting at 1.4 and 6.7 km/s**, *JOURNAL OF MATERIALS SCIENCE*, V 31 (1996) 3921-3927.
- J.M. Rivas, S.A. Quiñones, L.E. Murr, **Hypervelocity Impact Cratering: Microstructural Characterization**, *Scripta Metallurgica et Materialia*, V 33 (1995) 101-107.
- L.E. Murr, C.S. Niou, S. Quiñones, K.S. Murr, **Cracking Associated with Micrometeoroid Impact Craters in Anodized Aluminum Alloy Clamps on LDEF**, *Scripta Metallurgica et Materialia*, V 27 (1992) 101-106.
- L.E. Murr, C.J. Miglionic, A.H. Advani, S.A. Quiñones, J.M. Rivas, B. Marquez, C-S. Niou, W.W. Fisher, R. Arrowood, **Electron Optical Tools Aid Studies of LDEF Specimens**, *Tech Spotlight Article published by Advanced Materials and Processes*, V.11 (1991) 45-48.

CONFERENCE PAPERS AND PROCEEDINGS

- M. Shokrehodaie, S. A. Quinones, R. Martinek, H. Nazeran, **A Robust PPG-based Heart Rate Monitor for Fitness and eHealth Applications**, presented at 2018 IEEE 20th Conference on e-Health Networking, Applications and Services, Ostrava, Czech Republic, September 2018.
- J. Salazar, S.A. Quinones, A. Diaz, W. Durrer, J. Valdez, C. Garcia, F.S. Manciu, **Internal Stress, Microscopic, and Spectroscopic Analysis in Cadmium Telluride Grown by Close-Space Sublimation** poster presentation at the Bulletin of the American Physical Society, 12 ed., Vol 59, 2014.
- S. Quinones, B. Flores, G. Lush, D. Carrejo, G. Della-Piana, **An Applied Quantum Mechanics Course Aligned with the Electrical and Computer Engineering Curriculum**, in Proceedings of the 118th ASEE Annual Conference & Exposition, Vancouver, B.C. Canada, June 26-29, 2011.
- A. Diaz, S. Quiñones, A. Escobedo, J. McClure, D. Zubia, D. Ferrer, G. Brill, Y. Chen, F. Semendy, **Selective CdTe Single Crystal Deposition on CdTe/Si(211) Substrates by Close Spaced Sublimation (CSS) Technique**, poster presented at the 65th Southwest Regional Meeting of the American Chemical Society, El Paso, Texas, November 4-6, 2009.
- J.C. McClure, D. Zubia, S. Quinones, **Patterned Growth of CdTe/CdS Solar Cells**, in proceedings of the 65th Southwest Regional Meeting of the American Chemical Society, El Paso, Texas, November 4-6, 2009.
- S. Joseph, S. Quiñones, F. Medina, R. Wicker, **Effect of Surface Preparation Methods on Mechanical Properties of 3D Structures Fabricated by Stereolithography and 3D Printing for Electroless Ni Plating** in Proceedings of the 2007 Solid Freeform Fabrication Symposium, Austin, TX, August 6-8, 2007.
- W.W. Fisher, P. Golding, S. Quiñones, R. Osegueda, B. Benedict, **Three Strategies for Improving the Graduation of Engineering Minorities** in Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition, Portland, OR, June 12-15, 2005.
- L.E. Murr, C. Kennedy, D.A. Roberson, O.L. Valero, N.E. Martinez, V.S. Hernandez, A.A. Bujanda, E.A. Trillo, S.A. Quiñones, and F. Horz. **Computer Modeling and Validation of Ballistic and Hypervelocity Impact and Penetration Phenomena: Deformation Microstructures, Mechanical Performance, and Geometrical Issues**. In *Modeling the Performance of Engineering Structural Materials II*, Edited by D.R. Leseur and T.S. Srivatsan, TMS (The Minerals, Metals and Materials Society), 2001.
- W.W. Fisher, S.A. Quiñones, and P. Golding, **Success Strategies for First-Year Pre-Engineering Students** in Proceedings of the 2001 American Society for Engineering Education Annual Conference & Exposition, Albuquerque, N.M., June 2001.
- D.A. Roberson, N.E. Martinez, P. Stout, E.A. Trillo, S.A. Quiñones, L.E. Murr and F. Horz, **Comparison of Tungsten Carbide Penetrator Impact Behavior on Soft and Hard Copper Targets** in Proceedings of the 2000 International Conference on Fundamental Issues and Applications of Shock-Wave and High-Strain-Rate Phenomena, 338, Albuquerque, N.M., June 2000.
- S. Quiñones, J.M. Rivas, E.P. Garcia, L.E. Murr, F. Horz and R.P. Bernhard, **Microstructural Evolution Associated with Hypervelocity Impact Craters in OFHC Copper**, paper presented at EXPLOMET '95: International Conference on Metallurgical and Materials Applications of Shock-Wave and High-Strain-Rate Phenomena, El Paso, TX, August 1995.
- S. Quinones, J.M. Rivas and L.E. Murr, **Metallurgical Analysis of Hypervelocity Impact Craters in OFHC Copper**, paper presented at the XVI Encuentro de Investigacion y I Congreso Internacional de Materiales, Saltillo, Mexico, October 1994.
- S. Quinones, J.M. Rivas and L.E. Murr, **Metallography of Hypervelocity Impact Crater Formation in Aluminum and Copper**, paper presented at the International Metallographic Society Technical Meeting, Montreal, Canada, July 1994.
- S. Quinones, A.H. Advani, B. Marquez, J.M. Rivas, C. Miglionic, L.E. Murr, W.W. Fisher, R. Arrowood, **Observations of Surface Structures and Reaction Products for Materials Exposed in Space in Low-Earth-Orbit**, Proceedings of the 49th Annual Meeting of the Electron Microscopy Society of America, Edited by G.W. Bailey, San Francisco Press, pp. 638-639, 1991.

