

# Curriculum Vitae

Prof. Dr. RAJA RIZWAN HUSSAIN (PhD in Civil Engineering)

# • SUMMARY OF ACHIEVEMENTS:

Publications (252)

ISI Clarivate JCR Journal Papers (85)

International Conference Proceeding Peer Reviewed Papers (38)

Patents in International US, WO and KSA procured in USA, Switzerland & Saudi Arabia (13)

Books, editorials, preface, expos, invention shows, technical/scientific reports, monographs etc. (88)

R&D Government and Private Funded Research Project Grants (28) worth more than (13) Million USD.

Journal Editorial Board Positions (131)

Organization, Scientific & Tech. Committee Memberships for Conference, Seminars Symposiums etc. (122)

Societies, Organizations, Councils & Committees (34)

Courses / Subjects taught to Undergraduate, M.Sc. and Ph.D Students (18) in (5) different Universities and in (4) different Countries.

Medals, Awards, Prizes, Distinctions and Achievements (112)

Real Estate Investment Net Worth (3.5) Million USD approx.

Countries Visited (62)

HOMEPAGE/WEBSITES

SOCIAL NETWORK

**DESIGNATIONS** 

More than (25) years of vast and versatile Experience working in the field, creative works etc. as a Civil Engineer, Project Manager, Structural Design Engineer, Worked as Consultant, Site Supervision Engineer, Planning Engineer, Evaluator & Estimator, BOQs, Tender Documents, Director, Operations Manager, Sub-Divisional Officer SDO on more than (100) Construction Projects with more than (15) Organizations worth Millions of US Dollars.

# • PERSONAL INFORMATION:

PhD in Civil Engineering from University of Tokyo – Ranked among QUALIFICATION

Top 20 in the World and Top 10 in Civil Engineering

**AGE 46 YEARS** 

**PHONE** +966-590011078

English, Urdu, Arabic basic, Japanese, Hindi, Punjabi, basic French **LANGUAGES WORKPLACE & ADDRESS** 

Professor, CoE-CRT, Civil Engineering Department,

PO Box: 800, College of Engineering, King Saud University,

11421, Riyadh, Saudi Arabia.

E-MAIL ADDRESSES raja386@hotmail.com

https://faculty.ksu.edu.sa/en/rhussain

http://www.facebook.com/raja.rizwan.hussain

Steel Reinforced Concrete Technology in Civil Engineering RESEARCH INTERESTS

Materials & Structures, especially Corrosion using Nanotechnology

Professor, Scientist, Academician, Designer, Consultant, Project

Manager, Inventor, Real Estate Investor, Developer,

Researcher & Distinguished Scholar.

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# • Academic Information:

Ph.D CIVIL ENGINEERING	University of Tokyo, Japan (2006-2008)  (Obtained degree in a record short period of just two years from a university ranked among TOP 20 in the world and TOP 10 in Civil Engineering)
M.Sc. CONCRETE ENGINEERING	University of Tokyo, Japan (2004-2006) (Highest Rank Research Thesis Award, Medal and Prize from The University)
B.Sc. CIVIL ENGINEERING	University of Engineering & Technology (U.E.T), Lahore (1996-2000) (Remained in Top 5 university positions)
Intermediate F.Sc. (Pre-Engineering)	Forman Christian College, Lahore (1993-1995) (Obtained 3 <sup>rd</sup> position in the college with A grade)
Secondary School Matriculation (Science)	Model High School, Lahore (1988-1993) (Obtained 1 <sup>st</sup> position in school with A+ grade)

# • Medals, Awards, Prizes, Achievements & Distinctions:

#### 2024:

- Participated in STEM Education, 17-18 September, IBEForuM, Riyadh, Saudi Arabia.
- International Research Awards, International Best Researcher Award, International Congress For Research Excellence accredited by The American Chamber of Research, Times of Research and World Research Council.
- ASTRA 2024, Asia's Outstanding Professor Award in Civil Engineering, Asia Research Awards 2024.

# 2023:

- Invited International External Reviewer for Ph.D dissertation, Civil Engineering Department, University of Engineering and Technology (U.E.T), Lahore, Pakistan.
- Guest Editor, "Corrosion of Steel Reinforcement Bars in Concrete Structures", A special issue of Applied Sciences. This special issue belongs to the section "Civil Engineering". ISI Impact Factor (I.F): 2.838, 5-year Impact Factor: 2.921, JCR category rank: Q2: Engineering.
- Guest Editor, "Corrosion Performance Analysis of Steel-Concrete Composite Structures & Materials", A special issue of Buildings Journal (ISSN: 2075-5309). ISI Impact Factor (I.F): 3.324, 5-year Impact Factor: 3.354, JCR category rank: Q2: Construction & Building Technology | Q2: Engineering, Civil, Founded: 2011, H5-Index: 32.

- Best Technical Paper Award, "Experimental Evaluation of Saudi Building Code (SBC 304) Provisions for the Corrosion Protection of Reinforced Concrete Structures Effect of Temperature on Chloride Threshold Value" 2<sup>nd</sup> International Conference on Durability of Building and Infrastructures for Smart City, DuraBI 2021, Venue: Zoom Platform (Online), Technical Session 2: Materials-2, S2-7, 1075-B-DuraBI21-Hussain2, pp. 1073-1089, Oct. 15-17, awarded on 18th, 2021.
- Member SMC, management council appointed by the Saudi Ministry of Education, and recommended by the Ambassador of Pakistan at the Embassy in Riyadh, Saudi Arabia.

- Collaborating with the education advisor to the Ambassador at the Embassy of Pakistan for opening a research chair at King Saud University in the name of famous Nuclear Scientist Dr. Abdul Qadeer Khan and/or Quaid-e-Azam the founder of Pakistan.
- Member Administrative sub-committee for smc, Pakistan International School English section (PISES), Riyadh, Saudi Arabia.
- Member Finance Sub-Committee for smc, Pakistan International School English section (PISES), Riyadh, Saudi Arabia.
- CEO, N.Z Heights Builders, Developers & Real Estate Ivestors, Plaza # 130, Commercial Main Boulevard, Nishtar Block, Adjacent Eiffel Tower, Sector F, Bahria Town, Lahore, Pakistan.
- Head of Academic sub-committee for smc, Pakistan International School English section (PISES), Riyadh, Saudi Arabia.
- Invited Keynote Lecture, 1<sup>st</sup> International Conference on "Advanced Developments in Chemistry and Allied Sciences-2021 (ADCAS-21)" in online mode on 16-17<sup>th</sup> December 2021, India.

- Evaulation Committee Member, Capstone Student Final Year Graduation Design Project CE-496 and CE-497.
- Mauritius Research and Innovation Council (MRIC) Project Proposal Reviewer, "Investigating the use of PET Plastic as Reinforced Material in Concrete Blocks", Cybercity, Republic of Mauritius.

# 2019:

- Best Student Project Award (Top Three) in the entire college of engineering from the teaching academic year 2019 - second semeter for teaching course GE 105 – Introduction to Engineering Design to under graduate students of King Saud University.
- Consultant in the Project "Sustainability Eco-Point and Performance of Green Lightweight Concrete using Saudi Local Waste" 01/05/2017-30/04/2019, SR 319375. Deanship of Scientific Research (DSR), Project # 2017-212-Eng., Imam Abdulrahman Bin Faisal University (IAU), Dammam, Saudi Arabia.
  - External Examiner / Assessor / Reviewer for the Project Final report, Imam Saud Bin Abdulaziz University, Riyadh, Saudi Arabia.

#### 2018:

- Received award from the chairman of Korean Reserch Foundation (KRF) for my Keynote Speech at 1<sup>st</sup> International Conference on Durability of Building and Infrastructures, 10-12 January, DuraBI 2018, Miri, Sarawak, Malaysia.
- Signed Memorandom of Understanding (MOU) with Hanyang University, South Korea for student exchange program and collaboration in research and teaching.
- Distinguished Short Courses Instructor for students and faculty staff, Civil Engineering Department, Harbin Institute of Technology (HIT), Harbin, China, June 1-9, 2018.
- Invited with Complete Financial Support as "Keynote Speaker" at 1st International Conference on Durability of Building and Infrastructures, 10-12 January, DuraBI 2018, Miri, Sarawak, Malaysia.

- External Referee for Faculty Promotion Committe, XJT Liverpool University, China.
- Certification in Saudi Smart Cities under the Vision 2030 held from 16-18 May 2017, Riyadh, Saudi Arabia.
- Official Paid Reviewer for Books published by Elsevier.

- Included in Panel of Examiners for Ph.D Thesis Evaluation, Department of Civil Engineering, National Institute of Technology, Kurukshetra, India.
- External Supervisor, M.Sc. and Ph.D Researh Thesis / Dissertations Examination, University of Malaya, Malaysia.
- Saudia Radio FM radio frequency: 97.0 Invited frequently for disucssions and my expert opinion in their programs "Open Hour", "Saudi Nights" "Economy Report" etc. which went on air Live on 8<sup>th</sup> January, 12<sup>th</sup> February, 2<sup>nd</sup> April, 23<sup>rd</sup> April, 4th June from 8:00 pm to 9:00 pm and may other days as well.
- Invited Referee for Post Graduate Masters and Ph.D Admissions and Scholarships at Hong Kong University.

- Visiting Professor, Civil Engineering Department, Harbin Institute of Technology (HIT), Harbin, China.
- Developer and Incharge of Corrosion Lab., CoE-CRT, College of Enginering, King Saud University, KSA.
- Received offer of appointment as Full Professor in Civil Engineering Department from Al-Jouf University, KSA.
- International Collaborator, Enhancement of concrete properties made from local waste materials using Nano particles. 27/08/2015-27/08/2016, Geran Penyelidikan Universiti Malaya (UMRG), RG 037A-15AET. Kuala Lumpur, Malaysia.
- Expert Advisor to Publisher for Civil Engineering books portfolio at Elsevier, especially in the area of Corrosion in Concrete Structures.
- Ph.D Examiner, National Institute of Technology, Kurukshetra, India.
- Consistently most downloaded researcher in Civil Engineering Deptt., ReserchGate, USA.
- Continuing as External Examiner, M.Sc. and Ph.D dissertations, University of Malaya, Malaysia.
- Invited Interview by ACI (American Concrete Institute) with MCI group for my expert advice and input in concrete technology for the American Concrete Institute on 21st February, 2016 1:30-2:00 pm KSA time.
- Saudia Radio FM radio frequency: 97.0 Invited frequently for disucssions and my expert opinion in their programs "Open Hour", "Economy Report", "Lets Connect" etc. which went on air Live on 2<sup>nd</sup> October, 2016 from 8:00 pm to 9:00 pm and may other times as well.
- Invited Expert, Remote Referee & Evaluator for European Research Council Proposal "Enhanced Durability Predictions of Reinforced Concrete Exposed to Corrosive Environments" Recommended by 'Products & Processess Engineering' Panel (PE8), *ERCEA.B.4* Physical Sciences and Engineering, Brussels.

- Received offer of appointment as Full Professor in civil engineering department from harbin institute of technology (HIT), China.
- Recommended Expert & Assessor by Elsevier Editorial Team for Currency Timestamping of Articles related to Corrosion.
- Most downloaded researcher in Civil Engineering Deptt., ReserchGate, USA.
- Invited Judge for the Young Researcher Best Paper Competition, CC2015, Saxe-Coburg Publications -Civil-Comp Ltd.
- Book Series Editor at Bentham Science Publishers.
- Invited by Radio-Riyadh, FM radio frequency: 97.0, for a disucssion and my expert opinion in their program which went on air Live on 11th January from 8:00-09:00 pm.
- Re-Included in Marguis Who's Who in the World, USA.
- Quality Certifications in mystery shopping for ISC, McDonald's, Sony & Swarovski Crystals by International Service Check, AG, Germany.

- Winner of Al Kasabi Award for Best Research Project of the year in the whole Kingdom of Saudi Arabia and 50,000SR (USD 13,500 approx.) cash prize.
- Offer of Appointment as Associate Professor in Civil Engineering Department from Kuwait University.
- Nomimated for Vice President of Saudi Section ASCE (American Society of Civil Engineers), USA.
- External Examiner, M.Sc. and Ph.D dissertations, University of Malaya, Malaysia.
- Invited to write an Editorial for Journal of Advanced Chemical Engineering, JCEE, OMICS, USA.
- Invited frequently by Radio-Riyadh, FM radio frequency: 97.0, for a disucssion and my expert opinion in their programs which went on air Live on 13<sup>th</sup> July, 2014 from 10:30-11:30 pm, and on 14<sup>th</sup> Sep., 21<sup>st</sup> Sep., 19<sup>th</sup> Oct. and 23<sup>rd</sup> Nov., 2014 from 8:00 pm to 9:00 pm.
- Invited as Consultant for the International Project "Sustainable Rural Development in the Refugee-Affected and Hosting Areas of Pakistan" programme (RAHA) (Contract n°260022)", SSIL, FWC Beneficiaries 2013, Lot 12 (Humanitarian Aid, Crisis Management and Post-Crisis assistance) EuropeAid/132633/C/SER.
- Invited for a personal interview by Radio Riyadh (FM radio frequency: 97.0) regarding my life, background, educaiton, experiences, exceptional achievements etc. under the program "lets connect".
- Invited editor for ebook series volumes, Bentham Science Book Publishers.
- Invited Editorials for Journal of Civil & Environmental Engineering, JCEE, OMICS, USA.
- Hands on experience on a huge number of laboratory equipments used in civil engineeing laboratory including daily use instruments as well as state of the art equipment such as GECOR, GAMRY, EIS, Potentiostat, Galvanostat, AC/DC Corrosion techniques, SEM, XRD, XRF, Raman, Half-Cell, Corrosion Currentand Potential, Concrete Resistivity meter, multi purpose data loggers etc.
- Offer of appointment as Deputy Director (JG 401) from the Rector, Polytechnic of Nambia.

- Received Gold Medal at the 41<sup>st</sup> International Exhibition of Inventions, Geneva, Switzerland which is one of the largest invention shows in the word.
- 3<sup>rd</sup> position in all the 17 research chairs, 3 research centers and 2 research institutes, totalling 22 research bodies of the college of engineering, KSU. (personal communication)
- Invited and Interviewed regarding my achievements and successes by John Wiley and Sons, Inc., England in the Take Note and Promote Series published online on 08th July.
- Invited and Judged the young researcher best paper competition on Civil, Structural and Environmental Engineering Computing, CC2013, Civil-Comp Limited, U.K.
- Invited and Interviewed again by Wiley publishers, England which was published online on 24th July regarding me being a successful young research scientist in the consruction industry, my editorial board and publication experiences, my passion for traveling, my jobs/positions held over the years, including both private and public sector positions etc. Web link: http://writeforwiley.com/2013/07/24/interview-dr-raja-rizwan-hussain/
- Re-Included in Marquis Who's Who in the World, USA.
- Invited Editor for Research SignPost, book publishers inc., India.
- Invited to write an Editorial for Journal of Civil & Environmental Engineering, JCEE, OMICS, USA.
- Editor, Athens Institute for Education and Research, ATINER, Athens, Greece.
- Invited by Radio-Riyadh, FM radio frequency: 97.0, for a disucssion on the topic "infrastructure development and economic growth" which went on air Live on 22<sup>nd</sup> December from 08:00-09:00 pm.
- Invited as Foreign Collaborator for the Research Project, Developing High Performance Lightweight Concrete using nano and Local Waste of Malaysia" at the University of Malaysia, Malaysia.

