List of Research Publications

Total publications (252), ISI Clarivate JCR Journal Papers (85), International Conference Papers (38), International Patents (13), Books, Editorials, Expos, Invention Exhibitions, Technical Reports, Monographs, other Journal Papers etc. (88), R&D Government and Private Funded Research Grant Projects (28)

ISI Clarivate JCR Journal Papers

Year 2024:

- Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish, DDN Singh and Mshtaq Ahmed (2024) "Synergistic effect of benzo triazole with polyethoxylated sorbitan monooleate in inhibiting corrosion of rebars and chloride diffusion through mortars", *Nature Scientific Reports Journal*, 5th most cited journal in the world, ISSN 2045-2322, published 2nd July, 2024, Vol. 14, Article number: 15126, DOI: https://doi.org/10.1038/s41598-024-65962-w (ISI JCR Clarivate Impact Factor: 4.996, Q1).
- Mshtaq Ahmed, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish and Raja Rizwan Hussain (2024) "Assessment of Threshold Chloride for RC Structures in Tropical Climate Using Various Techniques", American Concrete Institute ACI Materials Journal, paper accepted in press, Journal ISSN: 0889-325X (ISI JCR Clarivate Impact Factor: 1.9).
- **3.** Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish, DDN Singh and Mshtaq Ahmed (2024) "Synergistic protection of borate and silicate salts composite for controlling the chloride-induced pitting and uniform corrosion of steel reinforcement bars embedded in mortars", *Nature Scientific Reports Journal*, 5th most cited journal in the world, ISSN 2045-2322, published online 25th March, 2024, Vol. 14, Article number: 7069, DOI: https://doi.org/10.1038/s41598-024-57485-1 (ISI JCR Clarivate Impact Factor: 4.996, Q1).

Year 2022:

- 4. Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al-Negheimish (2022) "Role of scoria natural pozzolan in the passive film development for steel rebars in chloride-contaminated concrete environment", *Construction and building materials Journal, Elsevier*, ISSN: 0950-0618, available online 13 October 2022, Vol. 357, Article number: 129335, published 28th November 2022, DOI: https://doi.org/10.1016/j.conbuildmat.2022.129335, ISI Journal Citation Reports (Clarivate Analytics, 2022) Impact Factor: 7.693, ranking 5th out of 138 Top 3 in Engineering, Civil, Q1).
- 5. Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al-Negheimish (2022) "Effect of curing compounds on the quality of passive layer development under varying oxygen concentration for RC structures in the course of early curing of concrete", *Construction and building materials Journal*, *Elsevier*, ISSN: 0950-0618, available online 24 August 2022, Vol. 350, Article number: 128842, published 3 October 2022, DOI: https://doi.org/10.1016/j.conbuildmat.2022.128842 (ISI JCR Clarivate Impact Factor: 7.693, ranking 5 out of 138 Top 3 in Engineering, Civil, Q1).
- 6. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish and DDN Singh (2022) "Role of phosphorus as micro alloying element and its effect on corrosion characteristics of steel rebars in concrete environment", *Nature Scientific Reports Journal*, 5th most cited journal in the world, ISSN 2045-2322, published online 21st July, 2022, Vol. 12, Article number: 12449, DOI: https://doi.org/10.1038/s41598-022-16654-w (ISI JCR Clarivate Impact Factor: 4.996, Q1).

Year 2021:

- Abdulrahman M. Alhozaimy, Mshtaq Ahmed, Raja Rizwan Hussain and Abdulaziz Al-Negheimish (2021) "Quantitative Non-linear Effect of High Ambient Temperature on Chloride Threshold Value for Steel Reinforcement Corrosion in Concrete Under Extreme Boundary Conditions", Materials, Vol. 14 (24), pp. 7595, DOI: https://doi.org/10.3390/ma14247595, Received: 23 October 2021 / Revised: 3 December 2021 / Accepted: 6 December 2021 / Published: 10 December 2021 (ISI Clarivate JCR Impact Factor: 3.920, Q1).
- Abdulaziz Al-Negheimish, Raja Rizwan Hussain, Abdulrahman Alhozaimy, and DDN Singh (2021) "Corrosion performance of hot-dip galvanized zinc-aluminum coated steel rebars in comparison to the conventional pure zinc coated rebars in concrete environment", *Construction and building materials Journal, Elsevier,* ISSN: 0950-0618, available online 31 December 2020, Vol. 274, published 8 March 2021, Article # 121921, DOI: https://doi.org/10.1016/j.conbuildmat.2020.121921 (ISI Clarivate JCR Impact Factor: 7.693, ranking 5 out of 138 Top 3 in Engineering, Civil, Q1).

