THE UNIVERSITY OF BRITISH COLUMBIA

Publications Record

SURNAME: Sadeghzadeh Milani **FIRST NAME**: Abbas **Initials**: ___ASM____
MIDDLE NAME (S): **Date** July 25, 2022

In all publications that I have been the principal investigator/co-investigator of the corresponding project, the order of student author names has been decided based on their individual contributions. Student/visiting scholar names are in bold. The nature of my involvement in each article has been indicated by a superscript 'a', 'b', or 'c' as follows.

a: I was the principal investigator/co-investigator; the topic fell within my primary field of expertise: composite materials and forming processes; directly involved in writing sections of the article.

b: I was the principal investigator/co-investigator of the project; the topic fell within my secondary field of expertise: multi-criteria decision making and optimization; directly involved in writing sections of the article.

c: Collaborated in the project; gave feedback on particular aspects of the work related to one of aforementioned fields of expertise/ wrote at least a section of the paper.

1. REFEREED PUBLICATIONS

(a) Journals

[1] **F. Gholamreza**, **Y. Su**, **R. Li**, **A. V. Nadaraja**, R. Gathercole, R. Li, P. I. Dolez, K. Golovin, R. M. Rossi, S. Annaheim, A. S. Milani[a] (2022) "Modeling and prediction of thermophysiological comfort properties of a single layer fabric system using single sector sweating torso", Materials (MDPI), 15(16): 5786

[2] **T. Olfatbakhsh**, J. L. Andrews, A. S. Milani[a] (2022) "Materials informatics of woven fabric composites: Effect of different dimensionality reduction and learning methods", Materials Today Communications, 32:103971

[3] **T. Sloos, B. Rustand, X. Liu, C. Keegan, R. Sourki,** A. S Milani[b] (2022) "A multi-criteria decision analysis of implanted biomedical device antenna: electro-thermal simulation, design, and data analysis", Simulation, 98(10): 863–873

[4] **S. F. Musolino**, **M Mahbod**, **R. Nazir**, **L. Bi**, **H. H. Graham**, A. S Milani[c], J. E. Wulff (2022) "Electronically optimized Diazirine-based polymer crosslinkers", Polymer Chemistry (published by the Royal Society of Chemistry). In press.

[5] **R. Vahed**, **H. R. Zareie Rajani**, A. S Milani[a] (2022) "Can a black-box AI replace costly DMA testing? —A case study on prediction and optimization of dynamic mechanical properties of 3D printed Acrylonitrile Butadiene Styrene", Materials, 15: 2855

[6] **R. Nazir**, **L. Bi**, **S. F. Musolino**, **O. H. Margoto**, **K. Çelebi**, **C. Mobuchon**, **M. Takaffoli**, A. S Milani[c], G. Falck, J. E Wulff (2022) "Polyamine–Diazirine conjugates for use as primers in UHMWPE–epoxy composite materials", ACS Applied Polymer Materials, 4: 1728–1742

[7] **F. Gholamreza**, K. Golovin, A. S. Milani[c], **A. Pillai** (2022) "Enhanced protection face masks do not adversely impact thermophysiological comfort", Plos One (in press)

[8] **D. K. Dhir**, **R. Osmond**, K Golovin, A S. Milani[a] (2022) “A high-performance hybrid green composite using *plastinated* bamboo fillers, with reduced environmental degradation effect”, Composite Structures, 282: 115123

[9] **R. Sourki**, **B. Crawford**, R. Vaziri, A S. Milani[a] (2022) “Meso-level bending/reverse-bending analysis of dry woven fabrics: observing an irreversible behavior during forming”, Composite Structures, 282: 115124

[10] **T. Olfatbakhsh**, A. S. Milani[a] (2022) “A highly interpretable materials informatics approach for predicting microstructure-property relationship in fabric composites”, Composites Science and Technology, 217(5): 109080

