

List of Publications

(*Dr. Raja Rizwan Hussain*)

• **SUMMARY OF ACHIEVEMENTS:**

Total Publications (157)

ISI Journal Papers (49)

International Conference Proceeding Papers (30)

International US & WO Patents (5)

Books, editorials, expos, invention shows, technical reports, monographs, other journal papers etc. (57)

R&D Government and Private Funded Research Project Grants (19)

Journal Editorial Board Positions (63)

Organizational, Scientific & Technical Committee Works for Conferences, Seminars and Symposiums (52)

Societies, Organizations, Councils & Committees (24)

Subjects taught to under graduate, M.Sc. and Ph.D students (14)

Medals, Awards, Prizes, Distinctions and Achievements (72)

Countries Visited (47)

LIST OF PUBLICATIONS:

ISI Journal Papers

Year 2015:

1. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, Rajeh Al-Zaid and D.D.N Singh (2015), Mechanism of nucleation and growth of passive film on steel rebar at different durations of its exposure in concrete pore solution at the nanoscale, *ACI Materials Journal*, ISI, paper accepted, in press, Manuscript ID M-2014-042.R2. (ISI Impact Factor: 0.826)
2. 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, Vol. 13, No.1, 3-2015, pp. 68-75 (ISI Impact Factor: 0.695)
3. Muhammad Wasim and Raja Rizwan Hussain (2015), Passive Film formation and Corrosion Initiation in Lightweight Concrete Structures compared to Self compacting and Ordinary Concrete Structures at Elevated Temperature in Chloride Rich Environment, *Construction and Building Materials Journal*, Elsevier, ISI, Volume 78, March 2015, pp. 144-152. (ISI Impact Factor: 2.293)

Year 2014:

4. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish and DDN Singh (2014), Time-dependent variation of the electrochemical impedance for thermo-mechanically treated versus plain low alloy steel rebars in contact with simulated concrete pore solution, *Construction and Building Materials Journal*, Elsevier, ISI, Vol. 73, pp. 283–288. (ISI Impact Factor: 2.293)
5. 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, *ACI Materials Journal*, ISI, MS Paper No. M-2012-309, Vol. 111-M37, Issue 4, No. 1-6, pp. 411-421. (ISI Impact Factor: 0.826)

6. 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*, ISI, DOI: <http://dx.doi.org/10.1179/1743278214Y.00000000153>, Volume 49, Issue 8 (December 2014), pp. 736-742 (ISI Impact Factor: 0.658)
7. Ahmed K. El-Sayed, Raja Rizwan Hussain and Ahmed B. Shuraim (2014), Effect of Stirrup Corrosion on the Shear Strength of Reinforced Concrete Short Beams, *Journal of Civil Engineering and Management*, Manuscript ID SCEM-2013-0132.R2, ISI, (accepted, in press). (ISI Impact Factor: 3.711)
8. Fahid Aslam, Zahid Ahamd Siddiqi, Wasim Abbas and Raja Rizwan Hussain (2014), Economical-Structural Performance of Steel Moment Resisting Building Frames Using the Section Variation Technique, *Revista de la Construcción Journal of Construction*, ISI, Vol. 13, Issue 1, pp. 41 – 46. (ISI Impact Factor: 0.229)
9. M. Rizwan, M. T. A. Chaudhary, M. Ilyas, Raja Rizwan Hussain and T. R. Stacey (2014), “Computer Based Estimation of Backbone Curves for Hysteretic Response of Reinforced Concrete Columns Under Static Cyclic Lateral Loads”, *International Journal of Computers and Concrete*, ISI, Vol. 14, Number 2, pp. 193-209. (ISI Impact Factor: 1.015)
10. A.B.M. Saiful Islam, Mohd Zamin Jumaat, Raja Rizwan Hussain and Md. Nazmul Huda (2014) Incorporation Preference for Rubber-Steel Bearing Isolation in Retrofitted Existing Multi storied Building, *International Journal of Computers and Concrete*, accepted-In press. (ISI Impact Factor: 1.015)
11. Muhammad Wasim, Raja Rizwan Hussain and Ali Baloch (2014), Repair Vulnerability of Corrosion Patch Repairs at the Steel Intersection Areas of Reinforced Concrete Slabs Influenced by Harsh Weather, *Industrial & Engineering Chemistry Research Journal*, ISI, DOI: 10.1021/ie402901y, Vol. 53, Issue 7, pp. 2656-2660. (ISI Impact Factor: 2.461)
12. Abdulaziz Al- Negheimish, Abdulrahman Alhozaimy, Raja Rizwan Hussain, Rajeh Al-Zaid, J.K.Singh and D.D.N.Singh (2014), The role of manganese sulfide inclusions in steel rebar in the formation and breakdown of passive films in concrete pore solutions, *NACE Corrosion Journal*, ISI, Vol. 70, Issue 1, pp. 74-86. (ISI Impact Factor: 1.772)
13. Sarfraz Munir, Raja Rizwan Hussain and A.B.M. Saiful Islam, Parallel Framework for Earthquake Induced Response Computation of SDOF Structure, *Journal of Civil Engineering and Management*, ISI, DOI:10.3846/13923730.2013.801917, Vol. 20, pp. 1-8, published 12 March, 2014. (ISI Impact Factor: 3.711)
14. A.B.M. Saiful Islam, Raja Rizwan Hussain, Mohammed Zamin Jumaat and Kh Mahfuz ud Darain, (2014), Implications of Rubber-Steel Bearing Nonlinear Models of Soft Storey Structures, *International Journal of Computers and Concrete*, ISI, Vol. 13, Number 5, pp. 603-619. (ISI Impact Factor: 1.015)

15. Mahboob Alam, Raja Rizwan Hussain and A.B.M. Saiful Islam (2014), Impact assessment of rainfall-vegetation on sedimentation and predicting erosion-prone region by GIS and RS, *Geomatics, Natural Hazards and Risk Journal*, DOI:10.1080/19475705.2014.942387 (ISI Impact Factor: 0.977).
16. 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*, Vol. 20, Issue 5, pp. 621-631. (ISI Impact Factor: 3.711)

Year 2013:

17. 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, Vol. 12, No. 5, pp. 669-680. (ISI Impact Factor: 1.015)
18. A.B.M. Saiful Islam, Raja Rizwan Hussain and Mohd Zamin Jumaat (2013), Nonlinear Dynamically Automated Excursions for Rubber-Steel Bearing Isolation in Multi-storey Construction, *Automation in Construction Journal, Elsevier, ISI*, Vol. 30, pp. 265-275. (ISI Impact Factor: 1.820)
19. M. Wasim and Raja Rizwan Hussain (2013), Comparative Study on Induced Macrocell Corrosion Phenomenon in Repaired Ordinary Reinforced and Self-compacting Concrete Structures, *Corrosion Engineering Science and Technology Journal*, ISI, Vol. 48, Issue 5, pp. 370-379. (ISI Impact Factor: 0.658)
20. Mohammed Jameel, A.B.M. Saiful Islam, Raja Rizwan Hussain, Syed Danish Hasan and M. Khaleel (2013), Non-linear FEM Analysis of seismic induced pounding between neighboring Multi-storey Structures, *Latin American Journal of Solids and Structures*, ISI, Vol. 10, 2013, pp. 921 – 939. (ISI Impact Factor: 1.240)
21. M. Wasim and Raja Rizwan Hussain (2013), Experimental Investigation of Re-Corrosion Phenomenon in Simulated Repaired Steel Reinforced Self Consolidating Concrete Structures, *International Journal of Electrochemical Science*, ISI, Vol. 8, pp. 1678-1690. (ISI Impact Factor: 3.729)
22. A.B.M. Saiful Islam, Raja Rizwan Hussain, Mohd Zamin Jumaat and Md Ashraful Alam, Incorporation of Rubber-steel Bearing Isolation in a Multi-storey Building, *Journal of Civil Engineering and Management, ISI*, Volume 19, Issue sup1 pp. S33-S49. Published 09 Jan 2013. (ISI Impact Factor: 3.711)
23. Wasim Abbas, Fahid Aslam, Zahid A. Siddiqi, Raja Rizwan Hussain and Sheraz Ahmed (2013), Bond Behaviour of High Strength Concrete Flexural Member under Low Cyclic Fatigue Loading, *Fatigue & Fracture of Engineering Materials & Structures (FFEMS) journal*, ISI, Vol. 36, Issue 7, pp. 602–613. (ISI Impact Factor: 1.002)

Year 2012:

24. Hussain Raja Rizwan, Ishida T and Wasim M., Oxygen Transport and Corrosion of Steel in Concrete Under Varying Concrete Cover, W/C and Moisture, *ACI Materials Journal*, ISI, Paper No. 109-M01, Vol. 109, No. 1, 2012. (ISI Impact Factor: 0.826)
25. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al- Negheimish and Rajeh Al-Zaid (2012), "Investigation of Severe Corrosion Observed at Intersection Points of Steel Rebar Mesh in Reinforced Concrete Construction", *Construction and Building Materials Journal*, Elsevier, ISI, Vol. 37, pp. 67–81. (ISI Impact Factor: 2.293)
26. Raja Rizwan Hussain, Electrochemical Behavior and Dependency of Anodic Current Density on Chloride Concentration and Temperature Based on Reverse Corrosion Modeling Approach for Steel Reinforced Concrete, *International Journal of Electrochemical Science*, ISI, Vol. 7, Issue 4 (2012) pp. 3638-3645. (ISI Impact Factor: 3.729)
27. Mohammed Jameel, A.B.M. Saiful Islam, Raja Rizwan Hussain, M. Khaleel, M. M. Zaheer (2012) "Optimized Structural Modelling for Tall Buildings", *The Structural Design of Tall and Special Buildings Journal*, ISI, DOI: 10.1002/tal.1004. (ISI Impact Factor: 0.952)
28. A.B.M. Saiful Islam, Raja Rizwan Hussain, M. Jameel and M. Z. Jumaat (2012) Non-linear Time Domain Analysis of Base Isolated Multi-storey Building under Site Specific Bi-directional Seismic Loading, *Automation in construction*, Elsevier, ISI, Vol. 22, pp. 554-566. (ISI Impact Factor: 1.820)
29. Syed Mazharul Islam, Raja Rizwan Hussain and Md. Abu Zakir Morshed, "Fiber-reinforced concrete incorporating locally available natural fibers in normal- and high-strength concrete and a performance analysis with steel fiber-reinforced composite concrete", *Journal of Composite Materials*, ISI, Vol. 46, Issue 1, January 2012, U.K. (ISI Impact Factor: 1.060)
30. M. Wasim and Hussain Raja Rizwan (2012), Unique Declining Electrochemical Trend of Macro-Cell Half-Cell Potential with Increase in Temperature at Constant High Humidity for Corroding Steel Bars in Repaired Concrete Patches, *International Journal of Electrochemical Science*, ISI, Vol. 7, Issue 2, pp. 1412-1423. (ISI Impact Factor: 3.729)
31. Hussain Raja Rizwan (2012), Time Dependent Electrochemical Effect of Saturated Area in Capillary and Gel Pores of Concrete on the Corrosion Rate of Embedded Steel Reinforcement, *International Journal of Electrochemical Science*, ISI, Vol. 7, Issue 2, pp. 1402-1411. (ISI Impact Factor: 3.729)
32. Hussain Raja Rizwan and Tetsuya Ishida (2012), Multi-Variable Empirical Analysis of Coupled Oxygen and Moisture for Potential and Rate of Quantitative Corrosion in Concrete, *Journal of Materials in Civil Engineering*, ASCE (American Society of Civil Engineering), ISI, Vol. 24, No. 7, pp. 950-958, July 2012. (ISI Impact Factor: 0.959)
33. Raja Rizwan Hussain, Groundbreaking Electrochemical Computation of Dispersed Individual Activation Energies and Development of Activation Energy Model for Chloride Induced Corrosion of RC Structures under Ambient Temperature, *International Journal of Electrochemical Science*, ISI, Vol. 7, Issue 4 (2012) pp. 3656-3671. (ISI Impact Factor: 3.729)

Year 2011:

34. Hussain Raja Rizwan, Effect of moisture variation on oxygen consumption rate of corroding steel in chloride contaminated concrete, *Cement & Concrete Composites*, Vol. 33, Issue 1 (January 2011) pp. 154–161, *Elsevier*, ISI. (ISI Impact Factor: 2.523)
35. Raja Rizwan Hussain and Tetsuya Ishida (2011) Computer-Aided Oxygen Transport Model of Mass and Energy Simulation for Corrosion of Reinforced Steel, *Automation in Construction Journal*, Vol. 20, Issue 5, pp. 559-570, *Elsevier*, ISI. (ISI Impact Factor: 1.820)
36. Mohammad Wasim and Raja Rizwan Hussain, Novel Method for Preventing Macro-Cell Chloride Induced Corrosion in the Simulated Repaired Reinforced Concrete Patch and Its Electrochemical Verification, *International Journal of Electrochemical Science*, ISI, Vol. 7, Issue 4 (2012) pp. 3646-3655. (ISI Impact Factor: 3.729)
37. Raja Rizwan Hussain (2011) Influence of Chloride Ions and Hot Weather on Isolated Rusting Steel Bar in Concrete Based on NDT and Electro-Chemical Model Evaluation, *NDT & E International Journal*, Vol. 44, Issue 2, pp. 158-162, *Elsevier*, ISI. (ISI Impact Factor: 1.744)
38. Raja Rizwan Hussain (2011) Electrochemical Experimental Measurement of Macrocell Corrosion Half-cell Potential Replicating the Re-corrosion of Actual Refurbished Works in RC Structures, *International Journal of Electrochemical Science*, ISI, Vol. 6, Issue 1, pp. 199-205. (ISI Impact Factor: 3.729)
39. Hussain Raja Rizwan, Tetsuya Ishida and M. Wasim (2011) Experimental Investigation of Time Dependent Non Linear 3D Relationship Between Critical Carbonation Depth and Corrosion of Steel in Carbonated Concrete, *Journal of Corrosion Engineering, Science and Technology*, ISI, Vol. 46, No. 5, pp. 657-660 (4), U.K. (ISI Impact Factor: 0.658)
40. Hussain Raja Rizwan and Tetsuya Ishida (2011) Enhanced electro-chemical corrosion model for reinforced concrete under severe coupled actions of chloride and temperature, *Construction and Building Materials Journal*, Vol. 25, Issue 3, pp. 1305-1315, *Elsevier*, ISI. (ISI Impact Factor: 2.293)
41. Hussain Raja Rizwan and Tetsuya Ishida (2011) Investigation of Volumetric Effect of Coarse Aggregate on Corroding Steel Reinforcement at the Interfacial Transition Zone of Concrete, *KSCE Journal of Civil Engineering*, Vol. 15, Issue 1, pp. 153-160, *Springer*, ISI. (ISI Impact Factor: 0.450)
42. Hussain Raja Rizwan, Enhanced Mass Balance Electrochemical Computational Model for Corrosion Rate of Steel coupled with CO₂ Transport Model in Extremely Carbonated Concrete, *International Journal of Computers and Concrete*, ISI, Vol. 8, No.2, April 2011, pp. 177-192, U.K. (ISI Impact Factor: 1.015)
43. Raja Rizwan Hussain (2011) Underwater Half-Cell Corrosion Potential Bench Mark Measurements of Corroding Steel in Concrete influenced by a Variety of Material Science and Environmental Engineering Variables, *Measurement Journal*, ISI, Vol. 44, pp. 274-280, *Elsevier*. (ISI Impact Factor: 1.138)

44. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Rajeh Al-Zaid and Abdulaziz Al- Negheimish (2011) “Coupled Effect of Ambient High Relative Humidity and Varying Temperature Marine Environment on Corrosion of Reinforced Concrete”, *Construction and Building Materials Journal*, ISI, Vol. 28, Issue 1, pp. 670–679, *Elsevier*. (ISI Impact Factor: 2.293)
45. M. Wasim and Raja Rizwan Hussain (2011) Three Dimentional Computer Aided FEM Retrofitting Modeling and NDT Technique for Assessment of Actual Exiting High Rise Fire Damaged RC Building, *Structural Design of Tall and Special Buildings Journal*, ISI, DOI: 10.1002/tal.734, Vol. 22, Issue 12, pp. 927-940. (ISI Impact Factor: 0.952)

Year 2010:

46. Hussain Raja Rizwan, Tetsuya Ishida (2010) Influence of Connectivity of Concrete Pores and Associated Diffusion of Oxygen on Corrosion of Steel under High Humidity, *Construction and Building Materials Journal*, ISI, Vol. 24, Issue 6, pp.1014–1019, *Elsevier*. (ISI Impact Factor: 2.293)
47. Hussain Raja Rizwan and Tetsuya Ishida (2010) Development of Numerical Model for FEM Computation of Oxygen Transport through Porous Media Coupled with Micro-Cell Corrosion Model of Steel in Concrete Structures, *Computers and Structures Journal*, ISI, Vol. 88, Issues 9-10, pp.639–647, *Elsevier*. (ISI Impact Factor: 1.440)
48. Hussain Raja Rizwan, Tetsuya Ishida (2010) Novel Approach Towards Calculation of Averaged Activation Energy Based on Arrhenius Plot for Modeling of the Effect of Temperature on Chloride Induced Corrosion of Steel in Concrete, *Journal of ASTM International*, ISI, Vol. 7, Issue 5, pp. 1-8, doi: 10.1520/JAI102667, USA.

Year 2009:

49. Hussain Raja Rizwan and Tetsuya Ishida (2009) Critical Carbonation Depth for Initiation of Steel Corrosion in Fully Carbonated Concrete and the Development of Electrochemical Carbonation Induced Corrosion Model, *International Journal of Electrochemical Science*, ISI, Vol. 4, Issue 8, pp. 1178-1195. (ISI Impact Factor: 3.729)

International Conference Proceedings

Year 2015:

50. Hussain Raja Rizwan, Alhozaimy, A., Al-Negheimish, A., Al-Zaid, R. (2015). “Nano-scale Investigation of Passive Layer for Corroding Steel Bars in Concrete under Severe Environmental Conditions”. ICCME 2015: XIII *International Conference on Civil and Materials Engineering*, World Academy of Science, Engineering and Technology, International Science Index, Civil and Structural Engineering, 2(12), 880.

Year 2014:

51. Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al Negheimish (2014), Influence of Sand Particles on the Half-Cell Corrosion Potential of Steel in Concrete, 3rd *all Russian International Conference on Concrete and Reinforced Concrete – Glance at the Future*, paper # 95520, pp. 456-463, 12-16 May, Moscow, Russia.