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- 9. Raja Rizwan Hussain, Abdulaziz Al-Negheimish, Abdulrahman Alhozaimy and D.D.N Singh (2020) "Corrosion characteristics of Vanadium micro-alloyed steel reinforcement bars exposed in concrete environments and industrially polluted atmosphere", *Cement and Concrete Composites Journal*, ISI, Elsevier, Journal ISSN: 0958-9465, PII: S0958-9465(20)30234-1, DOI: https://doi.org/10.1016/j.cemconcomp.2020.103728, Vol. 113, October 2020, Article # 103728, Journal Citation Reports (Clarivate Analytics, 2022) ISI Impact Factor: 9.93, ranking 3rd out of 138 Top 2 in Engineering, Civil, Q1).
- Abdulrahman Alhozaimy, Raja Rizwan Hussain and Abdulaziz Al-Negheimish (2020) "Electrochemical Investigation for the Effect of Rebar Source and Surface Condition on the Corrosion Rate of Reinforced Concrete Structures under Varying Corrosive Environments", *Construction and building materials Journal*, *Elsevier*, ISSN: 0950-0618, paper accepted January 2020, published 30 May 2020, DOI: https://doi.org/10.1016/j.conbuildmat.2020.118317, Vol. 244, Article # 118317 (ISI JCR Clarivate Impact Factor: 7.693, ranking it 5 out of 138 Top 3 in Engineering, Civil, Q1).

Year 2019:

- X. Hou, M. Abid, W Zheng and Raja Rizwan Hussain (2019) Effects of Temperature and Stress on Creep Behavior of PP and Hybrid Fiber Reinforced Reactive Powder Concrete, International Journal of Concrete Structures and Materials, ISSN: 1976-0485 (Print) 2234-1315 (Online), published 22 August 2019, Vol. 13, Issue 1, Article No. 45. pp. 1194. DOI: https://doi.org/10.1186/s40069-019-0357-9 (ISI Impact Factor: 2.48, Q1).
- Hwa-Rang Jeong, Han-Seung Lee, Palwasha Jalalzai, Seung-Jun Kwon, Jitendra Kumar Singh, Raja Rizwan Hussain, Rayed Alyousef, Hisham Alabduljabbar and Fahid Aslam (2019), "Sodium Phosphate Post-treatment on Al coating: Morphological and Corrosion Study", Journal of Thermal Spray Technology, ISSN: 1059-9630 (Print) 1544-1016 (Online), DOI: https://doi.org/10.1007/s11666-019-00921-w, Springer, published online 26 September, 2019, Vol. 28, pp. 1511-1531 (ISI Impact Factor: 2.129, Q2).