- Offer of appointment as Associate Professor in Civil Engineering Department at XJT Liverpool University by Vice President & Pro-Vice-Chancellor, University of Liverpool, U.K.
- Invited by Radio-Riyadh, fm radio frequency: 97.0, for a disucssion and my expert opinoion on the topic of "recent technology & scientific developments in the world" which went on air Live on 17<sup>th</sup> December from 08:30-09:30 pm and again in the repeat telecast of recording next day morning 08:30-09:30 am.
- Invited External Examiner for PhD Thesis Dissertation by the University of Auckland.
- Invited by Riyadh Radio (FM radio frequency: 97.0) for a talk show and my expert opinoion on "research and research centres" which went on air Live on 1<sup>st</sup> October from 08:30-09:30 pm and again in the repeat telecast of recording next day morning 08:30-09:30 am.
- Recommended by selection committee for the post of senior lectuere in Monash University, Malaysia.s
- Invited for a personal interview by Radio Riyadh (FM radio frequency: 97.0) regarding my life, educaiton, achievements etc. which went on air Live on 15<sup>th</sup> October from 08:30-09:30 pm in the night and repeat telecast of my interview recording on 16<sup>th</sup> October from 08:30-09:30 am in the morning.
- Included in Education and Development Committee of WPEP, Canada.
- Sir Issac Newtwon Scientific Award by American Biographical Institute, Inc. USA.
- Nominated for Great Minds of the 21<sup>st</sup> Century by American Biographical Institute (ABI), Inc.
- 2<sup>nd</sup> position in all the 22 research bodies (17 research chairs, 3 research centers and 2 research institutes) of the college of engineering, KSU. (personal e-mail electronic communication)
- Received letter of appreciation in acknowledgement of my achievements from the Dean of the College of Engineering at King Saud University.
- Received Silver Medal for computation of dispersed individual activation energies and development of activation energy model in 11<sup>th</sup> MTE Invention and Innovation Awards at Kuala Lumpur, Malaysia.
- Re-Included in Marquis Who's Who Publications 2012 edition, USA.
- Official reviewer of XJT Liverpool University for their researh grants and proposals.
- Received Silver Medal for technique of preventing macro-cell corrosion in the simulated reinforced concrete patch at 11<sup>th</sup> MTE Invention and Innovation Awards at Kuala Lumpur, Malaysia.
- Distinguished Research and Publication Quality Award in the consecutive four years of service (2009, 2010, 2011 & 2012) from DSR, King Saud University, KSA.

- Excellent research award for the year 2010-2011 with 1<sup>st</sup> position in the entire college of engineering, KSU including electrical, civil, mechanical, chemical, petroleum and gas, industrial engineering departments as well as all the research centers, institutes and research chairs.
- Included in Top 100 Educators for the year 2011 by IBC, England.
- Included in 2000 outstanding Intellectuals of the 21<sup>st</sup> Century.
- Nominated as International Educator of the Year.
- Included in Top 200 Intellecturals o the Century by IBC, U.K.
- Appointed as Project Co-ordinator for the Center of Excellence for Concrete Research & Testing.
- Man of the year, IBC, U.K.
- 2010-2011: Included in Who's Who in the World 2010 & 2011 edition, USA.
- 2009: Best journal paper award for the last four years (2005-2009) from SSMS, Tokyo, Japan.
- 2008: Open offer of appointment from Higher Education Comission (H.E.C) NUST Branch, Govt. of Pakistan for appoinment as Asst. Professor with BPS-19 special pay scale.
- 2006-2008: Appeared in several T.V programs (interviews, talk shows, live performances, reality TV, cultural shows, events, trainings etc.) broadcasted on NHK T.V National Channel of Tokyo, BS2 and BS hi Vision TV channels in Japan under the series name of Cool Japan.
- 2006-2008: Obtained PhD degree in a record short time period of just two years from the University of Tokyo.

- 2007: USIRS Award from the University of Sydney international research scholarship, Australia.
- Completed basic Japanese I & II courses in Japanese Language from University of Tokyo, Japan.
- 2006: Extended the ADB scholarship award from Mater course to PhD course which is very rare and highly competitive as ADB scholarship is primarily meant for Master course only.
- 2006: Obtained Medal and Prize for outstanding best research thesis in Master course from the University of Tokyo.
- 2004-2006: Passed all the course work of Master Degree from The University of Tokyo with all 'A' grades throughout the studies and obtained certification for the same.
- 2004: ADB (Asian Development Bank)-University of Tokyo scholarship award for Masters, 2004-2006.
- 2004: Received AIT (Asian Institute of Technology) Bangkok, M.Sc./Ph.D Fellow ship.
- 2004: Successfully completed public service comission and became Asst. Director / SDO (Sub divisional Officer) in Ministry of C&W Department, Government of Pakistan (Communication and works Department) Buildings and Roads Division.
- 2004: Award of Pre Service Training Course Certificate for Engineers, Government Engineering Academy Punjab Lahore, Pakistan.
- 2002-2004: Got promoted to asst. Professor at University of Engineering and Technology (U.E.T), Lahore (best engineering university of Pakistan) within less than 1.5 years of total experience which is a record.
- 2003: Received certificate for Primavera Project Planning, U.E.T, Lahore.
- 2002: Received English Language Certificate from Englsih Lanuage Centre, U.E.T, Lahore that English language has been my first language for professional training & medium of instruction at the University.
- Received invitation letter from the chairman, Civil Engineering Department, University of Engineering & Technology (U.E.T), Lahore to join the department as a lecturer.
- 2001: First position in Science Competition, National Museum of Science and Technology, Pakistan Science Foundation.
- 2000-2002: Successfully designed and executed several RC high rise building projects in competition to much more senior and reputed structural designers and finally developed a national fame in the country (Received several experience certificates and letters of appreciation for the same).
- 2001: Received letter of appreciation from HILTI, www.hilti.com.
- Received letter of thanks from US Commercial Service for my interest in contacting a manufacturer in the United States, Consulated General of the United States of America.
- Received certificate of being in Top 5 positions in the orderr of merit from University of Engineering and Technology, Lahore, Pakistan.
- Received letter from Descon Engineering Limited as plan for induction considering me a bright young engineer shortlisted from a list of Top 20 graduates.
- 2000: Project Scheduling and Planning course, Computer College Centre, Pakistan Engineering Congress.
- 1999: Received Survey camp certificate for Excellent work from University of Engineering and Technology, Lahore.
- 1999-2000: Participated in survey camp from Govt. Of Pakistan-U.E.T collaboration & obtained certificate of excellent performance.
- 1996-2000: Remained in top five university positions & obtained certification for the same.
- 1995: A Grade in Intermediate examination Pre-Engineering from Board of Intermediate & Secondard Education, Lahore, Pakistan.
- 1993: A+ Grade in Secondary School examination in Science from Board of Intermediate & Secondary Education, Lahore, Pakistan.
- Received good character certificate with A+ grade from L.D.A Model high school, Lahore.
- Received Certificate of being a distinguished player of Badminton sports from L.D.A model high scool.

- 1990: Certified Martial Arts expert and former member of Shotokaan Judo & Karate International Centre, Lahore, Pakistan.
- 1983-1995: Always remained in Top 3 positions (1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup>) in every class until high school/college and obtained certifications for the same.
- 1978: Born in Kuwait, raised in Pakistan, educated in Japan and working in Saudi Arabia, have been to more than 60 countries around the world, in short a multi-cultuaral human being easily adaptable to any environment in the world.

# • Journal Editorial Board Positions:

#### 2023:

- Organizing Committee Member "2nd International Summit on Civil, Structural and Environmental Engineering" Florence, Italy from March 18-20, 2024.
- Guest Editor, "Corrosion of Steel Reinforcement Bars in Concrete Structures", A special issue of Applied Sciences Journal (ISSN 2076-3417). This special issue belongs to the section "Civil Engineering". ISI Impact Factor (I.F): 2.838, 5-year Impact Factor: 2.921, JCR category rank: Q2: Engineering.
- Associate Editor, Current Trends in Civil & Structural Engineering (CTCSE) ISSN: 2643-6876, Impact Factor: 0.681, Iris Publishers, LLC, 315 Montgomery Street, San Francisco, CA 94104, USA.
- Guest Editor, "Corrosion Performance Analysis of Steel-Concrete Composite Structures & Materials", A special issue of Buildings Journal (ISSN: 2075-5309). ISI Impact Factor (I.F): 3.324, 5-year Impact Factor: 3.354, JCR category rank: Q2: Construction & Building Technology | Q2: Engineering, Civil, Founded: 2011, H5-Index: 32.

#### 2022:

• Editor, Cogent Engineering Journal, Taylor & Francis, UK.

#### 2021:

- EBM, Structural Engineering and Mechanics, ISI Impact Factor 3.524
- EBM, The structural design of tall and special buildings, Wiley, England, ISI Impact Factor: 2.344.
- Guest Editor, Applied Sciences, ISSN 2076-3417, Web of Science JCR ISI Impact Factor IF: 2.679, Q2.
- Editorial Board of International Journal of Civil Engineering and Technology (IJCIET), ISSN Print: 0976-6308, ISSN Online: 0976-6316, Impact Factor IF: 6.5
- Editorial Panel, SVOA Materials Science & Technology. London, U.K.
- Guest Editor, Advances in Materials Science and Engineering, WoS JCR ISI Impact Factor 1.63, Q2.
- Guest Editor, Advances in Civil Engineering, Web of Science JCR ISI Impact Factor, 1.21, Q2.
- Editor, Cogent Engineering Journal, Taylor & Francis, UK.
- Editorial Advisory Panel Member, Structures and Buildings Journal, ICE Publishers, UK, ISI Impact Factor: 0.494

2020: Editorial Board Member by Invitation, Results in Engineering, Elsevier.

2019: Section Editor, Innovations in Corrosion and Materials Science, Bentham Science.

- Editorial Board Member, Journal of Civil Engineering and Construction Technology (JCECT).
- International Representative for Middle East Region, International Journal of Geomate, Japan, ISI.

- Assessor, Structures and Buildings Journal, ICE Publishers, UK, ISI Impact Factor: 0.494
- Editor, Journal of Civil & Environmental Engineering, OMICS, USA.
- EBM, International Journal of Constructive Research in Civil Engineering (IJCRCE), ARC Publications.
- Editor, International Journal of Metallurgy and Metal Physics, 1805 N Carson Street, Suite S, Carson City, NV 89701, USA.
- Member Advisory/Editorial Board, International Journal of Scientific Research in Science, Engineering.
- Editor, Journal of Global Warming, Scientific Federation, CrossRef, SciFed.
- EBM, Modern Civil & Structural Engineeting (MCSE), Isaac Scientific Publishing, Hong Kong.

# 2016:

- Editor in Chief, Journal of Buildings Research, Pak Publishing Group, Singapore.
- Eidtor- in-Chief, Journal Acta Ingenier Aa Civil, Lawarence Press LLP, Delhi, India.
- Associate Editor, International Journal of Computational and Experimental Methods in Engineering (IJCEME)", Alberta, Canada.
- Editorial Panel Member, Structures and Buildings Journal, ICE Publishers, UK, ISI Impact Factor: 0.494.
- Editorial Board Member, Innovative Infrastructure Solutions (IIS), Springer.
- Associate Editor, Journal of Construction and Building Material.
- Editorial Board Member, Engineering, Scientific Research Publishing (SCRIP), USA.
- Associate Editor, Computations and Materials in Civil Engineering (CMCE)), Alberta, Canada.
- Editorial Board Member, JESTCH, Engineering Science and Technology, an International Journal, Elsevier.
- Advisory Board Member, International Journal of Research on Engineering Structures & Materails (RESM), Turkey.

- Member EB, Jacob Journal of Civil Egnineering, Austin, Texas, USA.
- Editorial Board Member for Journal of Advnced Electrocheistry, ISSN: 2455-0205.
- Invited Member Editorial Board for International Journal of Computational and Experimental Methods in Engineering (IJCEME), Canada.
- Editorial Board Member, International Journal of Metallurgy and Metal Physics, Carson City, NV 89701, USA.
- Online Manuscript Managing & Assigning Editor, Cogent Engineering Journal, UK, ISI.
- Editorial Board Member, International Journal of Inventions in Engineering & Science Technology, e-ISSN: 2454-9584, p-ISSN: 2454-8111.
- Invited Editorial Board Member, Journal of Steel Structure & Constrution (JSSC), OMICS, USA.
- Handling Editor, Frontiers in Materials Journal, Switzerland.
- Guest Editor, Special Issue "Corrosion of Steel in Concrete Structures", Journal of Civil and Environmental Engineering, USA.

- Board of Editor's Member, International Journal of Advances in Engineering Research, IRA Publications, India, e-ISSN 2231-5152, p-ISSN 2454-1796.
- Editorial Board Member, SSRG International Journal of Civil Engineering, Seventh Sense Research Group.
- Member Editorial Board for International Journal of Innovations in Scientific Engineering, e-ISSN: 2454-6402, p-ISSN: 2454-812X.
- Editorial Board Member, Journal of Civil Engineering and Architecture Research, ISSN: 2333-911X (Print); ISSN: 2333-9128 (Online), 1902 Merced Ave, South El Monte, CA 91733, USA.
- Member of Editorial Board, International Journal of Innovations in Applied Science & Engineering, IRA Publications, India, e-ISSN: 2454-9258, p-ISSN: 2454-809X.
- Editorial Board Member, Construction Engineering (CE) Journal, ISSN Online: 2329-3373, ISSN Print: 2329-3365, 6815 E Manor Drive, Terre Haute, IN 47802, USA.
- Member board for International Journal of Geomate, Japan, ISI.
- Editorial Board Team Member, Internaitonal Journal of Universal Science and Engineering, e-ISSN: 2454-759X, p-ISSN:2454-7581, India.
- Editor, Corrosion & Engineering Journals section, OMICS Publishing Group, USA.
- Member Editorial Board for International Journal of Research in Science and Technology, e-ISSN: 2249-0604, p-ISSN:2454-180X.
- Editorial Manager Reviewer, Environment, Development and Sustainability, Springer.

