Yirong Lin, Ph.D.

Department of Aerospace and Mechanical Engineering
The University of Texas at El Paso
El Paso, TX 79968, U.S.A.
(Office): 915-747-6015; (Email): ylin3@utep.edu

Research website: https://www.utep.edu/engineering/smp/
Google Scholar: https://scholar.google.com/citations?user=MyWwThwAAAAJ&hl=en

EDUCATION AND TRAINING

Postdoc, Mechanical Engineering *December 2010 – July 2011*
University of Florida, Gainesville, Florida, U.S.A.
Sponsor: Henry A. Sodano, Ph.D.

Postdoc, Mechanical Engineering *August 2009 – December 2010*
Arizona State University, Tempe, Arizona, U.S.A.
Sponsor: Henry A. Sodano, Ph.D.

Ph.D. Mechanical Engineering *August 2009*
Arizona State University, Tempe, Arizona, U.S.A.
Advisor: Henry A. Sodano, Ph.D.

M.S. Mechanical Engineering *July 2006*
Harbin Institute of Technology, Harbin, China
Advisor: Yingxue Yao, Ph.D.

B.S. Mechanical Engineering *July 2004*
Harbin Engineering University, Harbin, China

PROFESSIONAL EMPLOYMENT

Academic

Professor *August 2020 – Present*
Department of Aerospace and Mechanical Engineering
The University of Texas at El Paso, El Paso, TX, 79968

Associate Professor *August 2016 – August 2020*
Department of Mechanical Engineering
The University of Texas at El Paso, El Paso, TX, 79968

Assistant Professor *July 2011 – August 2016*
Department of Mechanical Engineering
The University of Texas at El Paso, El Paso, TX, 79968

Summer Faculty Fellowship

Summer Faculty Fellow *June 2019 – August 2019*
Sandia National Lab Albuquerque, NM 87123

Visiting Scientist *June 2020 – August 2020*
Kansas City National Security Campus Kansas City, MO 64117

Visiting Scientist *June 2021 – August 2021*
Kansas City National Security Campus Kansas City, MO 64117

LANL IMS Distinguished Scholar *June 2022 – August 2022*
Los Alamos National Lab Los Alamos, NM 87545

AWARDS AND HONORS

ASME Best Paper in Materials, SPIE Smart Structures/NDE, San Diego, CA, 2011
Honorable Mention Award at SMASIS Technical Conference, Oxnard, CA, 2009
Best Paper at SAMPE Fall Technical Conference, Memphis, TN, 2008
Outstanding Performance in Securing Extramural Funding, ORSP, UTEP, 2014
Dean's Award for Excellence in Research, College of Engineering, UTEP, 2018
LANL IMS Distinguished Faculty Scholar Awardee, LANL, NM, 2022
UTEP ORSP Millionaire's Club Awardee, 2022, 2023

RESEARCH INTERESTS

- Additive Manufacturing
- Ceramics and Polymers
- Multifunctional Composites
- Sensors
- Smart Materials
- Functional Nanocomposites

SPONSORED RESEARCH

1. **Project Title**: Direct ink write of fiber-reinforced ceramics for hypersonics applications
   Funding Agency: Army Research Laboratory
   Amount: $75,000
   Duration: 12/1/2022-6/30/2023
   Investigator: Yirong Lin

2. **Project title: Cooperative project: Enhancing career pathway in intelligent manufacturing through remote accelerated center of engineering student success (remote-access)**
   Funding Agency: Department of Education
   Amount: $900,000
   Duration: 10/1/2022-9/30/2025
   Investigator(s): PI: Tzu-Liang Tseng, co-PI: Yirong Lin, Arturo Olivarez, and Michael Pokojovy

3. **Project title: Additive Manufacturing of Self-Sensing thermoset Composites**
   Funding Agency: Kansas City National Security Campus – DOE NNSA
   Amount: $100,000
   Duration: 11/1/2021-8/30/2022
   Investigator(s): PI: Yirong Lin

4. **Project title: SLS of Thermoset Polymer**
   Funding Agency: Kansas City National Security Campus – DOE NNSA
   Amount: $75,000
   Duration: 12/1/2021-8/30/2022
   Investigator(s): PI: Yirong Lin

5. **Project title: Consortium Hybrid Resilient Energy Systems**
   Funding Agency: Department of Energy – NNSA
   Amount: $1,000,000
   Duration: 10/1/2020-9/30/2025
   Investigator(s): PI: Yirong Lin, co-PI: Lourdes Echegoyen, co-PI: Karina Canaba

6. **Project title: Robust Combined Heat and Hybrid Power for High Electrical Efficiency Cogeneration**
   Funding Agency: Department of Energy, DE-EE0009137
   Amount: $180,000
   Duration: 06/01/2020-9/30/2023
   Investigator(s): PI: Yirong Lin

7. **Project title: Partnership for Research and Education Consortium in Ceramics and Polymers (PRE-CCAP)**
   Funding Agency: Department of Energy – NNSA , DE-NA 0003865
   Amount: $2,997,875.12
   Duration: 10/1/2018-9/30/2021
   Investigator(s): PI: Yirong Lin, co-PI: Calvin Stewart, co-PI: Norman Love