- 13. Han Seung Lee, Jitendra Kumar Singh, Mohamed A. Ismail, Chinmoy Bhattacharya, Asiful H. Sheikh and Raja Rizwan Hussain (2019) "Corrosion mechanism and kinetics of Al-Zn coating deposited by arc thermal spraying process in saline solution at prolonged exposure periods", *Nature Scientific Reports Journal*, ISSN 2045-2322, published online 4th March 2019, Vol. 9, Article No. 3399, Doi: https://doi.org/10.1038/s41598-019-39943-3 (ISI Impact Factor: 4.996, Q1).
- Muhammad Abid, Xiaomeng Hou, Wenzhong Zheng and Raja Rizwan Hussain (2019), Effect of Fibers on High-Temperature Mechanical Behavior and Microstructure of Reactive Powder Concrete, *Materials Journal*, ISI, MDPI, ISSN 1996-1944; CODEN: MATEG9, 21st January, 2019, Vol. 12, Issue 2, pp. 329 (1-30), Doi: https://doi.org/10.3390/ma12020329 (ISI Impact Factor: 2.467, Q1).
- Nazim Abdul Nariman, Raja Rizwan Hussain, Mohammed A. Msekh, Peyman Karampour (2019), "Prediction Meta-Models for the Responses of a Circular Tunnel During Earthquakes", *Underground Space Journal, Elsevier*, ISSN: 2467-9674, online 18 Sep, 2018, Published March 2019, Vol. 4, Issue 1, pp. 31-47, DOI: https://doi.org/10.1016/j.undsp.2018.06.003 (JCR Clarivate Impact Factor: 6.40)
- Nazim Abdul Nariman, Raja Rizwan Hussain, Mohammad Ilham Ibrahim and Peyman Karampour (2019), "Global Sensitivity Analysis of Certain and Uncertain Factors for a Circular Tunnel under Seismic Action", *Frontiers of Structural and Civil Engineering*, Springer, ISSN: 2095-2430, eISSN: 2095-2430, Vol. 13, Issue 6, pp. 1289-1300, Dec 2019, DOI: 10.1007/s11709-019-0548-0 (ISI Impact Factor: 1.680)
- 17. Muhammad Abid, Xiaomeng Hou, Wenzhong Zheng, Raja Rizwan Hussain, Shaojun Cao and Zhihao Lv (2019), Creep behavior of steel fiber reinforced reactive powder concrete at high temperature, Construction and building materials Journal, Elsevier, ISSN: 0950-0618, online 10 February 2019, printed version 30 April 2019, Vol. 205, pp. 321-331, Doi: https://doi.org/10.1016/j.conbuildmat.2019.02.019 (ISI Impact Factor: 7.693, ranking it 5 out of 138 Top 3 in Engineering, Civil, Q1).
- Raja Rizwan Hussain and Sebastian, W (2019), *Editorial*: Proceedings of the Institution of Civil Engineers – Structures and Buildings Journal, England, ISI, Journal ISSN: 0965-0911, Vol. 172, Issue 2, pp. 79-80, /Feb 2019, DOI: https://doi.org/10.1680/jstbu.2019.172.2.79 (ISI Impact Factor: 0.765, Q4).
- McDonald. D, Raja Rizwan Hussain, J. K. Singh, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish, C. Bhattacharya, R. S Pathania and D.D.N Singh (2019), *Closure to Discussion:* "M-2015-326.R2, Effect of Reinforcing Bar Microstructure on Passive Film Exposed to Simulated Concrete Pore Solution, Vol. 115, No. 2, pp. 181-190, March 2018, Title No. 115-M16," DOI: https://doi.org/10.14359/51701237, *American Concrete Institute ACI Materials Journal*, ISI, Article Type: Editorial Material, Journal ISSN: 0889-325X, Vol. 116, No. 1, pp. 173-173, Jan-Feb 2019 (ISI Impact Factor: 1.780, Q2).

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- 21. Raja Rizwan Hussain, Ahmed B. Shruaim, Fahid Aslam, A. Alhozaimy and Al-Humaiqani M. M. (2018), "Coupled Effect of Coarse Aggregate and Micro-Silica on the relation between Strength and Elasticity of High Performance Concrete", *Construction and building materials Journal, Elsevier,* ISSN: 0950-0618, Vol. 175, pp. 321-332, 30 June 2018, DOI: https://doi.org/10.1016/j.conbuildmat.2018.04.192 (ISI Impact Factor: 7.693, ranking it 5 out of 138 Top 3 in Engineering, Civil, Q1).
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- 23. Raja Rizwan Hussain (2018), *Editorial*: Proceedings of the Institution of Civil Engineers Structures and Buildings Journal, England, ISI, Journal ISSN: 0965-0911, Vol. 171, Issue SB3, pp. 193-194, March 2018, DOI: https://doi.org/10.1680/jstbu.2018.171.3.193 (ISI Impact Factor: 0.765, Q4).
- 24. Muhammad Wasim and Raja Rizwan Hussain (2018), "Re-Corrosion in Simulated Refurbished Patches of Corroded Lightweight Reinforced Concrete Structures", Civil Engineering Research Journal, Juniper Publishers, USA, ISSN: 2575-8950, Vol. 6, Issue 1, pp. 1-7, 555678, 13 July 2018, DOI: 10.19080/CERJ.2018.06.555678.

