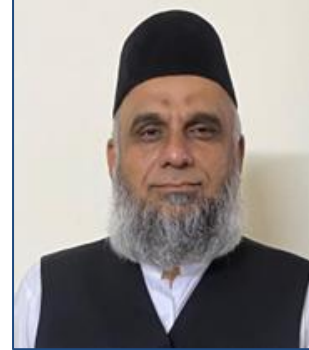


**MUHAMMAD ASLAM BHUTTO, Ph.D.**  
**HEC/NED APPROVED PHD SUPERVISOR**

Email: mabhutto@neduet.edu.pk and mabhutto@cloud.neduet.edu.pk

**1. Personal Information:**

- Date of birth: 13th August 1974
- Nationality: Pakistani (by Birth)
- Passport No. BG3173863
- CNIC No. 45502-0859386-5
- Hobbies: Social work, news and current affairs, religious how-know, cricket
- Cell/What's App: (+92-333) 2231861
- PEC Registration No. Civil/20259 (Life Member)



**2. Executive Summary:**

After having completed school and college education in 1992, I did B.E.(Civil) degree with distinctions (Gold and Silver Medals) in Feb 1999 from Quaid-e-Awam University of Engineering and Technology (QUEST) Nawabshah., I earned Master's degree in 'Engineering Management' in June 2007 from the NED University of Engineering & Technology (NEDUET) and PhD degree in Civil Engineering (specialization in steel structures) from Heriot-Watt University Edinburgh.

During my 26-year work journey from June 1999 to-date, I started my work journey as Site Supervisor in Telecom Foundation Pakistan at Sukkur in June 1999. Then, I joined the QUEST Nawabshah and work as Assistant Controller of Examinations (BPS-17) from March 2000 to April 2003. The duties included dealing with planning, conduct and supervision of university examinations. In Feb 2003, I was awarded Cash Prize and Shield during First Convocation-2003 of QUEST Nawabshah for outstanding performance in the convocation arrangements. Later, I joined the NEDUET Karachi and worked as the Assistant Registrar (BPS-17) in Training Section QEC (April 2003-Oct 2003) and Coordination Section Registrar's Office (Oct 2003 -May 2005). In May 2005, I was promoted as Deputy Registrar (BPS-18) and worked as worked in Coordination and Academic Sections until April 2008.

After being offered, I joined and worked as the Assistant Professor (BPS-19) in Dept. of Civil Engineering NEDUET from April 2008 to Jan 2023. In Jan 2010, I was awarded a fully funded scholarship by the Dept. of Transport, United Kingdom to pursue PhD in Civil Engineering (specialization in steel structures) at the Heriot-Watt University Edinburgh. I successfully completed my PhD in March 2014. In Jan 2023, I was appointed as Associate Professor (BPS-20) at Dept. of Civil Engineering of the newly-established constituent college named Thar Institute of Engineering, Sciences and Technology (TIEST) Mithi-Tharparkar and working there to-date. I have also honour to successfully complete two Federal and Sindh HEC-funded research projects worth Rs. 11.05 million as the Principal Investigator (PI). I was awarded status of 'the 'Approved PhD Supervisor' by the Federal HEC in Nov 2022. I am also

supervising two postgraduate research students. I am also presently working as the Co-PI of one Sindh HEC-funded research projects worth Rs. 3.40 million which are near to completion.

In May 2014, I was assigned the additional charge of Deputy Director QEC & Deputy MR ISO 9000 until Sep 2019. During this period, I also worked as the Director QEC & MR ISO 9000 from March 2018 to Dec 2018. As the Director QEC, I remained an Observing Member of all statutory bodies of the University including the Senate, the Syndicate, the Academic Council, the Selection Board, etc., and actively participated in their meetings. In the QEC, I remained involved in planning, conduct and follow-ups of IPE and PhD/MS reviews by the HEC and remained part of teams conducting the Self IPE, Review of Master/PhD Programs and Mock PEC Accreditation Visits of 9 universities including the IBA Karachi, University of Sindh, Dow and DHA Suffa. I was awarded status as ‘Approved Technology Program Evaluator’ by the NTC in April 2018; as the ‘Program Evaluator (PEV) by the PEC in Nov 2025 and as the ‘Certified Quality Procurement Professional’ by the SPPRA in Jan 2018. I have worked with three organizations, namely the NEDUET, QUEST and Telecom Foundation. Among them, I have been associated with the NEDUET Karachi since April 2003. Presently, I am also as Focal Person/Technical Expert to the Anti-Corruption Establishment, Government of Sindh; Member of the Sukkur IBA University’s Statutes Committee, besides holding additional charges of the Provost Hostels (since Nov 2024) and the Resource Person QEC (since June 20250 at TIEST Tharparkar. I have been Keynote Speakers to the international conferences/workshops and also hold more than 30 research publications at my credit. I have also submitted three patents to the IPO which are under review.

