CURRICULUM VITAE

WEI XUE

Professor and Department Head Mechanical Engineering Henry M. Rowan College of Engineering Rowan University 201 Mullica Hill Road, Glassboro, NJ 08028 Office: (856) 256-5358 E-mail: xuew@rowan.edu http://users.rowan.edu/~xuew ORCID: 0000-0001-6550-5366 Google Scholar: Link

PROFESSIONAL EXPERIENCE

2024.09 – present 2023.09 – 2023.08	Professor & Department Head, Mechanical Engineering, Rowan University Interim Department Head, Mechanical Engineering, Rowan University
2018.09 - 2023.08	Associate Professor, Mechanical Engineering, Rowan University
2020.02 - 2023.08	Program Coordinator/Co-Chair, Materials Science and Engineering (MSE)
	Rowan University, Glassboro, NJ
2014.09 - 2018.08	Assistant Professor, Mechanical Engineering
	Rowan University, Glassboro, NJ
2014.01 - 2014.06	Senior Product Engineer, Product Engineering
	WaferTech LLC of TSMC, Camas, WA
2007.08 - 2014.01	Assistant Professor, Mechanical Engineering
	Washington State University, Vancouver, WA
2007.05 - 2007.07	Postdoctoral Research Associate, Mechanical Engineering
	University of Minnesota, Twin Cities, MN
2000.07 - 2001.07	Research Engineer, Huawei Technologies Co. Ltd, Shenzhen, China

EDUCATION

2007	Mechanical Engineering, University of Minnesota, Twin Cities, MN
	Advisor: Dr. Tianhong Cui
2000	Electrical Engineering, Shandong University, Jinan, China
1997	Electrical Engineering, Shandong University, Jinan, China
	2000

TEACHING EXPERIENCE

2014.09 – present Rowan University Credit Courses:

- o ME 10301 (4 credits): Machine Design, 2014-present
- o ME 10342/10532 (3 credits): Quality and Reliability, 2020-present
- o ME 10430/10530 (3 credits): Introduction to Reliability Engineering, 2023-present
- o ME 10433/10533 (3 credits): Renewable Energy, 2015-present
- o ME 10505 (3 credits): Special Topics in ME: Microelectromechanical Systems (MEMS), 2017
- o ENGR 01102 (2 credits): Freshman Engineering Clinic II (FEC II), 2018
- o ENGR 01273 (3 credits): Strength of Materials, 2019-present

2014.09 – present Rowan University Engineering Clinics Projects & Other Research Courses:

- o ENGR 01301/01401: Junior and Senior Engineering Clinics, sponsor 2-6 projects and advise 8-25 students per semester, 2014 present
- o ENGR 01391: Independent Study in Engineering, 2016 present

2007.08 – 2013.12 Washington State University Vancouver Credit Courses:

- o MECH 101 (2 credits): Introduction to Mechanical Engineering, 2008
- o MECH 309 (with Labs) (3 credits): Introduction of Engineering Materials, 2010
- o MECH 431(3 credits): Semiconductor Devices, 2008-2013

- MECH 438/538 (3 credits): Microfabrication Technology, 2007-2012
- o MECH 450/550 (with Labs) (3 credits): Micro/Nano Technology, 2009-2012
- o MECH 509 (with Labs) (3 credits): MEMS Engineering, 2009-2013
- o ECE 421 (with Labs) (3 credits): Microsystems in Renewable Energy, 2012-2013

2007.08 - 2013.12Washington State University Vancouver Research/Engineering Courses:

- MECH 499: Special Problems in Mechanical Engineering, 2011
- ECE 483: Topics in Electrical Engineering, 2011
- UH 450: University Honors Thesis or Project, 2011
- Teaching Award: 2011-2012 Students' Award for Teaching Excellence the most prestigious award in teaching and mentorship for the entire campus (one awardee per year for the entire campus, cross disciplines, selected by the Teacher of the Year Committee), Washington State University Vancouver, May 2012. Link.

\mathbf{G}	RANTS (A	WARDED)	
•	\$450,000	Designing Strong Dielectrics for GHe-Cooled HTS Systems thro Tuning Office of Naval Research (Award No.: N00014-23-1-2679)	ough Nanocomposite Property
		PI: Xue	Jul. 2023 – Jun. 2026
•	\$300,000	Cultivating the Future Soft Robotics Workforce through Integrand Education	
		National Science Foundation (NSF DUE-IUSE #2235647)	
		PI: Xue, Co-PIs: Trkov, Jamison, Bakrania, Bolden	Jul. 2023 – Jun. 2026
•	\$35,000	Developing a Novel Spinal Cord Stimulator with Antimicrobial New Jersey Health Foundation (Grant #PC 77-23)	Properties
		PI: Hettinger, Co-PI: Xue	Feb. 2023 – June. 2024
•	\$4,000	Printed Flexible Spinal Cord Stimulator for Pain Management University of Pennsylvania, Singh Center for Nanotechnology, & 2023 Innovation Seed Grant	2022 Innovation Seed Grant
		PI: Xue	Jun. 2022 – April 2024
•	\$335,900	MRI: Acquisition of a Multi-Dimensional Nano-Characteri Scanning Probe Microscope for Multidisciplinary Materials Res National Science Foundation (NSF DMR #2116353)	
		PI: Lu, <u>Co-PIs: Xue</u> , Hettinger, Dobbins, Yu	Sep. 2021 – Aug. 2023
•	\$100,000	Printed Flexible Electronics for Pain Management Camden Health Research Initiative	
		PI: Xue, Co-PIs: Hettinger, Hirsh	Mar. 2020 – Jun. 2024
•	\$127,416	Real-Time Cloud-Connected Wearable Heart Health Monitor Camden Health Research Initiative	
		PI: Hirsh, <u>Co-PIs: Xue</u> , Haas	Mar. 2019 – Jun. 2022
•	\$541,341	Polymer Nanocomposites with Enhanced Dielectric Stren Contraction for Superconductor Cables	gth and Reduced Thermal
		Naval Surface Warfare Center (NSWC), Naval Engineering Ed	ducation Consortium (NEEC)

PI: Xue, Co-PI: Krchnavek Sep. 2017 – Aug. 2022 Wearable Blood Pressure Monitors for Smart Health \$35,000 New Jersey Health Foundation (Grant #PC110-17)

(Award No.: NSWC IHEODTD N00174-17-1-0008)

PI: Xue, Co-PIs: Hirsh, Merrill Mar. 2017 – Dec. 2018

Smart Bandage Protein Materials with Temperature Responsive Drug Delivery Function \$35,000 New Jersey Health Foundation (Grant #PC111-17)

		PI: Hu, <u>Co-PI: Xue</u>	Mar. 2017 – Aug. 2018
•	\$451,500	MRI: Acquisition of a Scanning Electron Microscope for Resear	ch and Education
		National Science Foundation (NSF CBET #1625816)	Oct 2016 Com 2019
_	\$35,000	<u>PI: Xue</u> , Co-PIs: Krchnavek, Dobbins, Nagele, Beachley Nanofiber-based Motion Energy Harvesters for Implanted Medic	Oct. 2016 – Sep. 2018
•	\$33,000	New Jersey Health Foundation (Grant #PC34-16)	cai Devices
		PI: Xue, Co-PI: Beachley	Apr. 2016 – Jun. 2017
•	\$50,000	Electronic Skin (E-skin) Patch for Monitoring Heart Rate and Ro	-
	ΨΕ 0,000	New Jersey Health Foundation / The Nicholson Foundation (Gra	*
		PI: Xue, Co-PIs: Hu, Hettinger	Jan. 2016 – May 2017
•	\$10,000	Skin-Mountable Flexible Energy Harvesters for Wearable Electron	ronics
		Rowan University Seed Funding, Rowan University	
		PI: Xue	Jul. 2015 – Jun. 2016
•	\$6,000	Multidisciplinary, Collaborative, and Hands-on Learning for the	Next Generation of Engineers
		in Renewable Energy	W 1
		Samuel H. and Patricia W. Smith Teaching and Learning Grant,	Apr. 2013 – Apr. 2014
	\$750	PI: Xue Hands-on Learning for the Next-Generation Engineers in Renew	
•	\$130	Washington State University Vancouver Teaching Innovations S	
		PI: Xue	Jun. 2013 – May 2014
•	\$525,500	Interdisciplinary Renewable Energy Option Track	
	, ,	M. J. Murdock Charitable Trust \$250,500; WSU Match \$275,00	0
		My portion (for course development and laboratories) is approxi	
		PI: Gurocak, <u>Co-PIs: Xue</u> , Solovitz, Song, Tigli	Jun. 2011 – May 2013
•	\$4,800	Creating Logic Using Nanotube Electronics	
		Washington State University Vancouver Research Mini-Grant	
	Φ ε 000	PI: Xue	Jun. 2012 – May 2013
•	\$5,000	Integration of Nanosensors and Microfluidics for Lab-on-a-Chip Washington State University Vancouver Research Mini-Grant	Devices
		PI: Xue	Jun. 2011 – May 2012
•	\$8,920	3D Assembly of Carbon Nanotube Multilayers	Juli. 2011 Way 2012
	ψ0,220	Washington State University New Faculty Seed Grant	
		PI: Xue	May 2008 – Aug. 2009
•	\$3,500	Nanofabrication in Three Dimensions	
		Washington State University Vancouver Research Mini-Grant	
		PI: Xue	Jun. 2008 – May 2009

RESEARCH INTEREST & EXPERIENCE

- Sensors: physical, chemical, and biological sensors
- Micro/nanoelectromechanical systems (MEMS/NEMS)
- Microelectronics and semiconductor microfabrication technology
- Nanotechnology and nanomaterials
- Wearable electronics

JOURNAL PUBLICATIONS

- 1. Joshua Knospler, Nicholas Pagliocca, Wei Xue, and Mitja Trkov, "TendrilBot: modular soft robot with versatile radial grasping and locomotion capabilities", *Sensors and Actuators A: Physical*, Vol. 378, p. 115835, 2024.
- 2. Joshua Knospler, Wei Xue, and Mitja Trkov, "Reconfigurable modular soft robots with modulating stiffness and versatile task capabilities", *Smart Materials and Structures*, Vol. 33, No. 6, p. 065040, 2024.