[11] **M. L. Lepage**, **M. Takaffoli**, **C. Simhadri**, R. Mandau, M. Parvinzadeh Gashti, **R. Nazir**, **M. Mohseni**, **W. Li**, **C. Liu**, **L. Bi**, G. Falck, P. Berrang, K. Golovin, A. S. Milani[c], G. A. DiLabio, J. E. Wulf (2021) “Influence of topical cross-linking on mechanical and ballistic performance of a woven ultra-high-molecular-weight polyethylene fabric used in soft body Armor”, ACS Applied Polymer Materials, 3(11): 6008–6018

[12] **D. Nikam**, A.S. Milani[a] (2021) “Effect of fiber orientation on the stresses generated in dental crowns made of glass fiber composites”, Composite Structures, 279: 114790

[13] **H. Goleij**, **R. T. Faal**, A. R. Fotuhi, A. S. Milani[c] (2022) “A generalization and application of the Michell solution for functionally graded circular planes”, The Journal of Applied Mathematics and Physics (ZAMP), 73: 8

[14] **A. Rashidi, B. Crawford, T. Olfatbakhsh**, A. S. Milani[a] (2021) “A mixed lubrication model for inter-ply friction behaviour of uncured fabric prepregs composites”, Composites Part A, 149: 106571

[15] **M. Jahandar**, A. S. Milani[a] (2021) “"Multiphysics modeling and experimental investigation of the deposition process in fused filament fabrication method, under high-viscous and non-Newtonian material flow”, Special Issue: Additive Manufacturing, Journal of Materials Engineering and Performance, 9: 02-08-2021

[16] **R. Osmond**, **Z. Mollahoseini**, **J. Singh, A. Gautam**, R. Seethaler, K. Golovin, A. S. Milani[a] (2021) “A group multicriteria decision making with ANOVA to select optimum parameters of drilling flax fibre composites: A case study”, Composites Part C, 5: 100156

[17] **E. Davoodi**, **H. Montazerian**, **R. Esmaeilizadeh**, **A Darabi**, **A. Rashidi**, J. Kadkhodapour, H. Jahed, M. Hoorfar, A. S. Milani[c], P. Weiss, A. Khademhosseini, E. Toyserkani (2021) “Additively manufactured gradient porous Ti-6Al-4V hip replacement implants embedded with cell-Laden Gelatin Methacryloyl Hydrogels”, ACS Applied Materials & Interfaces, 13: 22110–22123

[18] **R. T. Faal**, **R. Sourki**, **B. Crawford**, A.S. Milani[a] (2021) “Experimental, numerical and analytical investigation of the torsional vibration suppression of a shaft with multiple optimal undamped absorbers”, Journal of Vibration Engineering & Technologies, 9: 1269–1288

[19] **B. Crawford**, H. Khayyam, A. S. Milani[a] (2021) “A mini-review and perspective on current best practice and emerging Industry 4.0 methods for risk reduction in advanced composites manufacturing”, Open Journal of Composite Materials, 11(2):31-45

[20] **S. Hasanpour**, **A. Rashidi**, **T. Walsh**, **E. Pagan**, A. S. Milani[c], M. Akbari, N Djilali (2021) “Electrode-integrated textile-based sensors for in situ temperature and relative humidity monitoring in electrochemical cells”, ACS Omega (in press)

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[22] **M. Ramezankhani**, **B. Crawford**, A, Narayana, H. Voggenreiter, R. Seethaler, A, S. Milani[a] (2021) “Making costly manufacturing smart with transfer learning under limited data: a case study on composites autoclave processing”, Journal of Manufacturing Systems, 59: 345-354

[23] **C. Simhadri**, **M. L. Lepage**, **L Bi**, **M. Takaffoli**, **Z. Pei**, A. S. Milani[c], G. A. DiLabio, J. E. Wulff (2021) “Flexible polyfluorinated bis-diazirines as molecular adhesives”, Chemical Science, 12: 4147

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[26] **A. Rashidi, H. Montazerian**, A. S. Milani[a] (2021) “Slip-Bias Extension test: A characterization tool for understanding and modeling the effect of clamping conditions in forming of woven fabrics”, Composite Structures, 260 (15):113529

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[45] **D. K. Dhir**, **A. Rashidi**, G. Bogyo, R. Ryde, S. Pakpour, A. S. Milani[a] (2020) “Environmental durability enhancement of natural fibres using plastination: a feasibility investigation on bamboo”, Molecules -- Special issue: Biocomposites – A Path Towards Circular Economy, 25(3): 474

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Note: The research was jointly with University of Victoria, and it was featured in the Chemical & Engineering News, by the American Chemical Society, as well as Science Daily and Daily Mail.

