Curriculum Vitae

Wen Chen, Ph.D.
Department of Mechanical & Industrial Engineering
University of Massachusetts, Amherst
Amherst, MA, 01003, USA
Email: wenchen@umass.edu; Tel: 413-577-0138

DESCRIPTION

Dr. Wen Chen's research focuses on additive manufacturing, physical metallurgy, architected materials, and mechanical behavior of materials. Wen is currently an Assistant Professor at Department of Mechanical and Industrial Engineering at University of Massachusetts Amherst and directs the Multi-scale Materials and Manufacturing Laboratory (blogs.umass.edu/wenchen/). Before this appointment, he was working as a Postdoctoral Research Staff Scientist at Lawrence Livermore National Laboratory in California. He obtained his Ph.D. in Mechanical Engineering and Materials Science at Yale University under the supervision of Prof. Jan Schroers.

EDUCATION

Ph.D.	Mechanical Engineering & Materials Science	Yale University	2015
M.Phil	Industrial and Systems Engineering	The Hong Kong Polytechnic University	2011
B.S.	Materials Science and Engineering	Nanjing University of Science and Technology	2008

WORK EXPERIENCE

Sep/2018 – Present	**Assistant Professor,** Department of Mechanical and Industrial Engineering, University of Massachusetts Amherst, USA
Dec/2015 – Jun/2018	**Postdoctoral Research Scientist,** Materials Engineering Division, Lawrence Livermore National Laboratory, USA.
Aug/2011 – Nov/2015	**Research Assistant,** Department of Mechanical Engineering and Materials Science, Yale University, USA.

ACHIEVEMENTS AND AWARDS

2022	SME Outstanding Young Manufacturing Engineer
2016	Second Place Poster Award, 11th International Bulk Metallic Glass Conference, Washington University at St. Louis., USA.
2016	Acta Best paper award, Acta Materialia
2016	Chinese Scholarship Council for Outstanding Oversea Students
2015	Pierre W. Hoge Fellowship, Yale University
2015	Outstanding Reviewer, Materials Science and Engineering: A

PEER REVIEWED PUBLICATIONS (Students advised by me at UMass are underlined)

Publications from University of Massachusetts Amherst

[1] J.J. Bowen, S. Mooraj, J.A. Goodman, S. Peng, D.P. Street, B. Roman-Manso, E.C. Davidson, K.L. Martin, L.M. Rueschhoff, S.N. Schiffres, **W. Chen**, J.A. Lewis, M.B. Dickson, Hierarchically porous ceramics via direct ink writing of preceramic polymer-triblock copolymer inks. **Materials Today**, in press, 2022.

[2] J. Ren, Y. Zhang, D. Zhao, Y. Chen, S. Guan, Y. Liu, L. Liu, S. Peng, F. Kong, J. Poplawsky, G. Gao, T. Voisin, K. An, Y.M. Wang, K.Y. Xie, T. Zhu, **W. Chen**, Strong yet ductile nanolamellar high-entropy alloys by additive manufacturing, **Nature**, in press, 2022.

[3] S. Zhang, P. Hou, S. Mooraj, **W. Chen**, Printability of Zr41.2Ti13.8Cu12.5Ni10.0Be22.5 metallic glass on steel by laser additive manufacturing: A single-track study, **Surface and Coatings Technology**, 428 (2021) 127882.

[4] S. Guan, J. Ren, S. Mooraj, Y. Liu, S. Feng, S. Zhang, J. Liu, X. Fan, P.K. Liaw, **W. Chen**, Additive Manufacturing of High-Entropy Alloys: Microstructural Metastability and Mechanical Behavior, **Journal of Phase Equilibria and Diffusion**, 35 (2021) 1-24. **(Invited Review)**

[5] P. Hou, S. Mooraj, V.K. Champagne, M.J. Siopis, P.K. Liaw, S. Gerasimidis, **W. Chen**, Effect of Build Height on Temperature Evolution and Thermally Induced Residual Stresses in Plasma Arc Additively Manufactured Stainless Steel. **Matellurgical and Materials Transactions A** 52 (2021).

