

Aliaa M. Abou-Ali, PhD

List of Publications

Papers Published

- Nov 2023:** Ejeh, C. J., Barsoum, I., **Abou-Ali, A. M.**, & Al-Rub, R. K. A. (2023). Combining multiple lattice-topology functional grading strategies for enhancing the dynamic compressive behaviour TPMS-based metamaterials. *Journal of Materials Research and Technology*. <https://doi.org/10.1016/j.jmrt.2023.10.247>
- Oct 2022:** **Abou-Ali, A. M.**, Lee, D. W., & Abu Al-Rub, R. K.. On the Effect of Lattice Topology on Mechanical Properties of SLS Additively Manufactured Sheet-, Ligament-, and Strut-Based Polymeric Metamaterials. *Polymers* 2022, 14(21), 4583; <https://doi.org/10.3390/polym14214583>
- Nov 2020:** **Abou-Ali, A. M.**, Al-Ketan, O., Lee, D. W., Rowshan, R., & Abu Al-Rub, R. K.. Mechanical behavior of polymeric selective laser sintered ligament and sheet based lattices of triply periodic minimal surface architectures. *Materials & Design*, (vol. 196), 109100.
- March 2019:** **Abou-Ali, A. M.**, Al-Ketan, O., Rowshan, R., & Abu Al-Rub, R. K.. “Mechanical Response of 3D Printed Bending-dominated Ligament-based Triply Periodic Cellular Polymeric Solids” *Journal of Materials Engineering and Performance*:1-11.
- April 2015:** **Abou-Ali, A. M.**, Harraz, N., Fors, M. N., "Optimizing Inventory Replenishment and Shelf Space Management in Retail Stores". *International Journal of Business and Management Study*, vol 2, 98-102.
- March 2015:** Omar, M. A., Qilun, Z., Lujia, F., **Abou-Ali, A. M.**, Lahjouji, D., & Khraisheh, M.. A hybrid simulation approach for predicting energy flows in production lines. *International Journal of Sustainable Engineering*, 9(1), 25-34.

Papers in Refereed Conference Proceedings

- Altamimi, S., **Abou-Ali, A. M.**, Al-Ketan, O., Lee, D.W, Abu Al-Rub, R.K, “Experimental and Numerical analysis of Mechanical Behavior of 3D Printed Graphene-Reinforced Gyroidal Cellular Nanocomposites” UAEGSRC19, The Graduate Students Research Conference (GSRC), Zayed University, Abu Dhabi, UAE, 2019.
- Altamimi, S., **Abou-Ali, A. M.**, Al-Ketan, O., Lee, D.W, Abu Al-Rub, R.K, “Mechanical Behavior of 3D Printed Graphene-Reinforced Gyroidal Cellular Nanocomposites” ICCE-27, 27th Annual International Conference on Composite and Nano Engineering, Granada, Spain, 2019.
- Altamimi, S., **Abou-Ali, A. M.**, Al-Ketan, O., Lee, D.W, Abu Al-Rub, R.K, “Finite Element Analysis of Mechanical Behavior of Graphene-Reinforced Gyroidal Cellular Polymer Nanocomposites” 5th International Conference on Mechanics of Composites, Lisbon, Portugal, 2019.

Abou-Ali, A. M., Al-Ketan, O., Rowshan, R., Abu Al-Rub, R.K., “Mechanical Properties of Skeletal Gyroid Cellular Solids using 3D printing” UAEGSRC17, The Graduate Students Research Conference (GSRC), 2 pages, 2017.

Abou-Ali, A. M., Al-Ketan, O., Rowshan, R., Abu Al-Rub, R.K., “Mechanical Behavior of 3D Printed Skeletal Gyroid Cellular Structures,” In. The 25th Annual International Conference on Composites or Nano Engineering (ICCE-25), Rome, Italy, 2017.

Harraz, N., **Abou-Ali, A. M.**, Fors, M. N., "Optimizing Inventory Replenishment and Shelf Space Management in Retail Stores", Second International Conference on Advances in Social Science, Economics and Management Study, University of Birmingham, UK, Nov 2014.

Conference Posters

Ashraf, J. M., Lee, D. W., Al-Ketan, O., **Abou-Ali, A. M.**, Abu Al-Rub, R.K., “Effective Thermal/Electrical Conductivities of Three-Dimensional Cellular Architectures Based on Triply Periodic Minimal Surfaces”, Materials Research Society Fall Meeting and Exhibit, Dec 2019.

Abou-Ali, A. M., Al-Ketan, O., Rowshan, R., Abu Al-Rub, R.K., “Mechanical Behavior of 3D Printed Cellular Ligament-based Triply Periodic Solids” Environmental and Materials Science Symposium, March 2017