

**ABOUTALEB (AMIR) AMELI**  
**Associate Professor**  
**Plastics Engineering Department**  
**Francis College of Engineering**  
**University of Massachusetts Lowell**

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**A. EDUCATION AND ACADEMIC QUALIFICATIONS**

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**A1. EDUCATION**

March 2011      Ph.D. in Mechanical Engineering  
Department of Mechanical and Industrial Engineering  
University of Toronto, Toronto, Canada  
Thesis: Fracture mechanics and environmental degradation of structural adhesives  
Advisors: Jan K. Spelt and Marcello Papini

February 2004      M.Sc. in Mechanical Engineering with minor in Manufacturing  
Department of Mechanical Engineering  
Sharif University of Technology, Tehran, Iran  
Thesis: Finite element modeling and analysis of forging processes  
Advisor: Mohammad Reza Movahedi

July 2001      B.Sc. in Mechanical Engineering with minor in Manufacturing  
Mechanical Engineering Department  
University of Tabriz, Tabriz, Iran

**A2. ACADEMIC EXPERIENCE**

2019-Present      **Tenure-Track Assistant Professor**  
Plastics Engineering Department  
University of Massachusetts Lowell  
Lowell, MA

2015-2019      **Tenure-Track Assistant Professor**  
School of Mechanical and Materials Engineering  
Washington State University Tri-Cities  
Richland, WA

2011-2014      Postdoctoral Fellow, NSERC and MITACS Fellowships  
Department of Mechanical and Industrial Engineering  
University of Toronto, Toronto, Canada  
Advisors: Chul B. Park and Ghaus Rizvi

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**B. PROFESSIONAL ACTIVITIES**

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**B1 PROFESSIONAL SOCIETY MEMBERSHIP**

2014-Present      **American Society of Mechanical Engineers (ASME)**

2018- Present      **ASME's Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS) Division**

- Elected member of the SMASIS senate
- Elected member of the technical committee of Development & Characterization of Multi-Functional Materials
- The senate and the technical committee handle the organization of the ASME SMASIS conferences
- 2022-2025: Chair/co-chair for symposium: "Development & Characterization of Multifunctional Materials"

2011- Present      **Polymer Processing Society (PPS)**

- Served as session chair (2021, 2022)
  - Presented keynote talk (2021)
- 2011- Present      **Society of Plastics Engineers (SPE)**  
2007-2012        Adhesion Society

**B2 Fellowships, Awards & Honors**

- 2023                Selected as the recipient of **Scientist Medal** by award and recognition committee of the **International Association of Advanced Materials (IAAM)**
- 2017                **Best Paper Award**, Thermoplastic Materials and Foams, SPE ANTEC 2017 Conference
- 2013                Canada NSERC Postdoctoral Fellowship (\$ 80,000 for two years)
- 2013                Nominated for Best Paper Award, SPE ANTEC 2013 Conference
- 2012                Ontario MITACS Elevate Postdoctoral Fellowship (\$ 27,500 for 1/2 year)
- 2011                Ontario MITACS Elevate Postdoctoral Fellowship (\$ 55,000 for one year)
- 2010                Graduate student travel grant (\$ 750)
- 2006-2009        University of Toronto PhD Fellowship (\$ 37,500)
- 2004                Best paper winner, 8<sup>th</sup> Conference of Iranian Society of Mechanical Engineering
- 2003                First-rank recognition in M.Sc. program
- 2001                Ranked 37<sup>th</sup> in the national university entrance exam for MSc in Mechanical Engineering, Manufacturing in Iran.
- 2001                First-rank recognition in B.Sc. program
- 1997                Standing among the top 0.5% in the Math & Science nationwide universities entrance exam for BSc degree in Iran (over 350,000 participants).

**C. RESEARCH**

**C1. GRANTS AND CONTRACTS**

**C1.1. Awarded**

#	Role	Source	Title	Period	Amount	Credit Share
G1	PI: Amir Ameli (Co-PI: Emily Sanders (Georgia Tech))	NSF IUCRC SHAP3D	Multimaterial Foams with Optimized Geometries	01/01/2024-12/31/2024	\$70,000	75%
G2	PI (Co-PI: Ramaswamy Nagarajan)	US ARMY CCDC SC	Alternative Thermal Insulators for Cold Weather Boots: Foams and aerogels	10/08/2023-10/08/2024	\$495,655	50%
G3	Co-PI (PI: Joey Mead)	US ARMY CCDC SC	Evaluation of performance and processing for novel materials: Integrated 3D printing of thermosets and foams	10/08/2023-10/08/2024	\$585,000	25%
G4	PI (Co-PIs: Margaret Sobkowicz-Kline, Davide Masato; Ling Ding (Idaho National Lab), Zhihua Jiang (Auburn U), Xiao Zhang (Washington	DOE - REMADE	Recovery of Plastics and Natural Fibers from Non-Recyclable Municipal Solid Waste for Composites Production	01/01/2023-12/31/2024	\$2,701,222 UML share: 50% (Federal: \$1,350,554; Total cost share: \$1,350,554 Industry	50%

	State U), Bang Xu (Remacol Inc.))				cost share: \$380,000)	
G5	PI at UML (PI at WSU: Xiao Zhang)	USDA – AFRI - WSU	Ultralight and Strong Biobased Foams from Plant Based Nanomaterial for Seafood Packaging Application	05/15/2022-05/14/2025	\$270,000	100%
G6	PI (Co-PI: Ramaswamy Nagarajan)	NIST - AFFOA	Enabling Manufacturing Automation, Supply Chain Diversification and Addressing the Environmental Impact of PPE	06/03/2022-12/31/2024	\$518,823	60%
G7	PI (Co-PI: Alireza Amirkhizi)	US Army - K&C Inc.	SBIR Phase II: Prevention Device Suitable for Exposure to Blast or Concussive Forces	07/25/2022-07/17/2024	\$135,063	50%
G8	PI (Co-PIs: James Whitten, Ramaswamy Nagarajan)	US ARMY CCDC SC	Development of Durable Multifunctional Nyco through Scalable Incorporation of Electrospun Nonwovens	09/02/2022-09/01/2024	\$412,167	34%
G9	PI	NSF IUCRC WindSTAR	Long-Term Environmental Durability of Adhesive Joints - II	8/21/2022-09/01/2023	\$79,763	100%
G10	PI (Co-PI: Emily Sanders (Georgia Tech))	NSF IUCRC SHAP3D	Integrating Foam 3D Printing into Optimized Geometries	01/01/2023-12/31/2023	\$60,000	100%
G11	PI (Co-PIs: Alireza Amirkhizi, David Kazmer, Christopher Hansen)	NSF IUCRC SHAP3D	3D Printing of Graded Foams	01/01/2022-12/31/2022	\$54,000	25%
G12	PI	NSF IUCRC WindSTAR	Long-Term Environmental Durability of Adhesive Joints	8/22/2021-9/1/2022	\$50,190	100%
G13	PI	WSU Com. Gap Fund	Lyophilization of Cellulose Nanocrystal Foam Panels	03/01/2021-09/01/2021	\$11,900	100%
G14	PI	NSF REU	NSF REU: SHAP3D Foam 3D Printing Project	09/01/2021-05/15/2022	\$8,000	100%
G15	PI	UML STL Lab	Compression Molding of Highly Loaded Polystyrene Dielectrics	11/01/2021-12/01/2021	\$2,000	100%
G16	PI (Co-PI: Alireza Amirkhizi)	NSF IUCRC SHAP3D	Foam 3D Printing	01/01/2021-12/31/2021	\$50,000	50%

G17	Co-PI (PI: Jan Kośny)	DOE EERE	Multipurpose Latent Heat Storage System for Building Applications	04/01/2020-08/30/2023	\$10,000	100%
<b>WSU</b>						
G18	PI (Co-PIs: Xiao Zhang, Jinwen Zhang)	NSF IUCRC CB <sup>2</sup>	Lignin Derived Materials for Preparation of Bio-Based Polyurethane Plastics & Foams	01/01/2019-12/31/2019	\$60,000	50%
G19	Co-PI (PI: Brigitte Ahring)	NSF IUCRC CB <sup>2</sup>	Characterization of Mechanical and Thermomechanical Properties of Low-Cost Lignin /Polyacrylonitrile Composites Prepared by Biorefinery Lignin	01/01/2016-12/31/2018	\$170,000	30%
G20	PI	WSU Seed Grant	Active Materials and Structures Enabled By 3D Printing of Polymer Nanocomposites	05/01/2017-8/31/2018	\$30,000	100%
G21	PI	WSU Equipment Grant	Differential Scanning Calorimeter for Materials Research	09/01/2016-05/31/2017	\$10,000	100%
G22	PI	WSU Tri-Cities Seed Grant	Piezocomposite Foams for Flexible Sensing Applications	09/15/2016-06/01/2017	\$5,000	100%
Total					\$5,719,000	Avg. 51%

### **C1.2. Pending**

#	Role	Source	Title	Period	Amount	Credit Share
Gp1	PI (Co-PIs: Davide Masato, Saeed Farahani (CSU), Xiao Zhang (WSU), Yingqian Lin (INL), Stephen Nolet (TPI Composites))	DOE EERE VTO	Recycling and Repurposing of End-of-Life Wind Turbine Blade Composites to Produce Sheet Feedstocks and Thermally Processable Compounds for Lightweight Automotive Components	01/01/2024-12/31/2026	\$2,500,000	66%
Gp2	Co-PI (PI: Daniel Walczyk (Rensselaer Polytechnique University))	NSF Future Manufacturing	FMSG: Eco: Creating a Viable Farm-to-Factory Path for Plant-Based Biocomposites	01/01/2024-12/31/2025	\$50,000	100%

### **C2. ACADEMIC & PROFESSIONAL PUBLICATIONS**

- Graduate students advised at UML and WSU are underlined.
- Undergraduate students are double underlined.
- Publications with no underlined students are my contributions through collaborations with other universities.
- Students co-advised after 2015 through continued collaboration with the University of Toronto are dashed-underlined.
- For the journal publications that are not with my own students, I have identified my contributions. Based on the Contribution Roles Taxonomy (CReDiT), my role in these publications include Conceptualization (C), Formal Analysis (FA), Methodology (M), Validation (V), Writing – Original Draft Preparation (WO), or Writing – Review & Editing (WR),

which are identified as superscripted symbols C, FA, M, ... after my name in each respective publication, e.g., Ameli<sup>C,WR</sup> indicates contributions in the Conceptualization and Writing – Review & Editing (WR).

### Summary of contributions

	UML Since 2019	WSU 2015- 2019	Continued collaboration with U of T 2015-2022	Total since 2015	All career
Peer-Reviewed Journal Articles	10 +4 accepted/submitted	14	15	39	65
Peer-Reviewed Conferences	9	19	13	41	62
Book Chapters	2	-	2	4	7
Conference Oral Presentations	20	26	30	76	125

### Impact (01/26/2024)

**Google Scholar** (<https://scholar.google.com/citations?user=kZkcFogAAAAJ&hl=en>)

Number of Citations **6290** h-Index **41** i10-index **71**

**Scopus** (<https://www.scopus.com/authid/detail.uri?authorId=35338736200>)

Number of Citations **4986** h-Index **37** Documents **136**

### C2a. Peer-Reviewed Journal Publications

- J1. S. Alshammari, A. Ameli; Improved Performance of Polylactic Acid Biocomposites at High Lignin Loadings through Glycidyl Methacrylate Grafting of Melt-Flowable Organosolv Lignin; **ACS Omega** (*IF: 4.1*), 2024, 9 (33), 35937-35949, <https://doi.org/10.1021/acsomega.4c05212>
- J2. A.S. Pakhare, K. Kalia, S.P.V. Nadimpalli, Amir Ameli; Interface fracture characterization of 3D printed rigid/flexible dissimilar polymers; **Progress in Additive Manufacturing** (*IF: 5.08*), 2024, 1-13, <https://doi.org/10.1007/s40964-024-00575-3>
- J3. K. Kalia, Amir Ameli; Additive Manufacturing of Functionally Graded Foams: Material Extrusion Process Design, Part Design, and Mechanical Testing; **Additive Manufacturing** (*IF: 11.63*), 2024, 79, 103945, <https://doi.org/10.1016/j.addma.2023.103945>
- J4. N. Aliheidari, A. Ameli; Retaining high fracture toughness in aged polymer composite/adhesive joints using optimized plasma surface treatment; **Composites Part A: Applied Science and Manufacturing** (*IF: 8.70*), 2024, 176, 107835, <https://doi.org/10.1016/j.compositesa.2023.107835>
- J5. M. Aghvami-Panah, A. Ameli; MXene/Cellulose Composites as Electromagnetic Interference Shields: Relationships between Microstructural Design and Shielding Performance; **Composites Part A: Applied Science and Manufacturing** (*IF: 8.70*), 2024, 176, 107879, <https://doi.org/10.1016/j.compositesa.2023.107879>
- J6. K. Kalia, A. Ameli; Understanding the process-microstructure-property relationships in material extrusion additive manufacturing of polylactic acid microcellular foams; **Additive Manufacturing** (*IF: 11.63*), 2023, 72, 103636, <https://doi.org/10.1016/j.addma.2023.103636>
- J7. S. Alshammari, A. Ameli; Polylactic acid biocomposites with high loadings of melt-flowable organosolv lignin; **International Journal of Biological Macromolecules** (*IF:8.02*), 2023, 242, 125094, <https://doi.org/10.1016/j.ijbiomac.2023.125094>
- J8. K. Kalia, B. Francoeur, A. Amirkhizi, A. Ameli, In situ foam 3D printing of microcellular structures using material extrusion additive manufacturing; **ACS Applied Materials and Interfaces** (*IF: 10.38*) 2022, 14, 19, 22454–22465, <https://doi.org/10.1021/acsami.2c03014>
- J9. S. Pawale, K. Kalia, S. Alshammari, D. Cronin, X. Zhang, A. Ameli; Deep eutectic solvent-extracted lignin as an efficient additive for entirely biobased polylactic acid composites; **ACS Applied Polymer Materials** (*IF:4.86*) 2022, 4(8), 5861–5871, <https://doi.org/10.1021/acsapm.2c00742>

