

List of Publications

Dr. Aliaa M. Abou-Ali
Assistant Professor of Systems Engineering
College of Engineering & Applied Sciences
American University of Kuwait (AUK)

Journal Publications

1. **Abou-Ali, A. M.**, Ejeh, C. J., Cantwell, W. J., Barsoum, I., Bojanampati, S., & Abu Al-Rub, R. K. (2025). Impact-Damage Behavior of Additively Manufactured Stainless Steel Triply Periodic Minimal Surface-Lattice Composite Sandwich Panels. *ES Materials & Manufacturing*, 28, 1461. <https://doi.org/10.30919/mm1461>
2. 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>
3. **Abou-Ali, A. M.**, Lee, D. W., & Abu Al-Rub, R. K. (2022). On the Effect of Lattice Topology on Mechanical Properties of SLS Additively Manufactured Sheet-, Ligament-, and Strut-Based Polymeric Metamaterials. *Polymers*, 14(21), 4583. <https://doi.org/10.3390/polym14214583>
4. **Abou-Ali, A. M.**, Al-Ketan, O., Lee, D. W., Rowshan, R., & Abu Al-Rub, R. K. (2020). Mechanical behavior of polymeric selective laser sintered ligament and sheet based lattices of triply periodic minimal surface architectures. *Materials & Design*, 196, 109100. <https://doi.org/10.1016/j.matdes.2020.109100>
5. **Abou-Ali, A. M.**, Al-Ketan, O., Rowshan, R., & Abu Al-Rub, R. K. (2019). Mechanical Response of 3D Printed Bending-dominated Ligament-based Triply Periodic Cellular Polymeric Solids. *Journal of Materials Engineering and Performance*. <https://doi.org/10.1007/s11665-019-03982-8>
6. **Abou-Ali, A. M.**, Harraz, N., & Fors, M. N. (2015). Optimizing Inventory Replenishment and Shelf Space Management in Retail Stores. *International Journal of Business and Management Study*, 2, 98–102.
7. Omar, M. A., Qilun, Z., Lujia, F., **Abou-Ali, A. M.**, Lahjouji, D., & Khraisheh, M. (2015). A hybrid simulation approach for predicting energy flows in production lines. *International Journal of Sustainable Engineering*, 9(1), 25–34. <https://doi.org/10.1080/19397038.2015.1008599>

Book Chapters

8. Gharaibeh, B. M. Y., & **Abou-Ali, A. M.** Development and Evolution of the Simplex Method in Linear Programming. Book chapter submitted/in production for the Encyclopedia of Engineering Optimization and Heuristics, Springer, accepted/in production.

Papers in Preparation

9. Elnaggar, Y. S. R., **Abou-Ali, M. G.**, Ragab, M. A. F., & Abou-Ali, A. M. Correlating Strategic Efforts for Enhancing Research Productivity and Global Recognition in Egyptian Private Universities. Review paper in preparation.

Refereed Conference Proceedings

10. Harraz, N., **Abou-Ali, A. M.**, & Fors, M. N. (2014). 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. <https://doi.org/10.15224/978-1-63248-052-1-87>
11. **Abou-Ali, A. M.**, Al-Ketan, O., Rowshan, R., & Abu Al-Rub, R. K. (2017). Mechanical Properties of Skeletal Gyroid Cellular Solids using 3D Printing. UAEGSRC17, Khalifa University, UAE.
12. **Abou-Ali, A. M.**, Al-Ketan, O., Rowshan, R., & Abu Al-Rub, R. K. (2017). Mechanical Behavior of 3D Printed Skeletal Gyroid Cellular Structures. ICCE-25, Rome, Italy.
13. 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, Abu Dhabi, UAE.
14. 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, Granada, Spain.
15. 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.