### 3. Key Qualifications

- **Jan 2010-March 2014**

- **Doctor of Philosophy (Civil Engineering) with specialization in ‘Structural Engineering’**

- Heriot-Watt University Edinburgh EH14 4AS, United Kingdom

- Thesis title: FRP-strengthening of webs of steel plate-girders

- Summary of PhD Thesis: The thesis describes the use of fibre-reinforced polymer (FRP) composites to strengthen the webs of steel plate-girders. The tests and finite element analyses (FEA) of the un-strengthened and FRP-strengthened plate-girders were carried out. In the FRP-strengthened plate-girders, the web panels were bonded with GFRP pultruded section stiffeners or layers of carbon or glass FRP composite fabrics. The FRP-strengthening increased the ultimate load of the steel plate-girders by up to 54%. The test results and the FEA predictions for the un-strengthened and GFRP-strengthened specimens were in good agreement. For the FRP fabric-strengthened specimens there was good agreement between the test results and FEA predictions up to the breakdown of the steel-fabric bond. Design procedures for strengthening using FRP composites have been developed. The procedures can be used to estimate the ultimate loads of the FRP-strengthened plate-girders and to determine the cross-sections of GFRP pultruded sections as web stiffeners. The test and FEA results of specimens have been used to validate the design procedures

- **Jan 2005-June 2007**

- **Master of Engineering (Civil) with specialization in ‘Engineering Management’**

- NED University of Engineering & Technology Karachi, Pakistan

Major courses: Project Management Framework & Tools, Public Infrastructure Management Organizational Systems, Technical Entrepreneurship, OR, TQM, MIS, SP&DM

▪ **Aug 1993-Feb 1999**

**Bachelor of Engineering (Civil) Gold and Silver Medallist**

Quaid-e-Awam University of Engineering, Science & Technology Nawabshah, Pakistan

Major courses: Quantity Estimation, Construction Management, Steel Structures, Structural Analysis, Strength of Materials, Engineering Mechanics

**4. Academic and Administrative Experience**

▪ **Jan 2023 to-date**

**Associate Professor, Department of Civil Engineering at TIEST (NEDUET) Mithi**

Responsibilities: Teaching in UG & PG programs; research and scholarly activities; supervision of laboratory and students' projects; PI & Co-PI of funded research projects; students counselling, matters of the PEC accreditation of BE program; coordination of follow-up actions related to the PEC accreditation

▪ **April 2008 to Jan 2023**

**Assistant Professor, Department of Civil Engineering at NEDUET Karachi**

Responsibilities: Teaching in UG & PG programs; research activities; practical instruction, supervision of laboratory and students' projects; PI & Co-PI of funded research projects; students counselling, feedback and extracurricular activities; matters of the PEC accreditation of BE program and the HEC recognition of ME & PhD programs; coordination of follow-up actions related to the PEC accreditation

▪ **Oct 2003 to April 2008**

**Deputy/Assistant Registrar at NEDUET Karachi**

Responsibilities: Conduct of meetings of Senate, Syndicate, Academic Council and other bodies; faculty nominations to foreign scholarships, conferences and workshops; registration and enrolment of students; students discipline; communication with the HEC, the PEC and other bodies/councils; affiliation of colleges/ institutes; approval of programs; updation of curricula; processing and approval of Statutes, Regulations, Admission Policies, etc.

▪ **April 2003 to October 2003**

**Assistant Registrar (Training) ISO9000 at NEDUET Karachi**

Responsibilities: Training needs of university faculty and employees; approval and conducts of yearly training plan, arrangement of resource persons; feedback of trainees; BOR(DL) meetings →

▪ **March 2000 to April 2003**

**Assistant Controller of Examinations at QUEST Nawabshah**

Responsibilities: Planning, conduct and supervision of all university examinations; coordination with teaching departments and affiliated colleges on examinations matters; coordination with the PEC, the HEC and other bodies on matters related to passed out students; compilation and announcement of results; issuance and verification of degrees and other certificates

- **June 1999 to March 2000**  
**Site Supervisor at Telecom Foundation Pakistan**  
Responsibilities: Supervision of construction, underground excavation, cable laying and other works in Sukkur