8. **Project title: Selective Laser Sintering of High Performance Thermoplastics**
   Funding Agency: Kansas City National Security Campus - DOE

Amount: $87,250
Duration: 11/01/2020-08/31/2021
Investigator(s): PI: Yirong Lin, co-PI: David Espalin, and Ryan Wicker

9. **Project title: Additive Manufacturing of Self-Sensing Polymer Composites**
   Funding Agency: Kansas City National Security Campus - DOE
   Amount: $50,000
   Duration: 11/01/2020-08/31/2021
   Investigator(s): PI: Yirong Lin, co-PI: David Espalin, and Ryan Wicker

10. **Project title: Fibermat Composites for Extreme Environment**
    Funding Agency: Kansas City National Security Campus - DOE
    Amount: $95,000
    Duration: 11/01/2020-08/31/2021
    Investigator(s): PI: Yirong Lin, co-PI: David Espalin, and Bill Tseng

11. **Project title: Artificial Intelligence-based Non-Destructive Testing and Evaluation**
    Funding Agency: Lockheed Martin Aeronautics
    Amount: $119,989
    Duration: 10/09/2019-11/30/2021
    Investigator(s): PI: Bill Tseng, co-PI: Yirong Lin

12. **Project title: Fibermat Composites for Extreme Environment**
    Funding Agency: Kansas City National Security Campus - DOE
    Amount: $45,000 + $50,000 equipment
    Duration: 02/01/2020-8/31/2020
    Investigator(s): PI: Yirong Lin , co-PI: Alejandra Castellanos, and Bill Tseng

13. **Project title: Nuclear Engineering Workforce Program at UTEP**
    Funding Agency: Nuclear Regulatory Commission
    Amount: $200,000
    Duration: 09/01/2019-8/31/2021
    Investigator(s): PI: Calvin Stewart, co-PI: Yirong Lin, co-PI: Norman Love, Omar Cedillos

14. **Project title: Additive Manufacturing of Piezoelectric Ceramic Transducers**
    Funding Agency: Applied Research Laboratories at UT-Austin
    Amount: $82,530
    Duration: 02/15/2019-3/31/2020
    Investigator(s): PI: Ryan Wicker, co-PI: Yirong Lin, co-PI: David Espalin

15. **Project title: Cyber enabled Approach for Enhancing Green STEM Learning through**

Online Communities and Innovation and Incubation Laboratory
Funding Agency: Department of Education
Amount: $900,000
Duration: 10/1/2018-9/30/2021
Investigator(s): PI: Tzu-liang Tseng, co-PI: Satya Aditya Akundi, co-PI: Yirong Lin, co-PI: Norman Love

16. **Project title: Robotic Crawler with integrated Machine Vision for Inspection**
Funding Agency: Lockheed Martin Aeronautics – QMS: 6574022617
Amount: $99,998
Duration: 4/1/2018-6/80/2019
Investigator(s): PI: Bill Tseng, co-PI: Yirong Lin, co-PI: Oscar Salcedo

17. **Project title: Consortium for Integrating Energy Systems in Engineering and Science Education**
Funding Agency: Department of Energy: DE-NA 0003330
Amount: $322,926
Duration: 10/1/2016-9/30/2019
Investigator(s): PI: Lourdes Echegoyen, co-PI: Norman Love, co-PI: Yirong Lin

18. **Project title: Additive Manufacturing of Energy Harvesting Material System for Active Wireless MEMS Sensors**
Funding Agency: Department of Energy: DE-FE-0027502
Amount: $250,000
Duration: 9/1/2016-8/31/2020
Investigator(s): PI: Yirong Lin, co-PI: Norman Love, co-PI: Ryan Wicker

19. **Project title: Development of Educational Courses on Nuclear Engineering Materials at the University of Texas at El Paso (UTEP)**
Funding Agency: Nuclear Regulatory Commission: NRC-HQ-84-14-G-0068
Amount: $188,684
Duration: 10/1/2014 – 9/30/2016
Investigator(s): PI: Ahsan Choudhuri, co-PI: Yirong Lin, co-PI: Ramana Chintalapalle, co-PI: Louis Everett

20. **Project title: Acquisition of an X-Ray Scattering System with Solid-Gas Reactor Chamber and Ultrafast Detection Capabilities or Research and Instruction in Science and Engineering**
Funding Agency: Department of Defense: W911NF-14-1-0055
Amount: $395,721
Duration: 2/1/2014-1/31/2017
Investigator(s): PI: Christian Botez, Senior Personnel: Yirong Lin, Luis Echegoyen, Dino Villagran, David Zubia

21. **Project title: UTEP/UCSB PREM: Molecular and Interfacial Phase Design for Improved Photovoltaics**
    Funding Agency: National Science Foundation: DMR-1205302
    Amount: $3,962,399
    Duration: 10/1/2012-9/30/2018
    Investigator(s): PI: Luis Echegoyen, co-PI: Ramana Chintalapalle, Tunna Baruah, Skye Fortier, Yirong Lin, Chunqiang Li, and Juan Noveron