- 3. Behrad Koohbor, Wei Xue, Kazi Z. Uddin, George Youssef, Daniel Nerbetski, Bradley Steiger, Joseph Kenney, and Dana Yarem, "Fabrication and characterization of electrically conductive 3D printable TPU/MWCNT filaments for strain sensing in large deformation conditions", *Advanced Sensor Research*, p. 2300198, 2024. (selected as the issue cover paper)
- 4. Kaniz Roksana, Shaini Aluthgun Hewage, Melissa Montalbo Lomboy, Chao Sheng Tang, <u>Wei Xue</u>, and Cheng Zhu, "Desiccation cracking remediation through enzyme induced calcite precipitation in fine-grained soils under wetting drying cycles", *Biogeotechnics*, Vol. 1, No. 4, p. 100049, 2023.
- 5. Thong Vu, Tyler Petty, Kemal Yakut, Muhammad Usman, Wei Xue, Francis M. Haas, Robert A. Hirsh, and Xinghui Zhao, "Real-time arrhythmia detection using convolutional neural networks", *Frontiers in Big Data*, Vol. 6, p. 1270756, 2023.
- 6. Muhammad Usman, Nabil Jamhour, Jeffrey Hettinger, and <u>Wei Xue</u>, "Smart wearable flexible temperature sensor with compensation against bending and stretching effects", *Sensors and Actuators A: Physical*, Vol. 353, p. 114224, 2023.
- 7. Jacob Mahon, Nicholas Pagliocca, Virginia Harnack, Behrad Koohbor, Robert Krchnavek, and Wei Xue, "Design and implementation of a thin film tensile testing apparatus for cryogenic applications", *Experimental Techniques*, Vol. 47, No. 4, pp. 817-826, 2023.
- 8. Jacob Mahon, Nicholas Pagliocca, Virginia Harnack, Behrad Koohbor, Lei Yu, Xiao Hu, Robert Krchnavek, and Wei Xue, "Mechanics of dielectric polyamide/SiO₂ nanocomposite coatings for cryogenic service in superconductor systems", *Journal of Applied Polymer Science*, Vol. 139, No. 44, e53097, 2022.
- 9. Muhammad Usman, Adarsh K. Gupta, and <u>Wei Xue</u>, "Wearable ring bioelectrical impedance analyzer for estimation and monitoring of body fat", *Smart Health*, Vol. 24, p. 100275, 2022.
- 10. Harrison M. Hones, Jordan T. Cook, Michael J. McCaffrey, Robert R. Krchnavek, and <u>Wei Xue</u>, "Effects of material preparation in polyimide/SiO2 nanocomposites for low-temperature dielectric applications", *IEEE Transactions on Nanotechnology*, Vol. 20, pp. 695-702, 2021.
- 11. Jordan T. Cook, Harrison M. Hones, Jacob R. Mahon, Lei Yu, Robert R. Krchnavek, and <u>Wei Xue</u>, "Temperature-dependent dielectric properties of polyimide (PI) and polyamide (PA) nanocomposites", *IEEE Transactions on Nanotechnology*, Vol. 20, pp. 584-591, 2021.
- 12. Greggory Murray, Samuel Bednarski, Michael Hall, Samuel W. Foster, SiJun Jin, Joshua J. Davis, <u>Wei Xue</u>, Eric Constans, James P. Grinias, "Comparison of design approaches for low-cost sampling mechanisms in open-source chemical instrumentation", *HardwareX*, Vol. 10, e00220, 2021.
- 13. Taissa R. Michel, Michael J. Capasso, Muhammet E. Cavusoglu, Jeremy Decker, Danilo Zeppilli, Cheng Zhu, Smitesh Bakrania, Jennifer A. Kadlowec, and <u>Wei Xue</u>, "Evaluation of porous polydimethylsiloxane/carbon nanotubes (PDMS/CNTs) nanocomposites as piezoresistive sensor materials", *Microsystem Technologies*, Vol. 26, No. 4, pp. 1101-1112, 2020.
- 14. Muhammad Usman, Mario Leone, Adarsh K. Gupta, and <u>Wei Xue</u>, "Fabrication and analysis of wearable bio-impedance analyzers on paper and plastic substrates", *IEEE Sensors Letters*, Vol. 4, No. 3, p. 6000304, 2020.
- 15. Michael McCaffrey, Harrison Hones, Jordan Cook, Robert Krchnavek, and <u>Wei Xue</u>, "Geometric analysis of dielectric failures in polyimide/silicon dioxide nanocomposites", *Polymer Engineering and Science*, Vol. 59, Issue 9, pp. 1897-1904, 2019.
- 16. Adriano A. Conte, Khosro Shirvani, Harrison Hones, Alexander Wildgoose, Xue Ye, Raghid Najjar, Xiao Hu, Wei Xue, Vince Z. Beachley, "Effects of post-draw processing on the structure and functional properties of electrospun PVDF-HFP nanofibers", *Polymer*, Vol. 171, pp. 192-200, 2019.
- 17. Raghid Najjar, Yi Luo, Dave Jao, David Brennan, Ye Xue, Vince Beachley, Xiao Hu, and Wei Xue, "Biocompatible silk/polymer energy harvesters using stretched poly (vinylidene fluoride-co-hexafluoropropylene) (PVDF-HFP) nanofibers", *Polymers*, Vol. 9, No. 10, p. 479, 2017.
- 18. Andrea De Vellis, Dmitry Gritsenko, Yang Lin, Zhenping Wu, Xian Zhang, Yayue Pan, <u>Wei Xue</u>, and Jie Xu, "Drastic sensing enhancement using acoustic bubbles for surface-based microfluidic sensors", *Sensors and Actuators B: Chemical*, Vol. 243, pp. 298-302, 2017.
- 19. Maria Torculas, Jethro Medina, <u>Wei Xue</u>, and Xiao Hu, "Protein-based bioelectronics", *ACS Biomaterials Science & Engineering*, Vol. 2, No. 8, pp. 1211-1223, 2016.

- 20. Jianlong Gao, Jiheng Zhao, Liping Liu, and Wei Xue, "Dimensional effects of polymer pillar arrays on hydrophobicity", *Surface Engineering*, Vol. 32, No. 2, pp. 125-131, 2016.
- 21. Catalina Maria Rivera, Hyuck-Jin Kwon, Ali Hashmi, Gan Yu, Jiheng Zhao, Jianlong Gao, Jie Xu, <u>Wei Xue</u>, and Alexander G. Dimitrov, "Towards a dynamic clamp for neurochemical modalities", *Sensors*, Vol. 15, No. 5, pp. 10465-10480, 2015.
- 22. Hyuck-Jin Kwon, Yuhao Xu, Stephen A. Solovitz, <u>Wei Xue</u>, Alexander G. Dimitrov, Allison B. Coffin, and Jie Xu, "Design of a microfluidic device with a non-traditional flow profile for on-chip damage to zebrafish sensory cells", *Journal of Micromechanics and Microengineering*, Vol. 24, No. 1, p. 017001, 2014.
- 23. Yan Duan, Nicholas E. Holmes, Alexander L. Ellard, Jianlong Gao, and <u>Wei Xue</u>, "Solution-based fabrication and characterization of a logic gate inverter using random carbon nanotube networks", *IEEE Transactions on Nanotechnology*, Vol. 12, No. 6, pp. 1111-1117, 2013.
- 24. Yan Duan, Jason L. Juhala, Benjamin W. Griffith, and <u>Wei Xue</u>, "A comparative analysis of thin-film transistors using aligned and random-network carbon nanotubes", *Journal Nanoparticle Research*, Vol. 15, No. 3, p. 1478, 2013.
- 25. Yan Duan, Jason L. Juhala, Benjamin W. Griffith, and <u>Wei Xue</u>, "Solution-based fabrication of p-channel and n-channel field-effect transistors using random and aligned carbon nanotube networks", *Microelectronic Engineering*, Vol. 103, pp. 18-21, 2013.
- 26. Stephen A. Solovitz, Jiheng Zhao, <u>Wei Xue</u>, and Jie Xu, "Uniform flow control for a multi-passage microfluidic sensor", *Journal of Fluids Engineering*, Vol. 135, No. 2, 2013.
- 27. Jiheng Zhao, Debra A. Sheadel, and Wei Xue, "Surface treatment of polymers for the fabrication of all-polymer MEMS devices", *Sensors and Actuators A: Physical*, Vol. 187, pp. 43-49, 2012.
- 28. Pengfei Li, Nan Lei, Jie Xu, and <u>Wei Xue</u>, "High-yield fabrication of graphene chemiresistors with dielectrophoresis", *IEEE Transactions on Nanotechnology*, Vol. 11, No. 4, pp. 751-759, 2012.
- 29. Jiheng Zhao, Ali Hashmi, Jie Xu, and Wei Xue, "A compact lab-on-a-chip nanosensor for glycerol detection", *Applied Physics Letters*, Vol. 100, No. 24, p. 243109, 2012. (selected for *Virtual Journal of Nanoscale Science & Technology*, Vol. 25, No. 26, June 2012, AIP/APS)
- 30. Pengfei Li, Nan Lei, Debra A. Sheadel, Jie Xu, and <u>Wei Xue</u>, "Integration of nanosensors into a sealed microchannel in a hybrid lab-on-a-chip device", *Sensors and Actuators B: Chemical*, Vol. 166-167, pp. 870-877, 2012.
- 31. Wei Xue, "A design-oriented experimental module for teaching micro- and nanotechnologies to mechanical engineering students", *International Journal of Mechanical Engineering Education*, Vol. 40, No. 1, pp. 11-23, 2012.
- 32. Nan Lei, Pengfei Li, <u>Wei Xue</u>, and Jie Xu, "Simple graphene chemiresistors as pH sensors: fabrication and characterization", *Measurement Science and Technology*, Vol. 22, No. 10, p. 107022, 2011.
- 33. Pengfei Li, Caleb M. Martin, Kan Kan Yeung, and <u>Wei Xue</u>, "Dielectrophoresis aligned single-walled carbon nanotubes as pH sensors", *Biosensors*, Vol. 1, No. 1, pp. 23-35, 2011.
- 34. Pengfei Li and <u>Wei Xue</u>, "Selective deposition and alignment of single-walled carbon nanotubes assisted by dielectrophoresis: from thin films to individual nanotubes", *Nanoscale Research Letters*, Vol. 5, No. 6, pp. 1072-1078, 2010.
- 35. Wei Xue and Tianhong Cui, "Thin-film transistors with controllable mobilities based on layer-by-layer self-assembled carbon nanotube composites", *Solid-State Electronics*, Vol. 53, No. 9, pp. 1050-1055, 2009.
- 36. Xiaolin Chen, Wei Cui, and <u>Wei Xue</u>, "Process modeling and device-package simulation for optimization of MEMS gyroscopes", *Computer-Aided Design and Applications*, Vol. 6, No. 3, pp. 375-386, 2009.
- 37. Miao Lu, Dongjin Lee, Wei Xue, and Tianhong Cui, "Flexible and disposable immunosensors based on layer-by-layer self-assembled carbon nanotubes and biomolecules", *Sensors and Actuators A: Physical*, Vol. 150, No. 2, pp. 280-285, 2009.
- 38. Wei Xue and Tianhong Cui, "Self-assembled carbon nanotube multilayer resistors and nanotube/nanoparticle thin-film resistors as pH sensors", Sensor Letters, Vol. 6, No. 5, pp. 675-681, 2008.
- 39. Wei Xue and Tianhong Cui, "A thin-film transistor based acetylcholine sensor using self-assembled carbon nanotube and SiO₂ nanoparticles", *Sensors and Actuators B: Chemical*, Vol. 134, No. 2, pp. 981-987, 2008.

