

Publications

Civil and Environmental Engineering Department

Year 2016

Journals

1. Alkhalil, J., and El-Maaddawy, T. (2016). "Nonlinear Flexural Response of Continuous Concrete Slab Strips Strengthened With Near-Surface-Mounted Composites." ASCE Journal of Composites for Construction, 10.1061/(ASCE)CC.1943-5614.0000730 , 04016071.
2. Awani, O., and El-Maaddawy, T., El Refai, A. (2016). "Numerical Simulation and Experimental Testing of Concrete Beams Strengthened In Shear With Fabric-Reinforced Cementitious Matrix." ASCE Journal of Composites for Construction, 10.1061/(ASCE)CC.1943-5614.0000711, 04016056.
3. El-Maaddawy, T., and El Refai, A. (2016). "Innovative Repair of Severely Corroded T-beams using Fiber-Reinforced Cementitious Matrix." ASCE Journal of Composites for Construction, 10.1061/(ASCE)CC.1943-5614.0000641 20(3), 04015073.
4. El-Maaddawy, T., Alshawa, J., and El-Ariss, B. (2016). "Strengthening of Continuous Concrete Slab Strips Containing Cutouts", ACI Structural Journal, in press.
5. El-Ariss, Bilal, and Zaneldin, Essam. "Optimal arrangement for an efficient scaffold support system." International Journal of Structural Engineering 7.1 (2016): 89-125.
6. Elkholy, S., & El-Ariss, B. (2016). "Improving the robustness of reinforced concrete framed structures under sudden column losses." International Journal of Protective Structures, 7(2), 282-300.
7. Elkholy, S., & El-Ariss, B. (2016). "Enhanced external progressive collapse mitigation scheme for RC structures." International Journal of Structural Engineering, 7(1), 63-88.
8. Hawas, Y.E. and Ahmed, F. (2016) "A Binary Logit-based Incident Detection Model for Urban Traffic Networks". Transportation Letters, DOI: 10.1080/19427867.2016.1157132
9. Hefny, A., Sorour, T., and Ezzat, M. 2016. Prediction of the Field Response of Soil-Support Systems in Deep Excavations. ASCE Geotechnical Special Publication (GSP), Geo-China 2016: pp. 141-151
10. Mohamed M, N. Al-Suwaidi, A. Ebrahim, and M. Al Mulla. Groundwater Modeling as a Precursor Tool for Water Resources Sustainability in Khatt Area, UAE. 2016. Environmental Earth Sciences, 75, 400-418.
11. Elmahdy S., and Mohamed, M. 2016. Mapping of tecto-lineaments and investigate their association with earthquakes in Egypt: a hybrid approach using remote sensing data. Geomatics, Natural Hazards and Risk, 7(2) 600-619.

12. Kizhisseri MI and Mohamed MM. Fuzzy-based wastewater quality indices for pollution classification: a case study in the United Arab Emirates. *Environment Systems and Decisions*, 36 (1), 62-7, 2016
13. Mohamed M. and A. Hassane. Hydrochemistry Assessment of Groundwater Quality in Al Ain City, UAE. 2016. *Environmental Earth Sciences*, 75, 353-370.
14. Elmahdy S., Marghany MM, and Mohamed MM. Application of a weighted spatial probability model in GIS to analyze landslides. *Geomatics, Natural Hazards and Risk* 7 (1), 345-359, 2016 [IF=2.140]
15. Elmahdy S., and Mohamed MM. Mapping of tecto-lineaments and investigate their association with earthquakes in Egypt: a hybrid approach using remote sensing data. *Geomatics, Natural Hazards and Risk* 7 (2), 600-619. 2016.
16. Mohamed, M. and Elmahdy S. Remote sensing and information value (IV) model for regional mapping of fluvial channels and topographic wetness. 2016. *GIScience & Remote Sensing*. 10.1080/15481603.2016.1169741.
17. Elmahdy S., and Mohamed, M. Factors controlling the changes and spatial variability of Junipers Phoenicia in Jabal Al Akhdar, Libya, using remote sensing and GIS. *Arabian Journal of Geosciences*, 2016. DOI: 10.1007/s12517-016-2500-0.
18. Elmahdy S., and Mohamed, M. Fuzzy logic and multi-criteria methods for groundwater potentiality mapping at Al Fo'ah area, the United Arab Emirates (UAE): an integrated approach. *Geocarto International*. 2016.doi/10.1080/10106049.2016.1195884.
19. Rezaul Chowdhury, Mohamad M. A. Mohamed, and Ahmed Murad. Variability of Extreme Hydro-Climatic Parameters in the North- Eastern Region of United Arab Emirates. *Procedia Engineering*, 154, 639 – 644, 2016.
20. Mohamed M. Estimation of Bacterial Growth Parameters Using Inverse Analysis. *International Journal of Sustainable Water and Environmental Systems (SWES)*, ISSN: 1923-7537, V8 (1), 41-49, 2016.
21. Elkholy, S., & El-Ariss, B. (2016). Improving the robustness of reinforced concrete framed structures under sudden column losses. *International Journal of Protective Structures*, 7(2), 282-300.
22. Elkholy, S., & El-Ariss, B. (2016). Enhanced external progressive collapse mitigation scheme for RC structures. *International Journal of Structural Engineering*, 7(1), 63-88.
23. Hamouda, M.A., Anderson, W.B., Van Dyke, M.I., Douglas, I.P., McFadyen, S.D., and Huck, P.M. (2016). Scenario-based quantitative microbial risk assessment to assess the robustness of drinking water treatment plants. *Water Quality Research Journal of Canada*, wqrjc2016034.