[6] S. Jeon, X. Liu, C. Azersky, J. Ren, S. Zhang, **W. Chen**, R.W. Hyers, K. Costa, M. Kolbe, D.M. Matson, Particle size effects on dislocation density, microstructure, and phase transformation for high-entropy alloy powders, **Materialia**, 2021, 101161

[7] L. Lai, T. Liu, X. Cai, M. Wang, S. Zhang, **W. Chen**, S. Guo, High-temperature Mo-based bulk metallic glasses, **Scripta Materialia** 203 (2021) 114095.

[8] J. Shittu, M. Sadeghilaridjani, M. Pole, S. Muskeri, J. Ren, Y. Liu, I. Tahoun, H. Arora, **W. Chen**, N. Dahotre, S. Mukherjee, Tribo-corrosion response of additively manufactured high-entropy alloy, **npj Materials Degradation** 5 (2021): 1.

[9] K. Yao, L. Liu, Jie Ren, Y. Guo, Y. Liu, Y. Cao, R. Feng, F. Wu, J. Qi, J. Luo, P.K. Liaw, **W. Chen**, High-entropy intermetallic compound with ultra-high strength and thermal stability, **Scripta Materialia** 194 (2021) 113674.

[10] S. Peng, Y. Zhang, B. Cui, T.L. Ngai, Y. Liu, Z. Xiao, **W. Chen**, Lamellar-structured Al-based alloys with high strength and plasticity, **Journal of Alloys and Compounds**, 865 (2021) 158927.

[11] W. Zhang, L. Liu, S. Peng, J. Ren, F. Wu, J. Shang, M. Chen, Y. Zhang, Z. Zhao, J. Qi, B. Wang, **W. Chen**, The tensile property and notch sensitivity of AlCoCrFeNi2. 1 high entropy alloy with a novel "steel-frame" eutectic microstructure, **Journal of Alloys and Compounds**, 863 (2021) 158747.

[12] Y. Lu, S. Su, S. Zhang, Y. Huang, Z. Qin, X. Lu, **W. Chen**, Controllable Additive Manufacturing of Gradient Bulk Metallic Glass Composite with High Strength and Tensile Ductility, **Acta Materialia**, 206 (2021) 116632.

[13] S. Mooraj, Z. Qi, C. Zhu, J. Ren, S. Peng, L. Liu, S. Zhang, S. Feng, F. Kong, Y. Liu, E.B. Duoss, S. Baker, **W. Chen**, 3D printing of metal-based materials for renewable energy applications, **Nano Research**, 14 (2021) 2105.

[14] S. Peng, S. Mooraj, R. Feng, L. Liu, J. Ren, Y. Liu, F. Kong, Z. Xiao, C. Zhu, P.K. Liaw, **W. Chen**, Additive manufacturing of three-dimensional (3D)-architected CoCrFeNiMn high-entropy alloy with great energy absorption, **Scripta Materialia**, 190 (2021) 46.

[15] S. Mooraj, S.S. Welborn, S. Jiang, S. Peng, J. Fu, S. Baker, E.B. Duoss, C. Zhu, E. Detsi, **W. Chen**, Three-dimensional hierarchical nanoporous copper via direct ink writing and dealloying, **Scripta Materialia**, 177 (2020) 146.

[16] Y. Guo, L. Liu, W. Zhang, K.D. Yao, **W. Chen**, J. Ren, J.G. Qi, B. Wang, Z.F. Zhao, J. Shang, Y. Zhang, J. Xiang, A new method for preparing high entropy alloys: Electromagnetic pulse treatment and its effects on mechanical and corrosion properties, **Materials Science and Engineering: A**, 774 (2020): 138916.

[17] Y. Zhang, **W. Chen**, D.L. McDowell, Y.M. Wang, T. Zhu, Lattice strains and diffraction elastic constants of cubic polycrystals, **Journal of the Mechanics and Physics of Solids**, 138 (2020): 103899.

[18] **W. Chen**, S. Watts, J.A. Mancini, W.L. Smith, C.M. Spadaccini, Isotropic stiff lattices beyond Maxwell criterion, **Science Advances**, 5 (2019): eaaw1937.