- J10. F. Baertsch, A. Ameli, T. Mayer; Finite-element modeling and optimization of 3D-printed auxetic reentrant structures with stiffness gradient under low-velocity impact; **Journal of Engineering Mechanics** (IF:2.62) 2021, 147, 04021036, 7 pages, [https://doi.org/10.1061/\(ASCE\)EM.1943-7889.0001923](https://doi.org/10.1061/(ASCE)EM.1943-7889.0001923)
- J11. [Invited Paper] G. Petrossian, N. Aliheidari and A. Ameli; Thermoplastic polyurethane/lead zirconate titanate/carbon nanotube composites with very high dielectric permittivity and low loss for charge storage applications, **Journal of Composites Science** (IF:3.49) 2020, 4(3), 137; 18 pages, <https://doi.org/10.3390/jcs4030137>
- J12. C.J. Hohimer, G. Petrossian, C. Mo, P. Pötschke and A. Ameli; 3D printed conductive thermoplastic polyurethane/carbon nanotube composites for capacitive and piezoresistive sensing in soft pneumatic actuators, **Additive Manufacturing** (IF:10.99), 2020, 34, 101281, 14 pages, doi: <https://doi.org/10.1016/j.addma.2020.101281>
- J13. A Ghanbari, S Seyedin, M Nofar, A Ameli<sup>V,WR</sup>; Mechanical properties and foaming behavior of polypropylene/elastomer/recycled carbon fiber composites; **Polymer Composites** (IF:3.17) 2021, 42, 3482-3492, <https://doi.org/10.1002/pc.26073>
- J14. A Ghanbari, S Seyedin, SA Haddadi, M Nofar, A Ameli<sup>V,WR</sup>; Reinforcing potential of recycled carbon fibers in compatibilized polypropylene composites; **Journal of Polymer Research** (IF:3.09) 2021, 28, 145, 9 pages, <https://doi.org/10.1007/s10965-021-02506-0>
- J15. D. Jahani, A. Nazari, J. Ghorbanpour, A. Ameli<sup>C,M,V,WR</sup>; Polyvinyl alcohol/calcium carbonate nanocomposites as efficient and cost-effective cationic dye adsorbents; **Polymers** (IF:4.33) 2020, 12, 2179, <http://dx.doi.org/10.3390/polym12102179>
- J16. (Media Mentions) P. Wang, N. Aliheidari, X. Zhang, A. Ameli; Strong and thermally insulating ultralight foams based on nanocrystalline cellulose; **Carbohydrate Polymers** (IF:10.72), 2019; 218, 103-111, doi: [doi.org/10.1016/j.carbpol.2019.04.059](https://doi.org/10.1016/j.carbpol.2019.04.059)
- J17. A Najj, B. Krause, P. Pötschke and A. Ameli; Hybrid conductive filler/polycarbonate composites with enhanced electrical and thermal conductivities for bipolar plate applications, **Polymer Composites** (IF:3.17); 2019; 40, 3189-3198, doi: 10.1002/pc.25169
- J18. D. Thaler, N. Aliheidari and A. Ameli; Mechanical, electrical, and piezoresistivity behaviors of additively manufactured acrylonitrile butadiene styrene/carbon nanotube nanocomposites, **Smart Materials and Structures** (IF:3.58), 2019; 28(6), 084004, doi: 10.1088/1361-665X/ab256e
- J19. A. Najj, B. Karuse, P. Pötschke and A. Ameli; Extruded polycarbonate/di-allyl phthalate composites with ternary conductive filler system for bipolar plates of polymer electrolyte membrane fuel cells, **Smart Materials and Structures** (IF:3.58), 2019; 28(6), 064004, doi.org/10.1088/1361-665X/ab19cb
- J20. G. Petrossian, C.J. Hohimer and A. Ameli; Highly-loaded thermoplastic polyurethane/lead zirconate titanate composite foams with low permittivity fabricated using expandable microspheres, **Polymers** (IF: 4.33), 2019; 11 (2), 280, doi: [doi.org/10.3390/polym11020280](https://doi.org/10.3390/polym11020280)
- J21. (Media Mentions) J. Christ, N. Aliheidari, P. Pötschke and A. Ameli; Bidirectional and stretchable piezoresistive sensors enabled by multimaterial 3D printing of carbon nanotube/thermoplastic polyurethane nanocomposites; **Polymers** (IF:4.334) 2019; 11, 11, doi:10.3390/polym11010011
- J22. N. Aliheidari, J. Christ, R. Tripuraneni, S. Nadimpalli and A. Ameli; Interlayer adhesion and fracture resistance of polymers printed through melt extrusion additive manufacturing process; **Materials and Design** (IF:9.42), 2018; 156, 351-361, doi: 10.1016/j.matdes.2018.07.001
- J23. [Materials and Design Most Cited Articles at 2019: <https://www.journals.elsevier.com/materials-and-design/most-cited-articles>] J. Christ, N. Aliheidari, A. Ameli and P. Pötschke; 3D printed highly elastic strain sensors of multiwalled carbon nanotube/thermoplastic polyurethane nanocomposites; **Materials and Design** (IF:9.42), 2017; 131, 394-401, doi: 10.1016/j.matdes.2017.06.011
- J24. N. Aliheidari, R. Tripuraneni, A. Ameli and S. Nadimpalli; Fracture resistance measurement of fused deposition modeling 3D printed polymers; **Journal of Polymer Testing** (IF:4.28), 2017; 60, 94-101, doi: 10.1016/j.polymertesting.2017.03.016
- J25. M. Nadgorny and A. Ameli<sup>C,V,WR</sup>; Functional polymers and nanocomposites for 3D printing of smart structures and devices; **ACS Applied Materials and Interfaces** (IF:9.23), 2018; 10, 17489-17507, doi: 10.1021/acsami.8b01786
- J26. (Invited) O.R. Patil, A. Ameli<sup>C,V,WR</sup> and N.V. Datla; Predicting environmental degradation of adhesive

- joints using a cohesive zone finite element model based on accelerated fracture tests, **International Journal of Adhesion and Adhesives** (*IF: 3.19*), 2017; 76: 540-560, doi: 10.1016/j.ijadhadh.2017.02.007
- J27. A. Javdani, V. Pouyafar, A. Ameli<sup>C,M,WR</sup> and A.A. Volinsky; Blended powders semisolid forming of Al<sub>70</sub>75/Al<sub>2</sub>O<sub>3</sub> composites: Investigation of microstructure and mechanical properties, **Materials and Design** (*IF:9.42*), 2016;109:57-67, doi: 10.1016/j.matdes.2016.07.042
- J28. A. Ameli<sup>C,FA,WO</sup>, M. Arjmand, P. Pötschke, B. Krause and U. Sundararaj; Effects of synthesis catalyst and temperature on broadband dielectric properties of nitrogen-doped CNT/PVDF nanocomposites, **Carbon** (*IF:11.31*), 2016;106:260-278, doi: 10.1016/j.carbon.2016.05.034
- J29. (Featured as Back Cover Photo) M. Arjmand, A. Ameli<sup>C,M,WR</sup>, U.-T. Sundararaj; Employing nitrogen doping as innovative technique to improve broadband dielectric properties of carbon nanotube/polymer nanocomposites, **Macromolecular Materials and Engineering** (*IF:4.37*), 2016;301:555-565, doi: 10.1002/mame.201500365
- J30. S. Wang, Y. Huang, E. Chang, C. Zhao, A. Ameli<sup>C,M,WR</sup>, H.E. Naguib, C.B. Park; Evaluation and modeling of electrical conductivity in conductive polymer nanocomposite foams with multiwalled carbon nanotube networks; **Chemical Engineering Journal** (*IF: 14.66*) 2021, 411, 128382, <https://doi.org/10.1016/j.cej.2020.128382>
- J31. E. Chang, A. Ameli<sup>C,M,V,WR</sup>, K.J. Yu, A.R. Alian, L.H. Mark, K. Yu, S. Wang and C.B. Park; Percolation mechanism and effective conductivity of mechanically deformed 3-dimensional composite networks: Computational modeling and experimental verification **Composites Part B: Engineering** (*IF:9.08*) 2021, 207, 108552, <https://doi.org/10.1016/j.compositesb.2020.108552>
- J32. S. Wang, Y. Huang, C. Zhao, E. Chang, A. Ameli<sup>C,M,WR</sup>, H. Naguib, C.B. Park; Theoretical modeling and experimental verification of percolation threshold with MWCNTs' rotation and translation around a growing bubble in conductive polymer composite foams, **Composites Science and Technology** (*IF:8.53*), 2020; 199, 108345, 7 pages, <https://doi.org/10.1016/j.compscitech.2020.108345>
- J33. S. Wang, A. Ameli<sup>C,M,WO,WR</sup>, V. Shaayegan, Y. Kazemi, Y. Huang, H.E. Naguib, C.B. Park; Modelling of rod-like fillers' rotation and translation near two growing cells in conductive polymer composite foam processing; **Polymers** (*IF:4.33*) 2018; 10, 261, doi: 10.3390/polym10030261
- J34. Y. Kazemi, A.R. Kakroodi, A. Ameli<sup>C,M,WR</sup>, T. Filleter and C.B. Park; Highly stretchable conductive thermoplastic vulcanizate/carbon nanotube nanocomposites with segregated structure, low percolation threshold and improved cyclic electromechanical performance, **RSC Journal of Materials Chemistry C** (*IF:7.393*), 2018; 6, 350-359, doi: 10.1039/C7TC04501H
- J35. Y. Kazemi, A.R. Kakroodi, S. Wang, A. Ameli<sup>C,M,WR</sup>, T. Filleter, P. Pötschke and C.B. Park; Conductive network formation and destruction in polypropylene/carbon nanotube composites via crystal control using supercritical carbon dioxide, **Polymer** (United Kingdom) (*IF:4.43*), 2017; 129, 179-188, doi: 10.1016/j.polymer.2017.09.056
- J36. A. Ameli<sup>C,FA,WO</sup>, Y. Kazemi, S. Wang, C.B. Park and P. Pötschke; Process-microstructure-electrical conductivity relationships in injection-molded polypropylene/carbon nanotube nanocomposite foams, **Composites Part A Applied Science and Manufacturing** (*IF:7.66*), 2017; 96, 28-36, doi: 10.1016/j.compositesa.2017.02.012
- J37. N. Hossieny, V. Shaayegan, A. Ameli<sup>C,V,WR</sup>, M. Saniei and C.B. Park; Characterization of hard-segment crystalline phase of thermoplastic polyurethane in the presence of butane and glycerol monostearate and its impact on mechanical property and microcellular morphology, **Polymer** (*IF:4.43*), 2017; 112, 208-218, doi: 10.1016/j.polymer.2017.02.015
- J38. V. Shaayegan, A. Ameli<sup>C,M,V,WR</sup>, S. Wang and C.B. Park; Experimental observation and modeling of fiber rotation and translation during foam injection molding of polymer composites, **Composites Part A: Applied Science and Manufacturing** (*IF:7.66*), 2016;88:67-74, doi: 10.1016/j.compositesa.2016.05.013
- J39. A.R. Kakroodi, Y. Kazemi, W. Ding, A. Ameli<sup>V,WR</sup>, C.B. Park; Poly(lactic acid)-based in situ microfibrillar composites with enhanced crystallization kinetics, mechanical properties, rheological behavior, and foaming ability, **Biomacromolecules** (*IF:6.98*), 2015; 16: 3925-3935, doi: 10.1021/acs.biomac.5b01253
- J40. M. Nofar, A. Ameli<sup>FA,M,WR</sup> and C.B. Park; A novel technology to manufacture biodegradable polylactide bead foam products, **Materials and Design** (*IF:9.42*), 2015; 83:413-421, doi: 10.1016/j.matdes.2015.06.052
- J41. M. Nofar, A. Ameli<sup>FA,M,WR</sup> and C.B. Park; Development of polylactide bead foams with double crystal

- melting peaks, *Polymer (IF:4.43)*, 2015; 69: 83-94, doi: 10.1016/j.polymer.2015.05.048
- J42. A. Ameli<sup>C,FA,M,WO</sup>, S. Wang, Y. Kazemi, C.B. Park and P. Pötschke, A facile method to increase the charge storage capability of polymer nanocomposites, *Nano Energy (IF:17.88)*, 2015; 15: 54-65, doi: 10.1016/j.nanoen.2015.04.004
- J43. A. Ameli<sup>C,FA,M,WO</sup>, M. Nofar, D. Jahani and C.B. Park; Development of high void fraction polylactide composite foams using injection molding: Crystallization and foaming properties, *Chemical Engineering Journal (IF:14.66)*, 2015; 262: 78-87, doi: 10.1016/j.cej.2014.09.087
- J44. (Featured as Back Cover Photo) D. Jahani, A. Ameli<sup>C,M,WR</sup>, M. Saniei, W. Ding, C.B. Park and H. Naguib; Characterization of the structure, acoustic property, thermal conductivity, and mechanical property of highly expanded open-cell polycarbonate foams, *Macromolecular Materials and Engineering (IF:4.37)*, 2015; 300: 48-56, doi: 10.1002/mame.201400125
- J45. A. Ameli, M. Nofar, S. Wang and C.B. Park; Lightweight polypropylene/stainless-steel fiber composite foams with low percolation for efficient electromagnetic interference shielding, *ACS Applied Materials and Interfaces (IF:10.38)*, 2014; 6(14): 11091-11100, doi: 10.1021/am500445g
- J46. A. Ameli, M. Nofar, C.B. Park, P. Pötschke and G. Rizvi; Polypropylene/carbon nanotube nano/microcellular structures with high dielectric permittivity, low dielectric loss, and low percolation threshold, *Carbon (IF:11.31)*, 2014; 71: 206-217, doi: 10.1016/j.carbon.2014.01.031
- J47. A. Ameli, D. Jahani, M. Nofar, P.U. Jung and C.B. Park; Development of high void fraction polylactide composite foams using injection molding: Mechanical and thermal insulation properties, *Composites Science and Technology (IF:8.53)* 2014; 60: 88-95, doi: 10.1016/j.compscitech.2013.10.019
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- C42 M. Saniei, A. Ameli<sup>M,V,WR</sup>, M.P. Tran and C.B. Park; From nano-structured iPP formation to nano-cellular iPP foam, Society of Plastics Engineers Annual Technical Conference **SPE-ANTEC** Proceedings, Paper # 2139268, Orlando, Florida, March 23-25, 2015, ISBN: 978-098501127-7, Pages 2782-2787, <http://www.scopus.com/inward/record.url?eid=2-s2.0-85010682323&partnerID=MN8TOARS>
- C43 A. Ameli, M. Saniei, N. Hossieny, C.B. Park and P. Pötschke; Electrical and dielectric properties of foam injection-molded polypropylene/multiwalled carbon nanotube composites, 30<sup>th</sup> International Conference of the Polymer Processing Society PPS-30, Cleveland, Ohio, June 8-12, 2014, AIP Conference Proceedings, 1664, 110002 (May 22, 2015), <http://dx.doi.org/10.1063/1.4918477>
- C44 A. Ameli, D. Jahani, M. Nofar, C.B. Park, P. Pötschke and G. Rizvi; Lightweight polypropylene-carbon nanotube foams with low filler content, high permittivity and low dielectric loss for charge storage applications, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, Pages 2549-2553, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84937899458&partnerID=MN8TOARS>
- C45 A. Ameli, N. Hossieny, D. Jahani, C.B. Park and P. Pötschke; An innovative method to increase the charge storage capability of polymer nanocomposites, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, Pages 662-667, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84938060784&partnerID=MN8TOARS>
- C46 V. Shaayegan, A. Tabatabaei, L.-H. Mark, A. Ameli and C.B. Park; A new visualization mold design for foam injection molding, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, 5 pages