- 40. Wei Xue and Tianhong Cui, "Electrical and electromechanical characteristics of self-assembled carbon nanotube thin films on flexible substrates", *Sensors and Actuators A: Physical*, Vol.145-146, pp. 330-335, 2008.
- 41. Wei Xue and Tianhong Cui, "A high-resolution amperometric acetylcholine sensor based on nano-assembled carbon nanotube and acetylcholinesterase thin films", *Journal of Nano Research*, Vol. 1, pp. 1-9, 2008.
- 42. <u>Wei Xue</u> and Tianhong Cui, "Polymer magnetic microactuators fabricated with hot embossing and layer-by-layer nano self-assembly", *Journal of Nanoscience and Nanotechnology*, Vol. 7, No. 8, pp. 2647-2653, 2007.
- 43. Wei Xue and Tianhong Cui, "Carbon nanotube micropatterns and cantilever array fabricated with layer-by-layer nano self-assembly", *Sensors and Actuators A: Physical*, Vol. 136, No. 2, pp. 510-517, 2007.
- 44. Wei Xue and Tianhong Cui, "Characterization of layer-by-layer self-assembled carbon nanotube multilayer thin films", *Nanotechnology*, Vol. 18, No. 14, p. 145709, 2007.
- 45. Wei Xue, Yi Liu, and Tianhong Cui, "High-mobility transistors based on nano-assembled carbon nanotube semiconducting layer and SiO₂ nanoparticle dielectric layer", *Applied Physics Letters*, Vol. 89, No. 16, p. 163512, 2006.
- 46. Jing Wang, <u>Wei Xue</u>, Naidu V. Seetala, Xueyuan Nie, Efstathios I. Meletis, and Tianhong Cui, "A micromachined wide-bandwidth magnetic field sensor based on all-PMMA electron tunneling transducer", *IEEE Sensors Journal*, Vol. 6, No. 1, pp. 97-105, 2006. (selected as the issue cover paper)
- 47. Wei Xue, Jing Wang, and Tianhong Cui, "Modeling and design of polymer-based tunneling accelerometers by ANSYS/MATLAB", *IEEE/ASME Transactions on Mechatronics*, Vol. 10, No. 4, pp. 468-472, 2005.
- 48. Wei Xue, Jing Wang, and Tianhong Cui, "Highly sensitive micromachined tunneling sensors", *Optical and Precision Engineering*, Vol. 12, No. 5, pp. 491-503, 2004. (invited paper)
- 49. Jing Wang, Wei Xue, and Tianhong Cui, "A combinative technique to fabricate hot embossing master for PMMA tunneling sensors", *Microsystem Technologies*, Vol. 10, No. 4, pp. 329-333, 2004.

BOOK CHAPTERS

- 1. Raghid Najjar, Joseph R. Nalbach, and <u>Wei Xue</u>, "Carbon nanotube sensing in food safety and quality analysis", *Sensing Techniques for Food Safety and Quality Control*, Royal Society of Chemistry, Chapter 9, pp. 272-298, September 2017. ISBN: 978-1782626640.
- 2. Nan Lei, Pengfei Li, Ali Hashmi, <u>Wei Xue</u>, and Jie Xu, "Graphene chemiresistors as pH sensors: fabrication and characterization", *Graphene Science Handbook: Fabrication Methods*, CRC Press, Chapter 18, pp. 309-318, April 2016. ISBN: 978-1466591271.
- 3. Yan Duan, Jason Juhala, and <u>Wei Xue</u>, "Solution-based fabrication of carbon nanotube thin-film logic gate", *Nanomaterials: A Guide to Fabrication and Applications*, CRC Press, Chapter 9, pp. 195-214, December 2015. ISBN: 978-1466591257.
- 4. Jiheng Zhao, Pengfei Li, and <u>Wei Xue</u>, "Carbon nanotubes: aligned, as pH sensors", *Dekker Encyclopedia of Nanoscience and Nanotechnology, Third Edition*, Taylor & Francis Group CRC Press, New York, pp. 643-655, June 2014. ISBN: 978-1439891346.
- 5. Pengfei Li, Nan Lei, Jie Xu, and <u>Wei Xue</u>, "High-yield dielectrophoretic deposition and ion sensitivity of graphene", *Nanoelectronic Device Applications Handbook*, Taylor & Francis Group CRC Press, Chapter 28, pp. 373-382, June 2013. ISBN: 978-1466565234.
- 6. Wei Xue and Pengfei Li, "Dielectrophoretic deposition and aligned carbon nanotubes", *Carbon Nanotubes Synthesis, Characterization, Applications*, InTech, Chapter 9, pp. 171-190, July 2011. ISBN: 978-9533074979.
- 7. Tianhong Cui and Wei Xue, "Polymer tunneling sensors", *Encyclopedia of Sensors*, American Scientific Publishers, Vol. 8, pp. 87-122, 2005. ISBN: 1-58883-001-2. (invited chapter)

CONFERENCE PUBLICATIONS (PEER REVIEWED)

- 1. Joshua Knospler, Wei Xue, and Mitja Trkov, "A shared electrical-pneumatic and reversible locking intermodule connector for modular robots", 2024 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2024), pp. 160-165, Boston, MA, USA, July 15-19, 2024.
- 2. Joshua Knospler, Wei Xue, and Mitja Trkov, "MagBot: reconfigurable modular soft pneumatic actuators with tunable magnetic connection mechanism", 2024 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2024), pp. 1284-1289, Boston, MA, USA, July 15-19, 2024.
- 3. Cassandra Jamison, Smitesh Bakrania, Mitja Trkov, and Wei Xue, "WIP: A Model for Building Soft Robotics Knowledge and Interest: Student-Generated Learning Demonstrations", 2024 ASEE Annual Conference & Exposition, P. 41701, DOI: 10.18260/1-2—48284, Portland, OR, USA, June 23-26, 2024.
- 4. Joseph Midiri, Kathy Trieu, Wei Xue, Mitja Trkov, Cassandra Jamison, and Smitesh Bakrania, "BYOE: McKibben Creature A Low-Cost Robotic Simulation of A Biological Environment", 2024 ASEE Annual Conference & Exposition, P. 43558, DOI: 10.18260/1-2—48435, Portland, OR, USA, June 23-26, 2024.
- 5. Matthew Longstreth, Vincent Sambucci, Alex Siniscalco, Smitesh Bakrania, Mitja Trkov, Cassandra Jamison, and Wei Xue, "BYOE: Soft Robotic Fish Project", 2024 ASEE Annual Conference & Exposition, P. 43562, DOI: 10.18260/1-2—48437, Portland, OR, USA, June 23-26, 2024.
- 6. William Heil-Heintz, Jacob Wojcicki, Mitja Trkov, Wei Xue, Smitesh Bakrania, and Cassandra Jamison, "BYOE: Wacky-Waving-Non-Inflatable-Arm-Flailing-Tube-Man for Teaching Soft Robotics", 2024 ASEE Annual Conference & Exposition, P. 43548, DOI: 10.18260/1-2—48438, Portland, OR, USA, June 23-26, 2024.
- 7. Nicholas R. Mahon, Jared Ericksen, Sean F. Lawton, Max P. Coraggio, John P. Terifay, Michael Smith, Dianna Martinez-Castro, Paul M. Maienza, and Wei Xue, "Dielectric and mechanical characteristics of polyamide-silicon dioxide nanocomposites", *The ASME 2023 International Mechanical Engineering Congress & Exposition (ASME IMECE 2023)*, IMECE2023-113011, New Orleans, LA, USA, October 29-November 2, 2023. (**Best Paper Award by ASME MEMS Division**)
- 8. Kaniz Roksana, Shaini Aluthgun Hewage, Melissa Montalbo-Lomboy, Chao-Sheng Tang, Cheng Zhu, and Wei Xue, "Bioremediation of desiccation cracking in clayey soils using enzyme induced calcite precipitation", *Geo-Congress* 2023, pp. 603-613, Los Angeles, CA, USA, March 26-29, 2023.
- Benjamin Wechter, Nicholas Gushue, Luke Reilly, Maxwell Rutka, Ryan Kennedy, Jacob Mahon, Wei Xue, and Mitja Trkov, "Cost-effective soft actuators using NafionTM and carbon nanotube electrodes", *The ASME 2022 International Mechanical Engineering Congress & Exposition (ASME IMECE 2022*), IMECE2022-95669, Columbus, OH, USA, October 30-November 3, 2022. (Best Paper Award by ASME MEMS Division)
- 10. Kemal Yakut, Muhammad Usman, Wei Xue, Francis M. Haas, Robert A. Hirsh, Joseph Boothby, Tyler Petty, and Xinghui Zhao, "Electro-mechanical data fusion for heart health monitoring", The 10th IEEE International Conference on Healthcare Informatics (IEEE ICHI 2022), pp. 357-362, Rochester, MN, USA, June 11-14, 2022.
- 11. Jacob Mahon, Nicholas Pagliocca, Virginia Harnack, Behrad Koohbor, Robert Krchnavek, and Wei Xue, "Cost-effective tensile testing apparatus for characterization of thin films at cryogenic temperatures", 2022 Society for Experimental Mechanics (SEM) Annual Conference, Pittsburgh, PA, USA, June 13-16, 2022.
- 12. Jordan Cook, Jacob Mahon, William Emmerling, Lei Yu, Robert Krchnavek, and <u>Wei Xue</u>, "PMMA nanocomposite based cryogenic dielectrics for high-temperature superconducting (HTS) cables", *The 16th IEEE Nanotechnology Materials and Devices Conference (IEEE NMDC 2021)*, Vancouver, Canada, December 12-15, 2021.
- 13. Jacob Mahon, Jordan Cook, Harrison Hones, Robert Krchnavek, and Wei Xue, "Polyimide (PI) and polyamide (PA) nanocomposite films as dielectrics for multi-phase high-temperature superconducting transmission cables", *The American Society of Naval Engineers Intelligent Ships Symposium XIV (ASNE ISS2021)*, Virtual, April 28-29, 2021.
- 14. Tyler Petty, Thong Vu, Xinghui Zhao, Robert A Hirsh, Greggory Murray, Francis M Haas, and Wei Xue, "Evaluating deep learning algorithms for real-time arrhythmia detection", 2020 IEEE/ACM International Conference on Big Data Computing, Applications and Technologies (BDCAT 2020), Leicester, UK, December 7-10, 2020.