22. **Project title: Investigation of "Smart Parts" with Embedded Sensors for Energy System Applications**
    Funding Agency: Department of Energy: DE-FE0012321
    Amount: $1,150,894 (Including $237,532 of Cost Share from UTEP)
    Duration: 10/1/2013-9/30/2017
    Investigator(s): PI: Yirong Lin, co-PI: Ahsan Choudhuri, co-PI: Ryan Wicker

23. **Project title: Investigation on Pyroelectric Ceramic Temperature Sensors for Energy System Applications**
    Funding Agency: Department of Energy: DE-FE0011235
    Amount: $200,000
    Duration: 7/1/2013-6/30/2016
    Investigator(s): PI: Yirong Lin, co-PI: Norman Love

24. **Project title: Development and Enhancement of Green Energy Learning for Effective Engineering Education to Foster the 21st Century Hispanic Sustainability Leaders**
    Funding Agency: Department of Education: P120A130061
    Amount: $900,000 (UTEP share: $600,000; Arizona State University Share: $300,000)
    Duration: 10/1/2013-9/30/2017
    Investigator(s): PI: Tzu-Liang Tseng, co-PI: Yirong Lin, co-PI: Norman Love

25. **Project title: Development of "Lick and Stick" Wireless Temperature Sensors**
    Funding Agency: Department of Energy, SC-13-389
    Amount: $200,000
    Duration: 1/1/2013-12/31/2013
    Investigator(s): PI: Ahsan Choudhuri, co-PI: Yirong Lin, co-PI: Ryan Wicker

26. **Project title: Development of Graphene-based Carbon-Carbon Composites**

    Funding Agency: UTEP URI Award (UTEP Internal seed funding)
    Amount: $4,960
    Duration: 1/1/2012-12/31/2012
    Investigator(s): PI: Yirong Lin

TEACHING EXPERIENCE

Taught the following courses at UTEP

MECH 1321 – Statics, Fall 2011. (Evaluation: 4.75/5.0)

MECH 2322 – Mechanics of Materials, Spring 2016. (Evaluation: 4.77/5.0), Spring 2023, (Evaluation: 4.7/5.0)

MECH 3334 – Mechanical Design, Spring 2016 (Evaluation: 4.47/5.0) Fall 2015 (Evaluation: 5.0/5.0) Spring 2015 (Evaluation: 4.75/5.0) Fall 2014 (Evaluation: 4.95/5.0) Spring 2014 (Evaluation: 4.9/5.0) Fall 2013 (Evaluation: 4.87/5.0) Spring 2013 (Evaluation: 4.83/5.0) Fall 2012 (Evaluation: 4.83/5.0) Spring 2012 (Evaluation: 4.87/5.0)

MECH 3345 – System Dynamics, Summer 2012. (Evaluation: 4.83/5.0)

MECH 4366 – Senior Design Fall 2021 (Evaluation: 5.0/5.0) Senior Design Fall 2022 (Evaluation: 4.9/5.0)**,** Senior Design Spring 2023 (Evaluation: 4.8/5.0)

MECH 4395 – Functional Materials for Nuclear Energy Applications, Spring 2019. (Evaluation: 4.7/5.0)

MECH 4395 – Special Topic: Functional Materials, Fall 2018. (Evaluation: 4.96/5.0) Spring 2018 (Evaluation: 4.94/5.0) Fall 2017 (Evaluation: 4.92/5.0) Spring 2017 (Evaluation: 4.8/5.0)

MECH 4395 – Special Topic: Green energy materials, Summer 2014 (Evaluation: 4.67/5.0)

MECH 5302 – Solid Mechanics I, Fall 2022 (Evaluation: 4.8/5.0), Fall 2021 (Evaluation: 4.88/5.0); Fall 2020 (Evaluation: 4.75/5.0); Fall 2018 (Evaluation: 4.8/5.0), Fall 2017 (Evaluation: 4.55/5.0), Fall 2016 (Evaluation: 4.81/5.0) Fall 2015. (Evaluation: 4.8/5.0)

MECH 5312 – Solid Mechanics II, Spring 2015 (Evaluation: 4.8/5.0) Spring 2014 (Evaluation: 4.75/5.0) Spring 2013 (Evaluation: 5.0/5.0)

MECH 5313 – Mechanics of Composite Materials, Spring 2019 (Evaluation: 4.5/5.0), Spring 2018 (Evaluation: 5.0/5.0) Spring 2017 (Evaluation: 5.0/5.0)

MECH 5390 – Ceramic and Polymer for Energy Applications, Spring 2023 (Evaluation: 4.8/5.0), Spring 2022 (Evaluation: 4.85/5.0)

PUBLICATIONS

Journal Articles

1. Hassan, M.S., Delgadillo, A., Mahmud, M.S., Munoz, J., Zaman, S., Gomez, S.G., Marquez, C., Ho, J.C. and Lin, Y., 2023. Additive Manufacturing of Carbon Fiber Reinforced Epoxy Thermoset with Improved Thermomechanical Properties. Journal of Composites Science, 7(4), p.171

2. Marquez, C., Mata, J.J., Renteria, A., Gonzalez, D., Gomez, S.G., Lopez, A., Baca, A.N., Nuñez, A., Hassan, M.S., Burke, V. and Perlasca, D., 2023. Direct Ink-Write Printing of Ceramic Clay with an Embedded Wireless Temperature and Relative Humidity Sensor. Sensors, 23(6), p.3352

3. Zaman, S., Leyva, A., Hassan, M.S., Valladolid, A., Herrera, N.E., Gomez, S.G., Mahmud, M.S., Tucker, D., Haynes, C. and Lin, Y., 2023, March. Implementation of Smart Materials for Actuation of Traditional Valve Technology for Hybrid Energy Systems. In Actuators (Vol. 12, No. 3, p. 131).

