

Dr. Jinwen Zhu

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Education

PhD in Electrical Engineering, University of North Carolina, 2005.
MS in Computer Science, University of North Carolina, 2003.
BS in Electrical Engineering, Southwest Jiaotong University, 1983.

Experience

Professor, Missouri Western State University. (August 2016 - Present).
Chairperson, Department of Engineering Technology, MWSU. (June 2015 – June 2022).
Graduate Program Director, Engineering Technology, MWSU. (June 2014 – May 2015).
Associate Professor, Missouri Western State University. (August 2011 – July 2016).
Assistant Professor, Department of Engineering Technology, Missouri Western State University. (August 2005 - July 2011).
Director of R & D Division, Southwest Jiaotong University, Institute of Automation at Traction Power National Laboratory. (January 1998 - December 2000).
Associate Professor, Lecturer, Teaching Assistant Professor, Southwest Jiaotong University, Department of Electrical Engineering. (August 1983 - December 2000).

Teaching Experience

Taught 31 different courses ranging from 100 level to 600 graduate level at MWSU; The courses cover Construction Engineering Technology (CET), Electronics Engineering Technology (EET), and Manufacturing Engineering Technology (MET).

Grants and Sponsored Research

Zhu, J., "Missouri Space Grant Undergraduate Scholarships and Artemis Lunar Sustainable Power Strategy," \$8,416.00, funded by NASA MO SGC (September 2022 – August 2023)

Zhu, J., "Missouri Space Grant Scholarships: Artemis Lunar Mission Undergraduate Scholarships, and Informal Education: 3D Lunar Base Camp Simulation Computer Program," \$8,154.00, funded by NASA MO SGC (August 2021 – May 2022)

Zhu, J., "Exploring NASA Artemis Lunar Construction Technologies," \$4,500.00, funded by NASA MO SGC (August 2020 – May 2021)

Zhu, J., Secured \$8,500.00 donation from AGC of Missouri for MWSU AGC Student Chapter, presented in February 2019 AGC Student Chapter meeting

Zhu, J., Wang, T. (Principal), "Midwest Apex Project (MAP): Road MAP for Student Excellence in Science, Technology, Engineering and Mathematics," Sponsored by NSF, Federal, \$599,600.00. (April 2010 - May 2015).

Zhu, J., six research projects funded by MWSU with a total of \$25,800.00 And 3 unfunded NSF grant proposals.

Major Published Intellectual Contributions

Refereed Articles

20 peer reviewed publications since joining MWSU

Zhu, J. (2018). Arduino-Based Programmable Bio-Dome, *International Journal of Electrical, Electronics and Data Communication*, 6(10).

Zhu, J. (2015). Economic Analysis for Residential Solar System. *International Journal of Emerging Trends in Electrical and Electronics*, 11(5).

Zhu, J., Raison, C. (2014). Cost Effective Automated Street Lighting Control. *International Journal of Electrical and Computer Engineering*, 4(4).

Zhu, J. (2014). PLC Based Bottling Process Control System. *Applied Mechanics and Materials, Trans Tech Publications Inc*, 615, 361-364.

Zhu, J., LaFave, T., Tsu, R. (2006). Classical capacitance of few electron dielectric spheres. *Microelectronics Journal*.

Zhu, J. (2015). *Communication Network for Smart Grid Interoperability*. 2015 IEEE International Conference on Communication Software and Networks.

Zhu, J. (2014). *PLC Based Bottling Process Control System*. The 3rd International Conference on Automatic Control and Mechatronic Engineering.

Tang, S., Zhu, J., Xie, Y. (2011). *Radar CFAR Processing and Design for Hybrid Weibull and Lognormal Clutters*. 2011 IEEE Radar Conference.

Zhu, J. (2010). *A Hybrid Online-education Strategy for Delivering Engineering and Technology Courses*. The 2nd International Conference on Networking and Digital Society (ICNDS), IEEE.

Presentations

33 presentations since joining MWSU

Newell, N., Zhu, J., NASA MO SGC Annual Conference, "An Innovative Lunar Dust Mudroom," Rolla, MO. April 22 – 23, 2022

Zhu, J., The International Conference on Science, Technology, Engineering and Management (ICSTEM), "Arduino-Based Programmable Bio-Dome," Chengdu, China. (August 15, 2018).

Zhu, J., 12th Annual Conference on Applied Learning in Higher Education (CALHE), "Enhance Students' Intern Experience through University-Industry Partnership," Wilmington, NC. (March 8 - 10, 2018).

Zhu, J., 2015 IEEE International Conference on Communication Software and Networks, "Communication Network for Smart Grid Interoperability," Chengdu, China. (June 3, 2015).

Zhu, J., The 3rd International Conference on Automatic Control and Mechatronic Engineering, "PLC Based Bottling Process Control System," Xiamen, China. (June 13, 2014).