- 15. Jordan Cook, Harrison Hones, Lei Yu, Robert Krchnavek, and Wei Xue, "Increased dielectric strength of polyimide/silicon dioxide nanocomposites at cryogenic temperatures", *The 20th IEEE International Conference on Nanotechnology (IEEE NANO 2020)*, Virtual, July 29-31, 2020.
- 16. Muhammad Usman, Adarsh K. Gupta, and <u>Wei Xue</u>, "Analyzing dry electrodes for wearable bioelectrical impedance analyzers", *The 2019 IEEE Signal Processing in Medicine and Biology Symposium (IEEE SPMB 2019)*, Philadelphia, PA, USA, December 7, 2019.
- 17. Harrison M. Hones, Michael J. McCaffrey, Jordan T. Cook, Thomas J. Bielicki, Richard Chao, Robert R. Krchnavek, and Wei Xue, "Polyimide-based nanocomposites as low-temperature dielectrics", *The 14th IEEE Nanotechnology Materials and Devices Conference (IEEE NMDC 2019)*, Stockholm, Sweden, October 27-30, 2019.
- 18. Muhammad Usman, Shani Thapa, Adarsh K. Gupta, and Wei Xue, "Ring based wearable bioelectrical impedance analyzer for body fat estimation", *The 2018 IEEE International Symposium on Signal Processing and Information Technology (IEEE ISSPIT 2018)*, Louisville, KY, USA, December 6-8, 2018.
- 19. Taissa R. Michel, Joseph R. Nalbach, Harrison Hones, Anthony Salemo, Salvatore Catanzaro, Allison Tingley, Matthew Schwenger, and Wei Xue, "Functionalization of PDMS nanocomposite foams for piezoelectric applications", *The 13th IEEE Nanotechnology Materials and Devices Conference (IEEE NMDC 2018)*, Portland, OR, USA, October 14-17, 2018.
- 20. Alexander Wildgoose, Raghid Najjar, Jason Dittman, Harrison Hones, Emily Umbach, Benjamin Muska, Adriano Conte, Vince Beachley, and <u>Wei Xue</u>, "Comparative studies of wet-stretched and non-stretched electrospun PVDF-HFP nanofibers", *The ASME 2017 International Mechanical Engineering Congress & Exposition (ASME IMECE 2017)*, IMECE2017-70993, Tampa, FL, USA, November 3-9, 2017.
- 21. Joseph R. Nalbach, Mathew S. Schwenger, Zachary M. Koleszar, Kelly Greiser, David Ozalas, Taissa Michel, Craig Bovenzi, and <u>Wei Xue</u>, "Polymer-nanoparticle composite foams for energy harvesting applications", *The ASME 2017 International Mechanical Engineering Congress & Exposition (ASME IMECE 2017)*, IMECE2017-71002, Tampa, FL, USA, November 3-9, 2017.
- 22. Joseph R. Nalbach, Dave Jao, Douglas G. Petro, Kyle M. Raudenbush, Shibbir Ahmad, Ye Xue, Xiao Hu, and Wei Xue, "Fabrication of tunable silk materials through microfluidic mixers", *The ASME 2016 International Mechanical Engineering Congress & Exposition (ASME IMECE 2016)*, IMECE2016-65623, Phoenix, AZ, USA, November 11-17, 2016.
- 23. Raghid Najjar, Yi Luo, Xiao Hu, Vince Beachley, and Wei Xue, "Study of energy harvesting performance of wet-stretched PVDF nanofibers", *The ASME 2016 International Mechanical Engineering Congress & Exposition (ASME IMECE 2016)*, IMECE2016-66642, Phoenix, AZ, USA, November 11-17, 2016.
- 24. Eric Constans, Shivakumar Ranganathan, and <u>Wei Xue</u>, "Integrating the mechanical engineering curriculum using a long-term green design project the planetary gearset", *The 122nd American Society for Engineering Education (ASEE) Annual Conference & Exposition*, Paper ID: 11674, Seattle, WA, June 14-17, 2015. (Selected for the Best Paper Presentations Session)
- 25. Jiheng Zhao, Jianlong Gao, Xinmiao Chen, Liping Liu, and Wei Xue, "Studies of the dimensional effects of SU-8 and PDMS pillar arrays on hydrophobicity", *The ASME 2013 International Mechanical Engineering Congress & Exposition (ASME IMECE 2013)*, IMECE2013-62692, San Diego, CA, USA, November 15-21, 2013.
- 26. Jianlong Gao, Jiheng Zhao, Xinmiao Chen, Wei Xue, and Liping Liu, "Boiling water treatment for wettability improvement of aluminum fin surfaces", *The ASME 2013 International Mechanical Engineering Congress & Exposition (ASME IMECE 2013)*, IMECE2013-62697, San Diego, CA, USA, November 15-21, 2013.
- 27. Yan Duan, Nicholas E. Holmes, Alexander L. Ellard, Jianlong Gao, and Wei Xue, "Solution-based fabrication and characterization of a voltage inverter using random carbon nanotube networks", *The 13th IEEE International Conference on Nanotechnology (IEEE NANO 2013)*, pp. 393-396, Beijing, China, August 5-8, 2013. (**NSF Student Travel Award: J. Gao**)
- 28. Jiheng Zhao, Debra A. Sheadel, and Wei Xue, "Surface treatment of polymers for the fabrication of all-polymer microfluidic devices", *The ASME 2012 International Mechanical Engineering Congress & Exposition (ASME IMECE 2012*), IMECE2012-86136, Houston, TX, USA, November 9-15, 2012.

- 29. Yan Duan, Jason L. Juhala, Benjamin W. Griffith, Vianney J. Uwizeye, and Wei Xue, "Solution-based fabrication of p-channel and n-channel thin-film transistors using random and aligned carbon nanotube networks", *The ASME 2012 International Mechanical Engineering Congress & Exposition (ASME IMECE 2012*), IMECE2012-86353, Houston, TX, USA, November 9-15, 2012.
- 30. Hyuck-Jin Kwon, Yuhao Xu, Stephen A. Solovitz, <u>Wei Xue</u>, Alexander G. Dimitrov, Allison B. Coffin, and Jie Xu, "Design of a microfluidic device to induce noise damage in hair cells of the zebrafish lateral line", *The ASME 2012 International Mechanical Engineering Congress & Exposition (ASME IMECE 2012)*, IMECE2012-87135, Houston, TX, USA, November 9-15, 2012.
- 31. Jiheng Zhao, Jie Xu, and <u>Wei Xue</u>, "A novel compact lab-on-a-chip nanosensor for in-channel liquid viscosity detection", *Nanotech Conference & Expo 2012 (Nanotech 2012)*, pp. 388-391, Santa Clara, CA, USA, June 18-21, 2012.
- 32. Jason L. Juhala, Benjamin W. Griffith, Yan Duan, and <u>Wei Xue</u>, "A comparative analysis of transistors based on dielectrophoresis-aligned carbon nanotubes (CNTs) and assembled random-network CNTs", *Nanotech Conference & Expo 2012 (Nanotech 2012)*, pp. 244-247, Santa Clara, CA, USA, June 18-21, 2012.
- 33. Nan Lei, Zheyuan Chen, Dae-Wook Kim, <u>Wei Xue</u>, and Jie Xu, "Mechanical fabrication of graphene devices using focused-ion beam: deposition and milling", *Nanotech Conference & Expo 2012 (Nanotech 2012)*, pp. 502-505, Santa Clara, CA, USA, June 18-21, 2012.
- 34. Gan Yu, Nan Lei, Xiaolin Chen, <u>Wei Xue</u>, and Jie Xu, "Free-surface microfluidics: exploring new actuation and sensing methods", *Nanotech Conference & Expo 2012 (Nanotech 2012)*, pp. 365-368, Santa Clara, CA, USA, June 18-21, 2012.
- 35. Pengfei Li, Nan Lei, Jie Xu, and <u>Wei Xue</u>, "A lab-on-a-chip device using a dielectrophoresis-aligned carbon nanotube sensor array", *The ASME 2011 International Mechanical Engineering Congress & Exposition (ASME IMECE 2011)*, IMECE2011-62814, Denver, CO, USA, November 11-17, 2011.
- 36. Pengfei Li, Nan Lei, Jie Xu, and Wei Xue, "Large-scale deposition of graphene with dielectrophoresis", *The ASME 2011 International Mechanical Engineering Congress & Exposition (ASME IMECE 2011)*, IMECE2011-64934, Denver, CO, USA, November 11-17, 2011.
- 37. Nan Lei, Pengfei Li, <u>Wei Xue</u>, and Jie Xu, "Gate-free graphene-based sensor for pH monitoring", *The ASME 2011 International Mechanical Engineering Congress & Exposition (ASME IMECE 2011)*, IMECE2011-65166, Denver, CO, USA, November 11-17, 2011.
- 38. Pengfei Li, Nan Lei, Jie Xu, and <u>Wei Xue</u>, "High-yield dielectrophoretic deposition and ion sensitivity of graphene", *The 11th IEEE International Conference on Nanotechnology (IEEE NANO 2011)*, pp. 1327-1330, Portland, OR, USA, August 15-18, 2011.
- 39. Pengfei Li, Wei Xue, Dae-Wook Kim, and Young-Bin Park, "A preliminary study on machinability of polymethylmethacrylate (PMMA)/multi-walled carbon nanotube (MWCNT) nanocomposites in focused ion beam micromachining", *The ASME 2011 International Manufacturing Science and Engineering Conference (ASME MSEC 2011)*, MSEC2011-50115, Corvallis, OR, USA, June 13-17, 2011.
- 40. Wei Xue, "Student-centered microsystem and nanotechnology courses and laboratories for mechanical engineering students", *The 2010 ASME International Mechanical Engineering Congress & Exposition* (ASME IMECE 2010), IMECE 2010-37204, Vancouver, British Columbia, Canada, November 12-18, 2010.
- 41. Pengfei Li and Wei Xue, "Dielectrophoretic assembly of organized carbon nanotubes and thin films", *The 2010 ASME International Mechanical Engineering Congress & Exposition (ASME IMECE 2010)*, IMECE 2010-37441, Vancouver, British Columbia, Canada, November 12-18, 2010.
- 42. Wei Cui, Xiaolin Chen, and Wei Xue, "Robust compensator control of a non-resonant MEMS gyroscope with linear quadratic regulator", *The 2010 ASME International Mechanical Engineering Congress & Exposition (ASME IMECE 2010)*, IMECE 2010-38871, Vancouver, British Columbia, Canada, November 12-18, 2010.
- 43. Wei Cui, Wei Xue, and Xiaolin Chen "Compensator design for a MEMS gyroscope with quadratic optimal control", *The 2010 ASME International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (ASME IDETC/CIE 2010)*, DETC2010/MNS-28533, Montreal, Quebec, Canada, August 15-18, 2010.