52. El-Sayed, A. K., Hussain Raja Rizwan and Shuraim, A. B., "CFRP Strengthening of RC Beams with Corrosion-Damaged Stirrups," Proceedings of the *Second International Conference on Advances in Structural Health Management and Composite Structures* (ASHMCS 2014), Vol. I, P44, pp.1-6, Jeonju, Jeonbuk, South Korea, 27-29 August, 2014.
53. Ahmed B. Shuraim, Abdulrahman Alhozaimy and Raja Rizwan Hussain, Effect of Aggregate and Silica Fume on Time-Development of Concrete Compressive Strength, Proceedings of the Second International Conference on Advances in Civil and Structural Engineering - CSE 2014, Malaysia, 20-21 December, 2014.

Year 2013:

54. Ahmed B. Shuraim, Raja Rizwan Hussain, Fahid Aslam, Abdulrahman Alhozaimy and Mohammad Mousa Al-humaiqani (2013), Effect of Local Aggregate and Silica Fume on the Creep of High Performance Concrete – A Comparison with ACI and LRFD Models, Proceedings of 22nd International Conference on Structural Mechanics in Reactor Technology, Transactions, SMiRT-22, August 18-23, San Francisco, California, USA.
55. Mohammed M. Al-Humaiqani, Ahmed B. Shuraim and Raja Rizwan Hussain (2013), Effect of Compressive Strength on the γ -Radiation Attenuation Coefficients for High Performance Concretes, paper # C037, 2nd International Conference on Civil Engineering and Materials (ICCEM 2013), July 06-07, Hong Kong.
56. Abdulrahman Alhozaimy, Raja Rizwan Hussain and Abdulaziz Al Negheimish (2013), Effect of Steel Rebar Composition and Surface Condition on the Corrosion Rate of RC Structures, paper # 187, Proceedings of International Conference on Concrete Sustainability (ICCS13), 27th to 29th May, Tokyo, Japan.
57. El-Sayed, A. K., Hussain Raja Rizwan and Shuraim, A. B., (2013) "Shear Performance of Short RC Beams with Corroded Stirrups" Proceedings of the Annual Conference of the Canadian Society for Civil Engineering (CSCE), Proceedings on CD-Rom, Montreal, Quebec, Canada, May 29 - June 1, 2013, 10 p.

Year 2012:

58. Raja Rizwan Hussain, Abdulrahman Al Hozaimy, Abdulaziz Al Negheimish and Rajeh Al-Zaid (2012), Influence of Surface Finish and Elemental Structure on the Corrosion Properties of Reinforced Concrete, IJAS Conference, paper # RHS74, 02-07 December, Gottenheim, Germany.
59. Raja Rizwan Hussain, Effect of Concrete Microstructure Saturation on the Corrosion Rate of Embedded Steel Reinforcement, Proceedings of 2nd International Conference on Microstructural-related Durability of Cementitious Composites, paper # 215, 11-13 April 2012, Amsterdam, The Netherlands, pp. 1132-1142, RILEM.

60. Raja Rizwan Hussain, Process for Inhibiting Macro-Cell Corrosion during RC Construction Maintenance, 2nd Annual International Conference on Construction, 18-21 June 2012, Athens, Greece, ATINER'S Conference Paper Series, No: CON2012-0040.

Year 2011:

61. Hussain Raja Rizwan, Abdulrahman Alhozaimy, Abdulaziz Al Negheimish and Rjeh Al Zaid (2011) Factors Affecting the Corrosion Rate at Intersection Points of Steel Rebar Mat in Reinforced Concrete Structures, Proceedings of *NACE International, My Corrosion-My Prevention-My Solutions*, Paper # 11015, Houston, Texas, USA.
62. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al- Negheimish and Rajeh Al-Zaid, "EIS Investigation of the Effect of Reinforcement Steel Surface Composition, Material and Microstructure on the Corrosion Related Durability of Concrete", *Proceedings of 31st Cement and Concrete Science Conference*, Novel Developments and Innovation in Cementitious Materials, September 2011, Imperial College London, U.K, paper-33, pp.1-6.
63. Hussain Raja Rizwan, Abdulrahman Alhozaimy, Abdulaziz Al Negheimish and Rjeh Al Zaid (2011) Factors Affecting the Nano-Scale Investigation of Passive Layer for Corroding Steel Bars in Concrete Under Severe Environmental Actions, *Proceedings of the Second International Conference on Future Concrete, 2011*, Paper # 19, Dubai, UAE.

Year 2010:

64. Hussain Raja Rizwan, Tetsuya Ishida and Amir Fauzi (2010) Experimental Investigation and Modeling of the Effect of Volume of Coarse Aggregate on half-cell potential and gravimetric corrosion rate of RC structures, *13th Middle East Corrosion Conference and Exhibition*, Bahrain, Vol. 13, No. 10104.
65. Hussain Raja Rizwan, Abdulrahman Alhozaimy, Rajeh Al-Zaid and Abdulaziz Al-Negheimish (2010) High Corrosion Rate Observed at Intersection Points in Steel Rebar Mesh of RC Material; Is it a phenomenon or just an observation?, Proceedings of AES-ATEMA'2010 Fifth International Conference, Montreal & Quebec City, Canada: June 27 – July 03, 2010 -*Technical Reviews International Journal Series*, ISSN 1915-5409, Vol.1, pp. 149 – 159.

Year 2009-2005: (During Post-Graduation M.Sc. and Ph.D. Studies)

66. Hussain Raja Rizwan and T. Ishida (2006) Coupled effect of chloride and temperature on the corrosion of R.C Structures based on thermodynamic modeling approach, *Proceedings of The Tenth East Asia-Pacific Conference on Structural Engineering and Construction* (EASEC-10), Bangkok. pp. 743-748.