TECHNICAL REPORTS

- S. Quinones, B. Flores, D. Carrejo, G. Della-Piana, M. Gardner, **Final NSF Project Report: Applied Quantum Mechanics Course for Electrical Engineers**. Report for NSF CCLI, December 2013.
- S. Quinones, G. Lush, **Yearly Project Report: UTEP Contributions to nanoHUB: Teaching Materials, Tools, Software Development and i-Apps**. Report for NSF Network for Computational Nanotechnology, Chicago, IL, February 10, 2011.
- D. Zubia, S.A. Quinones, J. Mireles, N. Marquez, E.J. Garcia, **Yearly Report for Sandia National Laboratories: Nanotexturing of Surfaces to Reduce Melting Point**, Albuquerque, NM, November 2011.
- S. Quinones, E. MacDonald, R. Quintana, F. Medina, R. Wicker, A. Lopes, M. Navarette, K. Puebla, **Final Project Report: Advanced Manufacturing Concepts**. Yearly Report for Sandia National Laboratories, Albuquerque, NM, October 2007.

CONFERENCE PRESENTATIONS

- S.A. Quinones, P. Nava, B. Flores, **Gender Equality in STEM: Empowering Women Through Leadership and Engineering Education Strategies**, presented at the 2017 STEM Gender Equality Congress, Berlin, Germany, June 2017.
- J.G. Salazar, S.A. Quinones, A. Diaz, W.G. Durrer, J.A. Valdez, C. Garcia, F.S. Manciu, **Internal Stress, Microscopic and Spectroscopic Analysis in Cadmium Telluride Grown by Close Space Sublimation**, presented at the 2014 Hawaii University International Conferences on Education and STEM, Honolulu, Hawaii, June 2014.
- R. Reyes, V. Gonzalez, K. Gosselink, S. Quinones, E. Cappell, **Navigating from the Classroom to the Library: How Can Teaching Excellence Lead to Outstanding Research**, panel invited to present at the International Sun Conference on Teaching and Learning, El Paso, TX, March 1, 2013.
- M. Lusk, S. Quiñones, I. Coronado, G. Villalobos, **Culturally Sensitive Teaching Strategies for Hispanic Students**, workshop presented at the International Sun Conference on Teaching and Learning, El Paso, TX, March 2, 2012.
- B.C. Flores, S. Quiñones, D. Carrejo, **At the Intersection of Applied Quantum Mechanics and Affective Skills: Assessing Peer Led Team Learning**, presented at the 2011 Sun Conference on Teaching and Learning, El Paso, TX, March 10, 2011.
- N. Marquez, D. Zubia, J. Mireles, S.A. Quinones, **Nanotexturing of Surfaces to Reduce Melting Point**, presented at the Building Partnerships and Pathways to Address Engineering Grand Challenges Conference, El Paso, TX, February 8-10, 2010.
- S. Quinones, B. Flores, G. Lush, **Applied Quantum Mechanics Course for Electrical Engineers**, presentation, 2010 UT System LSAMP Research Conference, El Paso, TX, Sept. 17, 2010.