- Editor, Cogent Engineering Journal, UK, ISI.
- Editorial Board Member, Corrosion Engineering section, Journal of Advanced Chemical Engineering, OMICS Publishing Group, USA.
- Editoral Board Member, Journal of Materials Science and Chemical Engineering, Scientific Reserch Publishing Inc., USA.
- Co-Editor for a publication volume on Architectural Construction Materials & Building Technologies, ATINER, Athense, Greece.
- Manuscript Assessing Editor & Member of Editorial Advisory Panel, Construction Materials Journal, Institue of Civil Engineers (ICE), U.K.
- Board Member, Journal of Civil Engineering and Science (JCES), The World Academic Publishing Co., LTD.
- Journal of Control Science and Engineering, NY, USA.
- Invited editor for ebook series volumes, Bentham Science Book Publishers.
- Invited Editorials for Journal of Civil & Environmental Engineering, JCEE, OMICS, USA.
- Associate Editor, Basic Research Journal of Engineering Innovation (BRJENG).
- Honorary Editorial Advisory Board Member, Scientia Research Library, USA.
- Editor, Journal of Physical Science and Engineering, Puncil Academic Press Publishers.
- Editorial Board Member, Current Advances in Civil Engineering CACE, American V-King Scientific Publishing, New York, USA.
- Invited to write an Editorial for Journal of Advanced Chemical Engineering, JCEE, OMICS, USA.
- Member of EIC for Innovations in Corrosion and Materials Science Journal, Bentham Science Publishers.
- Editorial Member, Global Scholastic Research Journal, Asian Academic Research Associates, India.
- Editorial Board Member, IRJPEH, Journal Issues Publishers.
- Board Member, Global Educational Research Journal.
- Editorial Board Member, Zeal Scienza, Secunderabad, India.

- Editor-in-Chief, American Journal of Engineering and Construction Technology, USA.
- Member of Editorial Board, Computers and Concrete, An International Journal (CAC), Techno Press, ISI Impact Factor: 1.015.
- Editorial Board Member for Structural Engineering and Mechanics, An International Journal (SEM), Korea, ISI Impact Factor: 0.863.
- Editorial Board, Scientific Research and Impact (SRI), ISSN 2315-5396, Science Park Services Inc.
- Editorial Manager, online submission and peer review tracking system for Journal of Civil & Environmental Engineering, JCEE, OMICS, USA.
- Member of Editorial Board, Journal of Civil Engineering and Architechture, USA (ISSN: 1934-7359)
- Editor-in-Chief, Frontiers in Geoscience (FG), American V-King Scientific Publishing, LTD, NY, USA.
- Co-Editor, GSTF Journal of Engineering Technology (JET) Forum, Singapore.
- Editorial Board, International Journal of Interdisciplinary Current Researches, India.
- Member of Editorial Board for Applied Scientific Letters, Herbert Publications, U.K.
- Member of Editorial Board, Petrotex Publication Group, USA.
- Editor, ISSJ publishing house, safety science.
- Editorial Board Member for Advances in Concrete Construction (ACC), An International Journal, Korea, ISSN:2287-5301(Print) ISSN:2287-531X(Online), ISI Indexed.
- Member of Editorial Board, Journal of Scientific Research and Reviews (JSRR), ISSN 2277 0690.
- Editorial Board, AOCSR Research Journal of Chemical Sciences, India.
- Editorial Board Member, Journal of Educational Research, Wudpecker Publishers.
- Invited Editor for Research SignPost, book publishers inc., India.
- Invited to write an Editorial for Journal of Civil & Environmental Engineering, JCEE, OMICS, USA.
- Editor, Athens Institute for Education and Research, ATINER, Athens, Greece.
- Editor-in-Chief, Advances in Geological and Geophysical Engineeing Journal, AGGE, USA.
- Editor, News in Engineering (NiE), Civil Engineering section, sci-pub, Thomson Ltd., Slovakia.
- Member Editorial Board for Research Journal in Chemical Sciences.
- Editorial Board Member, Advancement and Development in Mathematical Sciences.
- Member of Editorial Board, Advancements and Developments in Applied Mathematics.
- Editor, Journal of Advances in Chemistry, Impact Factor 0.71.

- Editor Member of Current Advances in Civil Engineering, USA.
- Editorial Board Member for International Journal of Nano Science and Technology, USA.
- Associate Editor for the African Journal of Engineering Research (AJER).
- Invited Editorial Board Member of International Journal of Engineering and Technology Research (IJEATR), New York, USA.
- Editorial Board Member by appointment for International Journal of Engineering & Technology, Germany.
- International Editor of IJAS Journal, USA.
- Invited to be Editor-in-Chief of IJRS Journal, ISI Impact Factor: 1.17, Taylor & Francis, U.K.
- Editorial board member of Open Journal of Civil Engineering, USA.
- Editorial Board member of Open Journal of Earthquake Engineering, SCIRP, USA.
- Guest Editor for Applied Mathematics Journal, USA Special Issue on "Numerical Analysis"
- Member of Editorial Board, Recent Patents on Engineering, USA.

- Editorial Board member of Engineering, Technology & Applied Science Research Journal (ETASR), Greece, Scientific Journal Impact factor 3.447.
- Editorial board member for Recent Patents on Corrosion Science.
- Member Editorial board of Engineering and Technology, Inventi Journals.

- International Editor for The structural design of tall and special buildings, Wiley, England, ISI Impact Factor: 1.041
- Editorial board member of Journal of Materials Science Research, Canada.
- Official evaluator for Mehran University of Engineering and Technology Research Journal.

# • Countries Visited:

I have been to 62 Countries and hundreds of major cities around the World: CANADA (Toronto, Montreal, Niagra, Missisaga and British Columbia), USA (New York, Texas; Houston, Dallas, Chicago, L.A, Atlanta and Washington), UAE (Dubai, Abu Dhabi and Sharjah), AUSTRALIA (Sydney, Melbourne, New Castle, Coffs Harbor, and many other cities), MOLDOVA, FRANCE (Paris, Tours, Strasbourg, Alsace, Colmar, Gillard, Ammenesse), LUXEMBOURG, CHINA (Beijing, Shenzhen, Yi-chang, Guangzhou and Harbin), SAN MARINO, JAPAN (Tokyo, Yokohama, Kyoto, Nagano, Osaka and several other cities), SERBIA, SAUDI ARABIA (Makkhah, Medina, Jeddah, Riyadh, Dammam, kharj, Taif, Abha, Jazan and many other cities), , BAHRAIN (Manama and surrounding all cities), SINGAPORE (SG, Capital City), SIRILANKA (Colombo), U.K (London and several surrounding cities), BOSNIA & HERZEGOVINA, PAKISTAN (almost every city), GREECE (Athens, Hydra, Poros), ITALY (Bari), MALTA, GERMANY (Frankfurt, Stuttgart, Freiburg, Gottenheim, Munich, Black Forest), CZECH REPUBLIC (Plzen), BELGIUM (Liege), OMAN (Muscat) AUSTRIA (Salzburg), NORWAY, BULGARIA (Sofia), DENMARK (Tonder), HUNGARY (Gyor), LUXEMBURG (main city), NETHERLANDS (Heerlen), THAILAND (Bangkok), POLAND (Kostrzyn), SPAIN (Elizondo), PORTUGAL, CROATIA, EGYPT (Cairo, Luxor, Sharm-el-Naga and Hurghada Somabay), CYPRUS, TURKEY (Istanbul), ESTONIA, FINLAND, KUWAIT (Almost everywhere), IRELAND, LATVIA, LITHUANIA, QATAR (Doha), ALBANIA, ROMANIA, SLOVAKIA, MALAYSIA (Kuala Lumpur, Silangore, Sarawak, Miri, Islands and suburbs), BRUNEI, SLOVENIA, UKRAINE, SWEDEN, SWITZERLAND (Basel, Zurich, Geneva), SOUTH KOREA (Seoul, Jeonju, Jeonbuk) and RUSSIA (Moscow).

# • International Conference Scientific & Organizing Committees, Chairs, Keynotes etc.

- Scientific Committee Member at the upcoming Global Conference on Civil, Structural and Environmental Engineering (GCCIVIL2025) which is going to be held during April 08-10, 2025 in Venice, Italy.
- Editorial Board of "ECT 2024: The Twelfth International Conference on Engineering Computational Technology" s4-6 September 2024 in Prague, Czech Republic.
- Organizing Committee Member at the Environmental Science & Engineering (EUROESE2025) March 17-19, 2025 in Berlin, Germany.

- Organising Committee Member (OCM) by Invitation at International Webinar on Civil, Structural and Environmental Engineering (WCSEE2023), website portal: https://spectrumconferences.com/webinar/wcsee2023, October 30-31, 2023.
- Organising Committee Member by Invitation at International Experts Summit on Environmental Science and Engineering (IESESE2024) Osaka, Japan, October 07-09, 2024.
- Invited Keynote speaker for "Global Meet on Renewable and Sustainable Energy", RSE2024 May 16-18 2024, Valencia, Spain.
- SC Member, CACRCS DAYS 2023 Capacity Assessment of Corroded Reinforced Concrete Structures: from Research to Daily Engineering Evaluation organized by CTE (Collegio dei Tecnici della Industrializzazione Edilizia), AICAP, and fib (Federation Internationale du Beton), PARMA from 13th to 15th September 2023.
- Program Committee Member of the Physics 2024: Innovations and Discoveries! scheduled for May 23-24, 2024, in Rosme, Italy.
- Organizing Committee Member, 2nd Global Summit on Nanomaterials: Applications and Properties (NANOMAT24) in Lisbon, Portugal during March 18-20, 2024.
- Inivted Keynote speaker for the "8th Edition of Applied Science, Engineering and Technology Virtual" on 24-25 March, 2023, from 7:00–12:00 GMT.
- Organizing Committee Member, 3rd International Forum on Infrastructure and Civil Engineering (ICEFORUM2024), from April 08-10, 2024, Munich, Germany.
- SC member in the four edition of the workshop CACRCS DAYS 2023 Capacity Assessment of Corroded Reinforced Concrete Structures: from Research to Daily Engineering Evaluation organized by CTE (Collegio dei Tecnici della Industrializzazione Edilizia), AICAP, and fib (Federation Internationale du Beton), held in Parma, Italy from 13th to 15th September 2023.
- Invited Keynote Speaker at Global Infrastructure and Construction Virtual V-INFRA2023 Sciwide Webinar from April 21-22, 2023.
- Invited Speaker, Global Congress on Civil, Infrastructure and Environmental Engineering CCIVIL2023 OCTOBER 23-25, 2023 | Dubai, UAE.
- Invited Keynote Speaker, International Experts Summit on Civil Engineering and Environmental Science
- IESCEE 2023, 12-14 Oct, 2023, Dubai, United Arab Emirates.
- Organizing Committee member (OCM) for the International Forum on 2D Materials and Graphene (2DMATFORUM2024), which will be held in Florence, Italy, during March 04-06, 2024.
- Plenary & Scientific Committee Member, Global Congress on Nanotechnology and Nanomaterials (NANOTECH2024) April 25-27, 2024, Tokyo, Japan.
- Scientific Committee Member, Global Congress on Catalysis, Chemical Engineering and Technology (CATALYSIS2024) March 21-23, 2024, Rome, Italy.
- Organizing Committee Member (OCM) for Global Summit on Civil, Architectural, and Environmental Engineering (ISTCAEE 2023), October 16-17, 2023 in Rome, Italy.
- Invited Scientific Committee Member at the Global Congress on Environmental Science and Applications (GCESA2024) April 22-24, 2024 in Tokyo, Japan.

- Organizing Committee Member, Global Experts Conference on Infrastructure and Sustainable Buildings (GECISB-23) from September 21-23, 2023 in Barcelona, Spain.
- Organizing Committee Member at 3<sup>rd</sup> Global Summit on Graphene and 2D Materials (2DMAT2023) London, UK during August 24-26, 2023.

- Chair Session for Keynote Speaker at 2nd International Conference on Durability of Building and Infrastructures for Smart City, DuraBI 2021, Venue: Zoom Platform (Online), Oct. 15-17, 2021.
- International Scientific Committee Member, 2nd International Conference on Durability of Building and Infrastructures.
  - Invited Keynote Lecture, 1<sup>st</sup> International Conference on Advanced Developments in Chemistry and Allied Sciences-2021 (ADCAS-21) 16-17<sup>th</sup> December 2021, India.

#### 2020:

- Scientific Committee Member, Materials Today: Proceedings, Elsevier.
- Member, Building Materials and Construction Technologies BCMT, 20-22 April, 2020, Dubai, UAE.
  - Committee Member in the European Advanced Materials Congress, M/S Mariella, Viking Line during 26 28 August 2020, Stockholm, Sweden.
  - Committee Member, World Congress on Infrastructure and Construction (WCIC-2020), May 28-29, 2020, Brussels, Belgium.

# 2018:

- Invited with Complete Financial Support as "Distinguised Keynote Speaker" at 1st International Conference on Durability of Building and Infrastructures, 10-12 January, DuraBI 2018, Miri, Sarawak, Malaysia.
- Technical Advisory Committee Member, International conference entitled "Sustainable Construction and Building Materials", from 18th to 22nd June 2018, Karnataka, Mangalore, India.
- Organizing Committee Member, Global Summit On Geological and Environmental Engineering, Madrid, Spain September 27-28, 2018.
- OC Member, Emerging Materials Congress 2018, 16th International Conference on Emerging Materials and Nanotechnology, March 22-13, 2018, London, UK.
- Session Chair, TS-1, Durability-1, International Conference on Durability of Building and Infrastructures, 10-12 January, Malaysia.
- Organizing Committee Memeber, Earth & Geo Science -2018, August 13-14, Amsterdam, Netherlands.

#### 2017:

- Organizing Committee Member, World Congress on Nano Science and Nano Technology, October 16-17, 2017 in Dubai, UAE under the theme *Recent developments in Nano Science and Nano Technology*. Asia pacific Nano Congress 2017.
- Member of the technical advisory panel of International Conference on Light Weight Materials & Engineering Structure LIMAS 2017, London, UK during 12 14 November 2017.
- OCM member of the 8th International Conference and Exhibition on Materials Science and Engineering (MatScience 2017) May 29-31, 2017 at Osaka, Japan.
- Organizing Committee Member by Invitation, 5th International Conference on Sustainable Bioplastics, 20-21 July, 2017, Munich, Germany.

- Guest Editor and Organizing Committe Member for Mini Symposia "Corrosion of Steel Reinforced Concrete Structures Experimentation and Modeling", The 2016 World Congress on Advances in Civil, Environmental, and Materials Research (ACEM16) and The 2016 Structures Congress (Structures 16), Jeju island, Korea, August 28 ~ September 1, 2016.
- Program committee member of "Third International Conference on Civil Engineering and Urban Planning (CEU-2017)", April 29-30, 2017, Dubai, UAE.

- Organizing Committee Member, 5th Materials Congress, June 13-15, 2016, Alicante, Spain.
- Invited Advisory Committee Memer, Collaborative Conference on Earthquake Science and Engineering (CCESE 2016), September 4-8, 2016 in Budapest, Hungary.
- Technical Program Committee Member, Spring World Congeress of Engineering and Technology (SCET), April 18-20, 2017, Chengdu, China.
- Organizing Committee Member, 8th World Congress on Materials Science and Engineering, 12-14 June, 2017, Rome, Italy.

