

# Publications

## Civil and Environmental Engineering

Year 2020

### Journals

1. A.S. El-Dieb, T.A. El-Maaddawy, "Performance of self-curing concrete as affected by different curing regimes," *Journal of Advances in Concrete Construction*, 2020, Vol.9, No.1, pp.33-41. (Corresponding Author)
2. Hamouda, M., Sweidan, H., Maraqa, M., and El-Hassan, H. (2020) "Mechanistic Study of Pb<sup>2+</sup> Removal from Aqueous Solutions Using Eggshells", *Water (Switzerland)*, Vol. 12, No. 9, 2517.
3. Kachouh, N., El-Hassan, H., and El-Maaddawy, T. (2020) "Influence of Steel Fibers on the Flexural Performance of Concrete Incorporating Recycled Concrete Aggregates and Dune Sand", *Journal of Sustainable Cement-Based Materials*, available online, <https://doi.org/10.1080/21650373.2020.1809546>.
4. Al Rifai, M., El-Hassan, H., El-Maaddawy, T., and Abed, F. (2020) "Durability of Basalt FRP Reinforcing Bars in Alkaline Solution and Moist Concrete Environments", *Construction and Building Materials*, Vol. 243, 118258.
5. Z. Xu, B.W. Melville, L. Wotherspoon, N.A.K. Nandasena. 2020. Stability of composite breakwaters under tsunami attack. *J. Waterw. Port, Coastal, Ocean Eng.* 146 (4) doi: 10.1061/(ASCE)WW.1943-5460.0000571.
6. H.A. Lodhi, H. Hasan, N.A.K. Nandasena. 2020. The role of hydrodynamic impact force in subaerial boulder transport by tsunami—Experimental evidence and revision of boulder transport equation. *Sedimentary Geology (Elsevier)* 408, doi.org/10.1016/j.sedgeo.2020.105745.
7. Abu-Obaida, A., El-Maaddawy, T. and El-Ariss, B., (2020). "Numerical Simulation of Double-Sided Concrete Corbels Internally-Reinforced with GFRP bars." *Composites Part C: Open Access*, p.100040. Elsevier.
8. Elkholy, S., El-Ariss, B., and Galal, S. (2020). "Structural performance of jointed reinforced concrete pavement slab with subbase erosion." In *Structures* (Vol. 26, pp. 982-995). Elsevier.
9. Abu-Obaida, A., El-Ariss, B., and El-Maaddawy, T. (2020). Closure to "Behavior of Short-Span Concrete Members Internally Reinforced with Glass Fiber-Reinforced Polymer Bars" by Ayman Abu-Obaida, Bilal El-Ariss, and Tamer El-Maaddawy. *Journal of Composites for Construction*, 24(3), 07020002.
10. Alwaeli, W., Mwafy, A.M.\*, Pilakoutas, K. and Guadagnini, M., 2020, "Rigorous versus less-demanding fragility relations for RC high-rise buildings", *Bulletin of Earthquake Engineering, Springer*, Vol. 18(13), 5885-5918. DOI: 10.1007/s10518-020-00915-y
11. Mwafy, A.M\*, AbouElhamd, A.R. and Gargoum, S., 2020, "Verifying the periods of vibration for different structural systems using earthquake data and simulation", *Int. J. Earthquake and Impact Engineering*, , Vol. 3(2), 100–119. DOI: 10.1504/IJEIE.2020.108578
12. Carmen K. Abuoudah, Yaser E. Greish, Basim Abu-Jdayil, Ehab M. El-said, Muhammad Z. Iqbal, "Graphene/polypropylene nanocomposites with improved thermal and mechanical properties", *Journal of Applied Polymer Science*, 2020; e50024
13. S Haris, X Qiu, H Klammler, MMA Mohamed. The use of micro-nano bubbles in groundwater remediation: A comprehensive review. *Groundwater for Sustainable Development*,11,2020, 100463.
14. SI Elmahdy, TA Ali, MM Mohamed, M Yahia. Topographically and hydrologically signatures express subsurface geological structures in an arid region: a modified integrated approach using remote sensing and GIS. *Geocarto International*, 2020. <https://doi.org/10.1080/10106049.2020.1801858>.
15. SI Elmahdy, TA Ali, MM Mohamed. Flash Flood susceptibility modelling and magnitude index using classification and regression trees, Boosted regression tree, Naive Bayes Tree, and Geohydrological models; a modified hybrid approach. *Remote Sens.* 2020, accepted
16. S Elmahdy, T Ali, M Mohamed, F Howari, M Abouleish, D Simonet. Spatiotemporal Mapping and Monitoring of Mangrove Forests Changes from 1990 to 2019 in the Northern Emirates, UAE using Random forest, Kernel Logistic Regression and Naive Bayes Tree Models. *Frontiers in Environmental Science*, Accepted, 2020.