- C47 N. Hossieny, A. Ameli, M. Saniei and C.B. Park; Feasibility of double melting peak generation for expanded thermoplastic polyurethane bead foams, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, Pages 2526-2530, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84937867774&partnerID=MN8TOARS>
- C48 M. Saniei, A. Ameli, N. Hossieny and C.B. Park; One-step nanocellular foaming of clarified polypropylene using supercritical CO<sub>2</sub>, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, ISBN: 978-163439708-7, Pages 2565-2568, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84937936659&partnerID=MN8TOARS>
- C49 D. Jahani, A. Ameli, R.K.M. Chu, C.B. Park and H. Naguib, Acoustic behavior of open-cell foams backed with an air-gap, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, Pages 2487-2491, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84937862890&partnerID=MN8TOARS>
- C50 D. Jahani, A. Ameli, L.H. Mark, N. Hossieny, C.B. Park and H. Naguib; A study on the acoustic behavior of the foamed micro perforated panels: experiment and modeling, Society of Plastics Engineering Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, ISBN: 978-087849360-9, Pages 1727-1730, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84938222708&partnerID=MN8TOARS>
- C51 L.-H. Mark, R. Chu, A. Ameli, D. Jahani and C.B. Park; Gas-assist injection molding of PLA for foaming applications, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Las Vegas, Nevada, April 28-30, 2014, ISBN: 978-087849360-9, Pages 1581-1585 <http://www.scopus.com/inward/record.url?eid=2-s2.0-84938251750&partnerID=MN8TOARS>
- C52 M. Nofar, A. Tabatabaei, A. Ameli and C.B. Park; Comparison of melting and crystallization behaviors of polylactide under high-pressure CO<sub>2</sub>, N<sub>2</sub>, and helium, 29<sup>th</sup> International Conference of the Polymer Processing Society PPS-29, Nuremberg, Germany, July 15-19, 2013, AIP Conference Proceedings 1593, 320-323 (2014) <http://dx.doi.org/10.1063/1.4873791>
- C53 A. Ameli, P.U. Jung, and C.B. Park; Low percolation threshold and improved electromagnetic interference shielding effectiveness of polypropylene/carbon fiber composites through foaming, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Cincinnati, Ohio, April 22-24, 2013, ISBN 978-163266530-0, Pages 1815-1820, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84903515878&partnerID=MN8TOARS>
- C54 (Best Paper Nominee) A. Ameli, M. Saniei, D. Jahani and C.B. Park; Electrical properties of polypropylene composite foams reinforced with long stainless steel fibers, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Cincinnati, Ohio, April 22-24, 2013, ISBN 978-163266530-0, Pages 2616-2620, [https://www.4spe.org/i4a/doclibrary/getfile.cfm?doc\\_id=20325](https://www.4spe.org/i4a/doclibrary/getfile.cfm?doc_id=20325)
- C55 M. Saniei, N.J. Hosseiny, A. Ameli and C.B. Park; Solid-state batch processing and structure of nanocellular thermoplastic polyurethane foams, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Cincinnati, Ohio, April 22-24, 2013, [https://www.4spe.org/i4a/doclibrary/getfile.cfm?doc\\_id=20323](https://www.4spe.org/i4a/doclibrary/getfile.cfm?doc_id=20323)
- C56 (Best Paper Nominee) N. Hossieny, A. Ameli and C.B. Park; Effect of hot air on surface and mechanical properties of EPP products molded in steam chest molding machine, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Cincinnati, Ohio, April 22-24, 2013, ISBN: 978-163266530-0, Pages 818-822, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84903545646&partnerID=MN8TOARS>
- C57 D. Jahani, A. Ameli, A. Cofreros, H. Naguib and C.B. Park; Injection foam molding of highly expanded polycarbonate with open-cell structure using mold opening, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Cincinnati, Ohio, April 22-24, 2013, ISBN: 978-163266530-0, [https://www.4spe.org/i4a/doclibrary/getfile.cfm?doc\\_id=20293](https://www.4spe.org/i4a/doclibrary/getfile.cfm?doc_id=20293)
- C58 D. Jahani, P.U. Jung, A. Ameli, H. Naguib and C.B. Park; Cavity-integrated injection molded acoustic foams, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Cincinnati, Ohio, April 22-24, 2013, ISBN: 978-163266530-0, Pages 1734-1738, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84903526086&partnerID=MN8TOARS>

- C59 A. Ameli, P.U. Jung and C.B. Park; Electrical conductivity and electromagnetic interference shielding effectiveness of injection-molded polypropylene/carbon fiber composite foams, 28<sup>th</sup> International Conference of the Polymer Processing Society PPS-28, Pattaya, Thailand, December 11-15, 2012, ISBN 9781510842618, Pages 117-121,
- C60 P. Buahom, A. Ameli, C.B. Park, M. Sain and S. Areerat; Multi-scale void fraction analysis for cell density characterization and nuclei density prediction of anisotropic polymeric foams, 28<sup>th</sup> International Conference of Polymer Processing Society PPS-28, Pattaya, Thailand, December 11-15, 2012, ISBN 9781510842618, Pages 11-15
- C61 A. Ameli, A. Abbaszadegan, D. Jahani and C.B. Park; Flexural strength and thermal conductivity characteristics of injection molded microcellular PLA composites with high void fraction, Canadian Society of Mechanical Engineers (CSME) International Congress, Winnipeg, Manitoba, Canada, June 4-6, 2012, Paper #: 1569572309
- C62 A. Ameli, D. Jahani, P.U. Jung and C.B. Park; Microcellular injection molding of polylactide with talc, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Orlando, Florida, April 2-4, 2012, 978-162276083-1, Pages 1551-1555, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84865780577&partnerID=MN8TOARS>
- C63 D. Jahani, P.U. Jung, A. Ameli, M. Saniei, C.B. Park and H. Naguib; The influences of processing temperatures and nucleating agent in foaming of a thin-walled injection molded part, Society of Plastics Engineers Annual Technical Conference SPE-ANTEC Proceedings, Orlando, Florida, April 2-4, 2012, 978-162276083-1, Pages 2437-2443, <http://www.scopus.com/inward/record.url?eid=2-s2.0-84865829339&partnerID=MN8TOARS>

#### C2d. Other Conference Publications (Not Peer-Reviewed)

- O1 Nahal Aliheidari, Amir Ameli, Hygrothermal Aging of Structural Epoxy Adhesives Used in Wind Turbine Blade Composite Joints, Paper Number: 004728, Proceedings: 38<sup>th</sup> American Society for Composites Technical Conference, September 17-20, Lowell, MA (Full text paper)
- O2 Nahal Aliheidari, Amir Ameli, The Effects of Bondline and Substrate Thicknesses on the Mode II Fracture Toughness of Composite/Adhesive Joints, Paper Number: 004729, Proceedings: 38<sup>th</sup> American Society for Composites Technical Conference, September 17-20, Lowell, MA (Full text paper)
- O3 B. Francoeur, K. Kalia, S.P.V. Singh, J. Mead, A. Ameli, A.V. Amirkhizi; Dynamic behavior of foams at higher strain rates with application for gradient media; **Annual Conference of the Society of Experiment Mechanics (SEM)**, June 13-16, 2022, Pittsburgh, PA (Extended Abstract)
- O4 N. Aliheidari, P. Wang, X. Zhang, A. Ameli; Mechanical and physical properties of carbonized foams derived from cellulose, **SPE FOAMS® 2021**, Virtual Conference, September 13-16, 2021 (Full text paper)
- O5 G. Petrossian, C.J. Hohimer, A. Ameli; Thermal properties of highly loaded piezo-composite foams, **SPE FOAMS® 2018 Conference**, Montreal, Canada, September 13-14, 2018
- O6 S. Wang, Y. Huang, E. Chang, C. Zhao, A. Ameli, H. Naguib, and C.B. Park; Formation of Carbon Nanotube Network in Conductive Polymer Nanocomposite with Foaming, **SPE FOAMS® 2021**, Virtual Conference, September 13-16, 2021 (Full text paper)
- O7 S. Wang, A. Ameli, C. Zhao, E. Chang, Y. Huang, H. Naguib, C.B. Park; Modelling percolation threshold of conductive polymer composite foams with multi-cell growth, **SPE FOAMS® 2018 Conference**, Montreal, Canada, September 13-14, 2018
- O8 S. Wang, A. Ameli, V. Shaayegan, C. Wang, C.B. Park and H. Naguib; Modelling of multi-cell growth effect on fiber location and translation, **SPE FOAMS® 2016**, Seattle, Washington, September 12-15, 2016
- O9 E. Chang, A. Ameli, L.H. Mark and C.B. Park; Effects of uniaxial and biaxial orientation on fiber percolation in conductive polymer composites, Paper # S01-52, **GT70 Conference**, Salerno, Italy, October 16-17, 2015
- O10 S. Wang, A. Ameli, Y. Kazemi, K.J. Yu, C.B. Park and H. Naguib; Decoupling the effects of cell size and relative density on electrical conductivity in polystyrene/MWCNT composite foams, **SPE FOAMS® 2015**, Kyoto, Japan, September 10-11, 2015

- O11 M. Saniei, N.J. Hossieny, A. Ameli and C.B. Park; Nano-cellular foam of nanofibrillar structured polypropylene, SPE FOAMS® 2014, Iselin, NJ, USA, September 10-11, 2014
- O12 A. Ameli, N. Hossieny, M. Nofar, C.B. Park and P. Pötschke; Nanocellular foams of polypropylene-multiwalled carbon nanotube composites, SPE FOAMS® 2013, Seattle, Washington, September 9-12, 2013
- O13 A. Ameli, M. Nofar, D. Jahani and C.B. Park; Thermal and foaming properties of injection-molded high void fraction polylactide composite foams, 4<sup>th</sup> International Conference on Biofoams, Toronto, Canada, August 27-29, 2013
- O14 M. Saniei, N.J. Hosseiny, A. Ameli and C.B. Park; Solid-state batch foaming and structure of sub-micron and nanocellular polylactide foams, 4<sup>th</sup> International Conference on Biofoams, Toronto, Canada, August 27-29, 2013
- O15 A. Ameli, P.U. Jung and C.B. Park; Effects of process variables on through-plane electrical conductivity of injection-molded polypropylene/carbon fiber composite foams, SPE FOAMS® 2012, Barcelona, Spain, September 12-13, 2012
- O16 A. Ameli, D. Jahani, A. Abbaszadegan and C.B. Park; Microcellular injection molding of polylactide composites for thermal insulation applications, PPS Americas Conference, Niagara Falls, Canada, May 21-24, 2012 (Extended Abstract)
- O17 P.U. Jung, A. Ameli and C.B. Park; Effect of processing parameters of foam injection molding technology on the weld-line surface quality, PPS Americas Conference, Niagara Falls, Canada, May 21-24, 2012 (Extended Abstract)
- O18 N. Hossieny, A. Ameli and C.B. Park; Study on modified steam chest molding process for expanded polypropylene bead foam molding, PPS Americas Conference, Niagara Falls, Canada, May 21-24, 2012 (Extended Abstract)
- O19 A. Ameli, D. Jahani, P.U. Jung and C.B. Park; Effects of talc and compounding on morphology and mechanical properties of low-pressure injection-molded structural polylactide foams, 14<sup>th</sup> International Conference of Blowing Agents and Foaming Processes, Berlin, Germany, May 8-9 2012
- O20 A. Ameli, M. Papini and J.K. Spelt; Fracture toughness prediction of closed degraded toughened epoxy adhesive joints, 34<sup>th</sup> Annual Meeting of Adhesion Society, Savannah, Georgia, February 13-16, 2011 (Extended Abstract)
- O21 A. Ameli, M. Papini and J.K. Spelt; Fracture R-curve of a toughened epoxy adhesive as a function of aging conditions and time, 33<sup>rd</sup> Annual Meeting of Adhesion Society, Daytona Beach, Florida, February 21-24, 2010 (Extended Abstract)
- O22 A. Ameli, M. Papini and J.K. Spelt; Environmental characterization of a toughened epoxy adhesive, 32<sup>nd</sup> Annual Meeting of Adhesion Society, Savannah, Georgia, February 15-18, 2009 (Extended Abstract)
- O23 A. Ameli, M. Papini, J.A. Schroeder, D.L. Faulkner and J.K. Spelt; R-curve behavior in the fracture of toughened adhesives, 31<sup>st</sup> Annual Meeting of Adhesion Society, Austin, Texas, February 17-20, 2008 (Extended Abstract)
- O24 R. Bihamta, A. Ameli, M.R. Movahhedy and M. Mashregi; Residual stresses in tubes produced by radial and indentation forging processes, Society of Automotive Engineers (SAE) World Congress, Detroit, Michigan, April 11-14, 2005
- O25 A. Ameli, M.R. Movahhedy; 3-D finite element modeling of radial forging in the manufacturing of profiled tubes, 8<sup>th</sup> International Conference of Iranian Society of Mechanical Engineers, Tehran, Iran February 15-18, 2005
- O26 A. Ameli and M. Movahhedy; Prediction of required force and energy for the manufacture of profiled tubes using radial forging, 6<sup>th</sup> National Conference of Manufacturing Engineering, Tehran, Iran, January 5-7, 2004
- O27 A. Ameli and M. Movahhedy; A study on radial forging of profiled tubes, International Conference on Advanced Manufacturing Technology, Kuala Lumpur, Malaysia, May 11-13, 2004

### **C2e. Invited Talks/Seminars**

- I1 **School of Mechanical and Materials Engineering, Washington State University Tri-Cities;** Additive Manufacturing of Functional Polymer Composites, April 9, 2021



- l2 **Polymers Engineering Graduate Organization, PEGO**, Plastics Engineering Department, UML; Additive Manufacturing of Polymer Composites and Nanocomposites, November 22, 2021
- l3 **CCDC SC COVID-19 Virtual Seminars**, electrically conductive polymer nanocomposites for multifunctional applications, December 1, 2020
- l4 **University of Alaska Anchorage College of Engineering Professional Development Seminar Series**, Advanced Manufacturing of Multifunctional Polymer Nanocomposites, February 14, 2020
- l5 **University of Toronto**, Mechanical and Industrial Engineering Department, February 2018
- l6 **University of Western Ontario**, Mechanical and Materials Engineering Department, July 2017
- l7 **Queen's University**, Mechanical and Materials Engineering Department, July 2017
- l8 **University of Calgary**, Mechanical and Manufacturing Engineering Department, June 2016

#### **C2f. Contributed Oral Conference Presentations (speaker indicated with asterisk\*)**

- Pr1. M. Azami, R. Nagarajan, A. Ameli\*; Comparative analysis of pre-process melt compounding vs. direct dry blending for the single screw extrusion processing of PLA/PBS blends; **Extrusion Conference 2023**, Oct 10-11, 2023; Indianapolis, IN
- Pr2. Nahal Aliheidari\*, Amir Ameli, Hygrothermal Aging of Structural Epoxy Adhesives Used in Wind Turbine Blade Composite Joints, Paper Number: 004728, Proceedings: 38<sup>th</sup> American Society for Composites Technical Conference, September 17-20, Lowell, MA
- Pr3. Nahal Aliheidari\*, Amir Ameli, The Effects of Bondline and Substrate Thicknesses on the Mode II Fracture Toughness of Composite/Adhesive Joints, Paper Number: 004729, Proceedings: 38<sup>th</sup> American Society for Composites Technical Conference, September 17-20, Lowell, MA (Full text paper)
- Pr4. K. Kalia\*, A. Ameli; Fused filament fabrication of functionally graded microcellular foams with variable density; 38th international conference of the Polymer Processing Society, **PPS 38**, May 22-26, 2023, St Gallen, Switzerland
- Pr5. N. Aliheidari\*, A. Ameli; Cold Plasma Treatment of Glass Fiber/Epoxy Composites to Enhance Surface Free Energy for Adhesive Joint Applications: A Central Composite Design of Experiment; 38th international conference of the Polymer Processing Society, **PPS 38**, May 22-26, 2023, St Gallen, Switzerland (Abstract and Presentation)
- Pr6. S. Alshammari, A. Ameli\*; Influence of polyethylene glycol on the morphological and mechanical properties of polylactic acid/melt flowable lignin biocomposites; 38th international conference of the Polymer Processing Society, **PPS 38**, May 22-26, 2023, St Gallen, Switzerland (Abstract and Presentation)
- Pr7. N. Lalwani, K. Kalia, A. Ameli\*; 3-D Printing of Thermoplastic Polyurethane Foams using Thermally Expandable Microspheres; Society of Plastics Engineers Annual Technical Conference SPE-**ANTEC**, 27-30 March, 2023, Denver CO
- Pr8. M. Azami\*, A. Ameli; Effect of polybutylene succinate on the isothermal crystallization kinetics of polylactic acid; Society of Plastics Engineers Annual Technical Conference SPE-**ANTEC**, 27-30 March, 2023, Denver CO
- Pr9. A. Najj, P. Pötschke, A. Ameli\*; Electrical conductivity of multifunctional blend composites of polycarbonate and polyethylene with hybrid fillers; The ASME Conference on Smart Materials, Adaptive Structures, and Intelligent Systems **SMASIS**, September 12-14, 2022, Dearborn MI
- Pr10. K. Kalia\*, B. Francoeur, A. Amirkhizi, A. Ameli; Fabrication of expandable filaments towards in-situ foam 3D printing of microcellular polylactic acid; Society of Plastics Engineer's Annual technical conference, **ANTEC**, June 14-16, 2022, Charlotte, NC
- Pr11. K. Kalia, B. Francoeur, A. Amirkhizi, A. Ameli\*; Effect of melt flow rate and print speed on the microcellular structure and physical properties of 3D printed polylactic acid foams; 37th international conference of the Polymer Processing Society, **PPS 37**, April 11-15, 2022, Fukuoka, Japan In-person and Virtual
- Pr12. **(Invited)** A. Ameli\*; Additive manufacturing of microcellular thermoplastic foams; **2nd International Meet & Expo on 3D Printing and Additive Manufacturing**, November 07-08, Virtual and Chicago, IL
- Pr13. B. Francoeur, K. Kalia, S.P.V. Singh, J. Mead, A. Ameli, A.V. Amirkhizi\*; Dynamic behavior of foams at higher strain rates with application for gradient media; **Annual Conference of the Society of Experiment Mechanics (SEM)**, June 13-16, 2022, Pittsburgh, PA