67. Raja Rizwan Hussain, Reliability of HCP measurement techniques for corrosion of plain steel rebars in concrete structures, *International Conference on Concrete and Geopolymer*, Thailand, 2006.
68. Raja Rizwan Hussain and Yahya Chaudhry, Investigation of the effect of local aggregate source on the shrinkage & strength of plain concrete, *International Conference on Concrete and Geopolymer*, Thailand, 2006.
69. Raja Rizwan Hussain, Discrepancy in corrosion measurements due to non linear rise of hydration temperature in reinforced concrete structures, *8th International Conference on Concrete in Hot and Aggressive Environments*, Bahrain, 2006.
70. Hussain Raja Rizwan and T. Ishida (2007) Electrochemical thermodynamic corrosion process in RC structures under severe environmental actions of chloride and temperature, *Fifth International Conference on concrete under severe conditions, Environment & Loading*, France vol.1, pp. 299-306.
71. Hussain Raja Rizwan, T. Ishida (2007) Modeling of the effect of chloride on the corrosion of RC structures using thermodynamic electrochemical approach, *International Symposium on Social Management Systems*; 9-11 March, Vol. 2(1), pp. 113-122, Hubei, Yi-Chang, China.
72. Hussain Raja Rizwan, Tetsuya Ishida (2007) Electrochemical modeling of corrosion in reinforced concrete and the effect of chloride and temperature, *Japan Concrete Institute (JCI) Japan*. Vol. 29, No.1, pp.1389-1394.
73. Hussain Raja Rizwan, Corrosion monitoring and control in repaired RC structures, *International conference on Corrosion Control*, 2007, Australia.
74. Hussain Raja Rizwan and Tetsuya Ishida (2008) Effect of oxygen on corroding RC structures under variable moisture conditions, *Japan Concrete Institute, (JCI) Japan*. Vol. 30, No.1, pp.1181-1187.
75. Hussain Raja Rizwan and T. Ishida (2008) Experimental Determination of Cathodic Current and Oxygen Consumption Rate of Corroding Steel in Concrete Under Varying Ambient Relative Humidity, *Eleventh East Asia-Pacific Conference on Structural Engineering and Construction (EASEC-11)*, Taipei, Taiwan, pp. 390- 394.
76. Hussain Raja Rizwan, Bending and cracking of plastic fiber reinforced concrete slab elements, CD Proceedings, *Hellenic Concrete conference*. Cyprus, 2009.
77. Hussain Raja Rizwan, Tetsuya Ishida and M. Wasim (2009) Effect of Carbonation on Corrosion of Reinforced Concrete Structures in Relation to Carbonation Depth, Half-Cell Potential and Corrosion Rate, *Australian Corrosion Association (ACA):Corrosion and Prevention*, Vol. 2-097, pp. 101-112, Australia.

International Patents

78. Raja Rizwan Hussain, “Method for Predicting Chloride Induced Corrosion”, Patent Application No. US2013131999-A1, pp. 19, United States Patent Office (USPTO), published 23rd May, 2013, USA.
79. Raja Rizwan Hussain, Electronic computation device-implemented method for predicting amount of chloride-induced corrosion of steel in reinforced concrete, involves displaying amount of steel corrosion and amount of consumed oxygen on computation device, Patent Application # WO2013077906-A2, World Intellectual Property Organization (WIPO) protected under the agency of the United Nations (UN), published 30th May, 2013, Switzerland.
80. Raja Rizwan Hussain and M. Wasim “Induced Macro-Cell Corrosion Prevention Method”, Patent Nos. US2013269283-A1, US8745957-B2, pp. 13, United States Patent Office (USPTO), published 17 Oct, 2013, Main IPC E04B-001/92, USA.
81. Raja Rizwan Hussain and M. Wasim, Induced macro-cell corrosion prevention method for rebar in simulated reinforced concrete specimen, involves filling removed area with non-contaminated concrete, so that buffer prevents formation of macro-cell to prevent corrosion, Patent # WO2013154604-A1, World Intellectual Property Organization (WIPO) protected under the agency of the United Nations (UN), Oct, 2013, Main IPC E04G-023/02, Switzerland.
82. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish, DDN Singh, “New method of ascertaining the fully grown passive film on steel reinforcement bars embedded in concrete by using Electrochemical Impedance Spectroscopy”, US patent pending at IPTL KSU office.

Books, Editorials, Expos, Invention Exhibitions, Technical Reports, Monographs etc.

Year 2014:

83. Editorial: Hussain Raja Rizwan (2014), Modeling of Corrosion; Steel, Concrete and Environment. J Civil Environ Eng., Vol. 4, Issue 1: p114. doi:10.4172/2165-784X.1000e114.
84. Ahmed B. Shuraim, Raja Rizwan Hussain and Amjad Aref, Development of High Performance Concrete for Nuclear Energy Containment Structural Facilities; 1430 H-Now: King Abdulaziz City for Science and Technology (KACST), Long Term Comprehensive National Plan for Science, Technology and Innovation, Annual Report No. 08-ADV208-02, Riyadh, KSA, 2014.
85. Raja Rizwan Hussain and Abdullah Al Mamun, A Small Step to Reduce the Giant Cost of Columns, OMICS Publishers, 731 Gull Ave, Foster City. CA 94404, USA.
86. Editorial: Hussain Raja Rizwan (2014), Passive layer development and corrosion of steel in concrete at the nano-scale. J Civil Environ Eng., Vol. 4, Issue 3: p116. doi: 10.4172/2165-784X.1000e116.

Year 2013:

87. Mohammed M. Al-Humaiqani, Ahmed B. Shuraim and Raja Rizwan Hussain (2013) γ -Radiation Shielding Properties of High Strength High Performance Concretes Prepared with Different Types of Normal and Heavy Aggregates, Asian Transactions on Engineering Journal, DOI: ATE-80323020, Vol. 03, Issue 02, May 2013, pp. 21 – 31.
88. Editorial: Hussain Raja Rizwan (2013), Conversion of a Severe Environmental Pollutant Electric Arc Furnace Dust (EAFD) to a Valuable Corrosion Inhibitor for Steel in Chloride Contaminated Reinforced Concrete Structures. J Civil Environ Eng., Vol. 3, Issue 1, e111. doi:10.4172/2165-784X.1000e111.
89. Omer Sabih and Hussain Raja Rizwan (2013) Concrete Mix Design, Volume 1, CreateSpace publishers, Seattle, WA 98109, USA; ISBN-13: 978-1481298810.
90. Raja Rizwan Hussain and M. Wasim (2013) Innovative Method for preventing macro-cell corrosion in the repaired reinforced concrete patch, 41st International Exhibition of Inventions, Geneva, Switzerland (received Gold Medal and certificate of achievement).
91. Umer Nafees and Hussain Raja Rizwan (2013) Design of an International Runway (First Edition), Volume 1, CreateSpace publishers, Seattle, WA 98109, USA; ISBN-13: 978-1482072679.
92. Ghulam Mustafa Wahid Vira, Muhammad Wasim, Ghilman Dilshad, Naeem ur Rehman and Raja Rizwan Hussain (2013) Computer Aided Seismic Design and its Cost Feasibility: Building Frame System of RCC Structures, First Edition, Volume 1, CreateSpace publishers, Seattle, WA 98109, USA; ISBN-13: 978-1482011623.
93. Ahmed El-Sayed Kamal, Ahmed B. Shuraim and Raja Rizwan Hussain, Reinforced concrete beams with corrosion damaged stirrups: shear capacity assessment and repair, King Abdulaziz City for Science and Technology (KACST), Long Term Comprehensive National Plan for Science, Technology and Innovation, Annual Report, No. 10-BUI1191-02, KACST, Riyadh, Saudi Arabia, 2013.