24. Hilal El-Hassan and Peiman Kianmehr, Pervious concrete pavement incorporating GGBS to alleviate pavement runoff and improve urban sustainability Road Materials and Pavement Design, accepted for publication, 2016.
25. D.M. Kanaan, Sh.H. Aboubakr, A.S. El-Dieb, M.M. Reda Taha, “High Performance Concrete Incorporating Ceramic Waste Powder as Large Partial Replacement of Portland Cement”, Under review in Construction and Building Materials, 2016.
26. A.S. El-Dieb, T.A. El-Maaddawy, “Self-Curing Concrete: Assessment of Reinforcement Corrosion Protection”, Under review in Construction and Building Materials, 2016. (Corresponding Author)
27. A.S. El-Dieb, T.A. El-Maaddawy, “Self-Curing Concrete: Mechanical, Durability and Microstructural Characteristics”, Under review in Cement and Concrete Composites, 2016. (Corresponding Author)
28. M.M. Reda Taha, A.S. El-Dieb, M.L. Nehdi, “Recycling Tire Rubber in Cement-Based Materials”, Accepted for publication in the ACI-555 Special Publication, 2016.
29. Rashid, M.M., Beecham, S. and Chowdhury, R.K. (2016) Simulation of extreme rainfall and projection of future changes using the GLIMCLIM model, Theoretical and Applied Climatology, DOI 10.1007/s00704-016-1892-9.
30. Chowdhury, R.K., Mohamed, M.M.A. and Murad, A. (2016) Variability of extreme hydro-climatic parameters in the North Eastern region of United Arab Emirates, Procedia Engineering, 154: 639-644.
31. Chowdhury, R. K. and Rajput, M. A. (2016) Will Greywater Reuse Really Affect the Sewer Flow? Experience of a Residential Complex in Al Ain, UAE. Water Science and Technology: Water Supply, DOI: 10.2166/ws.2016.131.
32. Rashid, M. M., Beecham, S. and Chowdhury, R. K. (2016) Statistical Downscaling of Rainfall: A Non-stationary and Multi-resolution Approach, Theoretical and Applied Climatology, 124 (3): 919-933.
33. Chowdhury, R.K., Sharvelle, S. and Beecham, S. (2016) Greywater quality changes in a permeable pavement reservoir, Water Management, 169 (4):190-198.
34. Maraqa MA, Ability of single-rate models to predict solute distribution coefficients in systems with heterogeneous sorption kinetics, Transport in Porous Media, 112(3), 765-781, 2016, doi: 10.1007/s11242-016-0676-0.
35. Mwafy, A.M. and Elkholy, S., 2016, “Performance Assessment and Prioritization of Mitigation Approaches for Pre-seismic Code Structures”, Advances in Structural Engineering (SCI), In Press.
36. N. Ismail and N. Khattak (2016). Building typologies prevalent in Northern Pakistan and their performance during the 2015 Hindu Kush Earthquake. Earthquake Spectra, Published online ahead of print, doi: 10.1193/012116EQS022M

37. N. Ismail (2016). Performance of retrofit anchors for use in seismic upgrade of heritage masonry buildings, *International Journal of Architectural Heritage*, Published online ahead of print, doi: 10.1080/15583058.2016.1144115
38. N. Ismail and J. M. Ingham (2016). In-plane and out-of-plane testing of masonry walls strengthened using polymer textile reinforced mortar. *Engineering Structures*. 118, 167-177. doi: 10.1016/j.engstruct.2016.03.041
39. N. Ismail and N. Khattak (2016). Observed failure modes of unreinforced masonry buildings during the 2015 Hindu Kush earthquake. *Earthquake Engineering and Engineering Vibration*, (accepted for publication).