## Year 2020

17. J. Achar, M. Mohamed, G. Nam, J. Jung, H. Klammler. Microbubble ozonation of the antioxidant butylated hydroxytoluene: degradation kinetics and toxicity reduction. *Environmental Research*, 2020, 186, 109496.
18. L. Polonenko, M. Hamouda, and M. Mohamed. Essential Components of Institutional and Social Indicators in Assessing the Sustainability and Resilience of Urban Water Systems: Challenges and Opportunities. *Science of the Total Environment*, 2020, 708, 135-159.
19. H. Klammler, M. Mohamed, K. Hatfield, J. Achar, J. Jung. Modeling Micro/Nano Bubble Stability and Treatment Mechanisms in Batch Reactors. *Journal of Environmental Engineering (ASCE)*, 146(8), 2020.
20. H. Kwon, M. Mohamed, M. Annable, and H. Kim. Remediation of NAPL-Contaminated Porous Media Using Micro-nano Ozone Bubbles: Bench-scale Experiments. *Journal of Contaminant Hydrology*, 2020, 228, 103563.
21. Elmahdy, S., Mohamed, M., T. Land Use/Land Cover Changes Impact on Groundwater Level and Quality in the Northern Part of the United Arab Emirates. *Remote Sens.* 2020, 12, 1715; doi:10.3390/rs12111715
22. Sakizadeh, M., Mohamed, M.M. Application of spatial analysis to investigate contribution of VOCs to photochemical ozone creation. *Environ Sci Pollut Res (2020)*. 27, 10459–10471
23. L. Xiong, D Alshamsi, P Yi, X Hou, A Murad, S Hussein, A Aldahan, M. Mohamed. Distribution of uranium isotopes in groundwater of the UAE: environmental radioactivity assessment. *J Radioanal Nucl Chem (2020)*. <https://doi.org/10.1007/s10967-020-07216-3>
24. MA Sowe, S Sathish, N Greggio, MM Mohamed Optimized Pumping Strategy for Reducing the Spatial Extent of Saltwater Intrusion along the Coast of Wadi Ham, UAE. *Water* 12 (5), 1503.
25. Ji, K., Chen, X., Aldahan, A. P. Yi, A. Murad, S. Hussein, D. Alshamsi, M. Mohamed, Z. Yu. Chronology and characteristics of groundwater along the United Arab Emirates-Oman arid region: a guide for regional sustainability. *J Radioanal Nucl Chem (2020)*.
26. R Chowdhury, J Abaya, T Ksiksi, M Mohamed, S Beecham, A. Rahman. Distribution of heavy metals in vegetative biofiltration columns, *Water*, 2020, 12 (3), 747
27. SI Elmahdy, MM Mohamed, TA Ali, JED Abdalla, M Abouleish. Land subsidence and sinkholes susceptibility mapping and analysis using random forest and frequency ratio models in Al Ain, UAE. *Geocarto International*, 2020. DOI:10.1080/10106049.2020.1716398.
28. Hamouda MA, Sweidan H, Maraqa MA, and El-Hassan H, Mechanistic study of Pb<sup>2+</sup> removal from aqueous solutions using eggshells, *Water*, 12, 2517, 2020, doi:10.3390/w12092517.
29. Albuquerque FDB, Maraqa MA, Chowdhury R, Mauga T, Alzard M, Greenhouse gas emissions associated with road transport projects: current status, benchmarking, and assessment tools, *Transportation Research Procedia*, 48, 2018-2030, 2020.
30. Al-Kaabi MJ, Maraqa MA, Hawas YS, Development of a composite sustainability index for roadway intersection design alternatives in the UAE, *Sustainability*, 12, 8696, 2020, doi:10.3390/su12208696.
31. Hamouda M, Mustafa F, Maraqa M, Rizvi T, Hassan AA - Wastewater surveillance for SARS-CoV-2: Lessons learnt from recent studies to define future applications, *Science of The Total Environment*, 2020 (in press)
32. C. Duerschner, A. Aly Hassan, and B. Dvorak (2020). "Biofiltration of acetaldehyde resulting from ethanol manufacturing facilities." *Chemosphere*: 124982.
33. Mollamohammada, S., Aly Hassan, A. & Dahab, M. Nitrate Removal from Groundwater Using Immobilized Heterotrophic Algae. *Water Air Soil Pollut* 231, 26 (2020). <https://doi.org/10.1007/s11270-019-4334-3>
34. Hu, Xinjuan, Yulie E. Meneses, and Ashraf Aly Hassan. "Integration of sodium hypochlorite pretreatment with co-immobilized microalgae/bacteria treatment of meat processing wastewater." *Bioresource Technology* 304 (2020): 122953.
35. Mollamohammada, S, Aly Hassan, A, Dahab, M. Immobilized algae-based treatment of herbicide-contaminated groundwater. *Water Environ Res.* 2020; 00: 1– 11. <https://doi.org/10.1002/wer.1405>

