

## Publications (Civil Engineering)

Year 2023

### Journals

1. Shoib, S.; El-Maaddawy, T.; El-Hassan, H.; El-Ariss, B. Behavior of Shear-Critical Recycled Aggregate Concrete Beams Containing BFRP Reinforcement. *Buildings* 2023, 13, 2785. <https://doi.org/10.3390/buildings13112785>
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3. AbouEl-Hamd, O.R.; Sweedan, A.M.I.; El-Ariss, B.; El-Sawy, K.M. Experimental and Numerical Investigation of the Behavior of Steel Beams Strengthened by Bolted Hybrid FRP Composites. *Buildings* 2023, 13, 824. <https://doi.org/10.3390/buildings13030824>.
4. Sheikh-Sobeh, A., Kachouh, N., El-Maaddawy, T. (2023). "Numerical analysis of concrete deep beams reinforced with glass fiber-reinforced polymer bars." *Buildings*, 13(11), 2767.
5. Elmezayen, Y., and El-Maaddawy, T. (2023). "Repair of continuous beams pre-damaged by corrosion in sagging regions with C-FRCM composites." *Int. J. Adv. Struct. Eng.*, 7(1), 29-36.
6. Elmezayen, Y., Khattak, N., El-Maaddawy, T. (2023). "Prediction of nonlinear flexural behavior of continuous RC beams pre-damaged by corrosion." *Buildings*, 13(6), 1398.
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10. A. El-Mir, J. Hwalla, H. El-Hassan, J.J. Assaad, A. El-Dieb, "Valorization of Waste Perlite Powder in Geopolymer Composites," *Construction and Building Materials*, March 2023, Vol. 368, 130491. [doi.org/10.1016/j.conbuildmat.2023.130491](https://doi.org/10.1016/j.conbuildmat.2023.130491).
11. P Arafin, AHM Billah, and A Issa (2023) "Deep Learning Based Concrete Defects Classification Using Semantic Segmentation". *Structural Health Monitoring*. 2023;0(0). doi:10.1177/14759217231168212.
12. A Issa, N Rahgozar, M.S. Alam (2023) "Seismic Response Evaluation of Spring-Based Piston Braced Frames (SBPBF) by Employing Closed-Loop Dynamic (CLD) Testing". *Engineering Structures*, 284, 115983.

13. A Issa, N Rahgozar, M.S. Alam (2023) "Experimental Investigation and Seismic Analysis of a Novel Self-Centering Piston-Based Bracing Archetype with Polyurethane Cores" *Engineering Structures*, Volume 283, 115735, ISSN 0141-0296, <https://doi.org/10.1016/j.engstruct.2023.115735>.
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15. Joseph, R., Mwafy, A.M.\* and Alam, M.S., 2023, "Shake-table testing and numerical simulation to select the FRCM retrofit solution for flexure/shear deficient RC frames", *Journal of Building Engineering (top 1% journal)*, Volume 69, 1 June 2023, 106248. DOI: 10.1016/j.job.2023.106248
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### *Conferences*

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10. T. Brown, A. Elshaer, A. Issa (2023) "Mathematical formula to evaluate the required gap distance and impact from wind-induced pounding of tall buildings" The 16th ICWE International Conference on Wind Engineering, August 27-31, 2023, Florence, Italy
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23. Tahir, Beenish, Mohamed A Hamouda, and Ashraf Aly Hassan. “A Single-Step Synthesis of Defective Graphitic Carbines from Melamine and Urea for Photocatalytic Applications,” 2023.
24. N.A.K. Nandasena, 2023. Tsunami Impact on Fujairah Port Breakwaters: Small-Scale Experimental Assessment. 40th IAHR World Congress, Vienna, Austria. <https://rivers.boku.ac.at/iahr/>
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#### *Book Chapters*

1. El-Hassan H., El-Mir, A., El-Maaddawy, T. (2023). “The Effect of Curing Regimes on Fiber-Reinforced Alkali-Activated Composites”, In: Çevik A. and Niş A. (eds) *Advanced Fiber-Reinforced Alkali-Activated Composites*. Sawston, United Kingdom. Elsevier S&T Books: Woodhead Publishing.



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#### Patents

- 1- Filed one patent (currently is being evaluated by external reviewer – 3<sup>rd</sup> round of review), Invention Title: Internal Reinforcement Method of Upgrading Progressive Collapse Resistance of Reinforced Concrete Framed System. Inventors: Bilal El-Ariss, Said Elkhoully, Ahmed Shehada.
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