- S. Quiñones, B. Flores, G. Lush, **A Novel Applied Quantum Mechanics Course Aligned with the Electrical Engineering Curriculum**, invited poster presentation at the 2010 Frontiers of Engineering Education Symposium, Irvine, California, Dec. 13-16, 2010.
- Zubia, D., Marquez, N. F.*, Mireles, J., Quinones, S. A., **Size-Dependent Melting and Diffusion of Silicon for Bonding and Microsystems Applications**, Commercialization of Micro-Nano Systems Conference, Sandia National Labs, Albuquerque, August 2010.
- L. Murr, E. Esquivel, S. Quinones, S. Gaytan, M. Lopez, E. Martinez, D. Hernandez, E. Martinez, J. Martinez, T. Hoppe, W. Meyers, S. Stafford, R. Wicker, F. Medina, U. Lindhe, **Microstructures and Mechanical Properties of Electron Beam – Rapid Manufactured Ti-6Al-4V Biomedical Prototypes Compared to Wrought Ti-6Al-4V** presented at the TMS 2008 Annual Meeting & Exhibition, New Orleans, LA, March 9-13, 2008.
- S. Quinones, K. Puebla, L. Ochoa, J. Flores, D. Barroso, M. Ingle, S. Wise, R. Quintana, F. Medina, R. Wicker, **Systematic Study of the Mechanical Properties of Stereolithography Resins Plated with Nickel and Copper Coatings** presented at the 2007 Solid Freeform Fabrication Symposium, Austin, TX, August 6-8, 2007.
- S. Quiñones, A. Escobedo, J.L. Cruz-Campa, B. Aguirre, M. Adame, J. McClure, D. Zubia, **Epitaxial Growth of CdTe Films Via Close-Spaced Sublimation** poster presented at the 2007 MRS Spring Meeting, San Francisco CA, April 9-13, 2007.
- Jacob Rascon, Luis Romo, Scott Rogers, Stella Quinones, John McClure and David Zubia, **New Sublimation Reactor for Epitaxial Growth of II-VI Films**, poster presented at the American Vacuum Society 53rd International Symposium, San Francisco, California, November 14th, 2006. This poster won 1st place in the student-built vacuum system competition.
- S.M. Ammu, J. Rascon, A. Escobedo, M. Rodriguez, J. Cruz-Campa, D. Zubia, J. McClure, **S.A. Quiñones, Growth And Characterization of CdTe on CdTe(111), CdTe(211)/Si(211) and CdTe(211) Substrates Using Conventional and Novel CSS Techniques**, invited talk, presented at the International Material Research Congress, Cancun, Mexico August 21 – 25, 2006.
- Arev Escobedo, Mario Rodríguez, Luís Romo, Jose Cruz-Campa, Cesar López, Sandra Oyer, Scott Rogers, Stella Quiñones, John McClure, and David Zubía, **CdTe/CdS-Based Photodiode Arrays Via Selective-Area, Close-Spaced Sublimation** poster presented at the International Material Research Congress, Cancun, Mexico August 21 – 25, 2006.
- S. Quiñones, **Engineering Career**, invited talk presented at Mujeres Adelante Conference, El Paso, TX, Nov. 2005.