- Program Committee Member, in 4th Annual Conference on Architecture and Civil Engineering, ACE-CFP 2016, Apil 13-14, Singapore.
- Session Organizer, 2<sup>nd</sup> International Conference on Infrastructure Management, Assessment and Rehabilitation Techniques (ICIMART'16), American University of Sharjah, United Arab Emirates, from March 8 10, 2016.
- Scientific Committee Member for ICCS16, Second International Conference on Concrete Sustainabilty, 13-15 June 2016, Madrid, Spain.
- Organizing Committee Member, Steel Structures-2015 Dubai Congress, 16-28, Nov. 2015, OMICS Group Inc. USA.
- Scientific Committee Member, Corrosion and Surface Treatment (CSTI2015), Tatra, Solavakia, Europe, 30<sup>th</sup> Sept – 2<sup>nd</sup> Oct, 2015.
- International advisory committee member and representative of Arab countries, GEOMATE2015, Osaka Nov.16-18 2015, Japan.
- SAB Member, 2<sup>nd</sup> Annual World Congress of Smart Materials-2016 (WCSM-2016) from March 4-6, 2016 in Singapore.
- Organizing and Scientific Committee Member of the 5<sup>th</sup> Annual International Conference on Civil Engineering, Structural Engineering and Mechanics, 25-28 May 2015, Athens, Greece (http://www.atiner.gr/2015/ORG-CIV.htm).
- Scientific Committee Member for REHABEND 2016 Euro American Congress in Burgos, Spain from May 24-27, 2016.
- Advisory Committee Member, Collaborative Conference on Earthquake Science and Engineering (CCESE) from September 15 to 18, 2015 at Chengdu, Sichuan Province, China.
- Organizing and Scientific Committee Member of the 2<sup>nd</sup> Annual International Conference on Technology & Engineering, 22-25 June 2015, Athens, Greece (http://www.atiner.gr/2015/ORG-TEN.htm).
- Invited Board Member, The Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing: Civil-Comp 2015 (CC2015) Prague, Czech Republic from 1-4 September 2015.
- Invited Technical Committee Member, 4th International Conference on Engineering and Innovative Materials, Penang, Malaysia 3-4 September, 2015.
- Scientific Committee Member, ICCS16 International Conference on Concrete Sustainability, Madrid 13-15 June 2016.

# 2014:

• Scientific Committee Member, International Conference on Regeneration and Conservation of Concrete Structures (RCCS), 1-3 June 2015, Nagasaki, Japan.

- Organizing Committee Member, World Congress and Exhibition on Construction and Steel Structure (Steel Structure-2015) Dubai, UAE from November 05-07, 2015, focused on the theme "Exploring Advances in Construction and Steel Structure".
- Technical Committee member, International Conference on multi-span large bridges, July 1-3, 2015, Porto, sponsored by IABSE, fib and IABMAS.
- Invited Symposium Organizer at 25th Annual International Conference on Computational & Experimental Engineering & Sciences, ICCES'15, 20-24 July 2015, in Reno, Nevada, USA.
- Member of Program Committee in 3rd Annual Conference on Architecture and Civil Engineering, ACE-CFP 2015, Apil 13-14, Singapore.
- Technical Program Committee (TPC) member of CCES2014, Conference of Civil Engineering & Safety, Sep. 12-14, Wuhan, China.
- International Technical Committee Member, International Seminar on "Developments in Cement Based Composites", NICE-National University of Science and Technology (NUST), Islamabad, Pakistan, September, 2014.
- Committee Member, 3<sup>rd</sup> International Conference on Engineering and Innovative Materials (ICEIM 2014), 4-5 September, Kuala Lumpur, Malaysia.
- Scientific Committee Member, 2<sup>nd</sup> International Congress on Materials and Renewable Energy MRE 2014, 8-10 August, Hong Kong.
- Technical Program Committee (TPC) member, International Conference on Advance Materials Research
   & Application AMRA, 12-14 December, Sanya, china, 2014.
- Committee Member, 4<sup>th</sup> International conference on geotechnique, Construction Materials and environment, GEOMATE2014, 19-21<sup>st</sup> Nov., Brisbane, Australia.
- Technical Program Committee (TPC) member, Conference on Civil Engineering and Safety (CCES2014), September 12-14, Wuhan, China.
- Member of Scientific Committee, 3rd International Conference on Service Life Design for Infrastructure (SLD' 14), 15-17 October 2014, Zhuhai, china.
- Invited Session Chair, The Twenty-second Annual International Conference on Composites and Nano Engineering (ICCE-22), July 13-19, 2014, Malta.
- Member of Scientific Committee for Conference ARSA 201, from December 1-5.
- Member Scientific Committee, The 2nd International Conference on Energy and the Future of Heat Treatment and Surface Engineering (EFHTSE), 11-13 October 2014, Beijing.
- Member of Program Committee in 2nd Annual Conference on Architecture and Civil Engineering, ACE2014, Apil 13-14, Singapore.

- Session Chair for the session in Corrosion Research at International Conference on Concrete Sustainability (ICCS13), 27-29 May, 2013, Tokyo. Japan.
- Invited member of the Scientific Committee of International Scientific Corrosion Conference CORROSION 2014, to be held in Gliwice, Poland, from 18 to 21 November, 2014.
- Invited Technical Committee, ICEES 2014, 4th International Conference on Energy and Environmental Science (http://www.icees.org) Kuala, Lumpur, Malaysia, September 4-5, 2014.
- Sientific Committee Member, Mechanics of Composites, 8-12 June 2014 at Stony Brook University, New York, USA.

- Member Technical Committee, and co-chair for the student session, 15th Middle East Conference on Corrosion and Exhibition, 2014, Manama, Bahrain.
- Member of Technical Program Committee, Conference on Civil Engineering and Safety (CCES 2013), September 20-22, 2013 in Beijing, China.
- Advisory Board Member, International Science and Technology Conference (ISTEC) supported by Sakarya University, SUNY Korea and TASET, July 18-20, 2013 at Songdo-Dong, Korea.
- Technical Committee Member, 2<sup>nd</sup> International Conference on Engineering and Innovative Materials, ICEIM 2013, IACSIT, China.
- Conference Chair, International Forum on Advances in Engineering (IFAE 2013), March 22-23, 2013,
   New Delhi, India.
- Invited Technical Program Committee Member of the 2013 International Conference on Kinematics, Mechanics of Rigid Bodies and Materials (KINEMATICS 2013), Arya Duta Hotel, Jakarta, Indonesia, 2 4, November 2013.
- Scientific Committee Member, 1st International Virtual Conference on Advanced Scientific Results (SCIECONF), June 10 - 14, 2013.
- Invited as Symposium Organizer in the International Conference of Numerical Analysis and Applied Mathematics (ICNAAM 2013), in Rhodes, Greece from 21-27 September, 2013.
- Member Organizing Committee, International Conference on Computational and Theoretical Nanoscience, ICCTN2013, March 1-3, Hong Kong.
- Scientific Committee Member of the International Conference on Computational Technologies in Concrete Structures (CTCS13), 8-12 September 2013, Intl. Convention Center, Jeju, Korea.
- Program Chair for International Conference on Manufacturing, Optimization, Industrial and Material Engineering (MOIME 2013), 09 10 March, Bandung, Indonesia.
- Scientific Committee Member for INTE2013, 25-27 June, Rome, Italy. (ISSN:2146-7358)

- Session Chair in IJAS Conference held in Gottenheim, Germany from 02-07 December 2012.
- Technical Program Co-Chair, ISTIE 2013, 10 11 May, Bogor, Indonesia.
- Member Scientific Committee & Invited Plenary Speaker, International Congress on Materials & Structural Stability CMSS2013, 27-30 November in Rabat, Morocco.
- sMember of Program Committee in 1st Annual Conference on Architecture and Civil Engineering, ACE2013, March 18-19, Singapore.
- Scientific Committee member of GV-CONF 2013 Slovakia, April 8 12.
- Invited as Keynote Speaker for a talk on International Conference on Advanced Nano Composite for Construction Materials (ICNC 2013) March 12-14, India.
- Member of Scientific Committee for Conference ARSA 2012 held from December 3 7.
- Invited Editorial Board Member of Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing (CC2013) in Sardinia, Italy from 3-6 September.
- Program Chair for Scietech 2013 in Jakarta, Indonesia from 24 25 January, indexing in EI Compdex, SCOPUS, Conference Proceedings Citation Index – Science (CPCI-S) (Thomson Reuters, Web of Science).
- Member of International Scientific Comittee for Fifth North American Conference on the Design and Use of Self-Consolidating Concrete (SCC2013), May 12-15, Chicago, USA.
- Member of Technical Comittee for International Conference "Advanced Concrete Technology and Applications" (ACTA 2012)-NICE NUST, 6-7 November, Islamabad, Pakistan.

Member of Organizing Team & Scientific Review Comittee for ISG-ISARC Conference, June 26-29, 2012, Netherlands.

## 2009:

\* Received certification from the International Conference for Nanotechnology Industries, The leading technology of 21st Century from Deanship of King abdulllah Institute of Nanotechnology (KAIN) & the vice rector for knowledge excahnge and technology transfer, 5-7 April, Riyadh, KSA.

# • Society, Organization, Council & Committee Memeberships:

# 2024:

Coordinator for identifying the research needs and requirements for staff and student at Civil Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.

Member of ASM International, world's largest association of materials-centric engineers & scientists, USA.

#### 2021:

Member Evaluation/Review Committee for Capstone Student Final Semester Graduation Design Project CE-497, College of Engineering, King Saud University, Riyadh, Saudi Arabia.

Invited member, AAAS, American Association for the Advancement of Science, USA.

# 2020:

Member Evaluation/Review Committee for Capstone Student Final Year Design Project CE-496, College of Engineering, King Saud University, Riyadh, Saudi Arabia.

#### 2017:

Editorial Member, OMICS, Accelerating Scientific Discorery, Civil & Environmental Engineering, USA.

Member of Gulf Engineering Association (GEA).

2016: IABSE, International Association of Bridge and Structural Engineering (with SEI, Structual Engineering International), Author Member, Switzerland.

2015: Research Cooperative Organization, Japan.

International Representative (Middle East), International Geomate Society, Japan.

Asian Council of Science Editors (ACSE), Invited Member, Dubai, UAE.

# 2014:

Member Engineer in the Board at American Commission of Expert Engineers (ACOEE)

Honorary Memeber of Gulf PMC-Project Management Consortium as Project Management Expert.

Author Member, OMICS, Accelerating Scientific Discorery, Civil & Environmental Engineering, USA. Petrotex Society, USA.

# 2013:

American Concrete Institute (ACI), EEDU Member, USA.

Associate Member, ACI Committee 222, Corrosion of Metals in Concrete.

NACE Corrosion Technical Committee STG 01 – Reinforced Concrete, USA.

Member of IEEE, USA.

fib, International Federation for Structural Concrete, Switzerland.

**Bahrain Society of Engineers** 

American Chemical Society (ACS), Author Member, USA.

InterNations, Munich, Germany.

#### 2011:

Honorary Member, National Association of Corrosion Engineering (NACE) International, USA. (World's largest and most prestigious corrosion organization).

Editorial Member, Institution of Civil Engineering (ICE), London, U.K.

2010: ASCE (American Society of Civil Engineers) Regular Full Member, USA.

2006: Japan Concrete Institute (JCI).

# 2000:

Student Member, ASCE (American Society of Civil Engineers), USA.

Pakistan Engineering Council (PEC).

L.D.A Sports Complex, Lahore, Pakistan.

1995: Speers Chemical Society.

1993: Benade Physics Society.

1990: World Wildlife Fund (WWF).

# • Selected Reviewer for International High Quality ISI Journals:

(Certified & Recognized Outstanding Reviewer by Elsevier)

#### 2024:

- \* Corrosion Science, Elsevier, ISI Impact Factor: 8.3, Q1
- \* Journal of Building Engineering, Elsevier, ISI JCR Clarivate Impact Factor: 6.4, Q1.
- \* Environment, Development and Sustainability, ISI JCR Clarivate Q2.
- \* Polymers Journal, ISI JCR Clarivate Impact Factor 5.0, Q1.ss

# 2023:

- \* Cement & Concrete Composites, CCC, Elsevier, ISI JCR Clarivate Impact Factor: 10.5, Q1.
- \* Corrosion Reviews, ISSN: 2191-0316, Journal Impact Factor: 3.2, Journal Citation Reports (Clarivate, 2023)

#### 2022:

- \* Engineering Failure Analysis, Elsevier, ISI Impact Factor 3.114, Q2.
- \* Buildings, ISI Impact factor 3.354, Q1.

- \* Materials & Design, Elsevier, ISI Impact Factor 7.991, Q1.
- \* Nature Scientific Reports Journal, ISSN 2045-2322, ISI Impact Factor: 4.996, Q1.
- \* Journal of Computational Design and Engineering, ISI Impact Factor 5.860, O1.
- \* Materials, MDPI, ISI Impact Factor: 3.92, Q1.
- \* Materials Today, Elsevier, ISI Impact Factor: 31.041.
- \* Cement & Concrete Composites, CCC, Elsevier, ISI Impact Factor: 7.586, Q1.
- \* Construction and Building Materials, Elsevier, ISI Impact Factor: 5.036, Q1
- \* Journal of Cleaner Production, Elsevier, ISI Impact Factor: 9.297, Q1.
- \* International Journal of Concrete Structures and Materials, IJCSM, Wos, ISI Impact Factor: 3.157.
- \* Advances in Materials Science and Engineering, WoS JCR ISI Impact Factor: 1.63, Q2.
- \* Advances in Civil Engineering, Web of Science JCR ISI Impact Factor: 1.21, Q2.
- \* Journal of Composite Materials, Web of Science JCR ISI Impact Factor: 2.54, Q2.

- \* American Concrete Institute (ACI) Materials Journal, ISI Impact Factor: 1.64, USA.
- \* American Concrete Institute (ACI) Structural Journal, ISI Impact Factor: 1.28, USA.
- \* Corrosion Science, Elsevier, ISI Impact Factor: 8.3, Q1
- \* Iranian Journal of Science and Technology, Transactions of Civil Engineering, Springer Nature, ISI Impact Factor: 0.975
- \* ASCE Journal of Materials in Civil Engineering, ISSN (print): 0899-1561 | ISSN (online): 1943-5533, ISI Impact Factor: 1.984.
- \* ASTM (American Society of Testing and Materials) Journal of Testing and Evaluation ISI Impact Factor: 0.734
- \* ASCE Journal of Engineering Mechanics, ISI Impact Factor: 2.264

# 2019:

- \* Cement & Concrete Composites, CCC, Elsevier, ISI Impact Factor: 5.515.
- \* Construction and Building Materials, Elsevier, ISI Impact Factor: 5.036
- \* Journal of Alloys and Compounds, Elsevier, ISI Impact Factor 3.779.
- \* fib, International Federation for Structural Concrete Journal, Switzerland, ISI Impact Factor: 1.885
- \* Frontiers of Structural and Civil Engineering, Springer, ISI Impact Factor: 1.272
- \* Structural Engineering and Mechanics, An International Journal (SEM), Korea, ISI Impact Factor: 0.863.
- \* Structures, Elsevier, Source Normalized Impact per Paper (SNIP): 1.224.
- \* Nature Springer, Asian Journal of Civil Engineering. ISSN: 1563-0854 (print version) ISSN: 2522-011X (electronic version)
- \* Journal of adhesion, science and technology, ISI Impact Factor: 1.210

#### 2018:

\* Engineering Failure Analysis, Elsevier, ISI Impact Factor: 2.174

#### 2017:

- \* Journal of Civil Engineering and Management, ISI Impact Factor: 3.711
- \* Journal of Alloys and Compounds, Elsevier, ISI Impact Factor 3.014
- \* Materials and Structures, Springer, ISI Impact Factor: 2.453
- \* Composites Part B, Elsevier, ISI Impact Factor: 3.901
- \* Structures, ISSN: 2352-0124, Elsevier.
- \* Journal of Sustainable Cement Based Materials, Taylor & Francis, Thomson Reuters.
- \* Advances in Civil Engineering Materials, American Society of Testing and Materials (ASTM) International, ISI.