4. Gomez, S.G., Irigoyen, A., Gonzalez, S., Estala-Rodriguez, K., Shafirovich, E., Hassan, M.S., Zaman, S. and Lin, Y., 2023. Fabrication and Characterization of Hollow Polysiloxane Microsphere Polymer Matrix Composites with Improved Energy Absorption. Journal of Composites Science, 7(3), p.98

5. Hassan, M.S., Zaman, S., Rodriguez, A., Molina, L., Dominguez, C.E., Morgan, R., Bernardin, J. and Lin, Y., 2022. Direct ink write 3D printing of wave propagation sensor. Flexible and Printed Electronics, 7(4), p.045011

6. Hall, S.E., Centeno, V., Favela, S., Lopez, A., Gallardo, A., Pellicotte, J., Torres, Y., Coverdell, D., Torres, S., Choudhuri, A. and Lin, Y., 2022. Mechanical Properties of High-Temperature Fiber-Reinforced Thermoset Composites with Plain Weave and Unidirectional Carbon Fiber Fillers. Journal of Composites Science, 6(7), p.213

7. Hassan, M.S., Billah, K.M.M., Hall, S.E., Sepulveda, S., Regis, J.E., Marquez, C., Cordova, S., Whitaker, J., Robison, T., Keating, J. and Shafirovich, E., 2022. Selective Laser Sintering of High-Temperature Thermoset Polymer. Journal of Composites Science, 6(2), p.41.

8. Chavez, L.A., Ibave, P., Hassan, M.S., Hall-Sanchez, S.E., Billah, K.M.M., Leyva, A., Marquez, C., Espalin, D., Torres, S., Robison, T. and Lin, Y., 2022. Low-temperature selective laser sintering 3D printing of PEEK-Nylon blends: Impact of thermal post-processing on mechanical properties and thermal stability. Journal of Applied Polymer Science, 139(23), p.52290.

9. Renteria, A., Balcorta, V.H., Marquez, C., Rodriguez, A.A., Renteria-Marquez, I., Regis, J., Wilburn, B., Patterson, S., Espalin, D., Tseng, T.L.B. and Lin, Y., 2022. Direct ink write multi-material printing of PDMS-BTO composites with MWCNT electrodes for flexible force sensors. Flexible and Printed Electronics, 7(1), p.015001.

10. Rahman, M.F., Tseng, T.L.B., Wu, J., Wen, Y. and Lin, Y., 2022. A deep learning-based approach to extraction of filler morphology in SEM images with the application of automated quality inspection. AI EDAM, 36

11. Renteria, A., Garcia, L.F., Balcorta, V.H., Ortiz, D., Delfin, L.C., Regis, J., Marcos-Hernández, M., Espalin, D., Tseng, T.L.B. and Lin, Y., 2021. Influence of bimodal particle distribution on material properties of BaTiO3 fabricated by paste extrusion 3D printing. Ceramics International, 47(13), pp.18477-18486.

12. Billah, K.M.M., Coronel Jr, J.L., Chavez, L., Lin, Y. and Espalin, D., 2021. Additive manufacturing of multimaterial and multifunctional-structures via ultrasonic embedding of continuous carbon fiber. Composites Part C: Open Access, 5, p.100149.

13. Renteria, A., Garcia, L.F., Diaz, J.A., Delfin, L.C., Regis, J.E., Reza, E.I., Espalin, D., Tseng, T.L.B. and Lin, Y., 2021. Fabrication of bulk alumina structures with humidity sensing capabilities using direct ink write technique. Rapid Prototyping Journal, 27(4), 822-837

14. Terrazas, C.A., Hossain, M.S., Lin, Y. and Wicker, R.B., 2021. Multicomponent and Multimaterials Printing: A Case Study of Embedded Ceramic Sensors in Metallic Pipes. 3D Printing for Energy Applications, pp.109-133.

15. Hall, S.E., Regis, J.E., Renteria, A., Chavez, L.A., Delfin, L., Vargas, S., Haberman, M.R., Espalin, D., Wicker, R. and Lin, Y., 2021. Paste extrusion 3D printing and characterization of lead zirconate titanate piezoelectric ceramics. Ceramics International.47, pp. 22042-22048

16. Regis, J., Vargas, S., Irigoyen, A., Bramasco-Rivera, E., Bañuelos, J.L., Delfin, L.C., Renteria, A., Martinez, U., Rockward, T. and Lin, Y., 2021. Near-UV light assisted green reduction of graphene oxide films through l-ascorbic acid. International Journal of Smart and Nano Materials, 12(1), pp.20-35.

17. Regis, J.E., Renteria, A., Hall, S.E., Hassan, M.S., Marquez, C. and Lin, Y., 2021. Recent Trends and Innovation in Additive Manufacturing of Soft Functional Materials. Materials, 14(16), p.4521.