## Year 2020

36. Hamouda M., Mustafa F., Maraqa M., Rizvi T., Aly Hassan A., "Wastewater surveillance for SARS-CoV-2: Lessons learnt from recent studies to define future applications" *Science of The Total Environment* (2020)143493, <https://doi.org/10.1016/j.scitotenv.2020.143493>.
37. Tello, N., Alhoubi, Y., Abed, F., El Refai, A., and El-Maaddawy, T. (2021). "Circular and square columns strengthened with FRCM under concentric load." *Composite Structures*, 255, 113000.
38. Arabasi, S. and El-Maaddawy, T. (2020). "Reinforcing of discontinuity regions in concrete deep beams with GFRP composite bars." *Composites Part C: Open Access*, 3, 100064.
39. Abu Obaida, F., El-Ariss, B., El-Maaddawy, T. (2020). "Numerical simulation of double-sided concrete corbels internally-reinforced with GFRP bars." *Composites Part C: Open Access*, 2, 100040.
40. Kachouh, N., El-Hassan, H., and El-Maaddawy, T. (2020). "Influence of steel fibers on the flexural performance of concrete incorporating recycled concrete aggregates and dune sand." *Journal of Sustainable Cement-Based Materials*, <http://dx.doi.org/10.1080/21650373.2020.1809546>.
41. Ismail, N., Khattak, N., El-Maaddawy, T., Walsh, K., and Ingham, J. (2020). "Out-of-plane testing of masonry infills strengthened using fibre reinforced matrix with prior in-plane damage." *Int. J. of Masonry Research and Innovation (IJMRI)*, 5(3), 396-422.
42. Abu-Obaida, A., El-Ariss, B., El-Maaddawy, T. (2020). "Closure to behavior of short span concrete members internally-reinforced with glass fiber-reinforced polymer bars." *ASCE Journal of Composites for Construction*, 24(3), 07020002.
43. Al Rifai, M., El-Hassan, H., El-Maaddawy, T., and Abed, F. (2020). "Durability of basalt FRP reinforcing bars in alkaline solution and moist concrete environments." *Construction and Building Materials*, 213, 348-359.
44. El-Dieb, A., and El-Maaddawy, T. (2020). "Performance of self-curing concrete as affected by different curing regimes." *Advances in Concrete Construction*, 9(1), 33-41.
45. Albuquerque, F.D.B. and Awadalla, D., "Roadside Fixed-Object Collisions, Barrier Performance, and Fatal Injuries in Single-Vehicle, Run-Off-Road Crashes", *Safety*, Vol. 6, Issue 2, May, 2020.
46. Essam Zaneldin, Omar Al Khatib, and Waleed Ahmed (2020). "Investigating the Use of No-Dig Technologies for Underground Utilities in Developing Countries." *Innovative Infrastructure Solutions*, Vol. 5, No. 17. <https://doi.org/10.1007/s41062-020-0265-5>
47. Zaneldin, E. (2020). "Investigating the Types, Causes and Severity of Claims in Construction Projects in the UAE." *International Journal of Construction Management*, Vol. 20, Issue 5, Taylor & Francis, UK.
48. Waleed Ahmed, Fady Al Najjar, Essam Zaneldin, Ali Al Marzouqi, Munkhjargal Gochoo, Sumayya Khalid (2020). "Implementing FDM 3D Printing Strategies Using Natural Fibers to Produce Biomass Composite." *Materials*, Vol. 13, No. 18. <https://doi.org/10.3390/ma13184065>
49. A. Godat, F. Hammad and O. Chaallal (2020). "State-of-the-Art Review of Anchored FRP Shear-Strengthened Beams: A Study of Influencing Factors", *Composite Structures*, 254, No. 112767.
50. A. Godat, O. Chaallal and Y. Obaidat (2020). "Nonlinear Finite-Element Modelling Investigation of the Parameters Affecting Externally-Bonded FRP Flexural-Strengthened RC Beams", *Results in Engineering*, 8, No. 100168.
51. Hamouda, M., Mustafa, F., Maraqa, M., Rizvi, T., Aly Hassan, A., 2020. Wastewater surveillance for SARS-CoV-2: Lessons learnt from recent studies to define future applications. *Science of The Total Environment* 143493. <https://doi.org/10.1016/j.scitotenv.2020.143493>
52. Hamouda, M.A., Sweidan, H., Maraqa, M.A., El-Hassan, H., 2020. Mechanistic Study of Pb<sup>2+</sup> Removal from Aqueous Solutions Using Eggshells. *Water* 12, 2517. <https://doi.org/10.3390/w12092517>
53. Polonenko, L.M., Hamouda, M.A., Mohamed, M.M., 2020. Essential components of institutional and social indicators in assessing the sustainability and resilience of urban water systems: Challenges and opportunities. *Science of The Total Environment* 708, 135159. <https://doi.org/10.1016/j.scitotenv.2019.135159>