Year 2012:

94. Hussain Raja Rizwan (2012) Corrosion of Steel Reinforced Concrete Under Severe Environmental Conditions, 2nd Edition, CreateSpace publishers, Seattle, WA 98109, USA; ISBN: 9781480107427.
95. Mohammed Mousa Al-Humaiqani, Ahmed B. Shuraim and Raja Rizwan Hussain (2012) Assessment of Nuclear Radiation Shielding Efficiency for High Performance Heavy Weight Concrete for Nuclear Containment Structural Facilities (NCSFs), *Sustainable Energy Technologies Program*, Vice Rectorate for Post Graduate Studies & Scientific Research, King Saud University, Final Report No. SP12/A1/003, Riyadh, KSA.
96. Raja Rizwan Hussain, Computation of dispersed individual activation energies and development of activation energy model, Malaysia Technology Expo, Invention and Innovation Awards, 16-18 February, 2012, Kuala Lumpur, Malaysia (received silver medal).

97. Abdulaziz Al Negheimish, Abdulrahman Alhozaimy, Rajeh Al Zaid, Mohammad Iqbal Khan and Raja Rizwan Hussain (2012) Effects of Using Retarding Admixtures on the Performance of Concrete in Hot Weather, *Long Term Comprehensive National Plan for Science, Technology and Innovation, Final Report*, No. 09-ADV212-02, KACST, Riyadh, Saudi Arabia.
98. Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, Rajeh Al Zaid and Raja Rizwan Hussain (2012) Nano-scale Investigation of Passive Layer for Corroding Steel Bars in Concrete under Severe Environmental Conditions, *Long Term Comprehensive National Plan for Science, Technology and Innovation, Final Report*, No. 09-NAN674-02, KACST, Riyadh, Saudi Arabia.
99. Raja Rizwan Hussain and M. Wasim, Technique for preventing macro-cell corrosion in the simulated reinforced concrete patch, Malaysia Technology Expo, Invention and Innovation Awards, 16-18 February, 2012, Kuala Lumpur, Malaysia (received silver medal).
100. Saqib Sabih and Hussain Raja Rizwan (2012) Network Security and ISP Setup Implementation: volume 1, CreateSpace publishers, Seattle, WA 98109, USA; ISBN-13: 978-1479395149, ISBN-10: 1479395145.

Year 2011:

101. Hussain Raja Rizwan, Tetsuya Ishida and M. Wasim, Corrosion in RC Construction under Chloride and Hot Weather, *Journal of Construction Materials*, U.K, Vol. No. 164, Issue 4, August 2011, pp. 191-198.
102. Musaad Zaheer Nazir Khan and Raja Rizwan Hussain (2011) Innovative Design Philosophy for Reinforced Concrete Structures, *Lap Lambert Academic Publishers*, Germany. ISBN: 978-3- 8443-1825-8.
103. Abdulaziz Al Negheimish, Abdulrahman Alhozaimy, Rajeh Al Zaid, Mohammad Iqbal Khan and Raja Rizwan Hussain (2011) Effects of Using Retarding Admixtures on the Performance of Concrete in Hot Weather, *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Annual Report No. 09-ADV212-02, KACST, Riyadh, Saudi Arabia.
104. Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, Rajeh Al Zaid and Raja Rizwan Hussain (2011) Nano-scale Investigation of Passive Layer for Corroding Steel Bars in Concrete under Severe Environmental Conditions, *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Annual Report No. 09-NAN674-02, KACST, Riyadh, Saudi Arabia.
105. Raja Rizwan Hussain and Naheela Afzal Sheikh (2011) Deterioration of Structural Steel Embedded in Concrete: Effect of Chloride Ions, Temperature, Oxygen, Carbon Dioxide and Moisture, *Lap Lambert Academic Publishers*, Germany. ISBN: 978-3-8433-9027-9.
106. M. Hamza Saeed Virk and Raja Rizwan Hussain (2011) Seismic Vulnerability Assessment of RC Buildings, *Lap Lambert Academic Publishers*, Germany. ISBN: 978-3-8443-2074-9.
107. O. Sabih, M. J. Shafique, M. F. Latif, R. Minhas and R. R. Hussain (2011) Methods of Soil Stabilization, *Lap Lambert Academic Publishers*, Germany. ISBN: 978-3-8443-9592-1.

108. Raja Rizwan Hussain and Raazia Attique (2011) Pakistan's Water: In the Line of Action for Global Warming, *Lap Lambert Academic Publishers*, Germany. ISBN: 978-3-8454-1686-1.
109. Sumera Khalid and Raja Rizwan Hussain (2011) Frame Structures: Computer Aided Design and Analysis, *Lap Lambert Academic Publishers*, Germany. ISBN: 978-3-8443-8846-6.
110. Muhammad Umar Iqbal, Raja Rizwan Hussain and Osama Hassan (2011) RCC and Composite Structures, A Comparison Study, *Lap Lambert Academic Publishers*, Germany, Simultaneously published in USA & U.K. ISBN: 978-3-8454-4498-7.
111. Muhammad Shahid and Raja Rizwan Hussain (2011) Mechanical Properties of Recycled Aggregate Concrete Based on Bonded Mortar Content, *Lap Lambert Academic Publishers*, Germany, Simultaneously published in USA & U.K. ISBN: 978-3-8454-7159-4.
112. Ahmed B. Shuraim, Raja Rizwan Hussain and Amjad Aref (2011) Development of High Performance Concrete for Nuclear Energy Containment Structural Facilities; 1430 H-Now: King Abdulaziz City for Science and Technology (KACST), Long Term Comprehensive National Plan for Science, Technology and Innovation, 1st Technical Report No. 08-ADV208-02, Riyadh, KSA, 2011.
113. Hussain Raja Rizwan, Sabih Salahuddin and Omer Sabih (2011), Corrosion Protection Methods for Steel Structures, *Lap Lambert Academic Publishers*, Simultaneously published in USA & U.K. ISBN: 978-3-8465-4720-5.
114. M. Umair Anwer and Hussain Raja Rizwan, Scheme of Small Hydro Power Plant for a Classic Waterway Drop (2011), *Lap Lambert Academic Publishers*, Simultaneously published in USA & U.K. ISBN: 978-3-8465-5521-7.
115. Shahid Rehman and Hussain Raja Rizwan (2011) Pre-cast Concrete for Multi-storey Structures, CreateSpace publishers, Seattle, WA 98109, USA; ISBN-13: 978-1467918220, ISBN-10: 1467918229.