18. Chavez, L., Ibave, P., Wilburn, B., Lin, Y., 2020. The influence of printing parameters, post processing, and testing conditions on the properties of binder jetting additive manufactured functional ceramics. Ceramics, 3(1), 65-77.

19. Islam, M.T., Dominguez, A., Turley, R.S., Kim, H., Sultana, K.A., Shuvo, M.A.I., Alvarado-Tenorio, B., Montes, M.O., Lin, Y., Gardea-Torresdey, J. and Noveron, J.C., 2020. Development of photocatalytic paint based on TiO2 and photopolymer resin for the degradation of organic pollutants in water. Science of The Total Environment, 704, p.135406

20. Chavez, L.A., Wilburn, B.R., Ibave, P., Delfin, L.C., Vargas, S., Diaz, H., Fulgentes, C., Renteria, A., Regis, J.E., Lin, Y. and Wicker, R.B., 2019. Fabrication and characterization of 3D printing induced orthotropic functional ceramics. Smart Materials and Structures. 28(12), 125007.

21. Renteria, A., Diaz, J.A., He, B., Renteria-Marquez, I.A., Chavez, L.A., Regis, J.E., Liu, Y., Espalin, D., Tseng, T.L.B. and Lin, Y., 2019. Particle size influence on material properties of BaTiO3 ceramics fabricated using freeze-form extrusion 3D printing. Materials Research Express, 6(11), p.115211.

22. Kim, H., Delfin, L., Garcia, C., Tariqul, M., Chavez, L., Regis, J., Ariful, A., Tseng, T., Noveron, K., and Lin, Y., 2019, "3D printing of PVDF/Photopolymer Resin Blends for Piezoelectric Pressure Sensing Application using Stereolithography Technique", MRS Communication, MRSCOM 2019-0095, 9, 1115-1123.

23. Aguilar, A., Diaz, C., Price, A., Goutam, R., Botez, C., Lin, Y., Wicker, R., and Li, C., 2019, "Non-Destructive Optical Second Harmonic Generation Imaging of 3D Printed Aluminum Nitride Ceramics", Ceramics International, CERI-S-19-04401, 18871-18875.

24. Renteria, A., Fontes, H., Diaz, J.A., Regis, J.E., Chavez, L.A., Tseng, T.L.B., Liu, Y. and Lin, Y., 2019, Optimization of 3D printing parameters for BaTiO3 piezoelectric ceramics through design of experiments. Materials Research Express, 6(8), p.085706.

25. Kim, H., Renteria, A., Islam, D., Chavez, L., Garcia C., Ahsan, A., Tseng, T., Love, N., and Lin, Y., 2019, "Fabrication of bulk piezoelectric and dielectric BaTiO3 ceramics using paste extrusion 3D printing technique." Journal of the American Ceramic Society 102, no. 6 (2019): 3685-3694.

26. Díaz-Moreno, C.A., Lin, Y., Hurtado-Macías, A., Espalin, D., Terrazas, C.A., Murr, L.E. and Wicker, R.B., 2019. "Binder jetting additive manufacturing of aluminum nitride components". Ceramics International, 45(11), pp.13620-13627.

27. Islam, M. T., Rosales, J., Ricardo, S. A., Arrieta, R., Kim, H., Sultana, K. A., Lin, Y., Villagran, D., and Noveron, J. (2019). "Synthesis of high-surface area transition metal sponges and their catalytic properties". New Journal of Chemistry. issue 25, DOI: 10.1039/C9NJ02096A.

28. Chavez, L.A., Regis, J.E., Delfin, L.C., Garcia Rosales, C.A., Kim, H., Love, N., Liu, Y. and Lin, Y., 2019. "Electrical and mechanical tuning of 3D printed photopolymer–MWCNT nanocomposites through in situ dispersion". Journal of Applied Polymer Science, 136(22), p.47600

29. Kim, H., Wilburn, B.R., Castro, E., Garcia Rosales, C.A., Chavez, L.A., Tseng, T.L.B. and Lin, Y., 2019. "Multifunctional Sensing using 3D printed CNTs/BaTiO3/PVDF nanocomposites". Journal of Composite Materials, 53(10), pp.1319-1328.

30. Carlos A. Garcia Rosales, Tzu-Liang Tseng, Mario Garcia, Luis Chavez, Hoejin Kim, and Yirong Lin, 2019, "Toughness-Based Recovery Efficiency of Shape Memory Parts Fabricated Using Material Extrusion 3D Printing Technique". Rapid Prototyping Journal, 25(1), 30-37.

31. Garcia Rosales, C.A., Kim, H., Garcia Duarte, M.F., Chavez, L., Castañeda, M., Tseng, T.L.B. and Lin, Y., 2019. Characterization of shape memory polymer parts fabricated using material extrusion 3D printing technique. Rapid Prototyping Journal, 25(2), pp.322-331.

32. Jahangir, M.N., Billah, K.M.M., Lin, Y., Roberson, D.A., Wicker, R.B. and Espalin, D., 2019. Reinforcement of material extrusion 3D printed polycarbonate using continuous carbon fiber. Additive Manufacturing, 28, pp.354-364.