## Year 2020

### Conferences

1. S. AlShanti, A.S. El-Dieb, M.A. Maraqa, "Potential reuse of sewage sludge ash in the production of self-compacted concrete," accepted in the 6<sup>th</sup> International Conference on Construction Materials, Performance, Innovations, and Structural Implications (ConMat'20), Fukuoka, Japan, 27-29 Aug. 2020. (Corresponding Author)
2. Najm, O., El-Hassan, H., El-Dieb, A., and Aljassmi, H. "Probabilistic Inference Approach for Predicting Concrete Compressive Strength - A Bayesian Network Algorithm", 5th International Conference on Civil Structural and Transportation Engineering (ICCSTE'20), November 2020, Virtual (COVID-19 pandemic).
3. Alzard, M., El-Hassan, H., and El Maaddawy, T. "Development of a Life Cycle Inventory Dataset for Recycled Concrete Aggregates in the City of Abu Dhabi", 5th International Conference on Civil Structural and Transportation Engineering (ICCSTE'20), November 2020, Virtual (COVID-19 pandemic).
4. Shoaib, S., El-Hassan, H., El-Ariss, B., and El Maaddawy, T. "Early-Age Strength and Workability of Basalt Fiber Reinforced-Concrete Made with Recycled Aggregates – A Pilot Study", 5th International Conference on Civil Structural and Transportation Engineering (ICCSTE'20), November 2020, Virtual (COVID-19 pandemic).
5. Kachouh, N., El-Maaddawy, T., and El-Hassan, H., "Numerical Modelling of Steel Fiber Recycled Aggregate Concrete Deep Beams", 5th International conference on Structural Engineering and Concrete Technology (ICSECT'20), October 2020, Virtual (COVID-19 pandemic).
6. N.A.K. Nandasena, Past high-energy events from cliff-edge boulder transport: Sensitivity analysis of minimum flow velocity against parametric coefficients of numerical models, 6th IAHR Europe Congress, June 30th – July 2nd, 2021, Warsaw, Poland (accepted).
7. MT Mahmoud, SA Mohammed, MA Hamouda, MM Mohamed. Temporal assessment of the GPM satellite rainfall products across extremely arid regions 11<sup>th</sup> International Conference on Environmental Science and Development (ICESD 2020), Feb 2020, Barcelona, Spain
8. M. Ibrahim, M. Mohamed and M. Hamouda. Prediction of Capital Cost of RO Based Desalination Plants Using Machine Learning Approach. In E3S, E. Baltrėnaitė-Gedienė and C. Iticescu (Eds.), 158, 06001, publisher EDP Sciences (2020).
9. F. Abdi, M. Mohamed, and M. Dal Maso. "Rain Water Enhancement in the UAE". UAEU Annual Research & Innovation Conference, UAE, Feb 2020.
10. Mitham Al Filathi, Ashraf Aly Hassan, Bruce Dvorak, Sage Dunham, Victoria Noad, and Daniel B. Cardin (2020) "Derivatization and Quantitation of Formaldehyde using PFBHA and Vacuum-Assisted Sorbent Extraction (VASE)" Poster, 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics, On-line (was to be in Houston, TX) June 4, 2020.
11. Mowat, K., A. Aly Hassan, and B. Dvorak "Analysis of possible nutrient streams for bio-trickling filters treating HAPs in ethanol plants," In proceedings of the A&WMA's 113<sup>th</sup> annual Conference & Exhibition, On-line (was to be in San Francisco, CA) July 1, 2020.
12. A. Aly Hassan, Cohen, G., M. Al Filathi, and B. Dvorak "Treatment of odors generated in a landfill: A scheme to concentrate H<sub>2</sub>S emissions," In proceedings of the A&WMA's 113<sup>th</sup> annual Conference & Exhibition, On-line (was to be in San Francisco, CA) July 1, 2020.
13. M. Al Filathi, A. Aly Hassan, and B. Dvorak "Bio-filtration of Volatile Organic Compounds (VOCs) Emitted at Ethanol Plants," Poster, A&WMA's 113<sup>th</sup> annual Conference & Exhibition, On-line (was to be in San Francisco, CA) July 1, 2020.
14. S. Mollamohammada, A. Aly Hassan, M. Dahab "Removal of Triallate from groundwater using immobilized algae" In proceedings of The 2<sup>nd</sup> International Conference on Water Resources in Arid Areas, On-line (was to be in Muscat, Oman) November 9-11, 2020.
15. Alzard, M., El-Hassan, H., and El Maaddawy, T. (2020). "Development of a Life Cycle Inventory Dataset for