## 5. Research Interests

- Search, performance and application of innovation, sustainable and smart construction/building materials e.g., fly ash-replaced concrete, slag-concrete, bio-concrete, FRP-concrete, seawater-concrete, ash concrete, fabric concrete
- Design, strengthening, finite element modelling and analyses of thin-walled steel members, such as plate-girders
- Performance and properties of slag-concrete, bio-concrete, FRP-concrete, seawater-concrete, ash concrete, etc.
- Management issues in construction industry and solutions with IOT applications, etc.
- Railway infrastructure of Pakistan, its problems and solutions

## 6. Research Projects

### In Progress Projects

- **June 2024 to-date as Co- Principal Investigator (Co-PI)**  
**Title: Effect of Industrial Waste & Supply Materials in High-Performance Concrete**  
Sponsor: Sindh HEC under Sindh Research Support Program –SRSP  
Executer: Departments of Civil Engineering TUEST, NEDUET, Pakistan

### Completed Projects

- **June 2023 to-May 2025 as Principal Investigator (PI)**  
**Title: Investigation and Mitigation of Deficient Plate Girders in Existing Steel Bridges**  
Sponsor: Sindh HEC under Sindh Research Support Program –SRSP  
Executer: Departments of Civil & Earthquake Engineering, NEDUET, Pakistan
- **April to Sep 2024 as Supervisor/Team Lead**  
**Title: Evaluation and Sustainable Utilization of Thar Coal Fly Ash (CFA) as Alternate Material in Construction Processes**  
Sponsor: Engro PwerGreen Thar Limited (EPTL)  
Executer: Departments of Civil Engineering, NEDUET TUEST, Mithi
- **Feb 2019 to Jan 2020 as Co- Principal Investigator (Co-PI)**  
**Title: Development of Bio-Concrete from Micro-organisms**  
Sponsor: Advanced Studies & Research Board (AS&RB) of NEDUET  
Executer: Depts of Chemistry & Civil Engineering, NEDUET Karachi, Pakistan
- **Sep 2017 to Aug 2019 as Co- Principal Investigator (Co-PI)**  
**Title: Use of Micro-organisms for the Production of Bio-Concrete and Industrial Enzymes**  
Sponsor: Higher Education Commission (HEC), Govt of Pakistan under SRGP  
Executer: Depts of Chemistry & Civil Engineering, NEDUET Karachi, Pakistan

- **Oct 2016 to Sep 2019 as Principal Investigator (PI)**  
**Title: Strengthening and Repair of Thin-walled Steel Members using FRP Composites**  
 Sponsor: Higher Education Commission (HEC), Government of Pakistan under NRP Program in collaboration with the Pakistan Railways (PR)  
 Executer: Department of Civil Engineering, NEDUET Karachi, Pakistan
- **Dec 2014 to May 2016 as Project Team Member**  
**Title: Development of an Energy-Retrofit Optimization Model for Sustainable Energy Management of Institutional Buildings in Pakistan'**  
 Sponsor: Standing Committee on Scientific and Technological Cooperation (COMSTECH) of Organization of Islamic Countries (OIC).  
 Executer: Department of Civil Engineering, NEDUET Karachi, Pakistan
- **Jan 2010 to March 2014 as Research Student**  
**Title: Carbon Composites for the Strengthening of Steel Structures**  
 Sponsor: Department for Transport (DfT), London, United Kingdom  
 Executer: School of the Built Environment, Heriot-Watt University Edinburgh, United Kingdom

## 7. Supervision of Students' Projects

- Bhutto, M.A. and Rafi, M.M. (2024) Performance Evaluation of Steel Plate Girders strengthened using FRP Composites by PhD student Engr. Mohsin Ali.
- Ahmed, K. and Bhutto, M.A. (2021) Production and optimization of self-healing concrete by using indigenous bacteria by Master's student Muhammad Umar bin Amir.
- Bhutto, M.A. and Sangi, A.J. (2018) Strengthening and Repair of Thin-walled Steel Members using FRP Composites by Master's student Ubaidullah Khan
- Supervised undergraduate Final Year Design Projects recently on (1) To Study Properties of Concrete Mixed with Textile Fabric Waste, (2) Use of GFRP bars as replacement of steel bars, (3) Use of carbon fibres in mortar and concrete, (4) Use of steel slag as replacement of fine aggregate in mortar and concrete, etc.