33. Chavez, L.A., Elicerio, V.F., Regis, J.E., Kim, H., Rosales, C.A.G., Love, N.D. and Lin, Y., 2018. "Thermal and mechanical energy harvesting using piezoelectric ceramics". Materials Research Express, 6(2), p.025701.

34. Sarker, M.R.H., Silva, J.L., Castañeda, M., Wilburn, B., Lin, Y. and Love, N., 2018. Characterization of the pyroelectric coefficient of a high-temperature sensor. Journal of Intelligent Material Systems and Structures, 29(5), pp.938-943.

35. Dominguez, N., Torres, B., Barrera, L.A., Rincon, J.E., Lin, Y., Chianelli, R.R., Ahsan, M.A. and Noveron, J.C., 2018. Bimetallic CoMoS Composite Anchored to Biocarbon Fibers as a High-Capacity Anode for Li-Ion Batteries. ACS Omega, 3(8), pp.10243-10249.

36. Ahsan, A., Islam, T., Hernandez, C., Castro, E., Katla, S.K., Kim, H., Lin, Y., Curry, M.L., Gardea-Torresdey, J. and Noveron, J.C., 2018. "Biomass conversion of saw dust to a functionalized carbonaceous material for the removal of Tetracycline, Sulfamethoxazole and Bisphenol-A from water", Journal of Environmental Chemical Engineering, 6(4), 4329-4338.

37. Ahsan, A., Islam, T., Hernandez, C., Kim, H., Lin, Y., Curry, M.L., Gardea-Torresdey, J. and Noveron, J.C., 2018. "Adsorptive Removal of Sulfamethoxazole and Bisphenol A from

Contaminated Water using Functionalized Carbonaceous Material Derived from Tea Leaves", Journal of Environmental Chemical Engineering, 6(4), 4215-4225.

38. Islam, T., Saenz, R., Hernandez, C., Guinto, T., Ahsan, A., Kim, H., Lin, Y., Alvarado, B., and Noveron, J.C., 2018. "Adsorption of methylene blue and tetracycline onto biomass-based material prepared by sulfuric acid reflux", RSC Advances, 8, 32545-32557.

39. Sarker, M.R.H., Silva, J.L., Castañeda, M., Lin, Y. and Love, N., 2018. Demonstration of a pyroelectric wireless temperature sensor. Materials Research Express, 6(1), p.015703.

40. M. S. Hossain, J. Mireles, P. Morton, Y. Lin, C.A. Terrazas, R.B. Wicker, 2018, "Part Re-registration During Process Interruption of Electron Beam Melting Additive Manufacturing", The International Journal of Advanced Manufacturing Technology, 96, 337-344.

41. Kim, H., Lin, Y. and Tseng, T.L.B., 2018. A review on quality control in additive manufacturing. Rapid Prototyping Journal, 24(3), pp.645-669.

42. Castellanos, A.G., Islam, M.S., Shuvo, M.A.I., Lin, Y. and Prabhakar, P., 2018. Nanowire reinforcement of woven composites for enhancing interlaminar fracture toughness. Journal of Sandwich Structures & Materials, 20(1), pp.70-85.

43. Chavez, L.A., Jimenez, F.O.Z., Wilburn, B.R., Delfin, L.C., Kim, H., Love, N. and Lin, Y., 2018. Characterization of thermal energy harvesting using pyroelectric ceramics at elevated temperatures. Energy Harvesting and Systems, 5(1-2), pp.3-10.

44. Kim, H., Fernando, T., Li, M., Lin, Y. and Tseng, T.L.B., 2018. Fabrication and characterization of 3D printed BaTiO3/PVDF nanocomposites. Journal of Composite Materials, 52(2), pp.197-206.

45. Castellanos, A.G., Islam, M.S., Tarango, E., Lin, Y. and Prabhakar, P., 2018. Interlaminar reinforcement for enhancing low-velocity impact response of woven composites. Textile Research Journal, 88(15), pp.1710-1720.

46. Xu, W., Yang, H., Zeng, W., Houghton, T., Wang, X., Murthy, R., Kim, H., Lin, Y., Mignolet, M., Duan, H. and Yu, H., 2017. Food-Based Edible and Nutritive Electronics. Advanced Materials Technologies, 2(11), p.1700181.

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18. Kim, H., Shuvo, M. Karim, A., Islam, M., Rodriguez, G., Noveron, J., and Lin, Y., 2016, "Microwave reduced graphene oxide for lithium ion battery applications," 2016 MRS Spring Meeting, Phoenix, AZ.

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31. Shuvo, M., Mendoza, M., Khan, M. A. and Lin, Y., 2012, "Characterization of Graphene/Nanowire hybrids for Supercapacitor," 2012 ASME IMECE, November 15th, Houston, TX.

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Symposium on Smart Structures and Materials/NDE, March 6th-10th, San Diego, CA.

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39. Lin, Y. Ehlert, G. and Sodano, H.A., 2010, "Piezoelectric Nanowire Interface for Increased Strength and Multifunctionality," Proceedings of the 2010 M&M International Symposium for Young Researchers, March 1-3, 2010, California Institute of Technology, Pasadena, CA, USA.