Year 2010:

116. Hussain Raja Rizwan, Tetsuya Ishida and Prince O' Neill (2010) Corrosion of RC Structures Under Severe Environmental Actions, *VDM Publishing House Ltd. Beniot Novel*; Simultaneously published in USA & U.K. ISBN: 978-3-639-24113-6.
117. Hussain Raja Rizwan and Tetsuya Ishida (2010) Corrosion of Steel Under Mass and Energy Transport in Porous Media, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-24189-1.
118. Hussain Raja Rizwan (2010) Durability of Reinforced Concrete; CORROSION, I-Proclaim Bookstore Press, U.S.A.

119. Hussain Raja Rizwan, M. R. K Bhuyan and M. S. A Siddiquee (2010) Stress at a Point and Its Transformation in 3D, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-24648-3.
120. Hussain Raja Rizwan & Imran Razzaq (2010) Fundamentals of Structural Analysis, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-22308-8.
121. Hussain Raja Rizwan & M. Wasim (2010) Seismic Retrofitting of RC Buildings, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in the USA & U.K. ISBN: 978-3-639-25055-8.
122. Hussain Raja Rizwan, Tetsuya Ishida and M. Wasim (2010) Induced Macro-Cell Corrosion Phenomenon in the Simulated Repaired Reinforced Concrete Patch, *Australian Journal of Civil Engineering*, Vol. 8, No. 1, pp. 53-60, Australia.
123. Hussain Raja Rizwan, A. B. M Saiful Islam & Syed Ishtiaq Ahmad (2010) Base Isolators as Earthquake Protection Devices in Building, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-26021-2.
124. Abdulaziz Al Negheimish, Abdulrahman Alhozaimy, Rajeh Al Zaid, Mohammad Iqbal Khan and Raja Rizwan Hussain (2010) Effects of Using Retarding Admixtures on the Performance of Concrete in Hot Weather, *Long Term Comprehensive National Plan for Science, Technology and Innovation*, First Technical Report, No. 09-ADV212-02, KACST, Riyadh, Saudi Arabia.
125. Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, Rajeh Al Zaid and Raja Rizwan Hussain (2010) Nano-scale Investigation of Passive Layer for Corroding Steel Bars in Concrete under Severe Environmental Conditions, *Long Term Comprehensive National Plan for Science, Technology and Innovation*, First Technical Report, No. 09-NAN674-02, KACST, Riyadh, Saudi Arabia.
126. Hussain Raja Rizwan and Syed Mazharul Islam (2010) Fiber Reinforced Concrete, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-26235-3.
127. Hussain Raja Rizwan and Ferdous Ahmed (2010) Harvested Rainwater, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-16942-3.
128. Sarfaraz Munir and Hussain Raja Rizwan (2010) Development of an Innovative Computing Approach for Time Efficiency, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-26564-4.
129. Raja Rizwan Hussain (2010) Structural Design of High Rise Buildings, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-27286-4.
130. Raja Rizwan Hussain and Asik Kadir (2010) Capacity of Axially Loaded Piles, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-30102-1.

131. Hussain Raja Rizwan (2010) Enhanced Classical Tafel Diagram Model for Corrosion of Steel in Chloride Contaminated Concrete and the Non Linear Experimental Effect of Temperature, *International Journal of Concrete Structures and Materials*, Springer, Vol.4, No.2, pp.71-75, December 2010.
132. Raja Rizwan Hussain (2010) Infinitesimal Rusting: Steel Rebars in Concrete Environment, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-30352-0.
133. M. Wasim, Raja Rizwan Hussain and Saqib Aftab (2010) Comparative Analysis of Moment Resisting Frames in Earthquake, *VDM Publishing House Ltd. Benoit Novel*, Simultaneously published in USA & U.K. ISBN: 978-3-639-31895-1.
134. Abdulaziz Al Negheimish, Abdulrahman Alhozaimy, Rajeh Al Zaid, Mohammad Iqbal Khan and Raja Rizwan Hussain (2010-11) Effects of Using Retarding Admixtures on the Performance of Concrete in Hot Weather, Long Term Comprehensive National Plan for Science, Technology and Innovation, 3rd Technical Report, No. 09-ADV212-02, KACST, Riyadh, Saudi Arabia.
135. Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, Rajeh Al Zaid and Raja Rizwan Hussain (2010-11) Nano-scale Investigation of Passive Layer for Corroding Steel Bars in Concrete under Severe Environmental Conditions, Long Term Comprehensive National Plan for Science, Technology and Innovation, 3rd Technical Report, No. 09-NAN674-02, KACST, Riyadh, Saudi Arabia.

Year 2009-2005: (During Post-Graduation M.Sc. and Ph.D. Studies)

136. Hussain Raja Rizwan and T. Ishida (2008) Modeling of combined effects of W/C, concrete cover and ambient relative humidity on the corrosion of RC structures under the influence of oxygen, *Japan Union of Cement and Concrete (JUCC) Japan*. Vol. 35, pp. 206-211.
137. Koichi Maekawa, T. Ishida and T. Kishi (2008) Multi-scale modeling of Structural Concrete, F & N, SPON; ISBN : 978-0-415-46554-0. (Contributed Chapter # 6)
138. Hussain Raja Rizwan, T. Ishida, Modeling of corrosion in RC structures under variable chloride environment based on thermodynamic electro-chemical approach, *Journal of SSMS, Japan*, SMS07-106, Vol.3, pp.104-113, 2007. (Best paper award for the last four years 2005-2009: Online: http://management.kochi-tech.ac.jp/society_approve.php).

R&D - Government and Private Funded Research Grant Projects

139. Nano-scale Investigation of Passive Layer For Corroding Steel Bars in Concrete Under Severe Environmental Conditions; 1430 H-Now: King Abdulaziz City for Science and Technology (KACST), Long Term Comprehensive National Plan for Science, Technology and Innovation, Project No. 09-NAN674-02, Riyadh, KSA, 2009.