- Skanda Ammu, Cesar Lopez, Arev Escobedo, Mario Rodriguez, Jacob Rascon, Shalayna Lair, David Zubia, John McClure and Stella Quiñones, **Fabrication and Characterization of Patterned ITO-CdS-SiO₂-CdTe Solar Cells by the Close-Spaced-Sublimation Technique**, talk presented at the TEXMEMS VII International Conference, El Paso, Texas, USA and Ciudad Juarez, Chihuahua, Mexico, September 21-22, 2005.
- S.L. Lair, W.C. Herndon, L.E. Murr, S.A. Quiñones. **Computer Simulations of End Cap Nucleation for Single-Wall Carbon Nanotubes**, talk presented at the TEXMEMS VII International Conference, El Paso, Texas, USA and Ciudad Juarez, Chihuahua, Mexico, September 21-22, 2005.
- David Zubia, Cesar Lopez, Aaron Rodriguez, Javier Terrazas, Arev Escobedo, Jacob Rascon, Mario Rodriguez, Shalayna Lair, Stella Quiñones and John McClure, **Selective-Area Deposition Of Ordered CdTe Polycrystal Arrays On SiO₂/CdS Via Close-Spaced Sublimation**, invited talk, presented at the International Material Research Congress, Cancun, Mexico August 21 – 25, 2005.
- W.W. Fisher, P. Golding, S. Quiñones, R. Osegueda, B. Benedict, **Three Strategies for Improving the Graduation of Engineering Minorities**, talk presented at the 2005 American Society for Engineering Education Annual Conference & Exposition, Portland, OR, June 12-15, 2005.
- S. L. Lair, W. C. Herndon, L. E. Murr, S. A. Quinones, **End Cap Nucleation of Carbon Nanotubes**, poster presented at the 9th International Congress on Combustion By-Products and Their Health Effects, Tucson AZ, June 2005.
- S. Quiñones, J. Blankenship, C.Arias, P.Golding, **Ultimate Success for Women**, talk presented at the Sun Conference on Teaching and Learning, El Paso, TX, March 2005.
- S.L. Lair, W.C. Herndon, L.E. Murr, S.A. Quiñones, **Computer Simulations of Carbon Nanotubes: End Cap Analysis**, poster presented at The Minerals, Metals and Materials Society Conference, San Francisco, CA, Feb. 2005.
- S. Quinones, **Hypervelocity Impact and Microstructural Deformation of Al and Cu Semi-infinite Plates: Velocities up to 8 km/s**, presented at NASA – Langley GSRP Symposium, Washington, D.C., May 1994.
- S. Quinones, **Microstructural Evolution Associated with Hypervelocity Impact Craters in OFHC Copper** presented at NASA – Langley GSRP Symposium, Washington, D.C., May 1995.