- Pr14. Z. Nieduzak, S. Hart, Y. Joseph, K. Kalia\*, A. Ameli; In-situ foam 3D-printing of recycled HDPE/PP blend; Society of Plastics Engineers Annual FOAMS conference, **SPE FOAMS®** September 20-23, 2022, Indianapolis, IN (peer-reviewed paper and presentation)
- Pr15. N. Aliheidari, P. Wang, X. Zhang, A. Ameli\*; Mechanical and physical properties of carbonized foams derived from cellulose, **SPE FOAMS®** 2021, Virtual Conference, September 13-16, 2021
- Pr16. N. Aliheidari, A. Ameli\*; Investigation of highly sensitive 3D-printed liquid sensors using response surface methodology, **ASME** 2021 Conference on Smart Materials, Adaptive Structures, and Intelligent Systems, SMASIS; September 14-15, 2021, Virtual
- Pr17. (**Keynote**) A. Najj, B. Krause, P. Pötschke, A. Ameli\*, Electrical and thermal conductivities of polycarbonate and polyethylene blends filled with hybrid fillers, Polymer Processing Society's 36th international conference, **PPS 36**; September 26-29, 2021, Montreal Canada and Virtual
- Pr18. K. Kalia\*, A. Ameli; Effect of carbon fiber on the fracture toughness of fused filament fabricated CF/ABS composites, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, Virtual 2021, May 10-21, presented on May 10,
- Pr19. S. Pawale\*, K. Kalia, C. Cronin, X. Zhang, A. Ameli; Preparation and characterization of polylactic acid-sawdust deep eutectic solvent extracted lignin, Annual Technical Conference - **ANTEC**, Virtual 2021, May 10-21, presented on May 20
- Pr20. (**Invited**) A. Ameli\*; Electrically conductive polymer nanocomposites for multifunctional applications; **21<sup>st</sup> Sukant Tripathy Symposium**, UMass Lowell, December 3, 2021 (Presentation and Abstract only)
- Pr21. K. Kalia, A. Ameli\*; Interfacial bond strength of various rigid/soft multi-materials printed via fused filament fabrication process, **ASME** Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), Irvine, CA, September 14 - 16, 2020 [presented virtually on Sep 15, 2020, due to COVID-19]
- Pr22. D. Cronin\*, A. Ameli, X. Zhang, **AIChE annual meeting**; Lignin-derived compounds for the production of polyurethane plastics and foams; Nov. 20, 2020, Virtual
- Pr23. G. Petrossian, A. Ameli\*; Hybrid conductive and semi-conductive fillers towards high dielectric permittivity and low loss in thermoplastic polyurethane composites, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, San Antonio, Texas, March 29-April 2, 2020 [presented virtually on April 14, 2020, due to COVID-19]
- Pr24. W. LaMarche\*, N. Aliheidari, A. Ameli, P. Wang, X. Zhang; The effect of hygrothermal exposure on the thermal conductivity and density of nanocellulose based foams, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, Detroit, Michigan, March 18-21, 2019
- Pr25. A. Najj, P. Pötschke, A. Ameli\*; Melt processed conductive polycarbonate composites with ternary fillers for bipolar plate applications, **ASME's** Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS) San Antonio, Texas, September 10-12, 2018
- Pr26. K. Kalia, A. Ameli\*; Tensile properties of 3D-printed polycarbonate/carbon nanotube nanocomposites, **ASME's** Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), San Antonio, Texas, September 10-12, 2018
- Pr27. D. Thaler, N. Aliheidari, A. Ameli\*; Electrical properties of additively manufactured acrylonitrile butadiene styrene/carbon nanotube nanocomposite, **ASME's** Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), San Antonio, Texas, September 10-12, 2018,
- Pr28. G. Petrossian\*, C.J. Hohimer, A. Ameli; Thermal properties of highly loaded piezo-composite foams, FOAMS 2018 Conference, Montreal, Canada, September 13-14, 2018
- Pr29. P. Wang, N. Aliheidari, A. Ameli\*, X. Zhang; Ultralow-density foams of nanocrystalline cellulose reinforced with polyvinyl alcohol, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, Orlando, Florida, May 7-10, 2018
- Pr30. N. Aliheidari\*, C. Hohimer, A. Kakroodi, Y. Kazemi, A. Ameli, C.B. Park; Mechanical properties of 3D printed polylactide/microfibrillated polyamide composites, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, Orlando, Florida, May 7-10, 2018
- Pr31. G. Petrossian and A. Ameli\*; Dielectric and electrical properties of piezoelectric ceramic/thermoplastic polymer composite foams, **SPIE** Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring, Denver, Colorado, US, 4 - 8 March 2018, Paper Number: 10596-79

- Pr32. J. Christ, N. Aliheidari and A. Ameli\*; Strain sensing characteristics of 3D printed conductive polymer nanocomposites, **SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring**, Denver, Colorado, US, 4 - 8 March 2018, Paper Number: 10596-78
- Pr33. N. Aliheidari\*, A. Ameli, P. Pötschke, Solvent sensitivity of smart 3D-printed nanocomposite liquid sensors, **SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring**, Denver, Colorado, US, 4 - 8 March 2018,
- Pr34. C. Hohimer\*, G. Petrossian, A. Ameli, C. Mo, P. Pötschke; Electrical conductivity and piezoresistive response of 3D printed thermoplastic polyurethane/multiwalled carbon nanotube composites, **SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring**, Denver, Colorado, US, 4 - 8 March 2018
- Pr35. N. Aliheidari, R. Tripuraneni, J. Christ, A. Ameli and S. Nadimpalli\*; Optimizing 3D printing temperatures in the fused deposition modeling of ABS for enhanced fracture resistance; **ASME International Mechanical Engineering Congress and Exposition (IMECE) 2017, # IMECE2017, -73469**, Nov 3-9, Tampa, FL
- Pr36. C. Hohimer, N. Aliheidari, C. Mo, A. Ameli\*; Mechanical behavior of 3D printed multiwalled carbon nanotube/thermoplastic polyurethane nanocomposites, **ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)**, Snowbird, Utah, September 18-20, 2017,
- Pr37. N. Aliheidari\*, C. Hohimer, A. Ameli; 3D-printed conductive nanocomposites for liquid sensing applications, **ASME's Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS)**, Snowbird, Utah, September 18-20, 2017
- Pr38. G. Petrossian\* and A. Ameli; Preparation of highly loaded piezo-composite foams with high expansion and low permittivity, **ASME's Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS)**, Snowbird, Utah, September 18-20, 2017,
- Pr39. N. Aliheidari, R. Tripuraneni, J. Christ, A. Ameli and S. Nadimpalli\*; Optimization of fused deposition modeled 3D printing process for fracture resistance, **54th Annual Technical Meeting of the Society of Engineering Science (SES), ASME-AMD joint conference**, July 25-28, 2017, Northeastern University, Boston, MA
- Pr40. N. Aliheidari\*, J. Christ and A. Ameli; Optimizing fused deposition modeling 3D printing process for fracture resistance, **Society of Plastics Engineers, Annual Technical Conference - ANTEC**, Anaheim, California, May 8-10, 2017
- Pr41. J. Christ, N. Aliheidari, A. Ameli\* and P. Pötschke; 3D printed highly elastic strain sensors of multiwalled carbon nanotube/thermoplastic nanocomposites, **Society of Plastics Engineers, Annual Technical Conference - ANTEC**, Anaheim, California, May 8-10, 2017
- Pr42. **(Best Paper Award)** G. Petrossian\* and A. Ameli; Dielectric properties of PZT/thermoplastic polyurethane piezocomposite foams, **Society of Plastics Engineers, Annual Technical Conference - ANTEC**, Anaheim, California, May 8-10, 2017
- Pr43. A. Naji and A. Ameli\*; Polycarbonate filled with hybrid conductive fillers for bipolar plate application, **Society of Plastics Engineers, Annual Technical Conference - ANTEC**, Anaheim, California, May 8-10, 2017
- Pr44. C. Hohimer\*, J. Christ, N. Aliheidari, C. Mo and A. Ameli; 3D printed thermoplastic polyurethane with isotropic material properties, **SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring**, Portland, Oregon, March 25-29, 2017
- Pr45. J. Christ, C. Hohimer, N. Aliheidari, A. Ameli\*, C. Mo and P. Pötschke; 3D printing of highly elastic strain sensors using polyurethane/multiwall carbon nanotube composites, **SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring**, Portland, Oregon, March 25-29, 2017
- Pr46. N. Aliheidari\*, R. Tripuraneni, C. Hohimer, J. Christ, A. Ameli and S. Nadimpalli; The impact of nozzle and bed temperatures on the fracture resistance of FDM printed materials, **SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring**, Portland, Oregon, March 25-29, 2017
- Pr47. N. Aliheidari, J. Christ, R. Tripuraneni, A. Ameli and S. Nadimpalli\*; Fracture toughness of fused deposition modeled thermoplastics, **53<sup>rd</sup> Annual Technical Meeting of the Society of Engineering Science**, Maryland, October 2-5, 2016

- Pr48. N. Aliheidari\*, J. Christ, R. Tripuraneni, A. Ameli and S. Nadimpalli; Measuring the interlayer fracture resistance of FDM printed thermoplastics, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Indianapolis, Indiana, May 23-25, 2016
- Pr49. N. Datla\* and A. Ameli, Environmental degradation prediction in adhesive joints using a cohesive zone model and data from open-faced specimens, **Adhesion Society Annual Meeting**, San Antonio, Texas, February 21-24, 2016
- Pr50. **(Keynote)** S. Wang, Y. Huang, E. Chang, C. Zhao, A. Ameli, H. Naguib, C. Park\*; Modeling of electrical conductivity in conductive polymer nanocomposite foams with CNT networks; 37th international conference of the Polymer Processing Society, **PPS 37**, April 11-15, 2022, Fukuoka, Japan and Virtual
- Pr51. S. Wang\*, Y. Huang, E. Chang, C. Zhao, A. Ameli, H. Naguib, and C.B. Park; Formation of Carbon Nanotube Network in Conductive Polymer Nanocomposite with Foaming, **SPE FOAMS® 2021**, Virtual Conference, September 13-16, 2021
- Pr52. S. Wang\*, A. Ameli, C. Zhao, E. Chang, Y. Huang, H. Naguib, C.B. Park; Modelling percolation threshold of conductive polymer composite foams with multi-cell growth, **SPE FOAMS® 2018** Conference, Montreal, Canada, September 13-14, 2018
- Pr53. S. Wang, A. Ameli, C. Zhao, E. Chang, H.E. Naguib, C.B. Park\*; Modelling of percolation threshold in conductive polymer composite foam processing, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, Orlando, Florida, May 7-10, 2018
- Pr54. A. Ameli\*, E. Chang, S. Wang, Y. Kazemi, P. Pötschke and C.B. Park; Effect of foaming on the percolation threshold of conductive polymer composites, Society of Plastics Engineers, Annual Technical Conference - **ANTEC**, Fellows Forum, Anaheim, CA, May 10, 2017
- Pr55. A. Ameli, E. Chang, S. Wang, Y. Kazemi, P. Pötschke and C.B. Park\*; Effects of fiber orientation and foam structure on the percolation threshold of conductive polymer composites, **Poly-Foam 2017**, Mainz, Germany, April 12-13, 2017
- Pr56. **(Keynote)** A. Ameli and C.B. Park\*; Conductive filler/polymer composite foams as high performance dielectrics and EMI shields, 1st International Conference of **Molecular Engineering of Polymers**, Shanghai, China, October 15, 2016
- Pr57. S. Wang, A. Ameli, V. Shaayegan, C. Wang, C.B. Park\* and H. Naguib; Modelling of multi-cell growth effect on fiber location and translation, **FOAMS® 2016**, Seattle, Washington, September 12-15, 2016
- Pr58. Y. Kazemi\*, A.R. Kakroodi, S. Wang, A. Ameli, T. Filleter and C.B. Park; Electrical conductivity and crystallization behavior of polypropylene in the presence of supercritical carbon dioxide and multiwalled carbon nanotubes, 32nd International Conference of the Polymer Processing Society, **PPS-32**, Lyon, France, July 25-29, 2016
- Pr59. A.R. Kakroodi\*, Y. Kazemi, W. Ding, A. Ameli, C.B. Park; The effects of morphological manipulations on the characteristics of polylactic acid (PLA)/nanofibrillar nylon-6 blends, 32nd International Conference of the Polymer Processing Society, **PPS-32**, Lyon, France, July 25-29, 2016
- Pr60. V. Shaayegan\*, L. Cuif, A. Ameli, S. Wang and C.B. Park; Investigation of fiber orientation and displacement in high-pressure foam injection molding of polystyrene/carbon-fiber composites, 32nd International Conference of the Polymer Processing Society, **PPS-32**, Lyon, France, July 25-29, 2016
- Pr61. A. Ameli\*, S. Wang, Y. Kazemi and C.B. Park; Impact of foaming on fiber breakage, conductivity, and EMI shielding of injection-molded polypropylene/stainless steel fiber composites, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Indianapolis, Indiana, May 23-25, 2016
- Pr62. A. Ameli\*, S. Wang, Y. Kazemi, C.B. Park and P. Pötschke; Effect of void fraction on dielectric properties of injection-molded polypropylene/MWCNT foams, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Indianapolis, Indiana, May 23-25, 2016
- Pr63. V. Shaayegan\*, A. Ameli and C.B. Park; Modeling of the fiber orientation in polymer/fiber composite foams, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Indianapolis, Indiana, May 23-25, 2016
- Pr64. S. Wang\*, A. Ameli, Y. Kazemi, V. Shaayegan, C.B. Park and H.E. Naguib; Foaming effects on the percolation threshold in conductive polymer composites: A systematic analysis, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Indianapolis, Indiana, May 23-25, 2016