## Year 2020

- Recycled Concrete Aggregates in the City of Abu Dhabi”, 5th International Conference on Civil Structural and Transportation Engineering (ICCSTE'20), 12 – 14 November, Virtual (COVID-19 pandemic).
16. Shoaib, S., El-Hassan, H., El-Ariss, B., and El Maaddawy, T. (2020). “Early-Age Strength and Workability of Basalt Fiber Reinforced-Concrete Made with Recycled Aggregates – A Pilot Study”, 5th International Conference on Civil Structural and Transportation Engineering (ICCSTE'20), 12 – 14 November, Virtual (COVID-19 pandemic).
  17. Kachouh, N., El-Maaddawy, T., and El-Hassan, (2020). “Numerical modelling of steel fiber recycled aggregate concrete deep beams.” Proceedings of the 5<sup>th</sup> Int. Conference on Structural Engineering and Concrete Technology (ICSECT'20), 18 – 20 October, Virtual (COVID-19 pandemic).
  18. Albuquerque, F.D.B. and Awadalla, D., “*Characterization of Road Crashes in the Emirate of Abu Dhabi*”, Transportation Research Procedia, Volume 48, Pages 1095-1110, 2020.
  19. Albuquerque, F.D.B, Maraqa, M., Chowdury, R., Mauga, T., and Alzard, M., “*Greenhouse Gas Emissions Associated With Road Transport: Project Stage, Benchmarking, and Assessment Tools*”, Transportation Research Procedia, Volume 48, Pages 2018-2030, 2020.
  20. Albuquerque, F.D.B. and Awadalla, D., “Benchmark Compliance Evaluation of the Roadside Design in an Urban, High-Density Area”, WIT Transactions on The Built Environment, Volume 200, ISSN 1743-3509, doi: 10.2495/UT200101, 2020.
  21. Waleed Ahmed, Fady Alnajjar, and Essam Zaneldin. “Mechanical Performance of 3D Printed Sandwich Composite with a High-Flexible Core.” *Proceedings of the 3<sup>rd</sup> International Conference on Materials Design and Applications (MDA 2020)*, November 5-6, 2020, Porto, Portugal.
  22. Waleed Ahmed, Essam Zaneldin, and Souzan Kabbani. “Fracture Mechanics Performance of Through-Thickness Crack of Polymeric 3D Printed Components.” *Proceedings of the 8<sup>th</sup> International Conference on Fracture Fatigue and Wear (FFW 2020)*, August 26-27, 2020, Online Conference.