OTHER PRESENTATIONS RELATED TO RESEARCH

- S. Quinones, G. Lush, **UTEP Contributions to nanoHUB: Teaching Materials, Tools, Software Development and i-Apps**, presentation, 2011 NSF NCN All-Hands Meeting, Chicago, IL, February 10, 2011.
- S. Quinones, G. Lush, **Using nanoHUB in the Electrical and Computer Engineering Curriculum**, presentation, 2010 nanoHUB User Forum, Arlington, VA, December 8, 2010.
- S. Quinones, G. Lush, **Using nanoHUB to Reinforce Fundamental Concepts in Semiconductor Courses**, presentation, NSF NCN Site Visit, Purdue University, West Lafayette, IN, April 27, 2010.
- D. Zubia, S. Quinones, J. McClure, G. Lush, C.V. Ramana, Jose Mireles, **Portfolio of Research Activities**, presentation, Microelectronic Research Center, UT Austin, Austin, TX, Feb. 25, 2008.
- D. Zubia, S. Quinones, J. McClure, **Fabrication and Characterization of CdTe Films Deposited by Close-Spaced Sublimation for Epitaxial Growth**, presentation, Army Research Laboratory, Maryland, April 19, 2007.
- S. Quinones, M. Cooke, E. MacDonald, T. Sarkodie-Gyan, R. Wicker, **UTEP Diversity and Educational Programs**, presented at UT Austin, March 27, 2007.
- S.Joseph, D.Garcia, S.Quinones, F.Medina, R.Wicker, **Nickel Plating of Rapid Manufacturing (RM) Components And Selective Area Metal Deposition For Electrical Applications By Laser Masking**, Keck Center Open House, The University of Texas at El Paso, Nov. 17, 2006.
- D.Zubia, J. McClure and S. Quiñones, **Multilayer Close-Spaced Sublimation Reactor for II-VI films**, presentation, Army Research Laboratory, Maryland, May 18, 2006.
- S. Quinones, **Materials Characterization and Modeling** presented at the Electrical and Computer Engineering Graduate Seminar, UTEP, El Paso, TX, Nov 2004.
- S. Quinones, **Metallurgical Analysis of Hypervelocity Impact Craters in OFHC Copper Targets**, presented at the AIME El Paso Section Meeting, January 1995.

MISC PRESENTATIONS

- C.J. Scott, et al., **Board 65: Work in Progress: Growing and Sustaining a Successful Collaboration of Programs Developing and Implementing Experimental Centric Pedagogy**, 2019 ASEE Annual Conference, Tampa, Florida, June 15, 2019.
- S. Quinones, **STEM Accelerator Plan and Share**, sponsored by Educate Texas, El Paso, TX, Oct. 31, 2017.
- S. Quinones, S. Walker, **STEM Accelerator Teaching Workshop: Enhancing Student Engagement**, sponsored by Educate Texas, El Paso, TX, July 28-29, 2017.

- B. Storey, B. Minch, S. Quiñones, Faculty Development Modules: **Introduction to Sensors, Instrumentation, and Measurements Course Workshop for Faculty**, sponsored by Olin Collaboratory, Jan. 16, 2015.
- S. Quiñones, **Teaching Goals, Strategies and Activities**, presented at the Spring 2013 ECE Faculty Retreat, 2013.
- S. Quiñones, **Classroom Strategy: A Team Effort**, presented at the UTEP Collaborative Faculty Mentoring Program, El Paso, TX, October 19, 2012.
- M. Lusk, S. Quiñones, I. Coronado, G. Villalobos, **Culturally Sensitive Teaching Strategies for Hispanic Students**, presented at the UTEP Teaching Enhancement Friday Series, El Paso, TX, October 5, 2012.
- S. Quinones, **An Interactive Presentation: Engineering Careers and UTEP**, guest speaker to female students at the Loretto Challenge Program, El Paso, TX, June 14, 2011.
- S. Quinones, **Balancing Work and Family**, invited panelist, Preparing Future Faculty Summer Institute, sponsored by UTEP and Howard University, University of Maryland, Baltimore, MD, June 11, 2009.
- S. Quinones, Workshop Facilitator, **Best Practices for the Retention and Success of Underrepresented Students in STEM** sponsored by Model Institution for Excellence (MIE) Initiative, March 2-3, 2006.
- S. Quinones, W.Lee, **Balancing Work and Family**, talk presented at The Faculty Mentoring Program for Women, UTEP, Sept. 2005.
- S. Quiñones, **Engineering Applications: Semiconductor Behavior of PN Junctions**, presented at the MSP Workshop, UTEP, June 2005.
- S.A. Quiñones, W.W. Fisher, **University Seminar: Best Practices**, presented at the Learning Communities Open House, UTEP, Mar. 2004.