- 44. Wei Cui, Xiaolin Chen, and Wei Xue, "Design optimization for a non-resonant MEMS gyroscope", *The 2009 ASME International Mechanical Engineering Congress and Exposition (ASME IMECE 2009)*, IMECE 2009-10812, Lake Buena Vista, FL, USA, November 13-19, 2009.
- 45. Xiaolin Chen, Wei Cui, and Wei Xue, "Process modeling and device-package simulation for optimization of MEMS gyroscopes", *The 2009 International CAD Conference and Exhibition (CAD'09)*, pp. 375-386, Reno, NV, USA, June 8-12, 2009.
- 46. Miao Lu, Dongjin Lee, Wei Xue, and Tianhong Cui, "Flexible and disposable immunosensors based on layer-by-layer self-assembled carbon nanotubes and biomolecules", *The 21th IEEE International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2008)*, pp. 188-191, Tucson, AZ, USA, January 13-17, 2008.
- 47. Wei Xue and Tianhong Cui, "Electrical and electromechanical characteristics of nano-assembled carbon nanotube thin film resistors on flexible substrates", *The 14th International Conference on Solid-State Sensors, Actuators and Microsystems (Transducers'07)*, pp. 1047-1050, Lyon, France, June 10-14, 2007.
- 48. Wei Xue and Tianhong Cui, "A high-resolution amperometric acetylcholine sensor based on nano-assembled carbon nanotubes", *The 20th IEEE International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2007)*, pp. 529-532, Kobe, Japan, January 21-25, 2007.
- 49. Wei Xue and Tianhong Cui, "Deposition and characterization of layer-by-layer nano self-assembled carbon nanotube multilayer thin films", *The 2nd IEEE International Conference on Nano/Micro Engineered and Molecular Systems (IEEE NEMS 2007)*, pp. 371-376, Bangkok, Thailand, January 16-19, 2007.
- 50. Wei Xue and Tianhong Cui, "Single-walled carbon nanotube micropatterns and interconnections fabricated with layer-by-layer nano self-assembly and microlithography on flexible substrates", ASME Proceedings of CANEUS: Micro-Nano-Technology for Aerospace Applications (CANEUS 2006), CANEUS2006-11054, Toulouse, France, August 27 September 1, 2006.
- 51. Wei Xue and Tianhong Cui, "Single-walled carbon nanotube micropatterns and cantilever array fabricated with electrostatic layer-by-layer nano self-assembly and lithography", *Hilton Head 2006 Technical Digest: Solid-State Sensor, Actuator and Microsystems Workshop (HH2006)*, pp. 328-331, Hilton Head Island, SC, USA, June 4-8, 2006.
- 52. Kartikeya Malladi, Chunlei Wang, Marc Madou, <u>Wei Xue</u>, and Tianhong Cui, "Microfabrication and mechanical characterization of suspended carbon microstructures", *2006 NSTI Nanotechnology Conference (Nanotech 2006)*, pp. 756-759, Boston, MA, USA, May 7-11, 2006.

CONFERENCE PRESENTATIONS AND POSTERS (NON PEER REVIEWED)

- 1. Behrad Koohbor, and Wei Xue, "3D printable TPU-MWCNT composite filaments with tunable electromechanical properties", *The ASME 2024 Smart Materials, Adaptive Structures and Intelligent Systems* (SMASIS2024), SMASIS2024-139489, Atlanta, GA, September 9-11, 2024.
- 2. Cassandra Jamison, Smitesh Bakrania, Mitja Trkov, and Wei Xue, "Transforming Soft Robotics Education Through Integrated Undergraduate Research," NSF IUSE Summit, Washington DC, June 16-18, 2024.
- 3. Jacob Mahon, Nicholas Mahon, Nicholas Gushue, Joseph Stanzione, Robert Krchnavek, and Wei Xue, "Design, fabrication, and characterization of cryogenic dielectric nanocomposites", *The ASME 2022 International Mechanical Engineering Congress & Exposition (ASME IMECE 2022)*, IMECE2021-99719, Columbus, Ohio, October 30 November 3, 2022.
- 4. Jacob Mahon, Jordan Cook, Lei Yu, Xiao Hu, Francis Haas, Robert Krchnavek, and Wei Xue, "Development of cryogenic dielectric nanocomposites for high-temperature superconductor applications", *The 22nd IEEE International Conference on Nanotechnology (IEEE NANO 2022)*, Palma de Mallorca, Spain, July 4-8, 2022.
- 5. Jacob Mahon, Jordan Cook, Nicholas Pagliocca, Virginia Harnack, Robert Krchnavek, and Wei Xue, "Addressing Cryogenic Dielectric Material Challenges in High-Temperature Superconducting Cables with Polyamide/silica Nanocomposite Thin Films", *The ASME 2021 International Mechanical Engineering Congress & Exposition (ASME IMECE 2021)*, IMECE2021-77199, Virtual Conference, November 1-5, 2021.

- 6. Jordan Cook, Harrison Hones, Jacob Mahon, Robert Krchnavek, and Wei Xue, "Enhanced dielectric capabilities of polyimide/silicon dioxide nanocomposites in cryogenic applications", *The ASME 2020 International Mechanical Engineering Congress & Exposition (ASME IMECE 2020)*, IMECE2012-93909, Virtual Conference, November 16-19, 2020.
- Harrison M. Hones, Jordan T. Cook, Michael J. McCaffrey, Ye Xue, Xiao Hu, Lei Yu, Robert R. Krchnavek, and Wei Xue, "Polymer Nanocomposites for Cryogenic Dielectric Applications", *Applied Superconductivity Conference* 2020 (ACS 2020), ID: ASC20-Wk2LOr1D-01, Virtual Conference, October 24 November 7, 2020.
- 8. Adriano Conte, Wei Xue, Xiao Hu, and Vince Beachley, "Effects of post-drawing on the structure and functional properties of electrospun PVDF-HFP nanofibers", 2019 Biomedical Engineering Society (BMES) Annual Meeting, Philadelphia, PA, October 16-20, 2019.
- 9. Adriano Conte, Khosro Shirvani, Wei Xue, Xiao Hu, and Vince Beachley, "Effects of post-drawing processing on the structure and functional properties of electrospun PVDF-HFP nanofibers", 2018 Fall Materials Research Society (MRS) Fall Meeting and Exhibit, Boston, MA, November 25-30, 2018.
- 10. Joseph R. Nalbach, Michael McCaffrey, Robert R. Krchnavek, and Wei Xue, "Polymer nanocomposite dielectrics for high-temperature superconducting cables", *Applied Superconductivity Conference* 2018 (ACS 2018), ID: ASC2018-4MOr3A-05, Seattle, WA, October 28 November 2, 2018.
- 11. Muhammad Usman, Shani Thapa, Adarsh K. Gupta, and Wei Xue, "Ring based wearable bioelectrical impedance analyzer for body fat estimation", *Life Sciences Future*, Philadelphia, PA, October 29-30, 2018.
- 12. Jeremy Decker, Taissa Michel, and Wei Xue, "Investigation of Porous Materials for Flexible Pressure Sensors", 2018 Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, October 17-20, 2018.
- Adriano Conte, Damon Boorstein, Khosro Shirvani, Wei Xue, Xiao Hu, and Vince Beachley, "Improving the macromolecular alignment and electrical output of electrospun PVDF-HFP nanofibers through postdrawing", 44th Annual Northeast Bioengineering Conference (NEBEC) 2018, Philadelphia, PA, March 28-30, 2018.
- 14. Adriano Conte, Khosro Shirvani, Harrison Hones, Alexander Wildgoose, Wei Xue, Xiao Hu, and Vince Beachley, "Enhancing the macromolecular orientation and electrical output of electrospun PVDF-HFP nanofibers through post-draw processing", 2017 Fall Materials Research Society (MRS) Fall Meeting and Exhibit, Boston, MA, November 26 December 1, 2017.
- 15. Raghid Najjar, Yi Luo, Vince Beachley, Xiao Hu, and Wei Xue, "Skin-mountable energy harvesters using silk and wet-stretched PVDF nanofibers", *The 26th Anniversary World Congress on Biosensors* (*Biosensors 2016*), Poster BIOS2016_0285, Gothenburg, Sweden, May 25-27, 2016.
- 16. Jianlong Gao, Jiheng Zhao, Xinmiao Chen, Liping Liu, and Wei Xue, "Dimensional effects of micro pillar arrays on hydrophobicity", *The ASME 2013 International Mechanical Engineering Congress & Exposition (ASME IMECE 2013)*, ASME Society-Wide Micro and Nano Technology Forum, IMECE2013-67028, San Diego, CA, USA, November 15-21, 2013. (**NSF Student Travel Award: J. Gao**)
- 17. Xinmiao Chen, Jianlong Gao, Wei Xue, and Liping Liu, "Surface wettability effect on water condensation and transport in PEM fuel cells", *The ASME 2013 International Mechanical Engineering Congress & Exposition (ASME IMECE 2013)*, ASME Society-Wide Micro and Nano Technology Forum, IMECE2013-67237, San Diego, CA, USA, November 15-21, 2013.
- 18. Alexander Dimitrov, <u>Wei Xue</u>, Jie Xu, Catalina Rivera, Gan Yu, Jiheng Zhao, and Hyuck-Jin Kwon, "Towards a dynamic clamp for neuro-chemical modalities", *The 22nd Annual Computational Neuroscience Meeting (CNS 2013)*, *BMC Neuroscience*, 14 (Suppl 1), p.232, Paris, France, July 13-18, 2013.
- 19. Yan Duan, Jason L. Juhala, Benjamin W. Griffith, and Wei Xue, "Solution-based fabrication of p-channel and n-channel thin-film transistors using carbon nanotube networks", *The ASME 2012 International Mechanical Engineering Congress & Exposition (ASME IMECE 2012)*, ASME Society-Wide Micro and Nano Technology Forum, IMECE2012-93909, Houston, TX, USA, November 9-15, 2012. (poster)
- 20. Jiheng Zhao, Debra A. Sheadel, and Wei Xue, "Surface treatment for the fabrication of all-polymer microfluidic devices", *The ASME 2012 International Mechanical Engineering Congress & Exposition*