  23. Waleed Ahmed and Essam Zaneldin. “The Innovation of Using 3D Printing Technology in Mechanical and Manufacturing Engineering.” *Proceedings of the 6<sup>th</sup> International Conference on Mechanics and Mechatronics Research (ICMMR 2020)*, IOP Conference Series: Materials Science and Engineering, June 26-28, 2020, Berkley, USA.
  24. Sangarappillai Sivaloganathan, Ali Al-Marzouqi, Essam Zaneldin and Nabil Bastaki. “Teaching Conceptual Design to a Heterogeneous Group: A Workshop Method.” *Proceedings of the 2020 ASEE Annual Virtual Conference and Exposition*, American Society for Engineering Education, June 22-26, 2020.
  25. Rihab Hamza, Waleed K. Ahmed, Essam Zaneldin, and Omar J. Alkhatib. “Integrating Interactive Learning in Teaching General Engineering Courses.” *Proceedings of the 2020 Advances in Science and Engineering Technology International Conferences (ASET)*, IEEE, February 2020, Dubai, UAE.
  26. A. Godat, S. Aldaweela, H. Aljaberi, N. AlTamimi and E. Alghafri (2020). "Bond-slip behavior of FRRP bars in recycled concrete", 10th International Conference on Advanced Models and new Concepts in Concrete and Masonry Structures (AMCM), Lublin, Poland, paper accepted.
  27. A. Godat, E. Alghafri, N. AlTamimi, H. Aljaberi and S. Aldaweela (2020). "Evaluation of bond performance of BFRP bars in recycled concrete", The 3rd European and Mediterranean Structural Engineering and Construction Conference (EURO MED SEC 3), August 3-8, Limassol, Cyprus.
  28. A. Godat, E. Alghafri, N. AlTamimi, H. Aljaberi and S. Aldaweela (2020). "Bond Strength of BFRP Bars in Recycled-Aggregate Concrete", UAEU Annual Research and Innovation Conference, February 4-5, Al-Ain, UAE.
  29. Hamouda, M.A., Al Mansoori, J., Al Nuaimi, M., Alsaedi, M., Al Shamsi, M. (2020) Greywater characterization, loadings, and potential onsite treatment and reuse in Al Ain, UAE. The 2<sup>nd</sup> International conference on Water Resources in Arid Areas, Muscat, Oman, 16-19 Mar. 2020
  30. Kizhisseri, Mohamed Ibrahim, Mohamed, M.M., Hamouda, M.A., 2020. Prediction of capital cost of ro based desalination plants using machine learning approach. Proceedings of International Conference on