[19] J. Ren, C. Mahajan, L. Liu, D. Follette, **W. Chen**, S. Mukherjee, Corrosion Behavior of Selectively Laser Melted CoCrFeMnNi High Entropy Alloy, **Metals**, 9 (2019): 1029. (Invited)

Publications prior to University of Massachusetts Amherst

[20] J.V. Carstensen, R. Lotfi, **W. Chen**, S. Szyniszewski, S. Gaitanaros, J. Schroers, J.K. Guest, Topology-optimized bulk metallic glass cellular materials for energy absorption, **Scripta Materialia** 208 (2022)

114361.
[21] T. Kou, S. Wang, R. Shi, T. Zhang, S. Chiovoloni, J.Q. Lu, **W. Chen**, M.A. Worsley, B.C. Wood, S.E. Baker, E.B. Duoss, R. Wu, C. Zhu, Y. Li, Periodic Porous 3D Electrodes Mitigate Gas Bubble Traffic during Alkaline Water Electrolysis at High Current Densities, **Advanced Energy Materials**, 2002955 (2020).
[22] Q. Peng, Y. Xie, B. Zhu, **W. Chen**, J. Schroers, M. Chen, Z. Liu, Joining Mechanism of Bulk Metallic Glasses in their Supercooled Liquid Region, **Journal of Materials Processing Technology**, 279 (2020): 116583.
[23] **W. Chen**, T. Voisin, Y. Zhang, J-B. Florein, C.M. Spadaccini, D.L. McDowell, T. Zhu, Y.M. Wang, Microscale residual stresses in additively manufactured stainless steel. **Nature Communications**, 10 (2019): 4338.
[24] C. Zhu, Z. Qi, V.A. Beck, M. Luneau, J. Lattimer, **W. Chen**, M.A. Worsley, J. Ye, E.B. Duoss, C.M. Spadaccini, C.M. Friend, J. Biener, Toward digitally controlled catalyst architectures: Hierarchical nanoporous gold via 3D printing, **Science Advances**, 4 (2018): eaas9459.
[25] J. Ketkaew, **W. Chen**, H. Wang, A. Datye, M. Fan, G. Pereira, U.D. Schwarz, Z. Liu, R. Yamada, W. Dmowski, M.D. Shattuck, C.S. O'Hern, T. Egami, E. Bouchbinder, J. Schroers, Mechanical glass transition revealed by the fracture toughness of metallic glasses, **Nature Communications**, 9 (2018) 3271.
[26] M.A. Gibson, N.M. Mykulowycz, J. Shim, R. Fontana, P. Schmitt, A. Roberts, J. Ketkaew, L. Shao, **W. Chen**, P. Bordeenithikasem, J.S. Myerberg, R. Fulop, M.D. Verminski, E.M. Sachs, Y.M. Chiang, C.A. Schuh, A. J. Hart, J. Schroers, 3D Printing Metals like Thermoplastics: Fused Filament Fabrication of Metallic Glasses, **Materials Today**, 21 (2018) 697-702.
[27] P. Gong, S. Wang, Z. Liu, **W. Chen**, N. Li, X. Wang, K.F. Yao, Lightweight Ti-based bulk metallic glasses with superior thermoplastic formability, **Intermetallics**, 98 (2018) 54-59.