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41. Lin, Y. and Sodano, H.A., 2009, "Electromechanical Characterization of a Single Fiber Lamina for Multifunctional Composites," SPIE's 16th annual International Symposium on Smart Structures and Materials, March 8th-12th, San Diego, CA.

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43. Galan U., Ehlert, G., Lin, Y. and Sodano, H.A., 2009, "Effect of Size and Morphology of ZnO Nanowire Interfaces in Carbon Fiber Composites," Materials Research Society Spring Meeting, April 13th-17th, San Francisco, CA.

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45. Shaffer, J., Lin, Y. and Sodano, H.A., 2009, "Electromechanical Characterization of Single Active Structural Fiber for Multifunctional Composites," 20th International Conference on Adaptive Structures and Technologies, October 20th-22nd, Hong Kong.

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Book Chapter

1. Lin, Y., and Sodano, H., "Smart Composites, Mechanics and Design", CRC Press, Taylor and Francis Group. December 2013, ISBN 9781439895917.

2. Shuvo, M.I.; Puli, V.S.; Khan, M.R.; Karim, H.; and Lin, Y.,"Graphene Nanowire Hybrid for High Performance Lithium Ion Battery", Bentham Science Publishers

3. Shuvo, M.I.; Puli, V.S.; Khan, M.R.; Karim, H.; and Lin, Y., "Investigation of Lead-Free Nanowire Composites for Energy Storage Applications", Bentham Science Publishers

STUDENT SUPERVISION

Completed Undergraduate Studies

1. Diana Fontes, ME, UTEP
2. Asahel Marinelare, ME, UTEP
3. Joshua Dantzler, ME, UTEP
4. Alexis Lopez, ME, UTEP
5. Sergio Favela, ME, UTEP
6. Bethany Wilburn, ME, UTEP
7. Christine Haynes, MME, UTEP
8. Hector Cordero, CE, UT-PR
9. Dayna Ortiz, CE, UT-PR
10. Luis Delfin, ME, UTEP
11. Elizabeth Reza, MME, UTEP
12. Sebastian Vargas, ME, UTEP
13. Andrea Irigoyen, ME, UTEP
14. Elsa Bramasco Rivera, ME, UTEP
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16. Jeffery Johnson, Physics, UCSB
17. Baitong He, Physics, Shantou University
18. Hector Diaz, Chemistry, UPR
19. Christian Fulgentes, Chemical Engineering, UCSB
20. Emilio Durango, ME, UTEP
21. Jorge Silva, ME, UTEP
22. Gala Solis, ME, UTEP
23. Sergio Sepulveda, ME, UTEP
24. Yulianna Torres, ME, UTEP
25. Christian Ruiz, ME, UTEP
26. Nicholas Grasasm, ME, ASU
27. Josh Romero, ME, ASU
28. Brent Dodson, ME, ASU
29. Alberto Guerrero, ME, UTEP
30. Matthew Garcia, ME, UTEP
31. Diego Delfin, ME, UTEP
32. Travis Wilson, ME, UTEP
33. Leonardo Orea, ME, UTEP
34. Ivan Gastellum, ME, UTEP
35. Luis Chavez, ME, UTEP
36. Armando Sandavol, ME, UTEP
37. Jose Romero, ME, UTEP
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39. Mingyue Li, Chemistry, Beijing Normal University
40. Mariana Castaneda, ME, UTEP
41. Jaime Regis, ME, UTEP

42. Mario Garcia, ME, UTEP
43. Fabian Zayas, ME, University of Turabo

Completed Ph.D. Dissertation

1. Mohammad Arif Ishtiaque Shuvo
   Dissertation Title: *Hybrid Nano Structures for Enhanced Energy Storage.*
   Currently with Intel as Process Engineer.

2. Ricardo Martinez
   Dissertation Title: *Modeling and Characterization of "Smart Parts" with Embedded Sensors.*
   Currently with Intel as Process Engineer.

3. Hasanul Karim
   Dissertation Title: *Wireless Temperature Sensors: Modeling, Fabrication, and Characterization.*
   Currently with Intel as Process Engineer.

4. Rashdul Sarker, (*co-advisor with Dr. Norman Love*)
   Dissertation Title: *Pyroelectric Ceramic Wireless High Temperature Sensors.*
   Currently Assistant Professor with University of Indianapolis.

5. Hoejin Kim, (*co-advisor with Dr. Bill Tseng*)
   Dissertation Title: *Additive Manufacturing of Multifunctional nanocomposites for sensing and energy applications.*
   Currently with Intel as Process Engineer.

6. Carlos Garcia, (*co-advisor with Dr. Bill Tseng*)
   Dissertation Title: *3D printing of active nanocomposites with self-healing and shape memory properties.*
   Currently with Intel as Packaging Process Engineer.

7. Luis A. Chavez
   Dissertation Title: *Additive Manufacturing of Engineered Material Systems for Energy Applications.*
   Currently with LANL as Postdoc Research Scientist.

8. Anabel Renteria
   Dissertation Title: *Design, Synthesis, and Optimization of Additively Manufactured Functional Ceramics and Its Composites*
   Currently with UIUC as Postdoc Research Associate.

9. Jaime Regis

Dissertation Title: *Design, Synthesis, and Fabrication of Additively Manufactured of Polymer and Polymer Composites*
Currently with KCNSC as Mechanical Engineer.