#### 2016:

- \* International Journal of Management Science and Engineering Management, ScholarOne Manuscripts, Taylor & Francis ISI.
- \* Earthquakes and Structures (EAS), an International Journal, Korean Society of Civil Engineers (KSCE), ISI Impact Factor: 0.849

- \* Materials & Design, Elsevier, ISI Impact Factor: 3.626
- \* Corrosion Reviews, ScholarOne Manuscripts<sup>TM</sup>, Thomson Reuters.
- \* Electroanalysis, Wiley, ISI Impact Factor: 2.502
- \* Revista de la Construction, ISI Journal.

- \* NDT & E International, Elsevier, ISI Impact Factor: 2.105
- \* Journal of Advanced Concrete Technology, ISI Impact Factor: 0.508
- \* International Journal of Precision Engineering and Manufacturing, Springer, ISI Impact Factor: 1.5
- \* Fatigue Fracture of Engineering Materials & Structures, Wiley, ISI Impact Factor: 0.861
- \* KSCE Journal of Civil Engineering, Springer, ISI Impact Factor: 0.383
- \* Environment, Development and Sustainability, Springer.
- \* Canadian Journal of Civil Engineering, Canada, Scholarone, ISI Impact Factor: 0.602
- \* Earthquake Engineering and Engineering Vibration, Springer, ISI Impact Factor: 0.604

#### 2013:

- \* American Concrete Institute (ACI) Materials Journal, ISI Impact Factor: 0.826, USA.
- \* Cement & Concrete Composites, Elsevier, ISI Impact Factor: 5.515.
- \* Industrial & Engineering Chemistry Research, ACS, USA, ISI Impact Factor: 2.237
- \* Journal of Applied Remote Sensing, ISI.
- \* Construction Materials, Institute of Civil Engineers (ICE), U.K.

# 2012:

- \* Journal of Composite Materials, Sage, ISI Impact Factor: 1.060.
- \* Journal of Materials Engineering and Performance, ISI, Springer.

# 2011:

- \* Construction and Building Materials, Elsevier, ISI Impact Factor: 6.141.
- \* Automation in Construction, Elsevier, ISI Impact Factor: 2.827.
- \* Anti-Corrosion Methods and Materials, ScholarOne, ISI Impact Factor: 0.4
- \* Cement and Concrete Research, ISI, Elsevier, ISI Impact Factor: 4.075

#### 2010:

- \* ASTM (American Society of Testing and Materials) Reviewer for 'Testing and Evaluation' ISI Impact Factor: 0.45.
- \* ASCE (American Society of Civil Engineers) Reviewer for 'Materials in Civil Engineering', ISI Impact Factor: 0.959.
- \* Swarm and Evolutionary Computation, Elsevier.
- \* Computers and Structures, Elsevier, ISI Impact Factor: 2.745

# • Computer Skills:

DuCOM (Concere Durability Modeling Program), C++, Sap & Staad, JAVA Programming, Fortran-77 with visual interface, Primavera Project Planning, Pca Structural Design, Finite Element Modeling (FEM) Analysis, Spread sheet analysis, MS Office, Autocad and 3D Studio Max, Hardware assembling & trouble shooting.

# • Administrative Works:

- \* Coordinator for identifying the research needs and requirements for staff and students.
- \* Final Year Student Project Committee.
- \* Website Development and Maintenance for the Center
- \* Purchase of Equipment and Materials for Projects
- \* Project Planning
- \* Project Management
- \* Project Coordination
- \* Scheduling of University Staff Meetings
- \* Course Coordination for Civil Engineering Department
- \* Undergraduate and Postgraduate Course Management
- \* Curriculum Updates for Civil Engineering Department
- \* Participation in several Committees of the University

# **WORK EXPERIENCE**

# **GOVERNMENT & REGULAR FULL TIME EMPLOYMENTS**

• **KING SAUD UNIVERSITY, RIYADH, KSA**: (Ranked Top 5 in the entire Gulf Region) From 14<sup>th</sup> December 2008 to date working at present.

**CURRENT DESIGNATION: Professor & Head of Corrosion Laboratory** 

• N. Z HEIGHTS, LAHORE, PAKISTAN: (Builders, Developers & Real Estate Investors)

Plaza # 130, Commercial Main Boulevard, Violet Block, Nishtar Avenue, Sector E, Bahria Town. From 01<sup>st</sup> February 2020 to date at present.

**DESIGNATION**: Family Business

• UNIVERSITY OF TOKYO, JAPAN: (Ranked among TOP 20 in the world)

From 04<sup>th</sup> Oct 2004 to 1<sup>st</sup> Dec 2008.

**DESIGNATION**: Doctoral and Masters Research Fellow at Concrete Laboratory, School of Civil Engineering, College of Engineering.

• GOVERNMENT OF PAKISTAN (Ministry of Buildings and Roads):

From 05<sup>th</sup> January to 30<sup>th</sup> Sep. 2004.

**DESIGNATION: Asst. Director / SDO (Sub divisional Officer)** in Ministry of C&W Dep't. **Government of Pakistan** (Communication and works Department) **Buildings and Roads Division.** 

• <u>UNIVERSITY OF ENGINEERING & TECHNOLOGY, LAHORE, PAKISTAN:</u>

From 14<sup>th</sup> March, 2002. to 04<sup>th</sup> January 2004.

DESIGNATION: Joined as Lecturer & promoted to asst. Professor in Civil Engineering Department in less than 2 years.

# PRIVATE CONSULTANCIES/SERVICES ON PART TIME/ CONTRACT/ PROJECT BASIS

# 25 YEARS OF VAST & VERSATILE FIELD, ACADEMIC & RESEARCH EXPERIENCE FROM YEAR 1999 - 2024

• GANDHARA CONSULTANTS (pvt.)Ltd. & THE CONSTRUCTION SERVICES OF PAKISTAN: (Off Address: 92/1. A- Block, New Muslim Town, Lahore, Pakistan.)

# **GANDHARA CONSULTANTS:**

PROJECT: Pakistan State Oil Filling station (P.S.O: G.M Khalid ) at Kasur, Pakistan.

DESIGNATION: \* Planning Engineer. (using PRIMAVERA computer software) \*Site Engineer.

PROJECT: Deans Trade Centre & Hotel tower, Saddar Road, Peshawar, Pakistan. (Project value: 6,500 millions pak rupees)

DESIGNATION: Asst. Structural Engineer, Cost Estimation & Preparation of tender documents.

#### THE CONSTRUCTION SERVICES OF PAKISTAN:

PROJECT: Pakistan Air Force Officers Housing Scheme, Walton Air Port, Lahore, Pakistan.

DESIGNATION: Site Incharge.

DUTIES: Site supervision & execution, billing, deviation orders, inspections, material purchasing, site execution, labour payments, store maintenance, project management.

• MASS CONSULTANTS:

(Off Address: First Floor, Business Arcade, Defence Chowk, Lahore, Pakistan.)

GENERAL DESIGNATION: PROJECT MANAGER

# Commercial Projects:

PROJECT: National Telecommunication Building at Garden Town, Lahore, Pakistan.

DESIGNATION: Site Engineer.

PROJECTS: \* Pakistan Telecommunication Buildings (PTCL) at Batapur, Muridke, Guldasht town,

- \* Sharakpur, Rana Town, Johar Town & Sheikhupura.
- \* Usmania Trade Centre at Rehmat Chowk, Wapda Housing Scheme, Lahore
- \* PTC Customer Service Centre at Gatt.wala, Faisal Abad.

DESIGNATION: \* Site Engineer, Cost Estimation, B.O.Qs, QS, Structural Design & Tender Docs

# PROJECT: National Telecommunication Corporation Head quarters Building at Islamabad, Pakistan.

DESIGNATION: Structural Engineer.

PROJECT: MAKKI CENTRE, chowburgi, lahore, Pakistan.

DESIGNATION: Structural Design Engineer.

PROJECT: Commercial plaza at 19&20 Valencia Town, lahore (client: Mr. Tahir Naseem)

**DESIGNATION: Structural Engineer** 

**Residential Projects:** 

PROJECTS: \* House of Mr. Sheikh Iftikhaar (M/S Balqees Carpets) at Tariq Road, Lhr. (Area: 5 Kanals)

- \* House of General Iqbal at Sarwer Road, Kentt, General Saeed at Cavalry Ground, Lahore, Pakistan.
- \* House of Mr. Nagi at Defence, Dr. Shahid at Garden Town, Lahore.
- \* House of Mr. Shahzad Raza (Mecatech Engineers) at Defence, Lahore.

DESIGNATION: Site Engineer & Structural / Architectural Designer.

**Industrial Projects:** 

PROJECT: Fatima Textile Mills at Okara.(Project Consultant: M/S M.R Associates, 20-Masson road, Lahore, Pakistan.)

DESIGNATION: Structural Design Engineer.

INMOLE EMPLOYEES CO-OPERATIVE HOUSING SOCIETY, PAKISTAN: (ROADS)

PROJECT: Construction of Coloney Roads.

**DESIGNATION: Site Engineer** 

PROJECT: D.G Khan Cement Factory, at 45km D.G Khan (Project Consultant: Sakina Enterprises for Habib Bank, Lahore, Pakistan.)

(PROJECT VALUE: 8.5 Million USD / 852 Crore Pak Rupees)

**DESIGNATION**: Evaluation Engineer.

PROJECT: Novamed Phrmaceuticals (Pvt.)Ltd., Factory at 28 km Ferozpur road, Lahore, Pakistan.

DESIGNATION: Over all consultant of the Project planning, tendering, exection and construction.

• HORTI GROUP:

(Garden, lawn design, landscaping, irrigation and indoor plant display services)

DESIGNATION: Operation Manager (Design, supervision & Construction Dep't.)

• PRESTON UNIVERSITY, Lahore, Pakistatn:

DESIGNATION: Visiting faculty member in Civil Engineering Technology, B-Tech-(Honors) Program.

• Family Business; N.Z Heights - Builders, Developers & Real Estate Investors:

Plaza # 130, Commercial Main Boulevard, Violet Block, Nishtar, Sector F, Bahria Town, Lahore, Pakistan. Net worth of investment: 50 Crore Approx.

#### • HERITAGE DEVELOPERS:

PROJECT: Gulberg Aracade, Main market Gulberg, Lahore. (Project value: 14 Crores)

DESIGNATION: Structural Design (Analysis on SAP2000 and Re-Design)

#### • USMANIA DEVELOPERS:

PROJECT: Usmania Towers at Wapda Town, commercial Area, Lahore, Pakistan.

DESIGNATION: Structural Design Engineer (Analysis on SAP2000 and Re-Design)

# • R.R ASSOCIATES:

DESIGNATION: C.E.O, Real Estate Investor, Developer & Consultant.

PROJECTS: Several Residential and Commerical Projets in DHA, Bahria Town, Lake City, McLoad Road, Bahria Orchards, Jalil Gardens, Gawadar, Murree etc. worth more than 2 million USD approx.

• International Service Check (ISC), AG, Germany & e-kian Mystery Shopping Bare International:

DESIGNATION: Field Coordinator & Service Checker / Evaluator / Critic

**PROJECTS:** 12 years of Multi-National Work Experience with several International Renowned Brands and names around the world, especially in Japan and Saudi Arabia incluing Swarovski, Diesel, Ecco, McDonald's, Swatch, Cartier, The Noodle House, Vapiano, The Carat, Karen Miller, Center Point, Lacoste, Lifestyle, Lusin, Mikyaji, Montblanc, Nayomi, Nespresso, Sephora, Sony, Splash, illy, LPM restaurant, Catch 22 restaurant, Alkhozama Hotel, Al Faisaliya Hotel Restaurant, Alwani Restaurant, Lavazza Restaurant Laysen Valley etc.

# • HARBIN INSTITUTE OF TECHNOLOGY (HIT), CHINA:

DESIGNATION: Visiting Professor Faculty in Civil Engineering Department.

# • MEDIA/PRESS COVERAGE

# NHK Television, Tokyo, Japan:

Appeared (by invitation and participation) in several T.V programs (interviews, talk shows, live performances, reality TV, cultural shows, events, trainings etc.) broadcasted on NHK National T.V Channel of Tokyo, BS2 and BS hi Vision TV channels in Japan under the series names of Cool Japan, Gaijin, this is tokyo etc. during the years 2004-2008.

# Saudia Radio / Radio Riyadh, Saudi Arabia:

Invited by Radio-Riyadh / Saudia Radio, FM radio frequency: 97.0 for disucssions, personal interviews, auto biographies, talk shows and my expert opinoion on the topics of recent technology & scientific developments, research and research centres, infrastructure economy, my life, education, experiences, my achievements etc. which went on air Live from time to time under the program names 'The Open Hour', 'Lets Connect' and 'Economy Report' during the years 2014-2019.

# **RESEARCH & PUBLICATIONS**

# **PhD COURSE RESEARCH THESIS:**

Title: Modeling of Steel Corrosion in Concrete Coupled with Mass and Energy Transport in Porous Media and its Experimental Verification.

Advisor: Prof. T. Ishida (Civil Engineering Department)

Institution: University of Tokyo, Japan (Ranked among Top 20 in the world and Top10 in Civil Engineering)

Year: 2006-2008.

Note: Completed Ph.D in a record short period of just 2 years.

# POSTGRADUATE(MASTER) RESEARCH THESIS: (Medal and prize from University of Tokyo)

Title: Coupling of the Effect of Chloride and Temperature on the Corrosion of RC Structures based on Thermodynamic Approach.

Advisor: Prof. T. Ishida (Civil Engineering Department)

Institution: University of Tokyo, Japan (Ranked among Top 20 in the World and Top 10 in Civil Engineering)

Year: 2004-2006.

Award: Furuichi prize, award & medal for best research thesis from the University of Tokyo.

(This is highest award in the college of engineering at the University of Tokyo)

# • <u>UNDER GRADUATE RESEARCH THESIS:</u>

Title: Effect of various aggregates on shrinkage & strength of concrete.

Advisor: Prof. Yahya Chaudhry, University of Engineering & Technology, Lahore, 2000.

Research element of the degree: 50 percent of work required for that year.

Year: 2000

# **LIST OF 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:**

- 1. 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*, 5<sup>th</sup> most cited journal in the world, ISSN 2045-2322, published 2<sup>nd</sup> 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).
- 2. 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*, 5<sup>th</sup> most cited journal in the world, ISSN 2045-2322, published online 25<sup>th</sup> March, 2024, Vol. 14, Article number: 7069, DOI: https://doi.org/10.1038/s41598-024-57485-1 (ISI JCR Clarivate Impact Factor: 4.996, O1).