- Pr65. A.R. Kakroodi\*, Y. Kazemi, W.-D. Ding, C.B. Park and A. Ameli; Production of in situ microfibrillar composites as a novel approach towards improved bio-based polymeric products, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Indianapolis, Indiana, May 23-25, 2016
- Pr66. V. Shaayegan\*, L. Cuif, A. Ameli and C.B. Park; Visualization of carbon fiber orientations in polymer composite foams, **Poly-Foam 2015**, Shanghai, China, December 2-3, 2015
- Pr67. E. Chang, A. Ameli, L.H. Mark and C.B. Park\*; Effects of uniaxial and biaxial orientation on fiber percolation in conductive polymer composites, Paper # S01-52, **GT70 Conference**, Salerno, Italy, October 16-17, 2015
- Pr68. S. Wang, A. Ameli, Y. Kazemi, K.J. Yu, C.B. Park\* and H. Naguib; Decoupling the effects of cell size and relative density on electrical conductivity in polystyrene/MWCNT composite foams, **SPE FOAMS®**, Kyoto, Japan, September 10-11, 2015
- Pr69. A. Ameli\*, Y. Kazemi, S. Wang, C.B. Park and P. Pötschke; Enhancing electrical and dielectric properties of functional polymer nanocomposites via foam injection molding, **ASME Applied Mechanics and Materials Conference**, Paper # McMat2015-6097, Seattle, Washington, June 29-July 1, 2015
- Pr70. Y. Kazemi, A. Ameli\*, N. Hossieny, S. Wang, C.B. Park and P. Pötschke; Rheology and crystallization behavior of supercritical CO<sub>2</sub> saturated polypropylene-multiwalled carbon nanotube composites, **ASME Applied Mechanics and Materials Conference**, Paper # McMat2015-6141, Seattle, Washington, June 29-July 1, 2015
- Pr71. E. Chang, A. Ameli\*, L.H. Mark and C.B. Park; Uniaxial strain effects on the fiber percolation in polymer composites, **ASME Applied Mechanics and Materials Conference**, Paper # McMat2015-6139, Seattle, Washington, June 29-July 1, 2015
- Pr72. A. Ameli, M. Nofar, M. Saniei, S. Wang and C.B. Park\*; Foam injection molding of polypropylene/stainless steel fiber composites for efficient EMI shielding, 31st Int. Conference of Polymer Processing Society, **PPS-31**, Jeju Island, Korea, June 7-11, 2015,
- Pr73. A. Ameli\*, S. Wang, Y. Kazemi, C.B. Park and P. Pötschke; Effect of process parameters on electrical conductivity of injection-molded polypropylene/MWCNT foams, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Technical Papers, Paper # 2096360, Orlando, Florida, March 23-25, 2015
- Pr74. A. Ameli\*, V. Shaayegan and C.B. Park; Visualization of cell-growth induced fiber orientation in polymer composite foams, Society of Plastics Engineers, Annual Technical Conference, Technical Papers, **ANTEC**, Paper # 2139247, Orlando, Florida, March 23-25, 2015
- Pr75. S. Wang\*, A. Ameli, Y. Kazemi, K.J. Yu, C.B. Park and H. Naguib; Controlled foaming of polystyrene/MWCNT by carbon dioxide, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Orlando, Florida, March 23-25, 2015
- Pr76. Y. Kazemi\*, S. Wang, A. Ameli, K.J. Yu and C.B. Park, Phase morphology and electrical conductivity of polypropylene/polylactic acid blends filled with multi-walled carbon nanotubes, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Orlando, Florida, March 23-25, 2015
- Pr77. E. Chang\*, A. Ameli, L.-H. Mark and C.B. Park; Uniaxial strain effects on the percolation threshold of fibers in polymer composites: A Monte Carlo simulation, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Orlando, Florida, March 23-25, 2015
- Pr78. K.J. Yu\*, A. Ameli, Y. Kazemi, S. Wang and C.B. Park; The effect of matrix viscosity and compounding parameters on the morphology and electrical conductivity of PP-CNTs/PS blends, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Orlando, Florida, March 23-25, 2015
- Pr79. M. Saniei\*, A. Ameli, M.P. Tran and C.B. Park; From nano-structured iPP formation to nano-cellular iPP foam, Society of Plastics Engineers, Annual Technical Conference, **ANTEC**, Orlando, Florida, March 23-25, 2015
- Pr80. A. Ameli, S. Wang, C.B. Park\* and P. Pötschke; Processing and characterization of injection-molded polypropylene-MWCNT nanocomposite foams, **Polymer Foam 2014**, Cologne, Germany, November 4-6, 2014
- Pr81. S. Wang, A. Ameli and C.B. Park\*; Decoupling the effects of foaming parameters on the electrical conductivity and percolation threshold in polymer composite foams, **Poly-Foam 2014**, Shanghai, China, December 3-4, 2014

- Pr82. (Plenary) A. Ameli, S. Wang, Y. Kazemi, K. Yu and C.B. Park\*; Innovative energy storage and electromagnetic interference shielding devices using multiwalled carbon nanotube composite foam, FOAMS 2014, Iselin, NJ, USA, September 10-11, 2014
- Pr83. M. Saniei, N.J. Hossieny, A. Ameli and C.B. Park\*; Nano-cellular foam of nanofibrillar structured polypropylene, FOAMS 2014, Iselin, NJ, USA, September 10-11, 2014
- Pr84. (Plenary) A. Ameli, S. Wang, Y. Kazemi and C.B. Park\*; Innovative energy storage and electromagnetic interference shielding devices using multiwalled carbon nanotube composite foam, 2014 Canada-Korea Conference, Niagara Falls, Canada, August 3-5, 2014
- Pr85. A. Ameli, S. Wang, Y. Kazemi and C.B. Park\*; Multiwalled carbon nanotube composite foam for electro-magnetic and energy-storage applications, 2014 Europe-Korea Conference, Vienna, Austria, July 24-25, 2014.
- Pr86. A. Ameli\*, C.B. Park and P. Pötschke; Processing and property relationships in solid and foamed polymer-CNT nanocomposites, Canadian Society of Mechanical Engineering (CSME) International Congress, Toronto, Canada, June 1-4, 2014
- Pr87. A. Ameli\*, M. Saniei, N. Hossieny, C.B. Park and P. Pötschke; Electrical and dielectric properties of foam injection-molded polypropylene/multiwalled carbon nanotube composites, 30th Int. Conference of Polymer Processing Society (PPS-30), Cleveland, Ohio, June 8-12, 2014
- Pr88. M. Saniei\*, A. Ameli and C.B. Park; Nanocellular polypropylene made using one-step foaming under supercritical CO<sub>2</sub>, 30<sup>th</sup> Int. Conference of Polymer Processing Society (PPS-30), Cleveland, Ohio, June 8-12, 2014
- Pr89. (Keynote) M. Nofar, A. Ameli, and C.B. Park\*; Expanded polylactide bead foaming-A new technology, 30th Int. Conference of Polymer Processing Society (PPS-30), Cleveland, Ohio, June 8-12, 2014, <http://dx.doi.org/10.1063/1.4918400>
- Pr90. N. Hossieny, A. Ameli and C.B. Park\*; Processing and characterization of expanded thermoplastic polyurethane bead foams, 16<sup>th</sup> Blowing Agents and Foaming Processes, Vienna, Austria, May 13-14, 2014
- Pr91. A. Ameli, D. Jahani, M. Nofar, C.B. Park\*, P. Pötschke and G. Rizvi; Lightweight polypropylene-carbon nanotube foams with low filler content, high permittivity and low dielectric loss for charge storage applications, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr92. A. Ameli, N. Hossieny, D. Jahani, C.B. Park\* and P. Pötschke; An innovative method to increase the charge storage capability of polymer nanocomposites, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr93. V. Shaayegan\*, A. Tabatabaei, L.-H. Mark, A. Ameli and C.B. Park; A new visualization mold design for foam injection molding, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr94. N. Hossieny\*, A. Ameli, M. Saniei and C.B. Park; Feasibility of double melting peak generation for expanded thermoplastic polyurethane bead foams, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr95. M. Saniei\*, A. Ameli, N. Hossieny and C.B. Park; One-step nanocellular foaming of clarified polypropylene using supercritical CO<sub>2</sub>, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr96. D. Jahani\*, R.K.M. Chu, A. Ameli, M. Saniei, C.B. Park and H. Naguib, Acoustic behavior of open-cell foams backed with an air-gap, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr97. D. Jahani\*, A. Ameli, L.H. Mark, N. Hossieny, C.B. Park and H. Naguib; A study on the acoustic behavior of the foamed micro perforated panels: experiment and modeling, Society of Plastics Engineering, SPE-ANTEC 2014, Las Vegas, Nevada, April 28-30, 2014
- Pr98. L.-H. Mark\*, R. Chu, A. Ameli, D. Jahani and C.B. Park; Gas-assist injection molding of PLA for foaming applications, 04/29, April 28-30, 2014
- Pr99. (Plenary) M. Nofar, A. Ameli and C.B. Park\*; Manufacturing of low-density expanded PLA foams with superior intra-bead sintering behaviors, Ningbo Forum of Materials Science, Ningbo, China, November 13, 2013

- Pr100. A. Ameli\*, N. Hossieny, M. Nofar, C.B. Park and P. Pötschke; Nanocellular foams of polypropylene-multiwalled carbon nanotube composites, FOAMS® 2013, Seattle, Washington, September 9-12, 2013
- Pr101. A. Ameli\*, M. Nofar, D. Jahani and C.B. Park; Thermal and foaming properties of injection-molded high void fraction polylactide composite foams, 4<sup>th</sup> International Conference on Biofoams, Toronto, Canada, August 27-29, 2013
- Pr102. M. Saniei\*, N.J. Hosseiny, A. Ameli and C.B. Park; Solid-state batch foaming and structure of sub-micron and nanocellular polylactide foams, 4<sup>th</sup> International Conference on Biofoams, Toronto, Canada, August 27-29, 2013
- Pr103. (Keynote) A. Ameli, C.B. Park\*, P. Pötschke, G. Rizvi and M. Huneault; Synthesis, electrical conductivity, and mechanical properties of nano/microcellular polypropylene/CNT nanocomposites, 29<sup>th</sup> Int. Conference of Polymer Processing Society (PPS-29), Nuremberg, Germany, July 15-19, 2013
- Pr104. M. Nofar\*, A. Tabatabaei, A. Ameli and C.B. Park; Comparison of melting and crystallization behaviors of polylactide under high-pressure CO<sub>2</sub>, N<sub>2</sub>, and helium, 29<sup>th</sup> Int. Conference of Polymer Processing Society (PPS-29), Nuremberg, Germany, July 15-19, 2013
- Pr105. A. Ameli\*, P.U. Jung, and C.B. Park; Low percolation threshold and improved electromagnetic interference shielding effectiveness of polypropylene/carbon fiber composites through foaming, Society of Plastics Engineering SPE-ANTEC 2013, Cincinnati, Ohio, April 22-24, 2013
- Pr106. (Best Paper Nominee) A. Ameli\*, M. Saniei, D. Jahani and C.B. Park; Electrical properties of polypropylene composite foams reinforced with long stainless-steel fibers, Society of Plastics Engineering SPE-ANTEC 2013, Cincinnati, Ohio, April 22-24, 2013
- Pr107. M. Saniei\*, N.J. Hosseiny, A. Ameli and C.B. Park; Solid-state batch processing and structure of nanocellular thermoplastic polyurethane foams, Society of Plastics Engineering SPE-ANTEC 2013, Cincinnati, Ohio, April 22-24, 2013
- Pr108. (Best Paper Nominee) N. Hossieny\*, A. Ameli and C.B. Park; Effect of hot air on surface and mechanical properties of EPP products molded in steam chest molding machine, Society of Plastics Engineering ANTEC 2013, Cincinnati, Ohio, April 22-24, 2013
- Pr109. D. Jahani\*, A. Ameli, A. Cofreros, H. Naguib and C.B. Park; Injection foam molding of highly expanded polycarbonate with open-cell structure using mold opening, Society of Plastics Engineering SPE-ANTEC 2013, Cincinnati, Ohio, April 22-24, 2013
- Pr110. D. Jahani\*, P.U. Jung, A. Ameli, H. Naguib and C.B. Park; Cavity-integrated injection molded acoustic foams, Society of Plastics Engineering, SPE-ANTEC 2013, Cincinnati, Ohio, April 22-24, 2013
- Pr111. A. Ameli, P.U. Jung and C.B. Park\*; Electrical conductivity and electromagnetic interference shielding effectiveness of injection-molded polypropylene/carbon fiber composite foams, 28<sup>th</sup> Int. Conference of Polymer Processing Society (PPS-28), Pattaya, Thailand, December 11-15, 2012
- Pr112. P. Buahom\*, A. Ameli, C.B. Park, M. Sain and S. Areerat; Multi-scale void fraction analysis for cell density characterization and nuclei density prediction of anisotropic polymeric foams, 28<sup>th</sup> Int. Conference of Polymer Processing Society (PPS-28), Pattaya, Thailand, December 11-15, 2012
- Pr113. A. Ameli, P.U. Jung and C.B. Park\*; Effects of process variables on through-plane electrical conductivity of injection-molded polypropylene/carbon fiber composite foams, FOAMS® Conference, Barcelona, Spain, September 12-13, 2012
- Pr114. A. Ameli\*, A. Abbaszadegan, D. Jahani and C.B. Park; Flexural strength and thermal conductivity characteristics of injection molded microcellular PLA composites with high void fraction, Canadian Society of Mechanical Engineers (CSME) International Congress, Winnipeg, Manitoba, Canada, June 4-6, 2012
- Pr115. A. Ameli\*, D. Jahani, A. Abbaszadegan and C.B. Park; Microcellular injection molding of polylactide composites for thermal insulation applications, PPS Americas Conference, Niagara Falls, Canada, May 21-24, 2012
- Pr116. P.U. Jung\*, A. Ameli and C.B. Park; Effect of processing parameters of foam injection molding technology on the weld-line surface quality, PPS Americas Conference, Niagara Falls, Canada, May 21-24, 2012
- Pr117. N. Hossieny\*, A. Ameli and C.B. Park; Study on modified steam chest molding process for expanded polypropylene bead foam molding, PPS Americas Conference, Niagara Falls, Canada, May 21-24, 2012