[28] Z. Qi, J. Ye, **W. Chen**, J. Biener, E.B. Duoss, C.M. Spadaccini, M.A. Worsley, C. Zhu, 3D-Printed Superelastic Polypyrrole-Graphene Electrodes with Ultrahigh Areal Capacitance for Electrochemical Energy Storage, **Advanced Materials Technologies**, 2018, 1800053.
[29] Y. M. Wang, T. Voisin, J.T. McKeown, J.C. Ye, N.P. Calta, Z. Li, Z. Zeng, Y. Zhang, **W. Chen**, T.T. Roehling, R.T. Ott, M.K. Santala, P.J. Depond, M.J. Matthews, A.V. Hamza, T. Zhu, Additively-manufactured hierarchical stainless steels with high strength and ductility, **Nature Materials**, 17 (2018) 63–71. (Highlighted by ScienceDaily and other media reports)
[30] **W. Chen**, H.F. Zhou, Z. Liu, J. Ketkaew, L. Shao, N. Li, P. Gong, W. Samela, H.J. Gao, J. Schroers, Test sample geometry for fracture toughness measurements of bulk metallic glasses, **Acta Materialia**, 145 (2018) 477-478.
[31] F. Qian, P.C. Lan, M.C. Freyman, **W. Chen**, T. Kou, T.Y. Olson, C. Zhu, M.A. Worsley, E.B. Duoss, C.M. Spadaccini, T. Baumann, T.Y. Han, Ultralight Conductive Silver Nanowire Aerogels, **Nano Letters**, 17 (2017) 7171-7176. (Featured as Journal Cover)
[32] C. Zhu, T. Kou, F. Qian, **W. Chen**, S. Chandrasekaran, B. Yao, Y. Song, J.D. Kuntz, E.B. Duoss, C.M. Spadaccini, M.A. Worsley, Y. Li, 3D Printed Functional Nanomaterials for Electrochemical Energy Applications: a Review, **Nano Today**, 15, 2017. (Invited)
[33] **W. Chen**, L. Thornley, H.G. Coe, C. Zhu, E.B. Duoss, R.M. Hunt, M.J. Wight, D. Apelian, A.J. Pascall, J.D. Kuntz, C.M. Spadaccini, Direct metal writing: Controlling the rheology through microstructure, **Applied Physics Letters**, 110 (2017) 094104. (Highlighted by Phys.org and other media reports)
[34] **W. Chen**, H.F. Zhou, Z. Liu, J. Ketkaew, N. Li, J. Yurko, N. Hutchinson, H.J. Gao, J. Schroers, Processing effects on fracture toughness of metallic glasses, **Scripta Materialia**, 130 (2017) 152-156.
[35] **W. Chen**, Z. Liu, J. Ketkaew, R. Mota, S. Kim, M. Power, W. Samela, J. Schroers, Flaw tolerance of metallic glasses, **Acta Materialia**, 107 (2016) 220-228.
[36] N. Li, **W. Chen**, L. Liu, Thermoplastic micro-forming of bulk metallic glasses: A Review, **JOM**, 68 (2016) 1246-1261.
[37] D.J. Magagnosc, **W. Chen**, G. Kumar, J. Schroers, D.S. Gianola, Thermomechanical behavior of molded

