

Publications

Engineering Requirement Unit

Year 2020	
<i>Journals</i>	
1. Ahmed, W.; Siraj, S.; Al-Marzouqi, A.H. 3D Printing PLA Waste to Produce Ceramic Based Particulate Reinforced Composite Using Abundant Silica-Sand: Mechanical Properties Characterization. <i>Polymers</i> 2020, 12, 2579. 2. Merabet, N., Abdiche, A., Riane, R. , Ahmed W., The Implications of Pressure on Electronic, Magnetic, Mechanical, and Elastic Properties of Cobalt and Cobalt Hydride: DFT Calculation. <i>J Supercond Nov Magn</i> 33, 3451–3461 (2020) 3. Ahmed, W.; Alnajjar, F.; Zanelidin, E.; Al-Marzouqi, A.H.; Gochoo, M.; Khalid, S. Implementing FDM 3D Printing Strategies Using Natural Fibers to Produce Biomass Composite. <i>Materials</i> 2020, 13, 4065. 4. Waleed Ahmed, Wind Turbine Composite Blade: Fracture Mechanics Assessment, <i>Journal of Theoretical and Applied Mechanics, Sofia, Vol.50</i> (2020) pp. 238-258 5. Zanelidin, E., Al Khatib, O. & Ahmed, W. Investigating the use of no-dig technologies for underground utilities in developing countries. <i>Innov. Infrastruct. Solut.</i> 5, 17 (2020).	
<i>Conferences</i>	
1. Waleed Ahmed and Essam Zanelidin, The Innovation of Using 3D Printing Technology in Mechanical and Manufacturing Engineering, <i>IOP Conference Series: Materials Science and Engineering</i>, Volume 938, 2020 the 6th International Conference on Mechanics and Mechatronics Research (ICMMR 2020) 26-28 June 2020, Berkley, USA 2. H. Al Khawaja, H. Alabdouli, H. Alqaydi, A. Mansour, W. Ahmed and H. Al Jassmi, "Investigating the Mechanical Properties of 3D Printed Components," 2020 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, United Arab Emirates, 2020, pp. 1-7, doi: 10.1109/ASET48392.2020.9118307. 3. N. H. Salem Al Nuaimi, A. K. Alameri and W. Ahmed, "Drilling Systems for Space Mission," 2020 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, United Arab Emirates, 2020, pp. 1-5, doi: 10.1109/ASET48392.2020.9118250. 4. Ahmed, W., Alabdouli, H., Alqaydi, H., Mansour, A., Al, K. H., Al, J. H., & 10th Annual International IEOM Conference, IEOM 2020 10th 2020 03 10 - 2020 03 12. (2020). Open source 3d printer: a case study. <i>Proceedings of the International Conference on Industrial Engineering and Operations Management</i>, March(March), 2995–3004. 5. N. Yumak, K. Aslantaş and W. Ahmed, "Effect of Aging Treatment on the Initiation and Propagation of Fatigue Cracks in the Ti-15V-3Al-3Sn-3Cr Metastable β Titanium Alloy," 2020 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, United Arab Emirates, 2020, pp. 1-5, doi: 10.1109/ASET48392.2020.9118214. 6. R. Hamza, W. K. Ahmed, E. Zanelidin and O. J. Alkhatib, "Integrating Interactive Learning in Teaching General Engineering Courses," 2020 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, United Arab Emirates, 2020, pp. 1-6, doi: 10.1109/ASET48392.2020.9118190.	

Year 2020

7. Aya Mansour, Haleimah Alabdouli, Hend Alqaydi, Huda Al Khawaja, **Waleed Ahmed**, Evaluating the 3D Printing Capabilities, Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai, UAE, March 10-12, 2020
8. Latifa Al-Yabhouni, Maitha Al Shamsi, Mariam Al Nuaimi, Dhabya Alketbi, Mariam K Al Nuaimi, and **Waleed K. Ahmed**, A Case Study in Topology Optimization for 3D Printing, Proceedings of the 5th NA International Conference on Industrial Engineering and Operations Management Detroit, Michigan, USA, August 10 - 14, 2020
9. Mariam Alhammadi and **Waleed K. Ahmed**, Simulation of Coronavirus spread: Concerns and Facts, Proceedings of the 5th NA International Conference on Industrial Engineering and Operations Management, Detroit, Michigan, USA, August 10 - 14, 2020

Book Chapters

1. Wail N. Al-Rifaie, **Waleed K. Ahmed**, CH 30 - Nano cement mortars for construction materials, Micro and Nano Technologies, Smart Nanoconcretes and Cement-Based Materials, Elsevier, 2020, Pages 649-692.
2. **Waleed K. Ahmed**, Y. Al-Douri, CH 17 - Three-dimensional printing of ceramic powder technology, Metal Oxides, Metal Oxide Powder Technologies, Elsevier, 2020, Pages 351-383.
3. **Waleed Ahmed**, Wail Al-Rifaie, Essam Zaneldin, Chapter 4 - Mathematical modeling and simulation of interfaces between fiber and its matrix, Micro and Nano Technologies, Fiber-Reinforced Nanocomposites: Fundamentals and Applications, Elsevier, 2020, Pages 91-99,
4. El-Hassan, H., Alnajjar, F., Al, J. H., & **Ahmed, W.** (2020). Fresh and hardened properties of 3d-printed concrete made with dune sand. Rilem Bookseries, 28, 225–234.
https://doi.org/10.1007/978-3-030-49916-7_23

Patents

1. Fady Al Najjar, Nouf Fadel Nasser Alsaedi, **Waleed Khalil Ahmed**, Mostafa Al Kasabi, Robotic gripping assist, US10682250B1
2. **Waleed K. Ahmed** and Muthanna Aziz, Educational system and method for teaching mechanical failure, US10580322B1
3. Mariam Abdulrazzaq Abdullah Alhammadi and **Waleed Khalil Ahmed**, Sustainable and integrated system for cooling vehicle tires externally, US10759237B2