- Pr118. A. Ameli, D. Jahani, P.U. Jung and C.B. Park\*; Effects of talc and compounding on morphology and mechanical properties of low-pressure injection-molded structural polylactide foams, 14<sup>th</sup> Int. Conference of Blowing Agents and Foaming Processes, Berlin, Germany, May 8-9 2012
- Pr119. A. Ameli\*, D. Jahani, P.U. Jung and C.B. Park; Microcellular injection molding of polylactide with talc, Society of Plastics Engineering SPE-ANTEC 2012, Orlando, Florida, April 2-4, 2012
- Pr120. D. Jahani\*, P.U. Jung, A. Ameli, M. Saniei, C.B. Park and H. Naguib; The influences of processing temperatures and nucleating agent in foaming of a thin-walled injection molded part, Society of Plastics Engineering SPE-ANTEC 2012, Orlando, Florida, April 2-4, 2012
- Pr121. A. Ameli\*, M. Papini and J.K. Speltz; Fracture toughness prediction of closed degraded toughened epoxy adhesive joints, 34<sup>th</sup> Annual Meeting of Adhesion Society, Savannah, Georgia, February 13-16, 2011
- Pr122. A. Ameli, M. Papini and J.K. Speltz\*; Fracture R-curve of a toughened epoxy adhesive as a function of aging conditions and time, 33<sup>rd</sup> Annual Meeting of Adhesion Society, Daytona Beach, Florida, February 21-24, 2010
- Pr123. A. Ameli\*, M. Papini and J.K. Speltz; Environmental characterization of a toughened epoxy adhesive, 32<sup>nd</sup> Annual Meeting of Adhesion Society, Savannah, Georgia, February 15-18, 2009
- Pr124. A. Ameli, M. Papini, J.A. Schroeder, D.L. Faulkner and J.K. Speltz\*; R-curve behavior in the fracture of toughened adhesives, 31<sup>st</sup> Annual Meeting of Adhesion Society, Austin, Texas, February 17-20, 2008
- Pr125. R. Bihamta, A. Ameli, M.R. Movahhedy\* and M. Mashregi; Residual stresses in tubes produced by radial and indentation forging processes, Society of Automotive Engineers (SAE) World Congress, Detroit, Michigan, April 11-14, 2005
- Pr126. A. Ameli\*, M.R. Movahhedy; 3-D finite element modeling of radial forging in the manufacturing of profiled tubes, 8<sup>th</sup> International Conference of Iranian Society of Mechanical Engineering, Tehran, Iran February 15-18, 2005
- Pr127. A. Ameli\* and M. Movahhedy; Prediction of required force and energy for the manufacture of profiled tubes using radial forging. 6<sup>th</sup> National Conference of Manufacturing Engineering, Tehran, Iran, January 5-7, 2004
- Pr128. A. Ameli and M. Movahhedy\*; A study on radial forging of profiled tubes, Int. Conference on Advanced Manufacturing Technology, Kuala Lumpur, Malaysia, May 11-13, 2004

### C2g. Online/Magazine/Local Journals

- Ma1 U. Sanyal, D.J. Cronin, A. Ameli, J. Zhang, X. Zhang; Catalyzing Commercialization: Nanolignin enables the synthesis of semi-flexible polyurethane foams; AIChE's Chemical Engineering Progress CEP Magazine, April 2022, [aiche.org/cep](http://aiche.org/cep)
- Ma2 A. Ameli, C.B. Park, P. Pötschke; Foam injection molding enhances the electrical conductivity of nanocomposites; Society of Plastics Engineers, SPE Plastics Research Online, 2017, doi: 10.2417/spepro.005877
- Ma3 A. Ameli, C.B. Park, P. Pötschke; Foam injection molding enhances the electrical conductivity of nanocomposites, RFP Rubber Fibres Plastics, 11 (2016) 1, 58-59
- Ma4 A. Ameli, C.B. Park, P. Pötschke; Hohe Leitfähigkeit in schaumgespritzgegossenen Nanokompositen, Leitfähige Nanokompositschäume, GAK, pp. 662-663, October 2016 (in German)

### C2h. Conference Posters

- Po1 K. Kalia\*, N. Lalwani, A. Krueger, A. Amirkhizi, A. Ameli; Temperature and strain rate effects on the compressive properties of 3D-printed polylactic acid microcellular foams; 38th international conference of the Polymer Processing Society, **PPS 38**, May 22-26, 2023, St Gallen, Switzerland (Poster)
- Po2 N. Aliheidari\*, A. Ameli; Effects of bondline and substrate thickness on the mode II fracture toughness of composite/adhesive joints; 38th international conference of the Polymer Processing Society, **PPS 38**, May 22-26, 2023, St Gallen, Switzerland (Poster)
- Po3 M. Azami\*, R. Nagarajan, A. Ameli; Investigating the role of polybutylene succinate on the isothermal and non-isothermal crystallization, miscibility, and rheological behaviors of polylactic acid fiber grades, **AIChE Global Polymer and Textile Summit**, April 19-21, 2023, Lowell, MA



- Po4 E. Hasz\*, M. Ronn\*, E. Kazmer\*, N. Lalwani, K. Kalia, A. Ameli; Foam additive manufacturing with recycled blend of polyethylene and polypropylene; SPE ANTEC, 27-30 March, 2023, Denver CO
- Po5 K. Kalia\*, A. Ameli; In-situ foam 3D printing of thermoplastics using material extrusion additive manufacturing; Society of Plastics Engineers Annual Technical Conference **SPE-FOAMS®**, September 22-23, 2022, Indianapolis, IN
- Po6 T. Ekstrom\*, D. Cronin, A. Ameli, X. Zhang; Flexible polyurethane foam production with deep eutectic solvent lignin as a partial substitution of polyol component, **Automotive Composites Conference & Exhibition**, Novi, Michigan, September 4, 2019
- Po7 D. Ramirez\*, D. Cronin, A. Ameli, X. Zhang; Deep eutectic solvent treatment of corn stover hydrolysate for the production of high purity lignin, **Automotive Composites Conference & Exhibition**, Novi, Michigan, September 4, 2019

### C2i. Patents

- P1 X. Zhang, A. Ameli, P. Wang; Cellulose foams for high-performance insulation; pending patent application, patent application submitted on June 12, 2020, with publication date of December 17, 2020, Publication Number: US 2020/0392301 A1
- P2 X. Zhang, A. Ameli, K. Lin, R. Ma; Method of producing lignin with controlled structural properties using heterocycle compounds, pending provisional patent application, submitted on May 24, 2022, AD number: 20-3358-X-Zhang

### C2j. Media and Publicity Related to Research

#### **Recycled Plastics and Fibers - 2023**

- M1 **UML News**: "Researchers Developing Way to Recover Plastics and Natural Fibers from Nonrecyclable Waste" <https://www.uml.edu/news/stories/2023/ameli-remade-institute-grant.aspx>

#### **Plant-Based Foams - 2019**

- M2 **Science Daily**: May 9, 2019; "Viable, environmentally-friendly alternative to Styrofoam" <https://www.sciencedaily.com/releases/2019/05/190509115440.htm>
- M3 **Science News Explores**: June 24, 2019; "Trees may become the key to 'greener' foam products" <https://www.sciencenewsforstudents.org/article/innovation-2019-trees-may-be-key-greener-styrofoam-foam-products>
- M4 **New Atlas**: May 13, 2019; "Eco-friendly foam outperforms the "real thing"" <https://newatlas.com/cellulose-foam-insulation/59654/>
- M5 **WSU Insider**: May 9, 2019 "Researchers develop viable, environmentally-friendly alternative to Styrofoam" <https://news.wsu.edu/2019/05/09/researchers-develop-viable-environmentally-friendly-alternative-styrofoam/>

#### **3D-Printed Sensors - 2019**

- M6 **KEPR 19 TV**: March 8, 2019; "WSU Tri-Cities Scientist: create 3-D printed technology" <https://keprtv.com/news/local/ws-u-tri-cities-scientist-create-3-d-printed-technology>
- M7 **WSU Insider**: March 7, 2019; "Improving the flexible sensor" <https://news.wsu.edu/2019/03/07/3d-printed-sensor-technology-applications-prosthetics-robotics/>

## **D. INSTRUCTION RELATED ACTIVITY**

### **D1. TEACHING**

#### **D1.1. Summary of Courses**

##### **UML**

Semester	Course Number	Number of Students	Credit	Student Credit Hours	Semester Total
Fall 2019	PLAS.3060	54	3	162	165
	PLAS.4150	3	1	3	
Spring 2020	PLAS.5120	9	3	27	39
	PLAS.4160	3	1	3	
	BMEN.4910	3	3	9	

Fall 2020	PLAS.3060	39	3	117	127
	BMEN.4920	3	3	9	
	PLAS.4150	1	1	1	
Spring 2021	PLAS.4160	1	1	1	12
	PLAS.4150	2	1	2	
	ENGN.2050	28	0	0	
	PLAS.5120	3	3	9	
Fall 2021	PLAS.3060	25	3	75	96
	PLAS.4150	3	1	3	
	PLAS.4160	3	1	3	
	PLAS.7560	2	6	12	
	PLAS.7530	1	3	3	
Spring 2022	PLAS.2160	15	1 (2 contact hrs.)	15	48
	PLAS.2160	15	1 (2 contact hrs.)	15	
	PLAS.4160	3	1	3	
	PLAS.7530	1	3	3	
	PLAS.7560	2	6	12	
Fall 2022	PLAS.3060	11	3	33	159
	PLAS.4040	31	3	93	
	PLAS.4150	3	1	3	
	PLAS.7590	9	2	18	
	PLAS.7560	2	6	12	
Spring 2023	PLAS.2160	8	1 (2 contact hrs.)	15	54
	PLAS.2160	9	1 (2 contact hrs.)	15	
	PLAS.4160	3	1	3	
	PLAS.7510	1	1	3	
	PLAS.7560	3	6	18	
Fall 2023	PLAS 3060-201	20	3	60	86
	PLAS 4150-233	3	1	3	
	PLAS 7430-733	2	3	6	
	PLAS 7530-733	2	3	6	
	PLAS 7590-733	1	9	9	
	PLAS 7510-733	2	1	2	

### WSU

Semester	Course Number	Number of Students	Credit	Student Credit Hours	Semester Total
Spring 2015	ME 406	14	3	42	42
Fall 2015	ME 414	36	3	108	108
Spring 2016	ME 406	37	3	111	111
Fall 2016	ME 316	26	3	78	93
	ME 534	5	3	15	
Spring 2017	ME 406	26	3	78	78
Fall 2017	ME 579	10	3	30	153

	ME 316	36	3	108	
	ME 415	5	3	15	
Spring 2018	ME 310	23	2	46	61
	ME 416	5	3	15	
Fall 2018	ME 316	29	3	87	114
	ME 534	5	3	15	
	ME 598	9	1	9	
	ME 495	1	3	3	
Spring 2019	ME 310	37	2	74	77
	ME 495	1	3	3	

## D1.2. Courses Taught

### UML

Sept. 2019-Present

Plastics Engineering Department, UMass Lowell

- **Methods of Experimental Analysis, PLAS.3060**
  - Plastics Engineering junior year course
  - Semesters taught: Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023
- **Process Control, PLAS.4040**
  - Plastics Engineering senior year course
  - Semesters taught: Fall 2022
- **Plastics Process Engineering Laboratory II, PLAS.2160**
  - Plastics engineering sophomore course
  - Semesters taught: Spring 2022, Spring 2023
- **Polymer Foams, PLAS.5120**
  - Plastics Engineering graduate technical elective course
  - Created new course
  - Semesters taught: Spring 2020, Spring 2021
- **Processing Theory, PLAS.5090**
  - Plastics Engineering graduate course
  - Semesters taught: Spring 2024 – currently developing the course content and teaching for the first time

### WSU

Jan. 2015-Aug. 2019

School of Mechanical and Materials Engineering, Washington State University, Tri-Cities

- **Manufacturing Processes ME310**
  - Mechanical Engineering junior year course
  - Semesters taught: Spring 2018
- **Mechanical Component Analysis and Design, ME316**
  - Mechanical Engineering junior year course
  - Semesters taught: Fall 2015, Fall 2016, Fall 2017, Fall 2018
- **Experimental Design ME406**
  - Mechanical Engineering senior year course
  - Semesters taught: Spring 2015, Spring 2016, Spring 2017
- **Mechanics of Composite Materials ME534**
  - Mechanical Engineering graduate course
  - Semesters taught: Fall 2016, 2018
  - Created new course
- **Polymer Composites and Nanocomposites ME579**
  - Mechanical Engineering graduate course
  - Semesters taught: Fall 2017

- Created new course

**Before 2015**

Jan. 2011-May 2011

Faculty of Applied Science and Engineering, University of Toronto, Toronto, Canada

**Linear Algebra**, Spring 2011

Contact: Two one-hour lectures per week

- Fully designed the curriculum, lecture notes, homework assignment sets, practice problems, and midterm and final exams.

Jan. 2004-April 2006

Mechanical Engineering Department, Qazvin Azad University, Qazvin, Iran

**Statics** (3 semesters)

**Solid Mechanics** (3 semesters)

**Universal Metal Cutting** (2 semesters)

**Industrial Drawing** (3 semesters)

Contact: Two 1.5-hour lectures per week (Language: Farsi)

- Fully designed the course: curriculum development, lecture notes, homework assignments, midterm tests, term projects, and final exam.
- Evaluations: Excellent

**D2. GRADUATE STUDENTS ADVISED (Dissertation & Thesis)**

**UML:** Sept 2019-Present

	Student Name	Degree	Title	Graduation Year
<b>Ph.D. Students</b>				
1	Nariman Rajabifar	Ph.D., Plastics Engineering	Foam Additive Manufacturing of EVA and PEBAX	2027 (anticipated)
2	Mohammad AghavamiPanah	Ph.D., Plastics Engineering	Multifunctional cellulose based ultralight nanocomposite foams	2026 (anticipated)
3	Emmanuel Uzoma Akubueze	Ph.D., Plastics Engineering	Recovery and reuse of plastics and natural fibers for reinforced composites	2026 (anticipated)
4	Md Al-Amin	Ph.D., Plastics Engineering	Electrospinning of multifunctional polymer nanocomposites	2026 (anticipated)
5	Milad Azami	Ph.D., Plastics Engineering	Biobased and biodegradable polymers and blends for PPE production	2025 (anticipated)
6	Shallal Alshammari	Ph.D., Plastics Engineering	Lignin based biopolymers for material extrusion additive manufacturing	2023 (completed)
7	Nahal Aliheidari	Ph.D., Plastics Engineering	Environmental degradation of adhesive/composite joints	2024 (completed)
8	Karun Kaila	Ph.D., Plastics Engineering	In-situ 3D printing of microcellular foams	2023 (completed) Now: Research Scientist at Solvay
<b>M.S. Students</b>				
9	Nikith Lalwani	M.S., Plastics Engineering (thesis)	3D printed foams for blast protection in helmets	2024 (completed)
10	Mihir Mehta	M.S., Plastics Engineering (thesis)	Integrating foam 3D printing and structural topology optimization	2024 (completed)
11	Saurabh Pawale	M.S., Plastics Engineering (thesis)	Compounding and characterization of PLA/lignin biocomposites	2020 (completed)

				Now: Molding Engineer at Banner Engineering Inc.
12	LakshmiMaanasa Kotamarthi	M.S., Mechanical Engineering (Project)	Environmental durability of adhesive/composite joints	2023 (completed)
13	SandeshRam Honmane	M.S., Plastics Engineering (Project)	Environmental durability of adhesive/composite joints	2023 (completed) Now RA at UML

**WSU: Jan 2015-Aug 2019**

	Student Name	Degree	Title	Graduation Year
<b>Ph.D. Students</b>				
1	Karun Kaila	Ph.D., Mechanical Engineering	Adhesion and fracture behavior of 3D-printed soft-rigid multi-materials	Transferred to UML
2	Douglas Reid	Ph.D., Mechanical Engineering	Visualization and experimental study of paper/polymer mixed waste hydrolysis	2022* (completed) Now Senior Engineer at WRPS
3	Ahmed Naji	Ph.D., Mechanical Engineering	Highly conductive polymer composite blends for bipolar plates in fuel cells	2018 (completed) Now Assistant Professor at the University of Babylon, Iraq
<b>M.S. Students</b>				
4	Whitney LaMarche	M.S., Mechanical Engineering (thesis)	Ultralight super-insulative foams based on nanocrystalline cellulose	2020 (completed) Principal Owner Hadron Intrinsic Consulting, LLC
5	Florian Baertsch <sup>†</sup>	M.S., Mechanical Engineering (thesis)	Topology optimization in 3D-printed auxetic materials for high energy absorption	2019 (completed) Now: Mechanical Engineer in ABB, Switzerland
6	Nahal Aliheidari <i>Best Thesis Award</i>	M.S., Mechanical Engineering (thesis)	Characterization of interlayer adhesion and fracture resistance in additively manufactured thermoplastic parts	2018 (completed) Now PhD student at UML
7	Dominic Thaler <sup>†</sup>	M.S., Mechanical Engineering (thesis)	Additive manufacturing with carbon nanotube filled acrylonitrile butadiene styrene	2018 (completed) Now Design Engineer at RUAG Space, Switzerland
8	Gayaneh Petrossian	M.S., Mechanical Engineering (thesis)	An investigation of the dielectric properties of three-phase composites for sensing and charge storage	2018 (completed) Now: PhD student in Canada
9	Josef Christ	M.S., Mechanical Engineering (thesis)	Fused deposition modeling 3D printing of embedded strain sensors using carbon nanotube composites	2017 (completed) Now: Mechanical Engineer at White Space Engineering
<p>* Part time student advised 2016-2020; changed his advisor after my transition.  <sup>†</sup> Double-Master's degree in collaboration between Washington State University (WSU) and Zurich University of Applied Sciences (ZHAW)</p>				

In addition, since joining WSU, I continued to co-advise three PhD students, Sai Wang, Yasamin Kazemi, and Eunse Chang from the University of Toronto until their graduation.