# **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 28<sup>th</sup> November 2022, DOI: https://doi.org/10.1016/j.conbuildmat.2022.129335, ISI Journal Citation Reports (Clarivate Analytics, 2022) Impact Factor: 7.693, ranking 5<sup>th</sup> 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*, 5<sup>th</sup> most cited journal in the world, ISSN 2045-2322, published online 21<sup>st</sup> 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:**

- 7. 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).
- 8. 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).

# **Year 2020:**

- 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 3<sup>rd</sup> out of 138 Top 2 in Engineering, Civil, Q1).
- 10. 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:**

- 11. 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).
- 12. 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 4<sup>th</sup> March 2019, Vol. 9, Article No. 3399, Doi: https://doi.org/10.1038/s41598-019-39943-3 (ISI Impact Factor: 4.996, Q1).
- 14. 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, 21<sup>st</sup> January, 2019, Vol. 12, Issue 2, pp. 329 (1-30), Doi: https://doi.org/10.3390/ma12020329 (ISI Impact Factor: 2.467, Q1).
- 15. 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)
- 16. 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).
- 18. 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).
- 19. 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).

#### **Year 2018:**

20. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish, J. K. Singh and D.D.N Singh (2018), Protection against Reinforcement Corrosion Using Phosphoric Acid-Based Rust Converter, American Concrete Institute ACI Materials Journal, ISI, Journal ISSN: 0889-325X, November - December 2018, Title No. 115-M85, Vol.115, Issue 6, pp. 935-944, Doi: 10.14359/51706943 (ISI Impact Factor: 1.780, Q2).

- 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).
- 22. Raja Rizwan Hussain, J. K. Singh, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish, C. Bhattacharya, R. S Pathania and D.D.N Singh (2018), "Effect of Reinforcing Bar Microstructure on Passive Film Exposed to Simulated Concrete Pore Solution", *American Concrete Institute ACI Materials Journal*, ISI, Journal ISSN: 0889-325X, Vol. 115, No. 2, pp. 181-190, March 2018, Doi: 10.14359/51701237 (ISI Impact Factor: 1.780, Q2).
- 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.

# **Year 2017:**

- 25. Abid Muhammad, Xiaomeng Hou, Wenzhong Zheng and Raja Rizwan Hussain (2017), High Temperature and Residual Properties of Reactive Powder Concrete-A Review, Construction and building materials Journal, Elsevier, ISI, Vol. 147, 30 August 2017, pp. 339-351, DOI: https://doi.org/10.1016/j.conbuildmat.2017.04.083 (ISI Impact Factor: 6.141, Q1).
- 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).
- 28. Raja Rizwan Hussain (2017), *Editorial*: Proceedings of the Institution of Civil Engineers Structures and Buildings Journal, ISI, Journal ISSN: 0965-0911, Vol. 170, Issue 1, pp. 1-2, Jan 2017, DOI: 10.1680/jstbu.2017.170.1.1 (ISI Impact Factor: 0.765, Q4).
- 29. 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)
- 32. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al Negheimish, J.K Singh and DDN Singh (2016), Accelerated rusting of reinforcing bars: The role of manganese alloying in concrete reinforcement steel bars, *American Concrete Institute ACI Materials Journal*, ISI, Journal ISSN: 0889-325X, Vol. 113, Issue 5, Title No. 113-M52, September-October 2016, pp. 579-588, doi: 10.14359/51688985 (ISI Impact Factor: 1.512, Q2).
- 33. 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)
- 37. Mahboob Alam, Raja Rizwan Hussain and A.B.M. Saiful Islam (2016), Impact assessment of rainfall-vegetation on sedimentation and predicting erosion-prone region by GIS and RS, *Geomatics, Natural Hazards and Risk Journal*, Taylor & Francis, Journal ISSN: 1947-5705, DOI:10.1080/19475705.2014.942387, Vol. 7, Issue 2, 3<sup>rd</sup> March 2016, pp. 667-679. (ISI Impact Factor: 2.14, Q1).

# **Year 2015:**

- 38. Raja Rizwan Hussain, Ahmed B. Shruaim and A. Alhozaimy (2015), Investigation for the impact of nature of coarse aggregate on the passive layer formation and corresponding corrosion of reinforcement bars in high performance concrete, *Construction and building materials Journal*, *Elsevier*, ISI, DOI: 10.1016/j.conbuildmat.2015.09.057, Dec 15, 2015, Vol. 100, pp.52-62.(ISI Impact Factor: 6.141, Q1)
- 39. A.B.M. Saiful Islam, Mohd Zamin Jumaat, Raja Rizwan Hussain, Md. Akter Hosen and Md. Nazmul Huda (2015) Incorporation Preference for Rubber-Steel Bearing Isolation in Retrofitting Existing Multi storied Building, *International Journal of Computers and Concrete*, Journal ISSN: 1598-8198, DOI: http://dx.doi.org/10.12989/cac.2015.16.4.503, Oct 2015, Vol. 16, No. 4, pp. 503-529. (ISI Impact Factor: 1.015, Q3)
- 40. 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 nanoscale, *American Concrete Institute ACI Materials Journal*, ISI, Journal ISSN: 0889-325X, Vol. 112, Issue 4, pp. 523-534, July-August 2015, Title No. 112-M50, pp. 523-534, doi: 10.14359/51687662. (ISI Impact Factor: 1.123, Q2)
- 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)
- 42. 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, DOI: http://dx.doi.org/10.1016/j.conbuildmat.2015.01.024, Journal ISSN: 0590-0618, Volume 78, March 2015, pp. 144-152. (ISI Impact Factor: 6.141, Q1)

# **Year 2014:**

- 43. 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, DOI: 10.1016/j.conbuildmat.2014.09.099, Dec 2014, Vol. 73, pp. 283–288. (ISI Impact Factor: 6.141, Q1)
- 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, 3<sup>rd</sup> Sep 2014, Vol. 20, Issue 5, pp. 621-631. (ISI Impact Factor: 3.711, Q2)
- 46. 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, DOI: http://dx.doi.org/10.12989/cac.2014.14.2.193, Aug 2014, Vol. 14, Issue 2, pp. 193-209. (ISI Impact Factor: 1.015, Q3)
- 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)
- 49. 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, ISSN: 1598-8198, DOI: http://dx.doi.org/10.12989/cac.2015.16.4.503, May 2014, Vol. 13, Number 5, pp. 603-619. (ISI Impact Factor: 1.015, Q3)
- 50. Raja Rizwan Hussain, Wasim Abbas, Zahid Ahamd Siddiqi and Fahid Aslam (2014) Economical-Structural Performance of Steel Moment Resisting Building Frames Using the Section Variation Technique, Revista de la Construcción Journal of Construction, ISI, Journal ISSN: 0718-915X, https://www.redalyc.org/pdf/1276/127631777005.pdf, April 2014, Vol. 13, Issue 1, pp. 41 46. (ISI, Q3)
- 51. 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, Journal ISSN: 0888-5885, 19 Feb 2014, Vol. 53, Issue 7, pp. 2656-2660. (ISI Impact Factor: 2.461, Q2)
- 52. Abdulaziz Al- Negheimish, Abdulrahman Alhozaimy, Raja Rizwan Hussain, Rajeh Al-Zaid, J.K.Singh and D.D.N.Singh (2014), Role of manganese sulfide inclusions in steel rebar in the formation and breakdown of passive films in concrete pore solutions, *NACE Corrosion Journal*, ISI, Journal ISSN: 0010-9312, DOI: http://dx.doi.org/10.5006/0941, Jan 2014, Vol. 70, Issue 1, pp. 74-86. (ISI Impact Factor: 2.908, Q2)

# **Year 2013:**

- 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)
- 54. 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, Journal ISSN: 0926-5805, DOI: http://dx.doi.org/10.1016/j.autcon.2012.11.010, Vol. 30, pp. 265-275. (ISI Impact Factor: 2.827, Q1)
- 55. 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, DOI: 10.1179/1743278213Y.0000000090, Vol. 48, Issue 5, pp. 370-379. (ISI Impact Factor: 0.658, Q3)
- 56. 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, DOI: 1679-7825, Vol. 10, Issue 5, pp. 921 939. (ISI Impact Factor: 1.240, Q3)
- 57. 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, Journal ISSN: 1452-3981, Vol. 8, Issue 2, pp. 1678-1690. (ISI Impact Factor: 3.729, Q2)
- 58. A.B.M. Saiful Islam, Mohd Zamin Jumaat, Raja Rizwan Hussain and Md Ashraful Alam (2013) Incorporation of Rubber-steel Bearing Isolation in Multi-storey Building, *Journal of Civil Engineering and Management, ISI*, DOI: 10.3846/13923730.2013.801904, Journal ISSN: 1392-3730, Volume 19, Issue supplement 1, pp. S33-S49. December 2013. (ISI Impact Factor: 3.711, Q2)
- 59. 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, DOI: 10.1111/ffe.12027, Journal ISSN: 8756-758X, ISI, July 2013, Vol. 36, Issue 7, pp. 602–613. (ISI Impact Factor: 1.588, Q1)
- 60. M. Wasim and Raja Rizwan Hussain (2013) Three Dimensional Computer Aided FEM Retrofitting Modeling and NDT Technique for Assessment of Actual Exiting High-Rise Fire-Damaged Reinforced Concrete Building, *Structural Design of Tall and Special Buildings Journal*, ISI, DOI: 10.1002/tal.734, Journal ISSN: 1541-7794, Vol. 22, Issue 12, pp. 927-940, 25 Aug 2013 (ISI Impact Factor: 1.058, Q3)

# **Year 2012:**

61. 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, MS No. M-2009-234.R2, Title No. 109-M01, Vol. 109, No. 1, pp. 3-10, January-February 2012. (ISI Impact Factor: 1.123, Q2)

- 62. 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, DOI: http://dx.doi.org/10.1016/j.conbuildmat.2012.07.011, Journal ISSN: 0590-0618, Vol. 37, pp. 67–81. (ISI Impact Factor: 7.693, ranking it 5 out of 138 Top 3 in Engineering, Civil, Q1)
- 63. 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, Q2)
- 64. Mohammed Jameel, A.B.M. Saiful Islam, Raja Rizwan Hussain, M. Khaleel, M. M. Zaheer (2012) "Optimum Structural Modelling for Tall Buildings", *The Structural Design of Tall and Special Buildings Journal*, ISI, Journal ISSN: 1541-7794, DOI: 10.1002/tal.1004, Volume 22, Issue 15, pp. 1173-1185, (ISI Impact Factor: 1.058, Q3)
- 65. 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*, DOI: doi:10.1016/j.autcon.2011.11.017, Vol. 22, special issue S1, pp. 554-566. (ISI Impact Factor: 2.827, Q1)
- 66. 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*, DOI: 10.1177/0021998311410492, Journal ISSN: 0021-9983, Vol. 46, Issue 1, January 2012, U.K. (ISI Impact Factor: 1.173, Q2)
- 67. 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, Q2)
- 68. 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, Q2)
- 69. 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 Engineers), ISI, DOI: 10.1061/(ASCE)MT.1943-5533.0000474, Journal ISSN: 0899-1561, Vol. 24, Issue 7, pp. 950-958, July 2012. (ISI Impact Factor: 2.33, Q1)
- 70. 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, Q2)

- 71. Mohammad Wasim and Raja Rizwan Hussain (2012), 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, pp. 3646-3655. (ISI Impact Factor: 3.729, Q2)
- 72. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Rajeh Al-Zaid and Abdulaziz Al- Negheimish (2012) "Coupled Effect of Ambient High Relative Humidity and Varying Temperature Marine Environment on Corrosion of Reinforced Concrete", *Construction and Building Materials Journal*, ISI, DOI: doi:10.1016/j.conbuildmat.2011.10.008, Vol. 28, Issue 1, pp. 670–679, *Elsevier*. (ISI Impact Factor: 7.693, ranking it 5 out of 138 Top 3 in Engineering, Civil, Q1)

# **Year 2011:**

- 73. Hussain Raja Rizwan, Effect of moisture variation on oxygen consumption rate of corroding steel in chloride contaminated concrete, *Cement & Concrete Composites*, DOI: doi:10.1016/j.cemconcomp.2010.09.014, Vol. 33, Issue 1 (January 2011) pp. 154–161, *Elsevier*, ISI. (ISI Impact Factor: 9.930, Q1)
- 74. 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*, DOI: doi:10.1016/j.autcon.2010.11.022, Vol. 20, Issue 5, pp. 559-570, *Elsevier, ISI*. (ISI Impact Factor: 2.827, Q1)
- 75. 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*, DOI: doi:10.1016/j.ndteint.2010.11.010, Journal ISSN: 0963-8695, Vol. 44, Issue 2, pp. 158-162, *Elsevier, ISI*. (ISI Impact Factor: 2.243, Q1)
- 76. 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, Q2)
- 77. 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*, DOI: DOI 10.1179/147842210X12659647007086, Vol. 46, No. 5, pp. 657-660 (4), U.K. (ISI Impact Factor: 0.658, Q3)
- 78. 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*, DOI: 10.1016/j.conbuildmat.2010.09.014, Vol. 25, Issue 3, pp. 1305-1315, *Elsevier, ISI*. (ISI Impact Factor: 6.141, Q1)
- 79. 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*, DOI: DOI 10.1007/s12205-011-1035-x, Journal ISSN: 1226-7988, Vol. 15, Issue 1, pp. 153-160, *Springer*, *ISI*. (ISI Impact Factor: 0.450, Q3)

- 80. Hussain Raja Rizwan, Enhanced mass balance Tafel slope model for computer based FEM computation of corrosion rate of steel reinforced concrete coupled with CO<sub>2</sub> Transport, *International Journal of Computers and Concrete*, ISI, Vol. 8, No.2, April 2011, pp. 177-192, U.K. (ISI Impact Factor: 1.015, Q3)
- 81. 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, DOI: 10.1016/j.measurement.2010.10.002, Journal ISSN: 0263-2241, Vol. 44, pp. 274-280, *Elsevier*. (ISI Impact Factor: 1.637, Q2)

## **Year 2010:**

- 82. 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,* ISSN: 0950-0618, DOI: 10.1016/j.conbuildmat.2009.11.017, Vol. 24, Issue 6, pp.1014–1019, *Elsevier*. (ISI Impact Factor: 6.141, Q1)
- 83. 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, DOI: 10.1016/j.compstruc.2010.02.008, ISSN: 0045-7949, Vol. 88, Issues 9-10, pp.639–647, *Elsevier*. (ISI Impact Factor: 2.745, Q1)
- 84. 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, ISSN: 1546-962X, Vol. 7, Issue 5, pp. 1-8, doi: 10.1520/JAI102667, USA.

#### **Year 2009:**

85. 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, ISSN: 1452-3981, Vol. 4, Issue 8, pp. 1178-1195. (ISI Impact Factor: 3.729, Q2)

## **International Conferences & Symposia**

## **Year 2022:**

86. Raja Rizwan Hussain, Abdulrahman M. Alhozaimy and Abdulaziz Al-Negheimish (2022) "Time Dependent Comparative Performance Assessment for Corrosion Characteristics of Silica Fume, Fly Ash and Natural Pozzolan Based Steel-Concrete Interfacial Transition Zone", 13<sup>th</sup> International Conference on Sustainable Green Construction and Nano-Technology (NTC 2022) pp. 1-10, 18-22 March 2022, Soma Bay, Hurghada, Egypt.