metallic glass nanowires, **Scientific Reports**, 6 (2016) 19530.
[38] C. Su, Y. Chen, P. Yu, M. Song, **W. Chen**, S.F. Guo, Linking the thermal characteristics and mechanical properties of Fe-based bulk metallic glasses, **Journal of Alloys and Compounds**, 663 (2016) 867-871.
[39] Z. Liu*, **W. Chen***, J. Carstense, J. Ketkaew, R. Mota, J.K. Guest, J. Schroers, 3D metallic glass cellular structures, **Acta Materialia**, 105 (2016) 35-43.
[40] S.F. Guo, K.C. Chan, Z.Q. Zhu, Z.R. Wu, **W. Chen**, M. Song, Microstructure and tensile behavior of small scale resistance spot welding of sandwich bulk metallic glasses, **Journal of Non-Crystalline Solids**, 447 (2016) 300-306.
[41] R. Lofti, J.V. Carstensen, J.K. Guest, **W. Chen**, J. Schroers, Topology optimization of cellular materials with maximized energy absorption, **ASME 2015 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference**, Boston, MA.
[42] J. Kong*, Z. Ye, **W. Chen***, X. Shao, K. Wang, Q. Zhou, Dynamic mechanical behavior of a Zr-based bulk metallic glass composite, **Materials & Design** 88 (2015) 69-74.
[43] **W. Chen**, J. Ketkaew, Z. Liu, R. Mota, K.S. O'Brien, J. Schroers, Does the fracture toughness of bulk metallic glasses scatter? **Scripta Materialia**, 107 (2015) 1-4. (Featured as Top 25 ScienceDirect Hottest Article)
[44] J. Ketkaew, Z. Liu, **W. Chen**, J. Schroers, Critical crystallization for embrittlement in metallic glasses, **Physical Review Letters**, 115 (2015) 265502.
[45] **W. Chen**, Z. Liu, H. Robinson, J. Schroers, Flaw tolerance versus performance: a tradeoff in metallic glass cellular structures, **Acta Materialia**, 73 (2014): 259-274.
[46] **W. Chen**, Z. Liu, J. Schroers, Joining of metallic glasses in air, **Acta Materialia**, 62 (2014): 49-57. (Featured as Top 25 ScienceDirect Hottest Article)
[47] S.F. Guo*, J.L. Qiu, P. Yu, S.H. Xie, **W. Chen***, Fe-based bulk metallic glasses: brittle or ductile? **Applied Physics Letters,** 105 (2014): 161901.
[48] **W. Chen**, K.C. Chan, S.H. Chen, S.F. Guo, W.H. Li, G. Wang, Plasticity enhancement of a Zr-based bulk metallic glass by an electroplated Cu/Ni bilayered coating, **Materials Science and Engineering: A**, 552 (2012): 199-203.
[49] **W. Chen**, K.C. Chan, P. Yu, G. Wang, Encapsulated Zr-based bulk metallic glass with large plasticity, **Materials Science and Engineering: A**, 528 (2011): 2988-2994.
[50] **W. Chen**, K.C. Chan, S.F. Guo, P. Yu, Plasticity improvement of an Fe-based bulk metallic glass by geometric confinement, **Materials Letters**, 65 (2011): 1172-1175.
[51] **W. Chen**, J. Kong, W.J. Chen, Effect of rare earth Ce on the microstructure, physical properties and thermal stability of a new lead-free solder, **Journal of Mining and Metallurgy Section B-Metallurgy**, 47 (2011): 11-21.
[52] S.F. Guo, H.J. Zhang, Z. Liu, **W. Chen**, S.F. Xie, Corrosion resistances of amorphous and crystalline Zr-based alloys in simulated seawater, **Electrochemistry Communications**, 24 (2012) 39-42.
[53] S.F. Guo, Z. Liu, K.C. Chan, **W. Chen**, H.J. Zhang, J.F. Wang, A plastic Ni-free Zr-based metallic glass with high specific strength and good corrosion properties in simulated body fluid, **Materials Letters**, 84 (2012): 81-84.
[54] J. Kong, Z.T. Ye, J. Li, **W. Chen**, X. Ma, Embrittlement of a bulk metallic glass containing ductile phase after low-temperature annealing, **Physica Status Solidi B**, 249, No. 9 (2012) 1677-1681.
[55] P. Yu, K.C. Chan, **W. Chen**, L. Xia, Elastic moduli and mechanical properties of bulk metallic glasses after quasi-static compression, **Journal of Alloys and Compounds**, 509 (2011): 8518-8521.
[56] J. Kong, C. Xu, J. Li, **W. Chen**, H. Hou, Evolution of fractal features of pores in compacting and sintering process, **Advanced Powder Technology**, 22 (2011): 439-442.
[57] P. Yu, K.C. Chan, **W. Chen**, L. Xia, Low temperature mechanical properties of Ce68Al10Cu20Co2 bulk metallic glass, **Philosophical Magazine Letters**, 91 (2010) 75-82.