- (ASME IMECE 2012), ASME Society-Wide Micro and Nano Technology Forum, IMECE2012-93910, Houston, TX, USA, November 9-15, 2012. (poster) (NSF Student Travel Award: J. Zhao)
- 21. Nan Lei, Zheyuan Chen, Dae-Wook Kim, <u>Wei Xue</u>, and Jie Xu, "Maskless fabrication of graphene nanoribbons using focused-ion beam", *The ASME 2012 International Mechanical Engineering Congress & Exposition (ASME IMECE 2012)*, ASME Society-Wide Micro and Nano Technology Forum, IMECE2012-88390, Houston, TX, USA, November 9-15, 2012. (poster)
- 22. Nan Lei, Pengfei Li, <u>Wei Xue</u>, and Jie Xu, "A graphene-based chemiresistor for microfluidic sensing", *The 3rd Conference on Advances in Microfluidics and Nanofluidics (AMN2012)*, May 23-26, 2012, Dalian, China. (presentation)
- 23. Pengfei Li, Nan Lei, Jie Xu, and Wei Xue, "Integration of carbon nanotube sensors and microfluidics in a hybrid lab-on-a-chip device", *The ASME 2011 International Mechanical Engineering Congress & Exposition (ASME IMECE 2011)*, ASME Society-Wide Micro and Nano Technology Forum, IMECE2011-66276, Denver, CO, USA, November 11-17, 2011. (poster) (**NSF Student Travel Award: P. Li**)
- 24. Pengfei Li, Nan Lei, Jie Xu, and <u>Wei Xue</u>, "High-yield deposition and characterization of graphene and carbon nanotubes", *The ASME 2011 International Mechanical Engineering Congress & Exposition* (ASME IMECE 2011), ASME Society-Wide Micro and Nano Technology Forum, IMECE2011-66277, Denver, CO, USA, November 11-17, 2011. (poster)
- 25. Nan Lei, Pengfei Li, Wei Xue, and Jie Xu, "Fabrication of simple graphene pH sensors with focused ion beam", *The ASME 2011 International Mechanical Engineering Congress & Exposition (ASME IMECE 2011)*, ASME Society-Wide Micro and Nano Technology Forum, IMECE2011-66271, Denver, CO, USA, November 11-17, 2011. (poster)
- 26. Wei Xue, "Student-centered microsystem and nanotechnology courses and laboratories for mechanical engineering students", *The ASME 2010 International Mechanical Engineering Congress & Exposition* (ASME IMECE 2010), Micro & Nano Technology Society-Wide Forum, Vancouver, British Columbia, Canada, November 12-18, 2010. (poster)
- 27. Pengfei Li and Wei Xue, "Selective deposition and alignment of single-walled carbon nanotubes (SWNTs)", ONAMI (Oregon Nanoscience and Microtechnologies Institute) Mega Mixer, Corvallis, OR, August 2010. (poster)
- 28. Wei Xue and Tianhong Cui, "Two-terminal amperometric thin-film biosensors based on layer-by-layer nano self-assembled single-walled carbon nanotubes", *Design of Medical Devices Conference, Minneapolis*, MN, USA, April 19-21, 2006. (poster)
- 29. Wei Xue and Tianhong Cui, "Layer-by-layer nano-assembled magnetic cantilever array for biosensing applications", *Design of Medical Devices Conference, Minneapolis*, MN, USA, April 13-14, 2005. (poster)
- 30. Wei Xue and Tianhong Cui, "Polymer tunneling sensors for potential biomedical applications", *Design of Medical Devices Conference*, Minneapolis, MN, USA, April 8-9, 2004. (poster)
- 31. Jing Wang, Wei Xue and Tianhong Cui, "Polymer-based tunneling sensor platform", *The 17th Annual NSF EPSCoR National Conference*, Las Vegas, NV, USA, September 7-9, 2003. (poster)
- 32. Tianhong Cui, Jing Wang, Yongjun Zhao, Wei Xue and Kody Varahrymyan, "Polymer-based tunneling sensor platform", *Louisiana EPSCoR Capital Day*, New Orleans, LA, USA, April 2003. (poster)
- 33. Tianhong Cui, Jing Wang, Yongjun Zhao, <u>Wei Xue</u> and Kody Varahrymyan, "Polymer-based tunneling sensor platform", *Louisiana Conference on Commercial Applications of Microsystems, Materials, and Nanotechnologies*, Ruston, LA, USA, October 21-22, 2002. (poster)

DISSERTATION

• Wei Xue, "Nano-assembled carbon nanotube thin film based microstructures, field-effect transistors, and acetylcholine biosensors", *Ph.D. Dissertation*, Advisor: Tianhong Cui, Department of Mechanical Engineering, University of Minnesota, Twin Cities, MN, 2007.

TECHNICAL PAPERS

- Pengfei Li, <u>Wei Xue</u>, and Jie Xu, "The fabrication of PDMS interconnecting interface assisted by tubing fixation", Lab on a Chip: Chips and Tips, http://blogs.rsc.org/chipsandtips/, June 2011.
- Tianhong Cui and Wei Xue, "Assembling three-dimensional carbon nanotube-based cantilever arrays", *The International Society for Optical Engineering SPIE Newsroom Micro/Nano Lithography & Fabrication*, http://spie.org/x17490.xml, DOI: 10.1117/2.1200710.0901, October 2007.

INVITED/OTHER PRESENTATIONS

- "Designing and characterizing strong cryogenic dielectrics for HTS systems", Naval Applied Superconductivity Review, Naval Surface Warfare Center, Philadelphia Division, Philadelphia, PA, July 26, 2024.
- "Designing and characterizing strong cryogenic dielectrics for HTS systems", The 2023 Singh Center for Nanotechnology Annual User Meeting, Philadelphia, PA, October 19, 2023.
- "Designing and characterizing strong cryogenic dielectrics for HTS systems", Naval Applied Superconductivity Review, Naval Surface Warfare Center, Philadelphia Division, Philadelphia, PA, June 15, 2023.
- "Nanoparticle enhanced polymers for HTS dielectrics", Naval Applied Superconductivity Review, Naval Surface Warfare Center, Philadelphia Division, Philadelphia, PA, May 7-8, 2019.
- "Nanoparticle enhanced polymers for HTS dielectrics", Naval Applied Superconductivity Review, Naval Surface Warfare Center, Philadelphia Division, Philadelphia, PA, April 11-12, 2018.
- "Introduction to microsensors, microelectronics, and nanotechnology", HONORS 301 University Scholars Lecture Series, Washington State University, Vancouver, WA, September 2012.
- "Carbon nanotube thin-film microdevices", Materials Science Institute, University of Oregon, Eugene, OR, October 2008.
- "Carbon nanotube thin-film microdevices", Mechanical Engineering Graduate Seminar, Washington State University, Vancouver, WA, February 2008.