### **D3. GRADUATE STUDENT THESIS OR DISSERTATION COMMITTEE MEMBER**

**UML:** Sept 2019-Present

	Student Name	Degree	Project Title	Graduation Year
1	Nick Bowen	Ph.D., Plastics Engineering	Wall slip in injection molding of polymer composites	2025 (anticipated)
2	Mansour Alotaibi	Ph.D., Plastics Engineering	Biopolymer blends	2025 (anticipated)
3	Juhyeong Lee	Ph.D., Plastics Engineering	The Relationship between ABS characteristics and interlayer bond formation in material extrusion additive manufacturing	2025 (anticipated)
4	Ahmed Adisa	Ph.D., Plastics Engineering	Property prediction in fused filament fabrication	2024 (anticipated)
5	Mansoureh Jamalzadeh	Ph.D., Plastics Engineering	Crystalline structure in PE films and its effects on gas permeability	2024(anticipated)
6	Jay Thakkar	Ph.D., Plastics Engineering	Optimizing design of salt hydrate phase change materials (PCM) for building efficiency applications	2023
7	Thamer Aldhafeeri	Ph.D., Plastics Engineering	Evaluating the performance of newer melt compounding systems	2022
8	Dhanashree Shinde	M.S., Plastics Engineering	Numerical study of micro injection mold design	2020
9	Anshal Jilka	M.S., Plastics Engineering	Numerical investigation on the effect of heat transfer coefficient in injection molding	2020

**WSU:** Jan 2015-Aug 2019

	Student Name	Degree	Project Title	Graduation Year
1	Jassim Alhamid	PhD, Mechanical Engineering	Cellulose nanocrystals reduce cold damage to reproductive buds in fruit crops	NA*
2	Sudha Eswaran	PhD, Chemical Engineering	Quantitative structural property relationship analysis of lignin macromolecule	NA*
3	Cameron Jay Hohimer	PhD, Mechanical Engineering	Fused deposition modeling of a soft robotic end-effector for improved robotic apple harvesting	2018
4	Naveen Kishore Karri	PhD, Mechanical Engineering	Reliable thermoelectric system design under optimal requirements from the structural and performance perspectives	2018
5	Joseph Ryan Davidson	PhD, Mechanical Engineering	Mechanical design and field evaluation of a robotic apple harvester	2016
6	Alexandra Christina James	M.S., Mechanical Engineering (Project)	Project based	2015

7	Cristina Isabel DaCosta Rodrigues	M.S., Mechanical Engineering (Project)	Geothermal cooling of pasteurized milk	2016
8	Wade A Wilcox	M.S., Mechanical Engineering (Thesis)	Simulating results of empirical testing of formed sheet metal specimens with rubber backing materials using finite element analysis and applied back pressures	2016
9	Majd Nassaneh	M.S., Mechanical Engineering (Project)	Design & Analysis Of Geothermal Heat Exchanger	2017
10	Timothy Roosendaal	M.S., Mechanical Engineering (Project)	Friction stir welding modeling and analysis	2017
* My participation in the committee ended in September 2019 as I moved to UML.				

#### **D4. UNDERGRADUATE STUDENTS ADVISED (Thesis & Research)**

**UML:** Sept 2019-Present

	Student Name	Title	Year
1	Nicholas Lake	Research Experience for Undergraduate (REU): PCL 3D Printing	2021-2022
2	Sarnise Compere	Honors Thesis: A distractor design and the 3D printed spinal bone graft implants (BMEN Engineering)	2019-2020

**WSU:** Jan 2015-Aug 2019

	Student Name	Title	Year
1	Thomas Ekstrom	Research Experience for Undergraduate (REU): Flexible polyurethane foam production with deep eutectic solvent lignin	2019
2	Alan Ramirez	Research Experience for Undergraduate (REU): DES treatment of corn stover hydrolysate for the production of high purity lignin	2019
3	Crocker Corey	Undergraduate Research Assistant: Effect of lignin content on polyurethane foam density and flexibility	2019

#### **D5. STUDENT ADVISOR FOR UNDERGRADUATE CAPSTONE PROJECTS**

2019-Present

- **Plastics Engineering Capstone Projects I & II (PLAS.4150 & PLAS.4160)**
  - Every semester since Fall 2019
  - Advised teams of senior undergraduate students for their research-oriented capstone projects

	Student Name	Title	Year
1	Ethan Hasz	Capstone Project: Additive manufacturing of recycled HDPE using TEM foaming agent ( <i>presented as a poster at SPE ANTEC 2023</i> )	2022-2023
2	Mason Ronn		
3	Elizabeth Kazmer		
4	Yrvanie Joseph	Capstone Project: Foam 3D printing and characterization of recycled PP/PE blends ( <i>published at SPE FOAMS® 2022 Conference Proceedings</i> )	2021-2022
5	Zarek Nieduzak		
6	Stephen Hart		
7	Michael Natoli	Capstone Project: Blend toughing of PLA	2021

8	Ron Mastrocola		
9	Max Burns	Capstone Project: Drop impact testing of 3D printed carbon fiber composites	2020-2021
10	Anthony Coppola	Industrial Capstone Project: Depuy Synthes spinal distractor analysis and redesign	2019-2020
11	Sarnise Compere		
12	Owen Swift		
13	Mohammad Warraich		
14	Mike Cianci	Melt Mixing of Polylactic Acid/Lignin Biocomposites	2019-2020
15	Dawson Prophett		
16	Joe Pratt		

#### D5. HIGH SCHOOL STUDENT ADVISED

**UML:** Sept 2019-Present

	Student Name	Title	Year
1	Sokrath Un	Lowell high school Intern	Summer 2022

#### D6. POSTDOCTORAL FELLOWS ADVISED

**UML:** Sept 2019-Present

	Postdoc Name	Title	Year
1	Atul Mauria	Biobased and biodegradable polymers and blends	2023-2024

#### D7. PROFESSIONAL DEVELOPMENT FOR INSTRUCTION

**UML:** Sept 2019-Present

- **Innovative Educators** Workshop series: Close the Equity Gap by Teaching Students Metacognitive Learning Strategies, 3/21/2022
- **UML PELT Workshop series:** Engaging large classes with Blackboard and other strategies, 07/22/2020
- **UML PELT Workshop series:** Electronic Whiteboarding, 07/14/2020
- **UM PELT Workshop series:** Practical classroom management and tools for remote teaching, 07/09/2020
- **UM PELT Workshop series:** Transparent & learner-centered syllabi for Covid-19 & trauma-informed teaching with Jim Nehring, 07/08/2020
- **UML Service Learning Workshop**, 05/14/2020
- **UML ACCELERATOR SERIES:** Service Learning and Community Engagement, 11/19/2019
- **New Faculty Classroom Technology Toolkit**, 08/29/2019

### E. PROFESSIONAL SERVICES AND ACTIVITIES

#### E.1. DEPARTMENT, COLLEGE, AND UNIVERSITY SERVICES

##### UML

Fall 2022- Present

**Student Chapter Advisor:** Society of Plastics Engineers (SPE) Student Chapter at UML. Holding meetings with the Club members (president, vice president, treasurer, ...) to review their plans and provide feedback as needed. Supported and coordinated the travel of five undergraduate students to SPE ANTEC Conference 2023 to present their work.

Fall 2022-Present

**Co-Lead for AFFOA Related Activities at UML:** Attending the monthly meeting with AFFOA, attending UML's Manufacturing USA Institutes bi-weekly meetings, attending AFFOA annual Membership Summit, communicating with AFFOA personnel as needed.



Fall 2019-Present **Plastics Engineering Academic Advisor**, Undergraduate Advisor. Advised about 10 students each semester since fall 2019. Held one on one meetings with each student each semester to discuss their professional goals, overall program standings, course enrollment, etc.

April 2023 Judge for **Massachusetts Region IV Middle School Science Fair**. Judged and ranked the poster presentations by high school students in various areas of engineering.

February 2023 **Recruitment and Retention Activities: Engineering Immersion Tour** with Billerica High School. Demonstrated plastics processing technologies to high school students.

May 2023-April 2024 **Member of Faculty Senate**: Plastics Engineering Department representative. Attending the senate's monthly meetings to review and vote for the proposals related to new programs, program updates, curricula, etc.

April 2023 **Student Research Symposium Evaluator**: Judged and ranked projects presented by students.

Summer 2022 **Member of the Committee on Evaluation of Mechanics Courses** across the Francis College of Engineering

June 2022 **Recruitment and Retention Activities: Tewksbury High School Summer Camp**

November 2022 **Recruitment and Retention Activities: UMass Lowell Open House**

Spring 2022 **Student Research Symposium Evaluator**: Judging and ranking projects presented by students.

Spring 2022 **Sustainability Challenge Evaluator**: International Space Station National Lab

November 2021 **Recruitment and Retention Activities: UMass Lowell Open House**

October 2021 **Recruitment and Retention Activities: Plastics Sustainability Forum**

April, May 2021 Participated in the **UML and MIT-WPU Collaboration Initiative Meetings**

April 2021 **Recruitment and Retention Activities: Destination UML**

May 2020-April 2022 **Member of Faculty Senate**: Plastics Engineering Department representative. Attended the senate's monthly meetings to review and vote for the proposals related to new programs, program updates, curricula, etc.

## WSU

Aug 2015-May 2019 **Member of Graduate Studies Committee (GSC)**. Reviewed applications to the MME graduate programs; reviewed and conducted appropriate hearings and recommended changes in graduate program policy, admissions, and recruitment; evaluated proposals of new graduate courses; selected teaching assistants in consultation with the Director; coordinated the annual review of graduate students; elected Outstanding Teaching Assistant and Research Excellence awards and nominated graduate students for relevant WSU awards.

Jan 2015-May 2017 **Member of Undergraduate Mentoring Committee**. Advised and mentored students on registration, course enrollment, internships, graduate study, extra-curricular involvement, etc. Held a minimum of one individual meeting per semester with mentees.

Aug 2018-Sep 2018 **Member of ME Search Committee for Instructional Position**

Jan 2016-May 2019 **Member of Safety Committee**: Engineering Programs at WSU Tri-Cities. Evaluated and recommended updated experimental procedures in the departments.

Oct 2018-May 2019 **Member of Dean's Faculty Advisory Council**: The council met with the Dean throughout the year to provide feedback on college initiatives and help evaluate issues related to students, staff, and faculty.

Aug 2016-July 2018 **Member of Academic Integrity Hearing Board**: WSU Tri-Cities Campus. Reviewed files and hearing cases and participated in deliberations, whenever needed.

## E2. PROFESSIONAL CONFERENCE SYMPOSIA AND SESSIONS ORGANIZED

2022-2023 **Conference Symposium Co-Chair**: "Development & Characterization of Multi-Functional Materials Symposium"; ASME's Division Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS) <https://event.asme.org/SMASIS/About/Symposium-Conference-Chairs>

September 2023	<b>Session Chair:</b> 38th American Society for Composites Technical Conference, Session Automated Composites Manufacturing, September 18-20, 2023, Woburn MA
2019-2020	<b>Conference Symposium Co-Chair:</b> A new symposium proposed at "Advances in Additive Manufacturing of Multi-material Structures and Composites" ASME's International Manufacturing Science and Engineering Conference (MSEC), June 22 – 26, 2020, Cincinnati, Ohio
September 2022	<b>Session Chair:</b> ASME Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS) Session 01-05, Composites and Hybrid Systems (September 12-14, 2022)
September 2022	<b>Session Chair:</b> ASME Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS) Session 01-05, 01-08, Shape Memory Materials (September 12-14, 2022)
April 2022	<b>Session Chair:</b> 37 <sup>th</sup> international conference of the Polymer Processing Society, PPS 37, Session G13, Polymer Foams (April 11-15, 2022)
September 2021	<b>Session Chair:</b> 36 <sup>th</sup> International Conference of the Polymer Processing Society, PPS-36, Session So6-91, Montreal and Virtual (September 26-29, 2021)
May 2019	<b>Paper Reviewer:</b> ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), September 9 – 11, 2019, Louisville, KY
September 2018	<b>Session Chair:</b> Multifunctionality through Additive Manufacturing: ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), San Antonio, Texas
May 2018	<b>Paper Reviewer:</b> ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), San Antonio, Texas
March 2018	<b>Session Chair:</b> Multifunctional Materials Applications session, SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring, Denver, Colorado
	<b>Session Chair:</b> Dielectrics and Piezoelectrics session, SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring, Denver, Colorado
September 2017	<b>Session Chair:</b> ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), Snowbird, Utah
June 2017	<b>Paper Reviewer:</b> ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), Snowbird, Utah
July 2015	<b>Session Chair:</b> Session 7; Nanocomposites, ASME Applied Mechanics and Materials (McMat2015) Conference, Seattle, WA
July 2015	<b>Session Chair:</b> Session 8; Processing and Characterization, ASME Applied Mechanics and Materials (McMat2015) Conference, Seattle, WA
May 2015	<b>Member of Scientific Committee,</b> ASME Early Career Technical Conference, Tri-Cities
Aug. 2013	<b>Member of Organizing Committee,</b> BIOFOAMS Conference 2013, Toronto, August 2013
May 2012	<b>Member of Organizing Committee,</b> PPS Americas Conference 2012, Niagara Falls, May
2011	<b>MITACS Leadership Development,</b> Organized networking-based research seminars
2011-2012	<b>Member of Organizing Team,</b> Consortium for Cellular and Micro-Cellular Plastics
2004	<b>Member of Organizing Committee,</b> 2 <sup>nd</sup> national conference on Metal Forming, Iran
2003	<b>Member of Organizing Committee,</b> 1 <sup>st</sup> national conference on Metal Forming, Iran