CONFERENCES, WORKSHOPS AND CONTINUING EDUCATION

- ABET Advanced Program Assessment, Dallas, TX, April 10, 2019 (participant).
- UT Women's Leadership Development Workshop: Developing Future Women Leaders, Austin, TX, January 13-15, 2019 (participant).
- MMBME Faculty Development Workshop: Enhancing Student Engagement, El Paso, TX, January 10-11, 2019 (facilitator)
- Underrepresented Minority Institute Workshop, Alexandria, VA, June 18-20, 2018 (participant).
- STEM Accelerator Assessment Workshop and Best Practices, El Paso, TX, April 25, 2018 (facilitator).
- STEM Accelerator Hands-On Workshop and Share, El Paso, TX, April 4, 2018 (facilitator).
- Culture Change: Connecting Positive Climate, Culture and Community: Leadership Essentials, Armando Aguirre, El Paso, TX, Oct. 25, 2017 (participant).
- Integrating Cognitive Diversity and Inclusion for Innovation: What is Diversity and Where We Stand, Ivonne Santiago, El Paso, TX, Oct. 4, 2017 (participant).
- Faculty Development Workshop: Enhancing Student Engagement, El Paso, TX, July 27-28, 2017 (Facilitator).
- National Instruments Week 2017, Austin, TX, May 22-25, 2017 (participant).
- Leadership and Communication Training: Transformational Leadership in a Regional Context, William Serrata, El Paso, TX, Apr. 11, 2017 (participant).
- Collaborating Across Regions: Change and Continuous Instructional Improvement, Educate Texas, Austin, TX, Mar. 30-31, 2017 (participant).
- Leadership Among Us: Where to Look for Leadership in a Big Organization, Patricia Witherspoon, El Paso, TX, Mar. 20, 2017 (participant).
- Flip Class PowerPoint Mix, UTEP Academic Technologies, El Paso, TX, Feb. 14, 2017.
- Two Day Workshop: Designing for Student Engagement, Olin College of Engineering, El Paso, TX, June 23-24, 2016.
- National Instruments Week 2016, Austin, TX, Aug. 1-4, 2016.
- Pathways to Partnership Convening, Educate Texas, San Antonio, TX, Sept. 28-29, 2016.
- Engaging a Whole New Engineer Workshop, Olin College of Engineering, Needham, MA, Oct. 24, 2014.
- Teach Tech: Integration of Technology in the Classroom, UTEP Academic Technologies, The University of Texas at El Paso, Aug 2014 – May 2015.
- Summer Institute 2014, Meeting the Needs of the 21st Century: Designing for Student Engagement, Olin College of Engineering, Needham, MA, June 2-6, 2014.
- Advancing Women In Academic STEM Fields, The University of Texas-Pan American, Edinburg, TX, February 27-28, 2014.
- NSF Grant Training Workshop, El Paso, TX, February 25, 2014.
- ASEE Virtual Communities of Practice (VCP) on Teaching Electric Circuits, March 2013 – May 2013
- UTEP Leadership Development Institute (LDI) , Aug. 2011 – May 2012
- Frontiers of Engineering Education Symposium, Irvine, California, Dec. 13-16, 2010.

- NCN Education and Assessment Workshop: Integrating Computational Simulations into Learning Environments, Chicago, Illinois, Nov. 5-6, 2009.
- NSF CCLI Writing Workshops, Washington, DC, Feb 2007 and Feb 2008
- NACADA Academic Advising Summer Institute, **Portsmouth, VA, June 2006**
- **SWE Regional Conference, Austin, TX, April 2006**
- NNIN/MRC Workshop on Nano-integrated Circuit Fabrication, The Microelectronics Research Center - The University of Texas at Austin, Feb 2006.
- NSF - ADVANCE Conference, UMBC, Baltimore, MD, July 2005
- VDC Conference, Boulder, CO, April 2005.
- SWE Regional Conference, Baton Rouge, LA, March 2005
- NSF Career Grant Writing Workshop, Washington, DC, Feb 2005