10. Alba Leyva
    Dissertation Title: *High -Temperature Valve Design for A SOFC/GT Hybrid System Utilizing Smart Materials Composites*
    Currently with UTEP.

11. Cory Marquez
    Dissertation Title: *Sensing Optimization of Thermoplastics and Ceramics Fabricated through Additive Manufacturing*
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12. Jean Montes
    Dissertation Title: *Metal Fused Filament Fabrication: Distortion Compensation and CO_2 Electrochemical Reduction*
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Completed MS Thesis

1. Mohammed Ashiqur Rahaman Khan
   Thesis Title: *Development of Nanocomposites for Lithium-ion Batteries.*
   Currently at General Electric.

2. Miguel Mendoza
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3. Mohammad Arif Ishtiaque Shuvo
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4. Md Rajib
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5. Hasanul Karim
   Thesis Title: *Investigation of Passive Wireless Temperature Sensors for Harsh Environment.*
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6. Linda Vera

Thesis Title: *Micromechanics Modeling of Multifunctional Composites.*
Currently Undergraduate Peer Advisor with College of Engineering at the University of Texas at El Paso.

7. Gerardo Rodriguez-Melo
   Thesis Title: *Graphene Material Systems with Enhanced Thermal and Mechanical Performance.*
   Currently with NavAir.

8. Diego Delfin
   Thesis Title: *Micromechanics Modeling of Multifunctional Composites.*
   Currently with Intel as Process Engineer.

9. Emilio Durango
   Thesis Title: *Fabrication and Testing of Carbon Fiber Composites with Embedded Sensing.*
   Currently with Intel as Product Development Engineer.

10. Jorge Silva
    Thesis Title: *Pyroelectric Sensor for Energy Environment Applications.*
    Currently with NavAir.

11. Jorge Diaz
    Thesis Title: *Fabrication and Testing of Alumina Humidity Sensor.*
    Currently with MDA.

12. Hilda Fontes
    Thesis Title: *Synthesis and Characterization of Material Systems for 3D printed Smart Structures.*
    Currently with DOE/NNSA's NNSS.

13. Bethany Wilburn
    Thesis Title: *Synthesis and Advanced Manufacturing of Polymer Structures and their Composites*
    Currently with DOE/NNSA's KCNSC

14. Cesar Dominguez
    Thesis Title: *Cradle to Grave Lifecycle Process Analysis for Transuranic Waste Management Los Alamos National Laboratory*
    Currently with DOE/NNSA's LANL

15. Carl Chou
    Thesis Title: *Design and Additive Manufacturing of Shape Recovering Polymer Lattices*
    Currently with TSMC

16. Elizabeth Reza
    Thesis Title: *Synthesis and Characterization of Functional Materials for 3D Printed Composites*
    Currently with DOE/NNSA's KCNSC

17. Victoria Centeno
    Thesis Title: *Fabrication and Testing of Advanced Composites for Extreme Environments*
    Currently with DOE/NNSA's SNL

18. Jesus Mata
    Thesis Title: *3D printing of ceramics and polymers for engineering applications*
    Currently with DOE/NNSA's KCNSC

19. Aritzbe Valladolid
    Thesis Title: *A valve design for a SOFT/GT hybrid system utilizing smart materials*
    Currently with DOE/NNSA's KCNSC

20. Sergio Dante Favela
    Thesis Title: *DIW and Composites for advanced materials development*
    Currently with NGC

Current Undergraduate Students

1. Diana Fontes
2. Nicholas Herrera
3. Diego Gonzalez
4. Stephanie Gonzalez
5. Joseph Munoz
6. Laura Molina
7. Joseph Munoz
8. Carla Navar

Current MS Students

1. Aaron Rodriguez
2. Alan Loera
3. Sabina Arroyo

Current Ph.D. Students

1. Sahid Hassan

Dissertation Title: *Additive manufacturing of ceramic composites for energy applications*
Chair

2. Diana Leyva
   Dissertation Title: *TBD*
   Chair

3. Saqlain Zaman
   Dissertation Title: *TBD*
   Chair

4. Shahjahan Mahmud
   Dissertation Title: *TBD*
   Chair

5. Alexis Lopez
   Dissertation Title: *TBD*
   Chair

6. Joshua Dantzler
   Dissertation Title: *TBD*
   Chair

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Reviewer

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Reviewer, Applied Physics Letters
Reviewer, Composites Science and Technology
Reviewer, Journal of Composite Materials
Reviewer, Composites Part B: Engineering
Reviewer, Smart Materials and Structure
Reviewer, Journal of Intelligent Material Systems and Structures
Reviewer, Nanotechnology
Reviewer, Journal of Materials Science
Reviewer, Journal of Physics: Applied Physics
Grant Panel Reviewer, NSF (DUE's TUES Program, CMMI's MEP Program)
Conference Reviewer, ASME SMASIS Best Student Paper Reviewer (2010, 2011)
Faculty Search Committee, 2021, 2022, 2023

Department T&P Committee Chair, 2021-Present
College T&P Committee Member, 2021- Present
DOE BES ad-hoc proposal reviewer, 2022
DOD ARL ad-hoc proposal reviewer, 2022