### **Year 2021:**

- 87. Abdulrahman M. Alhozaimy, Mshtaq Ahmed, Raja Rizwan Hussain and Abdulaziz Al-Negheimish (2021) "Experimental Evaluation of Saudi Building Code (SBC 304) Provisions for the Corrosion Protection of Reinforced Concrete Structures Effect of Temperature on Chloride Threshold Value" 2<sup>nd</sup> International Conference on Durability of Building and Infrastructures for Smart City, DuraBI 2021, Venue: Zoom Platform (Online), Technical Session 2: Materials-2, S2-7, 1075-B-DuraBI21-Hussain2, pp. 1073-1082, Oct. 15-17, 2021.
- 88. Raja Rizwan Hussain (2021) "Advances, Developments and Chemistry of Corrosion for Rebars in Concrete Allied Sciences and Diagnostic Techniques", Invited Keynote Lecture, 1<sup>st</sup> International Conference on Advanced Developments in Chemistry and Allied Sciences-2021 (ADCAS-21) 16-17<sup>th</sup> December 2021, India.
- 89. Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al-Negheimish (2021) "Development of natural pozzolan mined from scoria rocks in the arabian peninsula of Saudi Arabia as a new class of corrosion inhibitor for steel rebars in concrete exposed to harsh environment of the Kingdom and its comparison with silica fume and fly ash" 2<sup>nd</sup> International Conference on Durability of Building and Infrastructures for Smart City, DuraBI 2021, Venue: Zoom Platform (Online), Technical Session 3: Corrosion, S3-8, 1074-B-DuraBI21-Hussain1, pp. 1135-1154, Oct. 15-17, 2021.

## **Year 2019:**

90. Zeeshan Ullah, Raja Rizwan Hussain, Faheem Ahmed Somroo and Abdullah Khan (2019) "Performance Evaluation of RC and Brick Masonry Structures during 2005 Kashmir Earthquake", First South Asia Conference on Earthquake Engineering (SACEE'19), 21-22 February 2019, Karachi, Pakistan.

#### **Year 2018:**

- 91. Raja Rizwan Hussain (2018) "Multi-Scale Durability Related Corrosion Investigation for Steel Reinforcement Bars in Concrete Infrastructure Experimentation and Modeling approach", Distinguished Invited Keynote Speaker with Complete Financial Support from the Conference Organizer, 1st International Conference on Durability of Building and Infrastructures, 10-12 January, DuraBI 2018, Miri, Sarawak, Malaysia.
- 92. Raja Rizwan Hussain (2018) "Corrosion of Steel Reinforced Concrete Structures" Invited Speaker with complete financial support from the Conference Organizer, 2<sup>nd</sup> June 2018, Civil Engineering Department, Harbin Institute of Technology (HIT), Harbin, China.
- 93. Raja Rizwan Hussain (2018) "Corrosion of Steel", Distinguished Invited Keynote Speech with Complete Financial Support from the Symposium Organizer, 10-12 January, Miri, Malaysia, Symposium-1, pp. S1-1.

## **Year 2016:**

94. Raja Rizwan Hussain (2016) "Nanoscale Investigation for Corrosion of Steel Rebars in Concrete", Invited Speaker with complete financial support from the Conference Organizer, 14<sup>th</sup> March 2016, Civil Engineering Department, Harbin Institute of Technology (HIT), Harbin, China.

## **Year 2015:**

- 95. Ahmed B. Shuraim, Abdulrahman Alhozaimy and Raja Rizwan Hussain (2015) "Effect of Aggregate and Silica Fume on Time-Development of Concrete Compressive Strength", SEWC 2015, 5th Structural Engineers World Congress, 19 22 October 2015, Singapore.
- 96. 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". 5<sup>th</sup> International Symposium on Nanotechnology in Construction, NICOM5, pp. 1-17, sup. Vol. 2, 24-26 May, 2015, Chicago, USA.
- 97. Raja Rizwan Hussain, Abdulrahman Mohammed Alhozaimy, Abdulaziz Al-Negheimish and Rajeh Zaid Al-Zaid (2015) "Nano-scale Investigation of Passive Layer for Corroding Steel Bars in Concrete under Severe Environmental Conditions Part II Modeling". 2<sup>nd</sup> International Civil Engineering and Architectural Symposium for Academicians, ICESA'2015, 16-19 May, Antalya, Turkey.

## **Year 2014:**

- 98. El-Sayed, A. K., Hussain Raja Rizwan and Shuraim, A. B., "CFRP Strengthening of RC Beams with Corrosion-Damaged Stirrups," Proceedings of the 2nd International Conference on Advances in Structural Health Management and Composite Structures (ASHMCS 2014), Vol. I, P44, pp.1-6, Lanl-Cbnu Engineering Institute Korea, Chonbuk National University, Jeonju, Jeonbuk, South Korea, 27-29 August, 2014.
- 99. El-Sayed, A., Raja Rizwan Hussain and Shuraim A.B, (2014) "Shear Behavior of RC Slender Beams with Corrosion-Damaged Stirrups" Athens: ATINER'S Conference Paper Series, No: CIV2014-0967, Proceedings of the 4<sup>th</sup> Annual International Conference on Civil Engineering, Structural Engineering and Mechanics, 26-29 May, 12p, published 19 June 2014, Athens Institute for Education and Research, Atiner, Valaoritou Street, Kolonaki, 10671 Athens, Greece.
- 100. Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al Negheimish (2014), Influence of Sand Particles on the Half-Cell Corrosion Potential of Steel in Concrete, 3<sup>rd</sup> *all Russian International Conference on Concrete and Reinforced Concrete* Glance at Future, , Monomax Congress LLC., paper # 95520, pp. 456-463, 12-16 May, Moscow, Russia.

#### **Year 2013:**

101. 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 22<sup>nd</sup> International Conference on Structural Mechanics in Reactor Technology, Transactions, SMiRT-22, August 18-23, San Francisco, California, USA.

- 102. 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, 2<sup>nd</sup> International Conference on Civil Engineering and Materials (ICCEM 2013), July 06-07, Hong Kong.
- 103. 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, paper # S2-3-2.
- 104. 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, GEN 369, 1-10 p.

## **Year 2012:**

- 105. 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.
- 106. Raja Rizwan Hussain, Effect of Concrete Microstructure Saturation on the Corrosion Rate of Embedded Steel Reinforcement, Proceedings of 2<sup>nd</sup> International Conference on Microstructural-related Durability of Cementitious Composites, paper # 215, 11-13 April 2012, Amsterdam, The Netherlands, pp. 1132-1142, RILEM.
- 107. Raja Rizwan Hussain, Process for Inhibiting Macro-Cell Corrosion during RC Construction Maintenance, 2<sup>nd</sup> Annual International Conference on Construction, 18-21 June 2012, Athens, Greece, ATINER'S Conference Paper Series, No: CON2012-0040.

## **Year 2011:**

- 108. 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.
- 109. 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.

110. 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:**

- 111. 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, 13<sup>th</sup> Middle East Corrosion Conference and Exhibition, Bahrain, Vol. 13, No. 10104.
- 112. 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 2009-2006: (During Post-Graduation M.Sc. and Ph.D. Studies)

- 113. 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, Thailand, pp. 743-748.
- 114. 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.
- 115. 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.
- 116. 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.
- 117. 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.
- 118. 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.

- 119. 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.
- 120. Hussain Raja Rizwan, Corrosion monitoring and control in repaired RC structures, *International conference on Corrosion Control*, 2007, Australia.
- 121. 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.
- 122. 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.
- 123. Hussain Raja Rizwan, Bending and cracking of plastic fiber reinforced concrete slab elements, CD Proceedings, *Hellenic Concrete conference*. Cyprus, 2009.
- 124. 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.

## **PATENTS:**

- 125. Raja Rizwan Hussain, "Method for Predicting Chloride Induced Corrosion", Patent Application Publication No. US2013131999-A1, pp. 19, United States Patent Office (USPTO), published 23<sup>rd</sup> May, 2013, USA. (https://patents.google.com/patent/US20130131999A1)
- Raja Rizwan Hussain, Method for Predicting Chloride Induced Corrosion, 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, International Patent Publication Number WO 2013/077906 A2, International Application Number PCT/US2012/040896, International application published under the patent cooperation treaty (PCT), World Intellectual Property Organization (WIPO) International Bureau protected under the agency of the United Nations (UN), International publication date 30<sup>th</sup> May, 2013, Switzerland. (https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2013077906&\_cid=P21-M24SVH-24459-1)
- 127. Raja Rizwan Hussain and M. Wasim, Induced macro-cell corrosion prevention method, 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, International Patent Publication Number WO 2013/154604 A1, International Application Number PCT/US2012/054568, International application published under the patent cooperation treaty (PCT), World Intellectual Property Organization (WIPO) International Bureau protected under the agency of the United Nations (UN), International Publication Date 17 October, 2013, International Patent Classification Main IPC E04G23/02,Switzerland.(https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2013154604&\_c id=P21-M24TFF-43636-1)

- 128. Raja Rizwan Hussain and Muhammad Wasim "Induced Macro-Cell Corrosion Prevention Method", Patent Nos. US 8745957 B2<del>, US2013269283-A1, pp.</del>, pp. 13, United States Patent Office (USPTO), published June 10, 2014, Main IPC E04B-001/92, USA. (https://patents.google.com/patent/US8745957B2)
- 129. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish and DDN Singh "Anti-Corrosion Treatment Composition for Steel Rebar Embedded in Concrete" Patent No. US 9469769 B1, pp. 08, United States Patent Office (USPTO), published 18<sup>th</sup> October 2016, USA. (https://patents.google.com/patent/US9469769B1)
- 130. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish and DDN Singh, "Method of ascertaining fully grown passive film formation on steel rebar embedded in concrete", Patent No. US 9,625,403 B1, United States Patent Office (USPTO), published 18 April, 2017, USA. (https://patents.google.com/patent/US20170089851A1)
- 131. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish and DDN Singh, "Method of ascertaining the fully grown passive film on steel rebar embedded in concrete", Saudi Patent Office, KACST, Saudi Arabia, SAPO, Patent Application No. SA 116370973 B1 / Docket Assignment Ref. No. 00572, Patent # SPO 6130, patent granted 27 Sep. 2018. (https://ipsearch.saip.gov.sa/wopublish-search/public/detail/patents?id=116370973)
- 132. DDN Singh, Raja Rizwan Hussain, Abdulrahman Alhozaimy and Abdulaziz Al-Negheimish "Anti Corrosion Treatment Composition for Steel Rebar Embedded in Concrete" Saudi Patent Office, KACST, Saudi Arabia, SAPO, Patent Application No. SA 116380155 B1/ Docket Assignment Ref. No. 00589 dated December 5, 2016, Patent # SPO 6143, patent granted 04 Oct. 2018. (https://ipsearch.saip.gov.sa/wopublish-search/public/detail/patents?id=116380155)
- 133. Abdulrahman Alhozaimy, Raja Rizwan Hussain and Abdulaziz Al-Negheimish, "Corrosion-Preventing Additive for Reinforced Concrete" Patent No. US 11,384,015 B1, United States Patent Office (USPTO), published 12 July, 2022, USA. (https://patents.google.com/patent/US11384015B1)
- 134. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh, "Additive for Reinforced Concrete" Patent No. US 11,384,016 B1, United States Patent Office (USPTO), published 12 July, 2022, USA. (https://patents.google.com/patent/US11384016B1)
- 135. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh, "Coupled Borate/Silicate Salts-Based Additives for Mortar or Concrete" United States Patent Office (USPTO), Patent No. US 11,952,313 B1, United States Patent Office (USPTO), published 09<sup>th</sup> April, 2024, USA. (https://patents.google.com/patent/US11952313B1)
- 136. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh, "Corrosion-Preventing Additive for Reinforced Concrete" United States Patent Office (USPTO), Patent No. US 11,964,911 B2, United States Patent Office (USPTO), published 23<sup>rd</sup> April, 2024, USA. (https://patents.google.com/patent/US11964911B2)
- 137. Abdulrahman Alhozaimy, Raja Rizwan Hussain and Abdulaziz Al-Negheimish (2024) "Method of curing reinforced concrete" United States Patent Office (USPTO), United States Patent Office (USPTO), Patent No. US 12,091,367 B2, United States Patent Office (USPTO), published Sep. 17, 2024, USA. (https://patents.google.com/patent/US12091367B2)

### Books, Editorials, Preface, Expos, Invention Exhibitions, Technical Reports, Papers, Monographs etc.

## **Year 2022:**

- 138. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh (2022) Theoretical and Experimental Evaluation of Saudi Building Code (SBC 304) Provisions for the Corrosion Protection of Reinforced Concrete Structures Part I;, King Abdulaziz City for Science and Technology (KACST), Long Term Comprehensive National Plan for Science, Technology and Innovation, NSTIP, Project No. 15-BUI4983-02, Final Report.
- 139. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh (2022), Development of a new class of corrosion inhibitors for steel reinforced concrete structures; King Abdulaziz City for Science and Technology (KACST), Project No. 13-BUI1866-02, KACST, Long Term Comprehensive National Plan for Science, Technology and Innovation, Final Report.

#### Year 2021:

- 140. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh (2021) Theoretical and Experimental Evaluation of Saudi Building Code (SBC 304) Provisions for the Corrosion Protection of Reinforced Concrete Structures Part I;, King Abdulaziz City for Science and Technology (KACST), *Long Term Comprehensive National Plan for Science, Technology and Innovation*, NSTIP, Project No. 15-BUI4983-02, Annual Report.
- 141. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh (2021), Development of a new class of corrosion inhibitors for steel reinforced concrete structures; King Abdulaziz City for Science and Technology (KACST), Project No. 13-BUI1866-02, KACST, Long Term Comprehensive National Plan for Science, Technology and Innovation, Annual Report.

#### **Year 2020:**

142. Raja Rizwan Hussain (2020) Preface: Proceedings of the 3rd international conference on Innovative Technologies for Clean and Sustainable Development, Sustainable Materials Science published by Materials Today: Proceedings, ISI Elsevier Journal on Science Direct, ISSN: 2214-7853, Vol. 32, June Part 4, pp. 529-1014, 2020, scientific committee. DOI: https://doi.org/10.1016/j.matpr.2020.05.477.

#### **Year 2017:**

- 143. Sajjad Qaiser and Raja Rizwan Hussain (2017), "Structural Behavior of Bamboo Reinforced Concrete", Createspace, Kindle, Amazon publishers, an Amazon company, Dec 3, 2017, Seattle, WA 98109, USA; ISBN-13: 978-1981383030.
- 144. Sajjad Qaiser & Raja Rizwan Hussain (2017), "Mixing Time & Strength of Concrete", Createspace, Kindle, Amazon publishers, an Amazon company, November 21, 2017, Seattle, WA 98109, USA; ISBN-13:978-1979949446; ISBN-10:1979949441.