## 8. Additional Technical Experience (Reviews, Inspections, Evaluations, etc.)

- **July 2025 to-date** Working as Resource Person, Quality Enhancement Cell (QEC) at Thar Institute of Engineering, Sciences and Technology (TIEST) -NEDUET Mithi
- **Nov 2024 to-date** Working as Provost Hostels at Thar Institute of Engineering, Sciences and Technology (TIEST) -NEDUET Mithi
- **Nov 2024 to Oct 2025** Worked as Class Advisor T.E. (Civil Engineering) in Department of Civil Engineering at TIEST-NEDUET Mithi
- **Jan 2020 to Jan 2023** Worked as Class Advisor B.E. (Civil & Construction Engineering) and Area Coordinator ISO/QEC Rep. in Department of Civil Engineering at NEDUET Karachi
- **March 2018 to Dec 2018** Worked as Director QEC & Management Representative ISO 9000 at NEDUET Karachi

- **March to Sep 2017** Leading Member of the NED-QEC Team that coordinated all activities and updated all required changes/ additions into the Quality Management System (QMS); updation of all relevant documents and necessary procedures towards successful transformation to ISO 9001-2015 Standards
- **Feb 2017-March 2018** Member (Nominee of the VC NEDUET) on Technical Committee on Dangerous Buildings (TCDB) constituted by the Sindh Building Control Authority (SBCA) for inspection and classification of the dangerous buildings in Sindh province
- **May 2014 to Sep 2019** Worked as Deputy Director QEC & Deputy Management Representative ISO 9000 at NEDUET Karachi
- **Jan 2008 to-date** Certificated Internal QMS Auditor duly recognized by the Lloyd's Register Quality Assurance (LRQA) and the Internal Register of Certificate Auditors (IRCA)
- **Jan 2007 to-date** Working as Internal Quality Auditor, QEC at NEDUET Karachi  
Functions: Auditing of and reporting on all academic and administrative functions of the University in accordance with the QEC-approved Audit Plan 4

## 9. Honours and Awards

- **December 2025** Awarded/Renewed status of the 'Approved PhD Supervisor' by the Advanced Studies & Research Board (ASRB) of NEDUET
- **November 2025** Approved/Awarded status of the 'Program Evaluator (PEV)' by the Pakistan Engineering Council (PEC)
- **August 2025** Nominated as Member on the Statutes Committee of Sukkur IBA University
- **October 2024** Awarded 2<sup>nd</sup> SECOND Position (with cash prize of Rs. ONE million) throughout Pakistan in Innovative By Product Solution Development Competition organized by M/s Engro Powergen Thar Limited (EPTL), HUBCO and Lucky Electric Power Company
- **May 2024** Conducted Mock Accreditation Visit of BE(Civil) Program of DHA Suffa University Karachi
- **March 2024** Expert Member in Selection Board for the posts of Professor, Assistant Professor and Lecturer in Department of Civil Engineering, DHA Suffa University Karachi
- **June 2023** Awarded research grant of Rs. 3.50 million by the Sindh Higher Education Commission (HEC) on project 'Investigation and Mitigation of Deficient Plate Girders in Existing Steel Bridges'
- **November 2022** Awarded the status of the APPROVED PHD SUPERVISOR by the HEC Pakistan

- **February 2022** Assigned work of the Updating of the Act, Statutes and Regulations of NEDUET Karachi
- **July 2020** Nominated as Adjudicator for ‘Saaf Suthro Sindh Program -MSAN by the Pakistan Engineering Council
- **April 2018** Approved/Awarded status of the ‘Technology Program Evaluator’ by the National Technology Council (NTC), Government of Pakistan
- **January 2018** Awarded status of ‘Certified Quality Procurement Professional’ by the Sindh Public Procurement Authority (SPPRA) after successful completion of training on PPRA, SPPRA & World Bank Procurement Rules and International Best Practices
- **November 2017 Nominated** as Focal Person/Technical Expert to the Anti-Corruption Establishment, Government of Sindh regarding Inspection/Investigation/Evaluation/QA Assurance of the cases related-to procurement of Construction Works, Goods and Services
- **May 2017** Awarded Status of Lead Auditor by International Register of Certified Auditors (IRCA) through Lloyds Register Quality Assurance (LRQA) for Inspection/Investigation of Management Systems of Organizations
- **August 2016** Awarded research grant of Rs. 7.050 million on approval of a project titled ‘Strengthening and Repair of Thin-walled Steel Members using FRP Composites’ by the Higher Education Commission (HEC), Government of Pakistan under National Research Program for Universities (NRPU)
- **February 2015** Awarded the status of **Approved PhD Supervisor** by the Higher Education Commission (HEC), Government of Pakistan
- **March 2013** Won **Second Prize** in Poster Completion at 15<sup>th</sup> Young Researchers’ Conference (YRC) organised by The Institution of Structural Engineers (IStructE), March 14, 2013, London, United Kingdom.
- **January 2010** Awarded **Fully Funded Scholarship** for pursuing PhD in Civil Engineering jointly sponsored by the Department for Transport (DfT), United Kingdom and NED University of Engineering & Technology Karachi, Pakistan
- **January 2008** Awarded the status of the **Certificated Internal QMS Auditor** by Lloyd’s Register Quality Assurance (LRQA) duly recognized by Internal Register of Certificate Auditors (IRCA)
- **February 2003** Awarded **GOLD and SILVER MEDALS together-with CERTIFICATES OF MERIT** during First Convocation of Quaid-e-Awam University of Engineering, Science & Technology (QUEST) Nawabshah for securing