Zhu, J., 2013 International Conference on Electronics Engineering And Grid System, "Solar Energy and Its Market Trends in the United States," International Innovative Scientific & Research Organization, Bangkok, Thailand. (June 30, 2013).

Zhu, J., The 2nd International Conference on Networking and Digital Society (ICNDS), "Hybrid Online-education Strategy for Delivering Engineering and Technology Courses," IEEE, Wenzhou, China. (May 30, 2010).

Zhu, J., Varma, V., 2007 ASEE Annual Conference, "An undergraduate summer research project: simulation of nanostructure-based devices and associated student learning," ASEE, Honolulu, Hawaii. (June 2007).

Major Awards

The Best Paper Award, "*PLC Based Bottling Process Control System*," The 3rd International Conference on Automatic Control and Mechatronic Engineering. (June 13, 2014).

The Science and Technology Progress Award (1st Prize), Ministry of Education, People's Republic of China (1997)

Major Conference/Workshop/Meeting Attended

Attended 31 conference/workshop/meeting since 2011

NASA MO SGC Annual Conference, Rolla, MO, 04/22/2022 – 04/23/2022

Additive Manufacturing 08/18/2021-08/19/2021

NASA Excavation & Construction Workshop 08/20/2021

NASA Lunar Surface Innovation Consortium Spring Meeting
05/11/2021-05/13/2021

NASA Better Together Conference 03/18/2021-03/19/2021
 NASA Dust Mitigation Workshop 02/04/2021
 Engineering Technology Leaders Institute (ETLI) Webinar - You Belong, and You Are Not Special; Underrepresented in the STEM Pipeline 01/15/2021
 Advancing Manufacturing from Classroom to Shop Floor 05/13/2020
 Engineering Schools: Helping students develop "Essential Skills" outside the classroom 04/06/2020
 ABET 2019 Institutional Representative Day, Baltimore, MD (July 20, 2019 - July 21, 2019).
 Workshop, ABET Fundamentals of Program Assessment Workshop, Baltimore, MD (October 12, 2018).
 Workshop, Institute for the Development of Excellence in Assessment Leadership (IDEAL), ABET, New Orleans, LA (January 11-14, 2016)
 Workshop, "Flipping the Classroom: Strategies for Success in Engineering," IEEE. (September 10, 2015).

Major Services

Led the preparation for CET ABET accreditation Self-Study Report and ABET accreditation visit in 2019; The ABET visit team didn't find any concerns, weaknesses, and deficiency, and highly appraised our CET program and our ABET visit preparation. The CET program was fully reaccredited.

Department Chair. (June 2015 – June 2022).

Chair, ET Assessment and Accreditation Committee. August, 2018 - Present.

Chair, ET Curriculum Committee. August, 2017 - Present.

ET Graduate Program Director. (June 2014 - May 2015).

Member, Graduate Council (August 2021 – present)

Team Member, Academic Program Review (APR). (August, 2020 - May 2021)

Member, Academic Review Board (ARB). (January 2020 – May 2020)

Member, Faculty Senate (August 2019 – May 2021)

General Studies Assessment Academy. August 20, 2018 - December 14, 2018.

Committee Member, Faculty Senate Grievance Committee. (August 2014 - July 2015).

Committee Member, Graduate Council. (June 16, 2014 - May 15, 2015).

Committee Chair, Faculty Senate Salary Committee. (August 2012 - May 2013).

Committee Member, Faculty Senate Salary Committee. (August 2011 - July 2012).

Committee Member, Fringe Benefits Committee. (August 2010 - May 2011).

Committee Member, Undergraduate Curriculum Committee. (August 2008 - July 2010).

Technical Program Committee, the 2021 International Conference on Green Energy, Environment and Sustainable Development (GEESD2021), Shanghai, China. June 26th-27th, 2021
Technical Program Committee of the 2020 International Conference on Green Energy, Environment and Sustainable Development (GEESD2020), Beijing, China. June 27th-28th, 2020
Technical Committee, ICBDR 2017: 2017 International Conference on Big Data Research
Executive Board, the 5th IAJC/ISAM International Conference, (2016)
Technical Committee, IEEE International Conference on Communication Software and Networks. (2016, 2017)
Editorial Review Board Member, The International Association of Journals and Conferences
Review Board Member, Encyclopedia of Energy Engineering & Technology

Public Service

Member, St Joseph Chamber of Commerce (2015 – Present)
Member, Saint Joseph Chinese Christian Fellowship (August 2007 - Present).
Judge, the annual PLTW Kansas City Engineering Design Competition (2016, 2019, 2020, 2021)
Judge, MARSEF (Mid-America Regional Science and Engineering Fair) (2006 - 2015).
Super Science Saturday, St Joseph (St. Joseph Museums & Missouri Western), MO. (2013, 2015, 2018, 2019, 2020, 2021).

Professional Memberships

Member, Institute of Electrical and Electronics Engineers.
Member, American Society for Engineering Education.
Senior Member, China Railway Society.
Member, Chinese Society of Electrical Engineering