140. Effects of using Retarding Admixtures on the Performance of Concrete in Hot Weather; 1430 H-Now: King Abdulaziz City for Science and Technology (KACST), *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Project No. 09-ADV212-02, Riyadh, KSA, 2009.
141. Development of High Performance Concrete for Nuclear Energy Containment Structural Facilities; 1430 H-Now: King Abdulaziz City for Science and Technology (KACST), *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Project No. 08-ADV208-02, Riyadh, KSA, 2010.
142. Raja Rizwan Hussain and M. Wasim, Novel Method for Preventing Macro-Cell Chloride Induced Corrosion in the Simulated Repaired Reinforced Concrete Patch and Its Electrochemical Verification, Deanship of Scientific Research, College of Engineering, Research Center, 2010, King Saud University, Riyadh, KSA.
143. Raja Rizwan Hussain, Groundbreaking Electrochemical Computation of Dispersed Individual Activation Energies and Development of Activation Energy Model for Chloride Induced Corrosion of RC Structures under Ambient Temperature, Deanship of Scientific Research, College of Engineering, Research Center, 2010, King Saud University, Riyadh, KSA.
144. M. Wasim and Raja Rizwan Hussain, Three Dimensional Computer Aided FEM Retrofitting Modeling and NDT Technique for Assessment of Actual Existing High Rise Fire Damaged RC Building, Deanship of Scientific Research, College of Engineering, Research Center, 2010, King Saud University, Riyadh, KSA.
145. Raja Rizwan Hussain, Electrochemical Behavior and Dependency of Anodic Current Density on Chloride Concentration and Temperature Based on Reverse Corrosion Modeling Approach for Steel Reinforced Concrete, Deanship of Scientific Research, College of Engineering Research Center, 2010, King Saud University, Riyadh, Saudi Arabia.
146. Raja Rizwan Hussain and M. Wasim, Unique Declining Electrochemical Trend of Macro-Cell Half-Cell Potential with Increase in Temperature at Constant High Humidity for Corroding Steel Bars in Repaired Concrete Patches, Deanship of Scientific Research, College of Engineering Research Center, 2011, King Saud University, Riyadh, Saudi Arabia.
147. Comprehensive Investigation of the Saudi Building Code (SBC 304) Provisions for the Protection of Reinforced Concrete Structures against Chloride Induced Corrosion in Hot Weather; under preparation for submission to King Abdulaziz City for Science and Technology (KACST), Riyadh, KSA.
148. Use of Nanotechnology for the Development of Ultra-High-Performance Concrete in the Kingdom; under review as Joint research project between KAU and KSU.
149. Reinforced concrete beams with corrosion damaged stirrups: shear capacity assessment and repair; King Abdulaziz City for Science and Technology (KACST), *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Project Code No. 10-BUI1191-02, Riyadh, KSA, 2011.

150. Raja Rizwan Hussain and M. Wasim, Re-Corrosion Phenomenon in Simulated Repaired Steel Reinforced Self Consolidating Concrete Structures, Deanship of Scientific Research, College of Engineering, Research Center, 2011, King Saud University, Riyadh, KSA.
151. Raja Rizwan Hussain and M. Wasim, Comparative Investigation on Induced Macro-cell Corrosion Phenomenon in Repaired Ordinary and Self Compacting Reinforced Concrete Structures, Deanship of Scientific Research, College of Engineering, Research Center, 2011, King Saud University, Riyadh, KSA.
152. Hussain Raja Rizwan, Time Dependent Electrochemical Effect of Saturated Area in Capillary and Gel Pores of Concrete on the Corrosion Rate of Embedded Steel Reinforcement, Deanship of Scientific Research, College of Engineering, Research Center, 2011, King Saud University, Riyadh, KSA.
153. Raja Rizwan Hussain, Computer Based FEM Stabilization of Oxygen Transport Model for Material and Energy Simulation in Corroding Reinforced Concrete, Deanship of Scientific Research, College of Engineering, Research Center, 2012, King Saud University, Riyadh, KSA.
154. Assessment of Nuclear Radiation Shielding Efficiency for High Performance Heavy Weight Concrete for Nuclear Containment Structural Facilities (NCSFs), *Sustainable Energy Technologies Program*, Vice Rectorate for Post Graduate Studies & Scientific Research, King Saud University, Ref. # SP12/A1/003, Riyadh, KSA, 2012.
155. Impact assessment of rainfall-vegetation on sedimentation and predicting erosion-prone region by GIS and RS, College of Engineering, Research Center, 2013, King Saud University, Riyadh, KSA.
156. Computer Based Estimation of Backbone Curves for Hysteretic Response of Reinforced Concrete Columns Under Static Cyclic Lateral Loads, Deanship of Scientific Research, College of Engineering, Research Center, 2013, King Saud University, Riyadh, KSA.
157. Development of a new class of corrosion inhibitors for steel reinforced concrete structures; Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and Rajeh Al-Zaid, King Abdulaziz City for Science and Technology (KACST), under review at *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Riyadh, KSA, 2014.

Scholarly Information:

- (Web of Science) Researcher-ID: C-7230-2011
- (Web of Science) ORC-ID: <http://orcid.org/0000-0002-7871-8886>
- Google Scholar h-index: 12
- Scopus Author ID: 35203575600

Citations:

ISI Web of Science: 113
 Scopus: 151
 Google Scholar: 232

TEACHING EXPERIENCE:

*** Universities:**

University of Engineering and Technology, Lahore.
University of Tokyo, Japan.
King Saud University, KSA.

*** Teaching Statement:**

My Five Step Approach: 1. Encouraging student atmosphere 2. Balancing between explaining and engaging the students 3. Making sure that the students stay with the lesson 4. Keeping the students motivated & 5. Keeping the courses updated.

*** Subjects Taught to Undergraduate Students:**

Engineering Mechanics
Mechanics of Solids (I&II)
Plain and Reinforced Concrete Design (I&II)
Steel Structures
Construction Materials
Project Management
Theory of Structures (I & II)

***Subjects Taught to Graduate Students (M.S and Ph.D):**

Concrete Technology (CE-577)
Non-linear Analysis and Design of RC Structures
Sustainable Infrastructure and Urban Regeneration
Advanced Concrete Technology