## Year 2020

Environmental Systems Research (ICESR '19), Melbourne, Australia, December 18-20th 2019, E3S Web Conf. 158, 06001. <https://doi.org/10.1051/e3sconf/202015806001>

31. Mahmoud, Mohammed, Mohammed, S., Hamouda, M., Mohamed, M., 2020. Temporal assessment of the GPM satellite rainfall products across extremely arid regions. Proceedings of the 11th International Conference on Environmental Science and Development (ICESD 2020), Barcelona, Spain, February 10-12, 2020, E3S Web Conf. 167, 02001. <https://doi.org/10.1051/e3sconf/202016702001>

### *Book Chapters*

1. El-Hassan, H. (2020) "Accelerated Carbonation Curing as a Means of Reducing Carbon Dioxide Emissions", In: H. M. Saleh (ed), Cement Industry, InTech: London, UK, 10.5772/intechopen.93929.
2. N.A.K. Nandasena. 2020. Perspective of incipient motion formulas: boulder transport by high-energy waves, Geological Records of Tsunamis and Other Extreme Waves (Elsevier), 641-659. <https://doi.org/10.1016/C2017-0-03458-4>
3. Mohamed AMO, Paleologos E, and Maraqa MA, Chapter 7 - Subsurface pollutant transport, In Mohamed, A.M.O., Paleologos, E., and Howari, F. "Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering", 1st edition, Elsevier, 2020, pp. 355-401, ISBN-13: 978-0-12-809582-9.
4. Mohamed AMO, Maraqa MA, Howari F, and Paleologos E., Chapter 9 - Outdoor air pollutants: sources, characteristics and impact on human health and the environment, In Mohamed, A.M.O., Paleologos, E., and Howari, F. "Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering", 1st edition, Elsevier, 2020, pp. 491-554, ISBN-13: 978-0-12-809582-9.
5. Maraqa MA, Ali A, Rao MV, Hamza W, Imran HD, and Khan N, Chapter 15 - Water quality at Jebel Ali Harbor, Dubai, United Arab Emirates, In Mohamed, A.M.O., Paleologos, E., and Howari, F. "Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering", 1st edition, Elsevier, 2020, pp. 779-844, ISBN-13: 978-0-12-809582-9.
6. Maraqa MA, Ali A, Rao MV, Hamza W, Imran HD, and Al Awadi S, Chapter 16 - Sediment quality at Jebel Ali Harbor, Dubai, United Arab Emirates, In Mohamed, A.M.O., Paleologos, E., and Howari, F. "Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering", 1st edition, Elsevier, 2020, pp. 845-869, ISBN-13: 978-0-12-809582-9.
7. Khan Q., Maraqa MA, and Mohamed AMO, Chapter 17 - Inland desalination: Techniques, brine management and environmental concerns, In Mohamed, A.M.O., Paleologos, E., and Howari, F. "Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering", 1st edition, Elsevier, 2020, pp. 871-918, ISBN-13: 978-0-12-809582-9.
8. Kamareddine LA and Maraqa MA, Chapter 22 - Lifecycle assessment of aquaponics, In Mohamed, A.M.O., Paleologos, E., and Howari, F. "Pollution Assessment for Sustainable Practices in Applied Sciences and Engineering", 1st edition, Elsevier, 2020, pp. 1038-1108, ISBN-13: 978-0-12-809582-9.
9. Mollamohammada S., Aly Hassan, A. (2020) Application of immobilized algae in water and wastewater treatment. In: Bioenergy: Technologies and Future Prospects for Sustainability (Eds.) The Energy and Resources Institute (TERI), India.
10. Waleed Ahmed, Wail Al-Rifaie, Essam Zaneldin (2020). "Mathematical Modelling and Simulation of Interfaces Between Fiber and its Matrix." Chapter 4 in Book: Fiber-Reinforced Nanocomposites: Fundamentals and Applications, Elsevier, pp. 91-99, ISBN: 9780128199046.