Conferences

1. Akiel, M., El-Maaddawy, T., and El Refai, A. (2016). "Flexural Tests of Continuous Concrete Slabs Reinforced With Basalt Fiber-Reinforced Polymer Bars", CSCE Annual Conference London – Resilient Infrastructure, 1-4 June, London, Canada.
2. Awani, O. El-Maaddawy, T., and El Refai, A. (2016). "Shear Strengthening of Concrete Beams Using Fabric-Reinforced Cementitious Matrix", 2nd International Conference on Infrastructure Management, Assessment and Rehabilitation Techniques (ICIMART'16), 8-10 March, Sharjah, UAE.
3. S.T. Aly, A.S. El-Dieb, M.M. Reda Taha, "Properties of High-Performance Self-Compacting Concrete with Recycled Ceramic Waste Powder", Accepted in the ACI-KC 4th International Conference and Exhibition; Smart, Green and Durable Structures, Kuwait, 8-10 Nov. 2016. (Corresponding Author)
4. D.M. Kanaan, A.S. El-Dieb, "Efficiency of Using CWP as Partial Replacement of Cement in Concrete-Judged by Measured Properties", Accepted in the ACI-KC 4th International Conference and Exhibition; Smart, Green and Durable Structures, Kuwait, 8-10 Nov. 2016. (Corresponding Author)
5. S.T. Aly, A.S. El-Dieb, S. Aboubakr, M.M. Reda Taha, "Utilization of Ceramic Waste Powder in Self-Compacting Concrete", The 4th International Conference on Sustainable Construction Materials and Technologies (SCMT4), Las Vegas, Nevada, USA, 7-11 Aug. 2016. (Corresponding Author)
6. D.M. Kanaan, A.S. El-Dieb, "Ceramic Waste Powder as an Ingredient to Sustainable Concrete", The 4th International Conference on Sustainable Construction Materials and Technologies (SCMT4), Las Vegas, Nevada, USA, 7-11 Aug. 2016. (Corresponding Author)
7. B. El-Ariss, "Simple Computer 2-D Model for Linear Analysis of Externally Prestressed Beams," in the OTTAWA'2016 AES-ATEMA International Conference "Advances and Trends in Engineering Materials and their Applications, Ottawa, CANADA: October 10 - 14, 2016.