PATENTS:

[1] Z. Qi, J. Biener, **W. Chen**, E. Duoss, C. Spadaccini, M.A. Worsley, J. Ye, C. Zhu, Hierarchical porous metals with deterministic 3d morphology and shape via dealloying of 3d printed alloys, US Patent Appl. No. 15/790,810, 2019.

[2] J. Ye, J. Biener, P. Campbell, **W. Chen**, J.A. Jackson, B.D. Moran, J. Oakdale, W. Smith, C.M. Spadaccini, M.A. Worsley, X. Zheng, Three-dimensional deterministic graphene architectures formed using three-dimensional templates, US Patent Appl. No. 15/417134, 2017.

[3] J. Schroers, **W. Chen**, Z. Liu, Joining of metallic glasses in air, US Patent 9764418, 2017.

[4] J. Schroers, Z. Liu, M. Kanik, **W. Chen**, P. Bordeenithikasem, R. Mota, J. Ketkaew, Method and system of fabricating bulk metallic glass sheets, US Patent Appl. No. 15/106487, 2016. (Highlighted by Phys.org and other media reports., licensed by Supercool Metals Inc.)

INVITED TALKS AND SEMINARS:

[1] **W. Chen**, Additive Manufacturing of Compositionally Complex Alloys with Engineered Microstructures, Telluride High-Entropy Materials Workshop, June 6-10, 2022.

[2] **W. Chen**, Additive Manufacturing of Compositionally Complex Alloys, **Shanghai University**, November 2021.

[3] **W. Chen**, Materials with Engineered Microstructures by Additive Manufacturing, **National University of Singapore**, August 2021.

[4] **W. Chen,** Additive Manufacturing of Bulk Metallic Glasses and High-Entropy Alloys, **MEPhI Winter School** in Moscow, Russia, December 2020.

[5] **W. Chen**, L. Thornley, D. Apelian, A. Pascall, E. Duoss, J. Kuntz, C. Spadaccini, Direct Metal Writing: Controlling the Rheology through Microstructure, **2018 TMS Annual Meeting & Exhibition**, Phoenix, AZ, March 2018.

[6] **W. Chen**, Materials with Engineered Microstructures, **University of Toronto**, Toronto, ON, Canada, April 2017.

[7] **W. Chen**, Additive Manufacturing: Opportunities for Future, **Missouri University of Science and Technology**, February 2017.

[8] **W. Chen**, Materials Design by Additive Manufacturing, **George Mason University**, January 2017.

[9] **W. Chen**, Additive Manufacturing: Opportunities for Materials and Manufacturing Design, **University of Massachusetts, Amherst**, MA, March 2017.

[10] **W. Chen**, Z. Liu, J. Ketkaew, J. Schroers, 3D Metallic glass architectures, **2016 MRS Fall Meeting**, Boston, MA, November 2016.

[11] **W. Chen**, Z. Liu, J. Ketkaew, J. Schroers, Flaw Tolerance of Metallic glasses. **11th International Bulk Metallic Glasses Conference**, Washington University in St. Louis, MO, June 2016.

[12] **W. Chen**, Z. Liu, J. Schroers, Joining of active bulk metallic glasses in air. **2014 TMS Annual Meeting & Exhibition**, San Diego, CA, February 2014.

TEACHING

Fall 2018, 2019, 2020 **Additive Manufacturing (MIE 697-AM)**

Course Instructor

Graduate elective developed as a new course. Covers the state-of-the-art additive manufacturing process principles, fundamentals of materials science underlying additive manufacturing, lab demonstration of additive manufacturing technologies including laser powder-bed fusion, laser engineered net shaping, fused deposition modeling, and direct ink writing.

Fall 2018 (11 students); Fall 2019 (13 students); Fall 2020 (9 students)

Spring 2019, 2020, 2021 **Design of Mechanical Components (MIE 313)**
Course Instructor
Required core course in undergraduate MIE curriculum covering mechanics of materials and mechanical design principles, including stress and strain analyses, introduction to engineering materials, failure analyses, fracture and fatigue, finite element modeling, and energy principles. With trainings of machine shop skills, MathCAD and ANSYS softwares, and design project partnered with *Sensata Technologies*. Spring 2019 (106 students); Spring 2020 (100 students); Spring 2021 (56 students)

Spring 2019, 2020, 2021 **Design of Mechanical Components: Honors Project (MIE 313H)**
Course Instructor
Honors project in undergraduate MIE curriculum covering an additional design project using the theories learned in MIE313. Spring 2019 (2 students); Spring 2020 (1 student); Spring 2021 (5 students)

ADVISING

- **VISITING PROFESSORS**

2018 – 2019 **Dr. Liang Liu** (now Associate Professor at Liaoning University of Technology)

- **POSTDOCTORAL SCHOLARS**

2021 – present **Dr. Shuai Guan**
2020 – 2021 **Dr. Peijun Hou** (now at Oak Ridge National Laboratory)