ACADEMIC/PROFESSIONAL ACTIVITIES

UTEP Women's Advisory Council to President, Chair, Jan 2015 – 2018
 ASEE Gulf Southwest Annual Conference, Session Chair, 2012
 Reviewer, Journal of Electronic Materials, Mar 2012 - present
 Associate Editor, Journal Computer Applications in Engineering Education, Jan 2012 – present
 Editorial Board Member, Metallurgy, Dec 2011 – March 2014
 NSF SBIR Phase II Review Panel, April 2013
 NSF SBIR Phase I Review Panel, March 2012, Feb 2013
 NSF TUES Type II Review Panel, March 2010, Apr 2011
 Ford Foundation Fellowship Program Panel (2014 - 2016)
 Engineering Education Research Facilitation Team, College of Engineering, UTEP, Jan 2012 – Dec 2012
 UTEP Hearing Officer, Office of Student Life, Sept 2012 - 2018
 UTEP Tuition and Fees Advisory Committee, Oct 2011 – Dec 2011
 UTEP Faculty Student Mentoring Program, Aug 2011 – Dec 2011, Sept 2012 – Dec 2012
 UTEP CeTAL Faculty Fellow, Jan 2011 – Dec 2014
 UTEP Faculty Senate Student Grievance Committee, Sept 2010 – Sept 2013
 UTEP Women's Advisory Council to President, Sept 2010 – Aug 2015
 UTEP Collaborative Faculty Mentoring Program, Aug 2010 – Sept 2013
 ECE EFD Faculty Search Committee, member, Sept 2012 – April 2013
 ECE Chair Search Committee, member, August 2011 – March 2012
 ECE Electric Fields and Devices Curriculum Committee, Chair, Oct 2010 - 2018
 ECE Three Year Review Committee for Tenure and Promotion, Sept 2013 - 2018
 NSF-NCN UTEP Site Lead, Jan 2011 – Aug 2012
 UT Regents' Outstanding Teaching Award University Review Committee, 2010
 UT Regents' Outstanding Teaching Award College Review Committee, 2010, 2013
 College of Engineering Pre-commencement Committee, Jan 2009 – Dec 2011
 Tau Beta Pi Engineering Honor Society (Chief Advisor), Jan 2011 – Sept 2014
 NanoMIL , Assistant Director, Sept 2004 – May 2011
 NCN nanoHUB Partnership Collaborator, 2006 - 2012
 Chapin HS Partnership Engineering Representative, 2008 - 2010
 Faculty Panel New Student Orientation, Summer 2010
 UTEP Graduate Assembly, Fall 2004 - present
 UTEP AGEP Committee, Spring 2004
 ECE Probation Student Advisor, Fall 2004 –2017
 Council of Undergraduate Academic Advisors, ECE Representative, 2005 – 2018
 ECE Electric Fields and Devices Curriculum Committee, Fall 2004 - 2018
 Ph.D. Manufacturing Proposal Committee, 2007 - 2008
 ECE Student Recruitment Activities: Local High Schools, Spring 2009
 Graduate School Outstanding Thesis and Dissertation Selection Committee for 2008, March 2009
 Society of Women Engineers (SWE), Board Member, Spring 2009
 Society of Women Engineers (SWE), Advisor, Fall 2004 – Fall 2006
 Tau Beta Pi Engineering Honor Society (Co-Advisor), Fall 2003 – Dec 2010
 Key Strategic Direction "Enhancing Student Success" Committee, Fall 2005 – 2006
 Advance Impact Program, May 2004 – May 2005
 UTEP Gold Nugget Award Nominating Committee, July 2005

UNIV 1301 Proposal Evaluation Committee, 2003-2004
K-16 Mathematics Working Group – El Paso Collaborative Fall 2002 – Fall 2004
Study Abroad Scholarship Committee Fall 2002 – Fall 2004
American Society for Engineering Education (ASEE), 2004 , 2011
Dean’s Advisory Board on Quality Management (DABQM) Spring 2001 – 2003
Excites Program (summer engineering program) 1998
Alpha Sigma Mu Metallurgical Engineering Honor Society