## **Year 2016:**

- 145. Raja Rizwan Hussain, M. Wasim and Saeed Hasan, Computer Aided Seismic and Fire Retrofitting Analysis of Existing High Rise Reinforced Concrete Buildings, ISBN: 978-94-017-7296-9, *Springer Book Series* Solid Mechanics & its Application No. 222, SMIA, Netherlands, *Springer*.
- 146. Raja Rizwan Hussain (2016), "Effect of Chloride & Temperature on Rusting of Steel Reinforced Concrete (2<sup>nd</sup> Edition)", Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1532868245; ISBN-10: 1532868243.
- 147. M. Rizwan, S. A Khan, M. Ilyas and Raja Rizwan Hussain (2016), Modelling Steel-Strip-Confined Reinforced-Concrete Columns, Deanship of Scientific Research, College of Engineering, Research Center, *Project Report*, CE-2015/16, King Saud University, Riyadh, KSA.
- 148. Project Report: Enhancement of concrete properties made from local waste materials using Nano particles. 27/08/2015-27/08/2016, Geran Penyelidikan Universiti Malaya (UMRG), RG 037A-15AET. Kuala Lumpur, Malaysia.
- 149. Project Report: Muhammad Wasim, Raja Rizwan Hussain and Muhammad Ali Baloch, Investigation of Long Term Coupled Effect of High Temperature and Constant High Humidity on Corrosion Rehabilitated Patches of Reinforced Concrete Structures, Deanship of Scientific Research, College of Engineering, Research Center, CE-16/17, King Saud University, Riyadh, KSA, 2014-2016.
- 150. Muhammad Wasim and Raja Rizwan Hussain, 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, Deanship of Scientific Research, College of Engineering, Research Center, 2014-2016, Project Report CE-16/17, King Saud University, Riyadh, KSA.
- 151. Project Report: Muhammad Wasim, Raja Rizwan Hussain and Ali Baloch, Repair Vulnerability of Corrosion Patch Repairs at the Steel Intersection Areas of Reinforced Concrete Slabs Influenced by Harsh Weather, Deanship of Scientific Research, College of Engineering, Research Center, 2014-2016, CE-16/17, King Saud University, Riyadh, KSA.
- 152. Ahmed B. Shuraim and Raja Rizwan Hussain (2016) 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, *Final Report*, No. 08-ADV208-02, Riyadh, KSA.

## **Year 2015:**

153. Ahmed El-Sayed Kamal, Ahmed B. Shuraim and Raja Rizwan Hussain (2015), 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, *Final Report*, No. 10-BUI1191-02, KACST, Riyadh, Saudi Arabia.

154. ssNaheed Akhtar, Hashim Nisar Hashmi and Raja Rizwan Hussain (2015), "Air quality degradation assessment due to traffic and industrial pollution in the capital area of Pakistan", Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1514370698.

# **Year 2014:**

- 155. Editorial: Hussain Raja Rizwan (2014), Modeling of Corrosion; Steel, Concrete and Environment., J Civil Environ Eng., Vol. 4, Issue 1: p114., Feb 2014, doi:10.4172/2165-784X.1000e114.
- 156. 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.
- 157. 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.
- 158. Fahid Aslam, Zahid Ahmed Siddiqi, Wasim Abbas and Raja Rizwan Hussain (2014), Economical-Structural Performance of Steel Moment Resisting Building Frames Using the Section Variation Technique, Deanship of Scientific Research, College of Engineering, Research Center, 2013-14, King Saud University, Riyadh, KSA, Project Report # CE-13-36-36.
- 159. Project Report: 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, 2013-2014, King Saud University, Riyadh, KSA.
- 160. Editorial: Raja Rizwan Hussain (2014), Passive layer development and corrosion of steel in concrete at the nano-scale. J Civil Environ Eng., Vol. 4, Issue 3: p116., 28 Apr 2014, doi: 10.4172/2165-784X.1000e116.
- 161. Project Report: Impact assessment of rainfall-vegetation on sedimentation and predicting erosion-prone region by GIS and RS, College of Engineering, Research Center, CE-2013-2014, King Saud University, Riyadh, KSA.

#### **Year 2013:**

- 162. 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.
- 163. *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.

- 164. Raja Rizwan Hussain, Electrochemical Behavior and Depending on 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, 2012-2013, King Saud University, Riyadh, KSA, Project Report CE-24-33-34, ISBN: 1319-8114.
- 165. Omer Sabih and Hussain Raja Rizwan (2013) Concrete Mix Design, Volume 1, Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1481298810.
- 166. Incorporation of Rubber-steel Bearing Isolation in Multi-storey Building, Deanship of Scientific Research, College of Engineering, Research Center, 2012-2013, King Saud University, Riyadh, KSA, Project Report # 24/434, ISBN: 1319-8114.
- 167. Raja Rizwan Hussain and M. Wasim (2013) Innovative Method for preventing macro-cell corrosion in the repaired reinforced concrete patch, 41<sup>st</sup> International Exhibition of Inventions, Geneva, Switzerland (received Gold Medal and certificate of achievement).
- 168. Umer Nafees and Hussain Raja Rizwan (2013) Design of an International Runway (First Edition), Volume 1, Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1482072679.
- 169. 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, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1482011623.
- 170. 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, 2012-13, King Saud University, Riyadh, Saudi Arabia, ISBN: 1319-8114, Project Report No. CE-17-33-34.
- 171. 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.
- 172. 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, 2009-2013, King Saud University, Riyadh, KSA, Project Report # CE-09-33-34, ISBN: 1319-8114.
- 173. Mohammed M. Al-Humaiqani, Ahmed B. Shuraim, and Raja Rizwan Hussain (2013) Effect of Compressive Strength on γ-Radiation Attenuation Coefficients for High Performance Concrete, *IACSIT International Journal of Engineering and Technology*, Vol. 5, No. 5, October 2013, pp. 566-572.

- 174. Raja Rizwan Hussain and M. Wasim, A Comparative study of Induced Macro-cell Corrosion Phenomenon in Ordinary and Self Compacting Concrete patches, Deanship of Scientific Research, College of Engineering, Research Center, 2012-13, King Saud University, Riyadh, KSA, Project. Report # 44/434 (CE-44-34-34).
- 175. Raja Rizwan Hussain and M. Wasim, Experimental Investigation of Re-Corrosion Phenomenon in Simulated Repaired Steel Reinforced Self Consolidating Concrete Structures, Deanship of Scientific Research, College of Engineering, Research Center, 2012-13, King Saud University, Riyadh, KSA, Project Report # 43/434 (CE-43-34-34).

## **Year 2012:**

- 176. Hussain Raja Rizwan (2012) Corrosion of Steel Reinforced Concrete Under Severe Environmental Conditions, 2<sup>nd</sup> Edition, Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN: 9781480107427.
- 177. 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.
- 178. 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).
- 179. 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.
- 180. 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.
- 181. M. Wasim and Raja Rizwan Hussain, Three Dimensional Computer Aided FEM Retrofitting Modeling and NDT Technique for Assessment of Actual Exiting High Rise Fire Damaged RC Building, Deanship of Scientific Research, College of Engineering, Research Center, 2010-2013, ISBN: 1319-8114, King Saud University, Riyadh, KSA, Project. Report # CE-10-33-34.
- 182. 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).

- 183. 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, Interim Reports, Riyadh, KSA.
- 184. Project Report: 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, 2013-2014, King Saud University, Riyadh, KSA.
- 185. Saqib Sabih and Hussain Raja Rizwan (2012) Network Security and ISP Setup Implementation: volume 1, Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1479395149, ISBN-10: 1479395145.

## **Year 2011:**

- 186. 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.
- 187. 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.
- 188. 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.
- 189. 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.
- 190. 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.
- 191. 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.
- 192. 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.
- 193. 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.

- 194. 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.
- 195. 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.
- 196. 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.
- 197. Ahmed B. Shuraim and Raja Rizwan Hussain (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.
- 198. 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.
- 199. 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.
- 200. Shahid Rehman and Hussain Raja Rizwan (2011) Pre-cast Concrete for Multi-storey Structures, Createspace, Kindle, Amazon publishers, an Amazon company, Seattle, WA 98109, USA; ISBN-13: 978-1467918220, ISBN-10: 1467918229.

## **Year 2010:**

- 201. Hussain Raja Rizwan, Tetsuya Ishida and Prince O' Neill (2010) Corrosion of RC Structures Under Severe Environmental Actions, *VDM Plublishing House Ltd. Beniot Novel*; Simultaneously published in USA & U.K. ISBN: 978-3-639-24113-6.
- 202. 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.
- 203. Hussain Raja Rizwan (2010) Durability of Reinforced Concrete; CORROSION, I-Proclaim Bookstore Press, U.S.A.
- 204. 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.

- 205. 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.
- 206. 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.
- 207. 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.
- 208. 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.
- 209. 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.
- 210. 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.
- 211. 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.
- 212. 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.
- 213. 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.
- 214. 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.
- 215. 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.
- 216. 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*, ISI, Vol.4, No.2, pp.71-75, December 2010. (ISI Impact Factor: 2.48, Q1)

- 217. 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.
- 218. 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.
- 219. 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.
- 220. 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 2009-2006: (During Post-Graduation M.Sc. and Ph.D. Studies)

- 221. 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.
- 222. 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)
- 223. 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

- 224. 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.
- 225. 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.

- 226. 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.
- 227. 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, 2012-13, ISBN: 1319-8114, King Saud University, Riyadh, KSA, Project No. CE-25-33-34.
- 228. 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, 2012-2013, King Saud University, Riyadh, KSA, Project No. 25/434, ISBN: 1319-8114.
- M. Wasim and Raja Rizwan Hussain, Three Dimensional Computer Aided FEM Retrofitting Modeling and NDT Technique for Assessment of Actual Exiting High Rise Fire Damaged RC Building, Deanship of Scientific Research, College of Engineering, Research Center, 2010-2013, ISBN: 1319-8114, King Saud University, Riyadh, KSA, Project. No. CE-10-33-34.
- 230. 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, 2012-13, King Saud University, Riyadh, Saudi Arabia, ISBN: 1319-8114, CE-17-33-34.
- 231. 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.
- 232. Raja Rizwan Hussain and M. Wasim, Experimental Investigation of Re-Corrosion Phenomenon in Simulated Repaired Steel Reinforced Self Consolidating Concrete Structures, Deanship of Scientific Research, College of Engineering, Research Center, 2012-13, King Saud University, Riyadh, KSA, Project No. 43/434 (CE-43-34-34).
- 233. Raja Rizwan Hussain and M. Wasim, A Comparative study of Induced Macro-cell Corrosion Phenomenon in Ordinary and Self Compacting Concrete patches, Deanship of Scientific Research, College of Engineering, Research Center, 2012-13, King Saud University, Riyadh, KSA, Project. No. 44/434 (CE-44-34-34).
- 234. 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, 2009-2013, ISBN: 1319-8114, King Saud University, Riyadh, KSA, CE-09-33-34.

- 235. 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, 2013-2014, King Saud University, Riyadh, KSA.
- 236. 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.
- 237. Impact assessment of rainfall-vegetation on sedimentation and predicting erosion-prone region by GIS and RS, College of Engineering, Research Center, CE-2013/2014, King Saud University, Riyadh, KSA.
- 238. Incorporation of Rubber-steel Bearing Isolation in Multi-storey Building, Deanship of Scientific Research, College of Engineering, Research Center, 2012-2013, King Saud University, Riyadh, KSA, ISBN: 1319-8114, Project No. 24/434.
- 239. 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, 2013-2014, King Saud University, Riyadh, KSA.
- 240. Raja Rizwan Hussain, Electrochemical Behavior and Depending on 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, 2012-2013, ISBN: 1319-8114, King Saud University, Riyadh, KSA, Project No. CE-24-33-34.
- 241. Raja Rizwan Hussain, Fahid Aslam, Zahid Ahmed Siddiqi and Wasim Abbas (2014), Economical-Structural Performance of Steel Moment Resisting Building Frames Using the Section Variation Technique, Deanship of Scientific Research, College of Engineering, Research Center, 2013-14, King Saud University, Riyadh, KSA, Project No. CE-13-36-36.
- 242. Development of a new class of corrosion inhibitors for steel reinforced concrete structures; Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh, King Abdulaziz City for Science and Technology (KACST), Project No. 13-BUI1866-02, KACST, *Long Term Comprehensive National Plan for Science, Technology and Innovation*, Riyadh, KSA, 2019.
- 243. Raja Rizwan Hussain, M. Rizwan, S. A Khan and M. Ilyas (2016), Modelling Steel-Strip-Confined Reinforced-Concrete Columns, Deanship of Scientific Research, College of Engineering, Research Center, CE-15/16, King Saud University, Riyadh, KSA.
- 244. Enhancement of concrete properties made from local waste materials using Nano particles. 27/08/2015-27/08/2016, Geran Penyelidikan Universiti Malaya (UMRG), RG 037A-15AET. Kuala Lumpur, Malaysia.
- 245. Muhammad Wasim, Raja Rizwan Hussain and Muhammad Ali Baloch, Investigation of Long Term Coupled Effect of High Temperature and Constant High Humidity on Corrosion Rehabilitated Patches of Reinforced Concrete Structures, Deanship of Scientific Research, College of Engineering, Research Center, CE-16/17, King Saud University, Riyadh, KSA, 2014-2016.

- 246. Muhammad Wasim and Raja Rizwan Hussain, 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, Deanship of Scientific Research, College of Engineering, Research Center, 2014-2016, CE-16/17, King Saud University, Riyadh, KSA.
- 247. Muhammad Wasim, Raja Rizwan Hussain and Ali Baloch, Repair Vulnerability of Corrosion Patch Repairs at the Steel Intersection Areas of Reinforced Concrete Slabs Influenced by Harsh Weather, Deanship of Scientific Research, College of Engineering, Research Center, 2014-2016, CE-16/17, King Saud University, Riyadh, KSA.
- 248. Raja Rizwan Hussain, Abdulrahman Alhozaimy, Abdulaziz Al-Negheimish, DDN Singh and Mshtaq Abdullah O Ahmed, Research Group Project, Deanship of Scientific Research, Riyadh, Saudi Arabia, Request # 409256434729, 16<sup>th</sup> November 2018.
- 249. Theoretical and Experimental Evaluation of Saudi Building Code (SBC 304) Provisions for the Corrosion Protection of Reinforced Concrete Structures Part I; Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and DDN Singh, King Abdulaziz City for Science and Technology (KACST), *Long Term Comprehensive National Plan for Science, Technology and Innovation*, NSTIP, Project No. 15-BUI4983-02, Riyadh, KSA, 2019.
- 250. Abdulrahman Alhozaimy, Raja Rizwan Hussain, Abdulaziz Al-Negheimish and Mshtaq Abdullah O Ahmed, Corrosion of RC Structures, Research Group Project, King Saud University-The Research Group Program (RG) Vice Rectorate for Graduate Studies and Scientific Research, Deanship of Scientific Research, Riyadh, KSA, 2019.
- 251. STEM education, Institutional Fund for Research and Innovation, Deanship of Scientific Research, Riyadh, Saudi Arabia, November 2020.
- 252. Abdulrahman Alhozaimy, Raja Rizwan Hussain and Abdulaziz Al-Negheimish, Institutional funding for research and innovation program, oriented research groups program second phase, Deanship of Scientific Research, KSU, Riyadh, Deputyship for Research and Innovation, Ministry of Education in Saudi Arabia, Project # IFKSURG-2-452, October 2022.

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