- **PH.D. STUDENTS**

2020 – present **Jian Liu**, currently a PhD student at UMass Amherst
2019 – present **Shengbiao Zhang**, currently a PhD student at UMass Amherst
2018 – present **Shahryar Mooraj**, currently a PhD student at UMass Amherst
2018 – present **Jie Ren**, currently a PhD student at UMass Amherst

- **VISITING PH.D. STUDENTS**

2019 – 2021 **Shuai Feng**, CSC exchange student
2018 – 2020 **Siyuan Peng**, China Scholarship Council (CSC) exchange student
2019 – 2020 **Yanfang Liu**, CSC exchange student

- **M.S. STUDENTS**

2020 – 2021 **Abhishek Patil**
2019 – 2020 **Asmit Jain** (now at Intel)
2018 – 2020 **Rui Li** (now at Nanjing Bank, China)

- **UNDERGRADUATE STUDENTS**

2021 **Wahkeef Waheed** (Independent study at UMass)
2021 **Gage Czarniecki** (Independent study at UMass)
2019 – 2020 **Ismael Tahoun** (Undergraduate research intern at UMass)
2019 **Mag Jiang** (summer research intern from Smith College)

2019 **Fanyue Kong** (summer research intern from Rensselaer Polytechnic Institute)

- **PH.D. STUDENTS COMMITTEE MEMBER**

In progress **Swetaparna Mohanty** (MIE, UMass)
In progress **Gwendolyn Bracker** (MIE, UMass)
In progress **Li He** (Civil and Environmental Engineering, UMass)
2021 **Yucheng Li** (Civil and Environmental Engineering, UMass)
2020 **Nariman Banaei** (MIE, UMass)
2020 **Jie Zhao** (MIE, UMass)
2019 **Xiaonan Ge** (Civil and Environmental Engineering, UMass)

- **M.S. STUDENTS COMMITTEE MEMBER**

In progress **Dhrubajyoti Chowdhury** (MIE, UMass)
2020 **Alden Foelsche** (MIE, UMass)

SERVICE

- **PROFESSIONAL SERVICE**

2019 – present Editorial Board Member for journal ***Scientific Reports***
2021 – present Editorial Board Member for journal ***Metals and Materials International***
2020 Workshop co-organizer, New England Workshop on Opportunities and Challenges for 3D Printing in Highway Infrastructure Construction and Maintenance
2020 Session Chair, Northeastern Regional Student Conference of Society for Experimental Mechanics
2018 Session Chair, Architected Materials – Synthesis, Characterization, Modeling and Optimal Design Symposium, Materials Research Society Fall Meeting 2018, Boston, MA, USA.

- **UNIVERSITY SERVICE**

2020 – present Department Seminar Committee, Mechanical and Industrial Engineering (UMass)
2019 – 2020 Department Lab Committee, Mechanical and Industrial Engineering (UMass)
2019 – 2020 Ad Hoc Department Search Committee, Mechanical and Industrial Engineering (UMass)
2018 – 2019 Department Graduate Committee, Mechanical and Industrial Engineering (UMass)

- **OUTREACH: K-12 EDUCATION**

2021 Women in Engineering CAREER Day, College of Engineering (UMass)

- **JOURNAL REFEREE ACTIVITIES**

2014 – present Reviewer for *Nature Communications, Acta Materialia,Journal of Mechanics and Physics of Solids, Scripta Materialia, Applied Physics Letters, Journal of Applied Physics, APL Materials, Scientific Reports, Materials Research Letters, Materials Science and Engineering: A, Journal of Alloys and Compounds, Journal of the Mechanical Behavior of Biomedical Materials, Journal of Non-crystalline Solids, Materials & Design, Journal of Materials Science, Materials Chemistry and Physics, Materials Letters.*

- **GRANT PROPOSAL REFEREE ACTIVITIES**

2019 – present Reviewer for DOE proposals
2021 Panelist/Reviewer for NSF (DMR-MMN) proposals

MEMBERSHIPS

2015 – present Association of The Minerals, Metals & Materials Society (TMS)