AWARDS AND HONORS

- Best Paper Award, ASME 2023 International Mechanical Engineering Congress & Exposition (ASME IMECE 2022) MEMS Division, New Orleans, LA, USA, October 29-November 2, 2023
- Best Paper Award, ASME 2022 International Mechanical Engineering Congress & Exposition (ASME IMECE 2022) MEMS Division, Columbus, OH, USA, October 30-November 3, 2022
- Finalist for the "Best Paper Award", American Society for Engineering Education (ASEE) Annual Conference & Exposition, Seattle, WA, June 14-17, 2015
- 2011-2012 Students' Award for Teaching Excellence (one awardee per year for the entire campus, cross disciplines, selected by the Teacher of the Year Committee), Washington State University Vancouver, May 2012
- National Science Foundation (NSF) Fellowship for NSF Summer Institute, Evanston, IL, June-July 2011
- Advisor of the third-prize winning team for the 2011 International Contest of Applications in Nano/Micro Technologies (iCAN'11), Beijing, China, June 2011
- National Science Foundation (NSF) Fellowship for NSF Summer Institute, Evanston, IL, May 2010
- NSF Fellowship for NSF Summer Institute, San Diego, CA, April 2010
- Chinese Government Award for Outstanding Self-Financed Students Abroad by China Scholarship Council, 2006
- Travel Award from the Transducer Research Foundation (TRF) and the Defense Advanced Research Projects Agency (DARPA), Hilton Head, SC, 2006
- Graduate Student Travel Award, Mechanical Engineering, University of Minnesota, 2006
- Research Assistantship, Mechanical Engineering, University of Minnesota, 2004 2007
- Graduate Assistantship, Electrical Engineering, Louisiana Tech University, 2001 2003

PROFESSIONAL ACTIVITIES

- Reviewer for Funding Agencies:
 - o Reviewer for the National Science Foundation (NSF), Division of Graduate Education (EDU/DGE), Innovations in Graduate Education (IGE) Program, 2024
 - o Reviewer for the National Science Foundation (NSF), Division of Materials Research (DMR), Electronic and Photonic Materials (EPM) Program, 2016
 - Reviewer for NSF, Division of Civil, Mechanical and Manufacturing Innovation (CMMI), Sensors and Sensing Systems Program, 2012
 - Reviewer for NSF, Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), Biosensing Program, 2012
 - o Reviewer for the NSF Graduate Research Fellowships Program (GRFP), 2022-2023
 - o Reviewer for the National Science Center Poland, 2024.
 - o Reviewer for the American Chemical Society (ACS) Petroleum Research Fund (PRF), 2023
 - o Reviewer for Maryland Industrial Partnerships Program, 2017
 - Reviewer for the Ralph E. Powe Junior Faculty Award for the Oak Associated Universities (ORAU),
 2017
 - Reviewer for the Canada Foundation for Innovation (CFI) of Canada, John R. Evans Leaders Fund (JELF), 2016
 - o Reviewer for the Research Grant Council (RGC) of Hong Kong, 2017
 - o Reviewer for the Research Grant Council (RGC) of Hong Kong, February 2016 & May 2016
 - o Reviewer for the Research Grant Council (RGC) of Hong Kong, 2015
 - o Reviewer for the Research Grant Council (RGC) of Hong Kong, 2014
 - o Reviewer for the Research Grant Council (RGC) of Hong Kong, 2013
 - o Reviewer the Austrian Science Fund (FWF) for the Austrian Special Research Program (SFB), 2011

Reviewer for Journals:

- o ACS Applied Materials & Interfaces
- o ACS Omega
- o ACS Applied Polymer Materials
- Advances in Materials Science and Engineering
- Advanced Materials Technologies
- o Analytical Chemistry
- Applied Physics Letters
- Applied Sciences
- o ASME Journal of Thermal Science and Engineering Applications
- o Biomedicine & Pharmacotherapy
- o Biosensors
- Biosensors and Bioelectronics
- Coatings
- o Composites Part B: Engineering
- o Computers and Electronics in Agriculture
- Heliyon
- IEEE Electron Device Letters
- o IEEE Sensors Journal
- o IEEE Transactions on Education
- o International Journal of Advanced Robotic Systems
- Journal of Electrostatics
- o Journal of Materials Chemistry C
- o Journal of Materials Science: Materials in Electronics
- Journal of Nanomaterials

Curriculum Vitae, Wei Xue, p. 15

- o Journal of Nanoparticle Research
- Journal of Nanoscience and Nanotechnology
- Journal of Nanoscience Letters
- o Journal of Transportation Engineering
- Journal of Vacuum Science and Technology A
- Journal of Vacuum Science and Technology B
- Journal of Visualized Experiments
- o Materials
- Materials Today Chemistry
- Materials Today Communications
- Materials Letters
- Measurement Science and Technology
- Micromachines
- Microfluidics and Nanofluidics
- o Microsystem Technologies
- o Microsystems & Nanoengineering
- o NANO
- o Nanoscale Research Letters
- o Nanoscience & Nanotechnology-Asia
- Phytomedicine Plus
- Polymers and Polymer Composites
- Scientific Reports
- Sensors
- Sensors and Actuators A: Physical
- o Sensors and Actuators B: Chemical
- Sensors and Actuators Reports
- Surface and Coating Technology
- Reviewer for Publishers and Publisher Projects:
 - Reviewer for book publishers:
 - Pearson Education Inc.
 - John Wiley & Sons, Inc.
 - Springer
 - Participant in a project organized by John Wiley & Sons, Inc. for their molecular structure animations software VMSE (Virtual Materials Science Engineering), an online education tool for students to interactively learn engineering materials and material properties. I have developed auto-gradable questions for the module of "Ceramic Crystal Structures", December 2014.
- Organizer, Session Chair, and Reviewer for Conferences:
 - Reviewer for International Conferences: ASME International Mechanical Engineering Congress & Exposition (IMECE), ASME International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (DETC/CIE), ASME International Manufacturing Science and Engineering Conference (MSEC), ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS), IEEE International Midwest Symposium on Circuits and Systems (MWSCAS), IEEE International Conference on Nanotechnology (IEEE NANO), ASEE Annual Conference & Exposition, and Portuguese Conference on Automatic Control
 - O International Advisory Committee for the 13th IEEE Nanotechnology Materials & Devices Conference (NMDC 2018) in Portland, Oregon, USA, October 15-17, 2018.
 - Topic Organizer and Session Chair, The ASME International Mechanical Engineering Congress & Exposition (IMECE), 2013-present.
 - International Advisory Committee Member for the 13th IEEE Nano Materials & Devices Conference (NMDC 2018) in Portland, Oregon, USA, October 15-17, 2018.

- Program Committee Member for the 13th IEEE International Conference on Nanotechnology (IEEE NANO 2013), Beijing, China, August 5-8, 2013
- Session Chair for two sessions, The 11th IEEE International Conference on Nanotechnology (IEEE NANO 2011), Portland, OR, August 15-18, 2011
- Session Chair, Micro/Nano Technology, The 18th ASME Annual Conference on Information Storage and Processing Systems (ISPS'08), Santa Clara, June 16-17, 2008
- O Judge for the ASME Society-Wide Micro and Nano Technology Forum at ASME IMECE 2012, Houston, TX, November 9-15, 2012
- Reviewer and Judge for Competition and Science Fairs:
 - Judge for the 2015 Student Research Showcase by the Sigma Xi, the Scientific Research Society, March 23-29, 2015
 - Reviewer for the United States Contest of Applications in Nano/Micro Technologies (UCAN) of iCAN (The International Contest of Applications in Nano/Micro Technologies), 2012, 2013
 - o Judge for the 2013 Southwest Washington Science and Engineering Fair (SWWSEF), March 16, 2013

• Professional Memberships:

- Senior Member of IEEE (Institute of Electrical and Electronics Engineers), 2018-present
- o Member of IEEE (Institute of Electrical and Electronics Engineers), 2005-2018
- o Member of ASME (American Society of Mechanical Engineers), 2007-present
- Member of ACS (American Chemical Society), 2009-2015
- o Member of Sigma Xi, 2011-2013

UNIVERSITY, COLLEGE, AND DEPARTMENT SERVICES

2014.09 – present Rowan University

- Rowan University Program Coordinator and Co-Chair for the Materials Science and Engineering (MSE) program, 2020-2023
- o Rowan University Faculty of the Future Committee, 2020-2021
- Rowan University College of Engineering Adjusted Load Committee, 2020-present
- Rowan University College of Engineering Diversity, Equity, Inclusion Strategic Plan Committee,
 2020
- o Reviewer for Rowan University Seed Funding Program, 2018 & 2019
- o Mechanical Engineering Interim Department Head, 2023-present
- o Mechanical Engineering ABET Committee, 2023-present
- o Mechanical Engineering Sabbatical Committee, 2023-present
- o Mechanical Engineering Faculty Search Committee, 2016-present; as chair (2020-2023)
- Mechanical Engineering Tenure & Recontracting Committee, 2020-2022
- o Mechanical Engineering Lab Committee, 2021-present
- o Mechanical Engineering Curriculum Committee, 2018-2020
- o Mechanical Engineering Election Committee, 2021
- o Mechanical Engineering Graduate Program Committee, 2015-present
- Mechanical Engineering Sophomore-Senior Students Advisor, 25-30 students per year, 2014-present
- Updated and maintained the homepage of Mechanical Engineering Department, 2014-2018
- o Participated in the recruitment events (Engineering Open House, Accepted Student day, etc.) for undergraduate and graduate students at Rowan University, 2014-present
- o Participated in new faculty searches for Mechanical Engineering, 2015, 2016
- o Participated in new faculty searches for Biomedical Engineering, 2015, 2017
- Rowan University Faculty Senator 2017-2019; Backup Faculty Senator for Mechanical Engineering, 2016-2017
- o Rowan University Professional Ethics and Welfare Committee 2018-2019.
- o Rowan University College of Engineering Lab Safety Committee, 2017-2018

o Rowan University Calendar Committee, 2015-2017

2007.08 – 2013.12 Washington State University Vancouver

- o Mechanical Engineering Graduate Studies Committee (GSC) Chair, 2011-2013
- o Mechanical Engineering Graduate Studies Committee member, 2007-2011
- o Mechanical Engineering Undergraduate Studies Committee (USC) member, 2007-2013
- Faculty advisor for undergraduate students, 2008-2013 (Number of students advised: 2008: 8; 2009: 22; 2010: 40; 2011: 33; 2012: 33; 2013: 20)
- o Graduate thesis committee member for M.S. students at WSU, 2008-2013
- o Participated in the recruitment events for undergraduate and graduate students at WSU, 2007-2013
- Participated in new faculty searches for Mechanical Engineering and Electrical Engineering, 2007-2013
- o Committee member for the Annual WSU Vancouver Research Showcase, 2012, 2013
- o Participated in the planning for the ENCS event at the 2010 WSU Vancouver Research Showcase, 2009-2010
- o WSU Vancouver University Scholars The Honors Program Committee, 2010-2011
- Faculty advisor for Jason L Juhala for the WSU Vancouver University Scholars The Honors Program, 2010-2012
- o Faculty advisor for the WSU Vancouver Soccer Club, 2009-2013
- Involved in the transition of the Angel Learning Management System at WSU Vancouver, 2009