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- 26. Abdulaziz Al-Negheimish, Abdulrahman Alhozaimy, Raja Rizwan Hussain, J.K. Singh and D.D.N. Singh (2017), Pitting Susceptibility of Concrete Reinforcing Steel Bars Having Manganese Sulfide Inclusions, *American Concrete Institute ACI Materials Journal*, ISI, Journal ISSN: 0889-325X, DOI: 10.14359/51689595, Vol. 114, No. 3, May-June 2017, pp 441-451 (ISI Impact Factor: 1.512, Q2).
- 27. Raja Rizwan Hussain (2017), *Editorial*: Proceedings of the Institution of Civil Engineers Structures and Buildings Journal, ISI, Journal ISSN: 0965-0911, Vol. 170, Issue SB10, pp. 705-706, October 2017, DOI: http://dx.doi.org/10.1680/jstbu.2017.170.10.705 (ISI Impact Factor: 0.765, Q4).
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- Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, J.K Singh and DDN Singh (2017), *Closure to Discussion:* "M-2015-083.R2, Accelerated rusting of reinforcing bars: The role of manganese alloying in concrete reinforcement steel bars, Vol. 113, Issue 5, Title No. 113-M52, September-October 2016, pp. 579-588, doi: 10.14359/51688985", *American Concrete Institute ACI Materials Journal*, ISI, Journal ISSN: 0889-325X, Vol. 114, No. 4, July-Aug 2017, pp. 683-684 (ISI Impact Factor: 1.512, Q2).

Year 2016:

- 30. Ahmed B. Shuraim, Fahid Aslam, Raja Rizwan Hussain, Abdulrahman Alhozaimy (2016), Coupled effect of coarse aggregate type and silica fume on creep coefficients of high-strength Concrete, Journal of Materials in Civil Engineering, ASCE (American Society of Civil Engineers), ISI, Journal ISSN: 0899-1561, Vol. 28, Issue 12, Article # 04016159, pp. 1-13, Dec 2016, DOI: 10.1061/(ASCE)MT.1943-5533.0001654 (ISI Impact Factor: 2.33, Q1).
- 31. Ahmed K. El-Sayed, Raja Rizwan Hussain and Ahmed B. Shuraim (2016), Influence of Stirrup Corrosion on the Shear Strength of Reinforced Concrete Slender Beams, American Concrete Institute, (ACI) Structural Journal, ISI, ISSN: 0889-3241, Title No. 113-S104, Vol. 113, Issue 6, pp. 1223-1232, DOI: 10.14359/51689147, published Nov-Dec 2016. (ISI Impact Factor: 1.471)
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- Ahmed B. Shuraim, Fahid Aslam, Raja Rizwan Hussain, Abdulrahman Alhozaimy (2016), Analysis of Punching Shear in High Strength RC Panels – Experiments, Comparison with Codes and FEM Results, *International Journal of Computers and Concrete*, Korea, ISI, Journal ISSN: 1598-8198, Vol. 17, No. 6, pp. 739-760, June 2016, DOI: http://dx.doi.org/10.12989/cac.2016.17.6.739 (ISI Impact Factor: 1.015, Q3)
- 34. M. Rizwan, S. A Khan, M. Ilyas and Raja Rizwan Hussain (2016), Modelling Steel-Strip-Confined Reinforced-Concrete Columns, ICE, England, *Proceedings of the Institution of Civil Engineers -Structures and Buildings Journal*, ISI, Journal ISSN: 0965-0911, DOI: 10.1680/jstbu.14.00084, April 2016, Vol. 169, Issue: 4, pp. 245-256. (ISI Impact Factor: 0.765)
- 35. Ahmed K. El-Sayed, Raja Rizwan Hussain and Ahmed B. Shuraim (2016), Effect of Stirrup Corrosion on the Shear Strength of Reinforced Concrete Short Beams, *Journal of Civil Engineering and Management*, ISI, ISSN 1392-3730/eISSN 1822-3605, (published online August, 2015). DOI: 10.3846/13923730.2014.897990, Vol. 22, Issue: 4, pp. 491-499 (ISI Impact Factor: 3.711, Q2).
- 36. Abdulrahman Alhozaimy, Raja Rizwan Hussain and Abdulaziz Al Negheimish (2016), Significance of oxygen concentration on the quality of passive film formation for steel reinforced concrete structures during the initial curing of concrete, *Cement and Concrete Composites Journal*, ISI, Elsevier, Journal ISSN: 0958-9465, DOI: 10.1016/j.cemconcomp.2015.10.022, Jan 2016, Vol. 65, pp. 171-176. (ISI Impact Factor: 9.93, Q1)
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- 41. Muhammad Wasim, Raja Rizwan Hussain and Muhammad Ali Baloch (2015), Investigation of Long Term Coupled Effect of High Temperature and Constant High Humidity on Corrosion Rehabilitated Patches of Reinforced Concrete Structures, *International Journal of Civil Engineering*, ISI, Journal ISSN: 1735-0522, March 2015, Vol. 13, Issue IA, No.1, 3-2015, pp. 68-75 (ISI Impact Factor: 0.695, Q4)
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Year 2014:

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- 44. Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al Negheimish (2014), Investigation of the Effect of Fineness Dependent Volume of Fine aggregate on the Passive Layer Formation and Corresponding Corrosion of Steel Reinforced Concrete using Electrochemical Approach, *Corrosion Engineering Science & Technology Journal*, England, ISI, Journal ISSN: 1478-422X, DOI: http://dx.doi.org/10.1179/1743278214Y.0000000153, Volume 49, Issue 8 (December 2014), pp. 736-742. (ISI Impact Factor: 0.658, Q3)

- **45.** A.B.M Saiful Islam, Syed Ishtiaq Ahmad, Mohd. Zamin Jumaat, Raja Rizwan Hussain, Mohammed Ashiqur Rehman and Kh Muhafiz ud Darain (2014), Efficient Design in Building Construction with Rubber Bearing in Medium Risk Seismicity: Case Study & Assessment, *Journal of Civil Engineering and Management, ISI*, Journal ISSN: 1392-3730, DOI: 10.3846/13923730.2013.801910, 3rd Sep 2014, Vol. 20, Issue 5, pp. 621-631. (ISI Impact Factor: 3.711, Q2)
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- 47. Sarfraz Munir, Raja Rizwan Hussain and A.B.M. Saiful Islam (2014), Parallel Framework for Earthquake Induced Response Computation of SDOF Structure, *Journal of Civil Engineering and Management, ISI*, DOI:10.3846/13923730.2013.801917, Journal ISSN: 1392-3730, Aug 2014, Vol. 20, Issue 4, pp. 477-484. (ISI Impact Factor: 3.711, Q2)
- 48. Abdulrahman Alhozaimy, Raja Rizwan HUSSAIN, Abdulaziz Al-negheimish, Rajeh Al-zaid and DDN Singh (2014), Effect of Simulated Concrete Pore Solution Chemistry, Chloride Ions, and Temperature on the Passive Layer Formed on Steel Reinforcement, *American Concrete Institute ACI Materials Journal*, ISI, Journal ISSN: 0889-325X, DOI: 10.14359/51686829, Vol. 111, Issue 4, July-August 2014, pp. 411-421. (ISI Impact Factor: 1.123, Q2)
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- 53. Raja Rizwan Hussain (2013), Computer Based FEM Stabilization of Oxygen Transport Model for Material and Energy Simulation in Corroding Reinforced Concrete, *International Journal of Computers and Concrete*, ISI, Journal ISSN: 1598-8198, DOI: http://dx.doi.org/10.12989/cac.2013.12.5.669, Nov. 2013, Vol. 12, No. 5, pp. 669-680. (ISI Impact Factor: 1.015, Q3)
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- 92. Raja Rizwan Hussain (2018) "Corrosion of Steel Reinforced Concrete Structures" Invited Speaker with complete financial support from the Conference Organizer, 2nd June 2018, Civil Engineering Department, Harbin Institute of Technology (HIT), Harbin, China.
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