### **E3. EDITORIAL SERVICES FOR SCIENTIFIC JOURNALS**

2016-Present

- **Associate Editor,** *Journal of Cellular Plastics*, September 2022-Present
  - 2022: 5 papers
  - 2023: ongoing
- **Member of Editorial Board,** *Journal of Polymers (MDPI)*, 2019-Present
  - 1 paper per month on average since 2022
  - 2 papers per month on average until 2022
- **Editor: Topical Collection "Multifunctional Polymer Nanocomposites" (2020-2021)**
- **Guest Editor, Polymers (MDPI), Special Issue: Synthesis–Processing–Structure–Property Interrelationship of Multifunctional Polymer Nanocomposites III (2022)**

- **Guest Editor, *Polymers (MDPI)*, Special Issue: Synthesis–Processing–Structure–Property Interrelationship of Multifunctional Polymer Nanocomposites II (2020)**
- **Guest Editor, *Polymers (MDPI)*, Special Issue: Synthesis–Processing–Structure–Property Interrelationship of Multifunctional Polymer Nanocomposites I (2019)**
- **Member of Editorial Board, *Journal of Cellular Plastics*, 2018- 2022**
- **Member of Editorial Board, *Energy Research Journal*, 2016-2018**

#### **E4. REVIEWER FOR SCIENTIFIC JOURNALS**

2011-Present

- ***Advanced Materials*** (1 paper): 2018-Present
- ***Advanced Functional Materials*** (2 papers): 2018-Present
- ***Additive Manufacturing*** (13 papers): 2017-Present
- ***Carbon*** (8 papers): 2013-Present
- ***ACS Applied Materials & Interfaces*** (10 papers): 2017-Present
- ***ACS Sustainable Chemistry & Engineering*** (1 paper): 2023-Present
- ***Composites Science and Technology*** (9 papers): 2013-Present
- ***Composites Part A*** (10 papers): 2016-Present
- ***Composites Part B*** (5 papers): 2016-Present
- ***Composite Structures*** (1 paper): 2016-Present
- ***Polymer*** (1 paper): 2014-Present
- ***Polymer Composites*** (11 papers) 2013-Present
- ***Composite Materials*** (2 papers) 2016-Present
- ***Carbohydrate Polymers*** (3 paper): 2019-Present
- ***Materials and Design*** (7 papers): 2014-Present
- ***European Polymer Journal*** (1 paper): 2017-Present
- ***Journal of Polymer Testing*** (2 Paper) 2015-Present
- ***Advances in Manufacturing*** (1 paper): 2017-Present
- ***Advanced Engineering Materials*** (1 paper): 2018-Present
- ***Industrial and Engineering Chemistry Research*** (1 paper): 2017-Present
- ***Journal of Materials Science*** (1 paper): 2017-Present
- ***Journal of Mechanics of Materials*** (1 paper): 2020-Present
- ***Engineering Fracture Mechanics*** (4 paper): 2013-Present
- ***Mechanics Research Communications*** (1 paper): 2015-Present
- ***Journal of Adhesion and Adhesives*** (3 papers): 2011-Present
- ***Journal of Adhesion Science and Technology*** (4 papers): 2011-Present
- ***Journal of Adhesion*** (3 papers): 2012-Present
- ***Journal of Testing and Evaluation*** (1 paper): 2015-Present
- ***Macromolecular Materials and Engineering*** (2 paper): 2015-Present
- ***Materials Chemistry and Physics*** (1 paper): 2015-present
- ***Applied Sciences MPDI*** (1 paper): 2016-Present
- ***ASME Manufacturing Science and Engineering*** (1 paper): 2016-present
- ***Journal of Electronic Materials*** (4 paper): 2015-Present
- ***Journal of Materials*** (2 paper): 2016-Present
- ***Journal of Cellular Plastics*** (4 paper): 2012-Present
- ***Journal of Scientific Reports*** (1 paper): 2020-Present
- ***Journal of Polymer Engineering and Science*** (3 paper): 2021-Present

#### **E5. REVIEWER FOR GRANT PROPOSALS**

2011-Present

##### ***National Science Foundation, NSF Panelist***

- Reviewer for NSF Future Manufacturing Program
  - May-June 2022

- May-June 2021
- Reviewer for NSF SBIR/STTR Program in Materials
  - February 2022
  - February 2020
- Reviewer for NSF CMMI Major Research Instrumentation (MRI) in Materials section under Civil, Mechanical and Manufacturing Innovation (CMMI) Division (total of 10 proposals) (2019)
- Reviewer for NSF CMMI AM of soft materials in Manufacturing Machines and Equipment (MME) under Civil, Mechanical and Manufacturing Innovation (CMMI) Division (total of 9 proposals) (2018)
- Reviewer for NSF EPSCoR Experimental Program to Stimulate Competitive Research (EPSCoR): Research Infrastructure: RII-TRACK 4 (2 proposals) (2018)
- Reviewer for NSF CMMI Major Research Instrumentation (MRI) in Materials section under Civil, Mechanical and Manufacturing Innovation (CMMI) Division (total of 10 proposals) (2017)

***Office of Basic Energy Sciences (BES), Department of Energy (DOE)***

- Reviewer for Energy Earthshots Initiative Program
  - June 2023

***Center for the Advancement of Science in Space (CASIS) International Space Station (ISS)***

- Reviewer for ISS National Laboratory in Composite and Functional Materials, May and November 2020 (5 proposals)

***Swiss National Science Foundation***

- Reviewer for Swiss National Science Foundation (SNSF) Div. Mathematics, Physical and Engineering Sciences (1 proposal) (2018)

***National Science and Engineering Council (NSERC) Canada***

- Discovery Grants Program (1 proposal) (2022)

***MITACS College of Reviewers Canada (2011-2018)***

- Evaluation of MITACS Accelerate Internship Cluster Proposal for 5 interns (1 application)
- Evaluation of MITACS Accelerate Internship Research Scholarships (3 applications)
- Evaluation of MITACS Networking and Training Event Funds (1 application)

**E6. PROFESSIONAL DEVELOPMENT – Workshops, Meetings, and Conferences Attended**

2023

- UMass Lowell Faculty Symposium; 12/05/2023, Lowell, MA
- American Society for Composites; 09/18/2023-10/20/2023, Woburn, MA
- Advanced Functional Fabrics of America, AFFOA, Member Summit; 09/29/2023-10/30/2023, Boston, MA
- Extrusion Conference 2023; 10/10/2023-10/11/2023, Indianapolis, IN
- REMADE Annual Member Meeting; 10/25/2023-10/26/2023, Rochester, NY
- NSF IUCRC SHAP3D Industrial Advisory Board (IAB) Meeting; 10/25/2023-10/26/2023, Storres, CT (partially and virtually)
- Conflict of Interest - Law Training, Commonwealth of Massachusetts; 10/12/2023, Online
- 38<sup>th</sup> Annual International Conference of the Polymer Processing Society (PPS-38); 05/22/2023-05/26/2023, St. Gallen, Switzerland
- NSF IUCRC SHAP3D: Science of Heterogeneous Additive Printing of 3D Materials Industrial Advisory Board (IAB) Mid-Term Meeting; 05/16/2023-05/17/2023, Atlanta, GA
- American Institute of Chemical Engineers (AIChE) Global Polymers and Textiles Summit; 04/19/2023-04/21/2023, Lowell, MA
- Society of Plastics Engineers (SPE) Annual Technical Conference (ANTEC); 03/27/2023-03/30/2023, Denver, CO
- NSF IUCRC WindSTAR: Center for Wind Energy Science, Technology and Research Industrial Advisory Board (IAB) Mid-Term Meeting; 01/25/2023-01/26/2023, Dallas, TX

2022

- **37<sup>th</sup> Annual International Conference of the Polymer Processing Society (PPS-37)**; 04/11/2022-04/15/2022, Fukuoka, Japan (Virtual)
- **ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)**; 09/14/2022-09/15/2022, Dearborn, Michigan
- **3DPRINTINGMEET: 3D Printing and Additive Manufacturing Conference**; 11/07/2022, Chicago, IL (Virtual)
- **NSF IUCRC SHAP<sub>3</sub>D: Science of Heterogeneous Additive Printing of 3D Materials Industrial Advisory Board (IAB) Annual Meeting**; 10/4/2022-10/05/2022, Lowell, MA
- **NSF IUCRC SHAP<sub>3</sub>D: Science of Heterogeneous Additive Printing of 3D Materials Industrial Advisory Board (IAB) Mid-Term Meeting**; 05/24/2022-05/25/2022, Storrs, CT
- **NSF IUCRC WindSTAR: Center for Wind Energy Science, Technology and Research Industrial Advisory Board (IAB) Mid-Term Meeting**; 01/26/2022-01/27/2022, Dallas, TX (Virtual)
- **NSF IUCRC WindSTAR: Center for Wind Energy Science, Technology and Research Industrial Advisory Board (IAB) Annual Meeting**; 06/15/2022-06/16/2022, Lowell, MA
- **REMADE: Reducing Embodied Energy and Decreasing Emissions Annual Member Meeting**; 10/27/2022-10/28/2022, Rochester, NY
- **AFFOA: Advanced Functional Fabrics of America Member Summit**; 10/26/2022-10/27/2022, Boston, MA
- **Workshop by Innovative Educators: Close the Equity Gap by Teaching Students Metacognitive Learning Strategies**; 3/21/2022 (Virtual)
- **UMass Lowell Faculty Symposium**; 11/01/2022, Lowell, MA

2021

- **Society of Plastics Engineers Annual Technical Conference (ANTEC)**; 05/10/2021-05/21/2021 (Virtual)
- **ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)**; 09/14/2021-09/15/2021 (Virtual)
- **36<sup>th</sup> Annual International Conference of the Polymer Processing Society (PPS-36)**; 09/26/2021-09/29/2021, Montreal and Virtual; Keynote Presentation
- **Society of Plastics Engineers FOAMS<sup>®</sup> Conference**; 09/13/2021-09/16/2021 (Virtual)
- **21<sup>st</sup> Sukant Tripathy Symposium**; 12/03/2021, Lowell, MA
- **NSF ENG CAREER Workshop 2021**; 04/21/2021-04/23/2021 (Virtual)
- **NSF IUCRC SHAP<sub>3</sub>D: Science of Heterogeneous Additive Printing of 3D Materials Industrial Advisory Board (IAB) Annual Meeting**; 10/26/2021-10/27/2021 (Virtual)
- **NSF IUCRC SHAP<sub>3</sub>D: Science of Heterogeneous Additive Printing of 3D Materials Industrial Advisory Board (IAB) Mid-term Meeting**; 05/11/2021-05/12/2021 (Virtual)
- **NSF IUCRC WindSTAR: Center for Wind Energy Science, Technology and Research Industrial Advisory Board (IAB) Annual meeting**; 06/16/2021-06/17/2021 (Virtual)
- **NSF IUCRC WindSTAR: Center for Wind Energy Science, Technology and Research Industrial Advisory Board (IAB) Mid-term meeting**; 02/03/2021-02/04/2021 (Virtual)

2020

- **Society of Plastics Engineers Annual Technical Conference (ANTEC)**; 03/29/2020-04/02/2020, San Antonio, TX (changed to virtual due to COVID-19)
- **ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)**; 09/14/2020-9/16/2020, Irvine, CA (changed to virtual due to COVID-19)
- **NSF IUCRC SHAP<sub>3</sub>D: Science of Heterogeneous Additive Printing of 3D Materials Industrial Advisory Board (IAB) Annual Meeting**; 10/27/2020-10/28/2020 (Virtual due to COVID-19)
- **UML Provost's Excellence in Learning & Teaching (PELT) Summer Series for virtual teaching** (summer 2020)
- **UMass Lowell Faculty Symposium**; 12/02/2020, Lowell, MA

2019

- **NSF IUCRC CB<sup>2</sup>**: Center for Bioplastics and Biocomposites Industrial Advisory Board (IAB) Meeting; 10/5/2019-10/6/2019, Ames, IA
  - **Society of Plastics Engineers Annual Technical Conference (ANTEC)**; 03/18/2019-03/21/2019, Detroit, MI
  - **NSF ENG CAREER Proposal Writing Workshop**; 04/01/2029-04/02/2019, Arlington, VA
  - **WAVES Bystander** training workshop on microaggressions; 11/15/2019, Lowell, MA
  - Workshops and training sessions organized by the **Launch Program** at UMass Lowell (Fall semester)
  - Workshops for New Faculty by the **Accelerator Series** program at Francis College of Engineering (Fall semester)
- 2018
- **NSF IUCRC CB<sup>2</sup>**: Center for Bioplastics and Biocomposites Industrial Advisory Board (IAB) Meeting; 11/12/2018-11/13/2018, Fargo, ND
  - **ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)**; 09/10/2018-09/12/2018, San Antonio, TX
  - **SPIE's Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring Conference**; 03/04/2018-03/08/2018, Denver, CO
- 2017
- **NSF IUCRC CB<sup>2</sup>**: Center for Bioplastics and Biocomposites Industrial Advisory Board (IAB) Meeting; 11/14/2017-11/15/2017, Seattle, WA
  - **ASME's Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)**; 09/18/2017-09/20/2017, Snowbird, UT
  - **Society of Plastics Engineers Annual Technical Conference (ANTEC)**; 05/08/2017-05/10/2017, Anaheim, CA
  - **SPIE's Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring Conference**; 03/25/2017-03/29/2017, Portland, OR
- 2016
- **Society of Plastics Engineers FOAMS<sup>®</sup> Conference**; 09/12/2016-09/15/2016, Seattle, WA
  - **Society of Plastics Engineers Annual Technical Conference (ANTEC)**; 05/23/2016-05/25/2016, Indianapolis, IN
- 2015
- **ASME Applied Mechanics and Materials Conference**; 06/29/2015-07/01/2015, Seattle, WA
  - **Society of Plastics Engineers Annual Technical Conference (ANTEC)**; 03/23/2015-03/25/2015, Orlando, FL
- 2014
- Canadian Society of Mechanical Engineering (CSME) International Congress; 06/01/2014-06/04/2014, Toronto, Canada
- 2013
- 4<sup>th</sup> International Conference of Biofoams; 08/27/2013-08/29/2013, Toronto, Canada
  - Society of Plastics Engineering Annual Technical Conference (ANTEC); 04/22/2013-04/24/2013, Cincinnati, OH
- 2012
- Canadian Society of Mechanical Engineers (CSME) International Congress; 06/04/2012-06/06/2012, Winnipeg, Canada
  - Polymer Processing Society Americas Conference; 05/21/2012-05/24/2012, Niagara Falls, Canada
  - Society of Plastics Engineers Annual Technical Conference (ANTEC); 04/02/-4/04/2012, Orlando, FL
- 2012-2013
- As part of MITACS Elevate postdoctoral fellowship program, workshops for: (2012-2013)
    - Project management: A team approach

- Powerful conversation and effective networking
- Scientific management
- Career development

2011 & Before

- 34<sup>th</sup> Annual Meeting of the Adhesion Society; 02/13/2011-02/16/2011, Savannah, GA
- 33<sup>rd</sup> Annual Meeting of the Adhesion Society; 02/21/2010-01/24/2010, Daytona Beach, FL
- 32<sup>nd</sup> Annual Meeting of the Adhesion Society; 02/15/2009-02/18/2009, Savannah, GA
- 8<sup>th</sup> International Conference of Iranian Society of Mechanical Engineering; 02/ 15/2005-02/18/2005, Tehran, Iran
- 6<sup>th</sup> National Conference of Manufacturing Engineering; 01/05/2004-01/07/2004, Tehran, Iran

As a PhD student supported by the Ontario Centers of Excellence (OCE), acquired Value Added Personnel (VAP) Certificate by attending the workshops for (2018-2010):

- Project management
- Business and strategic planning
- The language of leadership
- Networking and communication