GRADUATE STUDENTS ADVISED

2014.0	9 – present Rowan University		
0	Amit Kumar Singh	Ph.D. ME	2023 – present
0	Jared Ericksen	M.S. ME	2024 - present
0	Joshua Knospler	M.S. ME	2022 - present
0	Muhammad Usman	Ph.D. ENG	2016 - 2022
0	Kemal Yakut (Co-Advisor: Haas)	M.S. ME	2021 - 2022
0	Nabil Jamhour (Co-Advisor: Hettinger)	M.S. ME	2021 - 2022
0	Jacob R. Mahon (Co-Advisor: Krchnavek)	M.S. ME	2020 - 2022
0	Jordan T. Cook (Co-Advisor: Krchnavek)	M.S. ME	2019 - 2021
0	Rhandy J. Paladines (Co-Advisor: Hettinger)	M.S. ME	2019 - 2021
0	Harrison M. Hones (Co-Advisor: Krchnavek)	M.S. ME	2018 - 2020
0	Muhammet Cavusoglu	M.S. ME	2019 - 2020
0	Taissa R. Michel	M.S. ME	2017 - 2019
0	Christian Beauvais	M.S. ME	2017 - 2019
0	Joseph R. Nalbach	M.S. ME	2016 - 2018
0	Joseph F. Iannello	M.S. ME	2016 - 2018
2007.0	8 – 2013.12 Washington State University V	ancouver:	
0	Jianlong Gao	M.S., ME	2012 - 2014
0	Yan Duan	M.S., ME	2011 - 2013
0	Jiheng Zhao	M.S., ME	2011 - 2013
0	Pengfei Li	M.S., ME	2009 - 2011
0	Wei Cui	M.S., ME	2008 - 2010
GRAI	DIJATE THESIS COMMITTEE		

GRADUATE THESIS COMMITTEE

2014.09 – present	Rowan University		
 Adam Fifth 		Ph.D. ECE	2023 – present
Kaniz Roksans	a	Ph D CFF	2022 - present

Curriculum Vitae, Wei Xue, p. 18

0	Madison Kaminskyj	Ph.D. ME	2021 – present
0	Paolo Rommel Sanchez	Ph.D. ME	2023
0	Anant Bhusal	Ph.D. ME	2023
0	Adriano Conte	Ph.D. BME	2022
0	Gregory V. Taylor	Ph.D. MSE	2021
0	John Pruden	M.S. ECE	2022
0	Michael McCaffrey	M.S. ECE	2022
0	Matthew Malpica	M.S. ME	2020
0	Dylan McNally	M.S. ME	2020
0	Brandon E. Bergmann	M.S. ME	2019
0	Bhanuprakash Reddy Guggilla	M.S. ME	2018
0	Mohammed Mehdi Benmassaoud	M.S. ME	2018
0	Jonathan R. Gabriel	M.S. ME	2016
2007.0	8 – 2013.12 Washington State University V	^J ancouver	
	2		2012
0	Caleb Sturtevant	M.S. ME	2013
0	Patrick Rucker	M.S. ME	2013
0	Todd B. May	M.S. ME	2013
0	Yuhao Xu	M.S. ME	2013
0	Fan Yang	M.S. ME	2013
0	Galip Ozan Erol	M.S. ME	2012
0	Mustafa Sait Alkan	M.S. ME	2012
0	Nan Lei	M.S. ME	2012
0	Daniel Hennigan	M.S. ME	2011
0	Berk Gonenc	M.S. ME	2011
0	Jeffrey Mainka	M.S. ME	2011
0	Gabriel Castro	M.S. ME	2010
0	Doruk Senkal	M.S. ME	2010
0	Graham Kryger	M.S. ME	2010
0	David Binion	M.S. ME	2010
0	Menglu Wu	M.S. ME	2010
0	Yongha Kim	M.S. ME	2009
0	Kevin Beavers	M.S. ME	2009
0	Thomas Conder	M.S. ME	2009
0	Neil Hayes	M.S. ME	2009

UNDERGRADUATE STUDENTS ADVISED FOR RESEARCH

2014.09 –	present	R	lowan	University
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Matthew Olivo	Undergraduate Student (ME)	May 2024 – present
Joseph Marshina	Undergraduate Student (ChE)	May 2024 – present
Jared Ericksen	Undergraduate Student (ChE)	May 2023 – June 2024
John Terifay	Undergraduate Student (ME)	Nov. 2022 – May 2024
John Hayes	Undergraduate Student (ME)	Jan. – May 2024
Nicholas Gushue	Undergraduate Student (ME)	Dec. 2021 – Aug. 2022
Nicholas Mahon	Undergraduate Student (ECE)	May – Aug. 2022
Riley McBreen	Undergraduate Student (ME)	Dec. 2021 – Jan. 2022
Elizabeth Lee	Undergraduate Student (BME, NSF RE	U Fellow)
	(Lawrence Technological University)	May – July 2021
Virginia Harnack	Undergraduate Student (ME)	May 2021 – May 2022
Tanner K. Coles	Undergraduate Student (ME)	Sep. 2020 – Jan. 2021
	Joseph Marshina Jared Ericksen John Terifay John Hayes Nicholas Gushue Nicholas Mahon Riley McBreen Elizabeth Lee Virginia Harnack	Joseph Marshina Jared Ericksen John Terifay John Hayes Nicholas Gushue Nicholas Mahon Riley McBreen Elizabeth Lee Undergraduate Student (ME) Undergraduate Student (ME) Undergraduate Student (ME) Undergraduate Student (ME) Undergraduate Student (ECE) Undergraduate Student (ME) Undergraduate Student (ME) Undergraduate Student (ME) Undergraduate Student (ME) Undergraduate Student (BME, NSF RE (Lawrence Technological University) Undergraduate Student (ME)

Curriculum Vitae, Wei Xue, p. 19				
0	William G. Emmerling	Undergraduate Student (ChE)	Sep. 2020 – Jan. 2021	
0	Jordan T. Cook	Undergraduate Student (ME)	May 2018 – August 2019	
0	Thomas J. Bielicki	Undergraduate Student (ChE)	May – August 2019	
0	Richard Chao	Undergraduate Student (ME)	May – August 2019	
0	Greggory F. Murray	Undergraduate Student (ME)	May – August 2019	
0	Rhandy J. Paladines	Undergraduate Student (Physics)	January – May 2019	
0	Jeremy Decker	Undergraduate Student (BME, NSF RE	(U Fellow)	
			May – July 2018	
0	Erik M. Zapfe	Undergraduate Student (ME)	May – August 2018	
0	Harrison M. Hones	Undergraduate Student (ME)	May 2017 – August 2018	
0	Taissa R. Michel	Undergraduate Student (ME)	June 2016 – August 2017	
0	Ric Rey Nool Vergara	Undergraduate Student (ECE)	March 2016 – May 2017	
0	Stephen L. Sanchez	Undergraduate Student (ECE)	March 2016 – May 2017	
0	Joseph R. Nalbach	Undergraduate Student (ME)	May 2015 – August 2016	
0	Kyle R. Linderman	Undergraduate Student (Physics)	May – August 2016	
0	Kevin J. McShane	Undergraduate Student (ECE)	Dec. 2015 – May 2016	
0	Brandon M. O'Brien	Undergraduate Student (ECE)	Dec. 2015 – May 2016	
2014.0	9 – present Rowan Univers	Junior/Senior Engineering Clin (Credit-based Research Activit	•	
0	Fall 2023 Junior/Senior Engine	ering Clinic Projects (3 Projects, 16 Stud	ents)	
0	•	ineering Clinic Projects (4 Projects, 19 St	· ·	
0	Fall 2022 Junior/Senior Engine	ering Clinic Projects (3 Projects, 13 Stud	ents)	
0	Spring 2022 Junior/Senior Engineering Clinic Projects (5 Projects, 21 Students)			
0	Fall 2021 Junior/Senior Engineering Clinic Projects (4 Projects, 15 Students)			
0	Spring 2021 Junior/Senior Eng	ineering Clinic Projects (3 Projects, 12 St	tudents)	
0	Fall 2020 Junior/Senior Engine	ering Clinic Projects (3 Projects, 13 Stud	ents)	
0	Spring 2020 Junior/Senior Eng	ineering Clinic Projects (6 Projects, 24 St	tudents)	
0	Fall 2019 Junior/Senior Engine	ering Clinic Projects (5 Projects, 20 Stud	ents)	
0		ineering Clinic Projects (6 Projects, 20 St		

Fall 2018 Junior/Senior Engineering Clinic Projects (5 Projects, 20 Students)

Spring 2018 Junior/Senior Engineering Clinic Projects (6 Projects, 24 Students)

Fall 2017 Junior/Senior Engineering Clinic Projects (6 Projects, 20 Students)

Spring 2017 Junior/Senior Engineering Clinic Projects (3 Projects, 17 Students) 0

Fall 2016 Junior/Senior Engineering Clinic Projects (4 Projects, 18 Students)

Spring 2016 Junior/Senior Engineering Clinic Projects (3 Projects, 17 Students)

Fall 2015 Junior/Senior Engineering Clinic Projects (3 Projects, 13 Students) 0

Spring 2015 Junior/Senior Engineering Clinic Projects (2 Projects, 11 Students)

Fall 2014 Junior/Senior Engineering Clinic Projects (2 Projects, 8 Students)

2007.08 - 2013.12Washington State University Vancouver

0	Mitch A. Modin	Undergraduate Student (EE)	2012 - 2013
0	Nicholas E. Holmes	Undergraduate Student (EE)	2012 - 2013
0	Alexander L. Ellard	Undergraduate Student (EE)	2012 - 2013
0	Benjamin W. Griffith	Undergraduate Student (EE)	2011 - 2013
0	Bassam I. Salim	Undergraduate Student (EE)	2011 - 2012
0	Vianney J. Uwizeye	Undergraduate Student (EE)	2011 - 2012
0	Marina I. Reilly-Collette	Undergraduate Student (ME)	2011 - 2012
0	Jason L. Juhala	Undergraduate Student (EE)	2010 - 2012
0	Caleb M. Martin	Undergraduate Student (ME)	2010 - 2011
0	Nathan H. Piccola	Undergraduate Student (ME)	2010 - 2011
0	Mason J. O'Lennick	Undergraduate Student (ME)	2011

Curriculum Vitae, Wei Xue, p. 20

0	Jason E. Dye	Undergraduate Student (ME)	2011
0	Kenneth R. Perletti	Undergraduate Student (ME)	2010