8. Mohamed M., Chowdhury R., and Younis H. Greywater Reuse in UAE as an Alternative Water Source. The World Congress on Recycling, July 2016.
9. Rezaul Chowdhury, Mohamad M. A. Mohamed, and Ahmed Murad. Variability of Extreme Hydro-Climate Parameters in the North- Eastern Region of United Arab Emirates. 12th International Conference on Hydroinformatics (HIC 2016) Songdo Convensi, Incheon, Korea, 21-26, 2016.
10. Chowdhury R., T. Ksiksi, M. Mohamed and J. Abaya. Performance of vegetative bio-retention system for greywater reuse in the arid climates. The 8th International Conference on Environmental Science and Technology, Houston, Texas, USA, June 6-10, 2016.
11. Hawas, Y. and Al Nahyan, M.T. (2016) 'A Fuzzy-based Approach to Estimate Management Processes Risks' Proceedings of the ICFMsquare 2016 - International Conference on Fuzzy Management Methods - Fribourg, Switzerland, 29 - 30 September 2016.
12. Elsayed H., Hawas, Y. (2016) 'A Cost Effective Route Guidance Method for Urban Areas Using Histograms' Accepted, the International Wireless Communications & Mobile Computing Conference (IWC MC 2016), September 5-9, 2016, Paphos, Cyprus.
13. Elsayed H., Hawas, Y. (2016) 'HBA- Histogram Based Algorithm for Real Time Route Forecasting in Urban Area' Proceedings of the IEEE ICC 2016 Ad-hoc and Sensor Networking Symposium, 23-27 May 2016, Kuala Lumpur, Malaysia
14. Hilal El-Hassan and Yixin Shao, Carbon Storage through Dynamic Carbonation Curing of Fresh Lightweight Concrete, Proceedings of the 2016 AIChE Spring Meeting, Houston, TX, April 10–14, 2016.
15. Hilal El-Hassan and Yixin Shao, Innovative CO₂ Utilization by Carbonation Curing of Lightweight Concrete Made with Portland Limestone Cement, Proceedings of the 2016 AIChE Annual Meeting, San Francisco, CA, November 10-18, 2016.
16. Hilal El-Hassan, Abdelrahman Al-Sallamin, and Tamer El-Maaddawy, Microstructural Characterization of GFRP Reinforcing Bars in Severe Environment, Proceedings of the 2016 AIChE Annual Meeting, San Francisco, CA, November 10-18, 2016.
17. Chowdhury, R.K., Taoufik, K., Mohamed, M. M. and Abaya, J. (2016) Performance of Vegetative Bioretention System for Greywater Reuse in the Arid Climates, 8th International Conference on Environmental Science and Technology 2016, 6-10 June, Houston, USA, Organized by the American Academy of Science.
18. Soliman A.M., El-Shorbagy W., Maraqa M.A., El-Shaer M. and Ayesh A.I., Photo catalytic degradation of malachite green dye using activated carbon decorated with nano silver under UV-irradiation, the 8th Annual International Workshop on Advanced Materials (IWAM 2016), Feb. 21-23, 2016, Ras Al Khaimah, UAE.

19. Mwafy, A.M., Almurad, B., and Ashri, A. 2016, "Vulnerability assessment of concrete buildings with different heights to near-source earthquakes using improved performance criteria", The Sixth International Conference on Structural Engineering, Mechanics and Computation, Sep. 5-7, Cape Town, South Africa.
20. N. Ismail, and H. El-Hassan (2016). Pull out testing of self-screwing retrofit wall to diaphragm anchorage system, Brick and Block Masonry: Proceedings of the 16th International Brick and Block Masonry Conference, Padova, Italy, Jun 26-30.
21. Hamouda, M.A. 2016. A framework for developing simple adaptive indicator-based water treatment decision support systems. Proceedings, 8th International Congress on Environmental Modelling and Software, Toulouse, France, July 10-14 2016, Sabine Sauvage, José-Miguel Sánchez-Pérez, Andrea Rizzoli (Eds.)
22. Sara Al Hinaai, Maryam Al Ameri, and S.A. Elkholy "Observer: Innovative Traffic Violations Monitoring Platform" The 4th United Arab Emirates Undergraduate Student Research Competition (UGSRC). May 9, 2016, Abu Dhabi University

Book Chapters

1. Chowdhury, R. K (2016) Potential and Challenges of Project-Based Learning in Engineering Education at the United Arab Emirates University, In: Abdulwahed, M., Hasna, M. O. and Froyd, J. (Ed.) Advances in Engineering Education in the Middle East and North Africa, ISBN: 978-3-319-15322-3 (Print) 978-3-319-15323-0 (Online), Springer, pp 323-342.
2. Maraqa MA, Sweedan AMI, and Zaneldin E, Chapter 11: Inclusion of Construction Safety in Engineering Programs in the MENA Region: Assessment and Potential Enhancement, In: Advances in Engineering Education in the Middle East and North Africa: Current Status and Future Insights, Eds. Abdulwahed M, Hasna MO, and Froyd JE, pp 261-299, 2016, Springer, Switzerland, ISBN 978-3-319-15322-3.
3. Mohamed MM and Maraqa MA, Chapter 12: Environmental Engineering Education in the UAE, In: Advances in Engineering Education in the Middle East and North Africa: Current Status and Future Insights, Eds. Abdulwahed M, Hasna MO, and Froyd JE, pp 301-320, 2016, Springer, Switzerland, ISBN 978-3-319-15322-3.
4. Mohamed M. M. and Maraqa M. A., Environmental Engineering Education in the UAE, book chapter in: Advances in Engineering Education in the Middle East and North Africa: Current Status and Future Insights, Eds. Abdulwahed M, Hasna MO, and Froyd JE, 2016.