GRADUATE STUDENT ADVISOR

Charles Meyer (MS MME) – Casting of Plutonium, present
Celine Chiong (MS MME) – Corrosion of HEAs, present
Ashley Delgado (MS MME) – Improvement of Non-Invasive Glucose Data via Machine Learning, present
Rhyan Dueck (MS MME) – Gamification of Fundamentals in Metallurgical and Materials Engineering, 2021
Ariana Guerrero (MS MME) – Orbital Maneuvering Engine (OME) Valve Nut Fastener Lot Comparison, 2021
Maryamsadat Shokrehodaei (Ph.D. ECE) – Non-Invasive Optical Sensors for Glucose Sensing, 2021
Jose Valdez (Ph.D. EE) – Explore CdTe Doping using Close Spaced Sublimation, 2016
Aryzbe Diaz (Ph.D. EE) – Nano-heteroepitaxial Growth of CdTe on Si(100), Si(111) and Si(211) Substrates, 2015
Hoong Yan See Tao (M.S. ECE) – Pressure-Dependent Nano-heteroepitaxy of CdTe on Si(100) and SOI(100) Substrates Using the Close Spaced Sublimation Technique, 2011
Aryzbe Diaz (M.S. ECE) – Investigation of Selective CdTe Nano-heteroepitaxy Growth on Si(100) Substrates for HgCdTe Infrared Detector Applications, 2010.
Arev Escobedo (M.S. ECE) – Epitaxial Growth and Characterization of CdTe(111) Films Via Close-Space Sublimation, 2008.
Michelle Adame (M.S. ECE) – CdTe Deposition on CdTe(211) and Si(211) Substrates by the CSS Technique , 2008.
Shanka Ammu (M.S. ECE) – Deposition and Characterization of CdTe/CdTe(111) Growth by Close-Spaced Sublimation (CSS), 2005.
Shalayna Lair (M.S. MME) – Computational Modeling and Comparison of Energetic Trends in Various Carbon Nanotube Systems, 2005.

GRANTS

- Co-PI, Task Order 1: Work Order 2: Engineering Advanced Mold Materials (LANL), \$331,554, 11/15/22 – 11/14/2023
- Co-PI, Texas STEM Accelerator Grant (Educate Texas), \$725,000, 9/1/15 – 5/31/18
- PI, National Science Foundation (NSF) and Network for Computational Nanotechnology (NCN) in collaboration with Purdue University, \$15,037, 1/1/2012 – 8/31/2012
- PI, National Science Foundation (NSF) and Network for Computational Nanotechnology (NCN) in collaboration with Purdue University, \$75,000, 9/1/2011 – 8/31/2012
- PI, National Science Foundation (NSF), A Novel Applied Quantum Mechanics Course Aligned with the Electrical Engineering Curriculum, \$193,520, Co-PIs: Greg Lush, Ben Flores, UTEP, 9/1/09 – 8/31/2011.
- Co-PI, Sandia National Laboratory, Nanotexturing of Surfaces to Reduce Melting Point, \$100,000, PI – David Zubia, UTEP, 10/1/09 – 9/30/2010.
- Co-PI, NSF-Purdue University, Network for Computational Nanotechnology, \$320,452, PI – Greg Lush, UTEP, 4/1/2008 – 3/31/2013.
- Co-PI, UT System, Acquisition of Metals Based Direct Digital Manufacturing System, \$991,700, other Co-PIs: Ryan Wicker, Larry Murr, Steve Stafford, Malcolm Cooke, UTEP, 9/2007-8/2008.
- Co-PI, Department of Education (DOE) Minority Science and Engineering Improvement Program (MSEIP), \$226,695, PI – Peter Golding, UTEP, 10/1/03 – 9/30/06.
- PI – University Research Institute Grant (URI), 12/2005 – 08/2006, Selective Area Heteroepitaxy of CdTe on patterned CdTe Single Crystal Substrates by Close-Space Sublimation (CSS), \$2,600.
- PI - NSF ADVANCE GRA Award , \$4,612, Spring 2004
- PI - NSF ADVANCE GRA Award , \$4,397, Summer 2005
- PI – NSF ADVANCE GRA Award, \$3,200, Spring 2007