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[52] **D. Karimi**, A. S. Milani[a], (2019) “SRVE modeling of particulate polymer matrix composites with irregularly shaped inclusions: Application to a green stone composite”, Composite Structures, 228: 111331

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***Note*: The above publication was the result of an international, highly inter-disciplinary research project between Faculty of Pharmacy (Tehran University), School of Medicine (Stanford University), School of Engineering (University of British Columbia), Department of Anatomy and Cell Biology (McGill University), Department of Cell Biology (University of Groningen), Department of Gastroenterology and Hepatology (Erasmus Medical Center),**

and Serine Proteases and Pathophysiology of the Neurovascular (GIP Cyceron, Université de Caen Basse-Normandie).

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[285] K. N. Hewage, M. Yeheyis, A. S. Milani[c], **A. Mosavi**, **M. Azodinia** (2011) "Grapheur support touch decisions within construction projects", Poster Presentation at EnginSoft International Conference, 20-21 October, Verona, Italy

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2. NON-REFEREED PUBLICATIONS

(a) Journals

(b) Conference Proceedings

(c) Other (>15 technical reports as part of contract-based industrial projects*)*

3. BOOKS

(a) Authored

[296] **H. Montazerian**, M. Hoorfar[a], A. S. Milani[a] (2021) “Sensor-Integrated Composites: From Structural Health Monitoring to Material Characterization”, DEStech Publications, Lancaster, USA (in press)

[297] **C. Lynam**, A. S. Milani[a] (2014) “ A Guide to Modeling Thermoplastic Composite Manufacturing Processes: Optimizing Process Variables and Tooling Design Using Finite Element Analysis”, DEStech Publications, Lancaster, USA (94 pages; ISBN: 978-1-60595-042-6)

[298] **M. Nourani**, A. S. Milani[b], S. Yannacopoulos (2014), “Friction Stir Welding of Aluminum Alloys”, Scholars' Press, Saarbrücken, Germany (232 pages; ISBN-10: 3639707737)

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[300] **M. Mahmoudi**, P. Stroeve, A. S. Milani[c], A. S. Arbab (2010) "Superparamagnetic Iron Oxide Nanoparticles: Synthesis, Surface Engineering, Cytotoxicity and Biomedical Applications", Nova Science Publishers, New York, USA (225 pages, ISBN: 978-1-61728-631-5) (over 100 copies sold world-wide to date)

[301] A. S. Milani (2008) “Model Identification of Textile Composites”, VDM Verlag, Saarbrücken, Germany (124 pages, ISBN 3639059166)

(b) Edited

[302] M. Bacciocchi, A. S. Milani[a] (Guest Editors), Special Issue “Feature Papers in Simulation and Design”, (Journal of) Materials, (2021)

[303]F. Ko, A. S. Milani[a] (Guest Editors), Special Issue on “Biocomposites – A Path Towards Circular Economy"", Molecules (2019-2020)

[304] A. S. Milani[a] (Guest Editor), Special Issue on “Modeling and Simulation of Advanced Composite Materials”, (Journal of) Materials, (2017)

[305] R. Refiee, T. Rabczuk, K.I. Tserpes, A. S. Milani[a] (Guest Editors), Special Issue on “Advances in Characterization and Modeling of Nano-reinforced Composites”, Journal of Nanomaterials, 2016

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[307] A. S. Milani[b], A. Jahan (Guest Editors), Special Issue on “Materials Selection and Design” in the International Journal of Materials and Structural Integrity (Vol. 6, Nos. 2/3/4, pp. 95-338) , 2012

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