FIRST Positions in Faculty of Engineering and in Department of Civil Engineering during Bachelor of Engineering Examinations 1999

- **February 2003** Awarded **Cash Prize and Shield** during First Convocation-2003 of QUEST Nawabshah for outstanding performance in the convocation arrangements

#### **10. Major Training Attended**

- Aug 2014 to-date Attended Trainings/Workshop on the following topics
  - ✓ 'PEC Training on Program Evaluator (PEV)' on 1-4 Nov 2025
  - ✓ 'Good Governance in Higher Education' organized by QEC-NED on 25-29 Aug 2014
  - ✓ 'Outcome Based Education (OBE) and Assessment System of Accreditation' conducted by Malaysian Mentors and organized the HEC and PEC on 5 March 2015
  - ✓ 'Outcome Based Education (OBE) System' conducted by Malaysian Mentors and organized by the PEC and NEDUET on 27-28 Oct 2015
  - ✓ 'Concepts and Techniques of Bloom's Taxonomy' organized by the QAA-HEC on 31 March 2016
  - ✓ 'Quality Management System: Lead Auditor Training Course' organized by the LRQA and NEDUET on 24-28 April 2017
  - ✓ 'Workshop for Technology Program Evaluators' organized by the National Technology Council (NTC) on 18-19 April 2018

#### **11. Resource Person in Trainings**

- May 2014 to-date Conducted Trainings/Workshops to cover the following themes organized by the QEC-NED and other Universities/HEIs
  - ✓ Governance System in Universities
  - ✓ HEC Self-Assessment of Programs
  - ✓ Institutional Performance Evaluation (IPE) by the HEC
  - ✓ HEC Review of PhD/MS programs
  - ✓ PEC Out-Come Based Education (OBE) System
  - ✓ Public Procurement Systems and Procedures in Pakistan

#### **12. Memberships**

- The Pakistan Engineering Council (PEC) -Life Member
- The Institution of Engineers Pakistan (IEP) –Life Member
- The International Association for Engineers (IAENG)
- The Amnesty International (AI)
- The Institution of Structural Engineers (IStructE) United Kingdom
- The American Society for Testing and Materials (ASTM)
- The Plagiarism Standing Committee (PSC) of IBA Karachi
- The Inspection Committee of Sindh High Court for 'Karachi-Hyderabad Motorway M9'
- The Technical Expert in the Anti-Corruption Establishment, Government of Sindh
- The Procurement Committee, Applied Economics Research Centre (AERC) UoK
- The Inquiry Committee for 'Gulbahar Building Collapse on 5<sup>th</sup> March 2020'

#### **Formerly Member of**

- NED University's Senate (SEN), Syndicate (SYN), Academic Council (AC), Selection Board (SB), Finance & Planning Committee (FPC), Advanced Studies & Research Board (ASRB), Affiliation Committee, University Development Working Party

(UDWP), Board of Review (University Level), Boards of Faculty of MME & ISH, BOR(QEC), and Accommodation Committee

- The Executive Committee, Pakistan Network of Quality Assurance in Higher Education (PNQAHE)
- The Sindh Anti-Encroachment Tribunal Inspection Team for ‘Gujjar Nallah’
- The SBCA Technical Committee on Dangerous Buildings (TCDB)

### 13. Publications and Related Work

- **Design Guideline:**

Developed “Design and Application Guidance for FRP-strengthening of Webs of Steel Plate Girders” and submitted to the Department of Transport (DfT), United Kingdom in 2014

- **Patents:** Three submitted that are in process of review

- **Journal Publications:**

1. **Bhutto, M.A.**, Ali, M., Murad., Ali, S., Ahmed, S., A., Raqeeb, A., and Afzal, S., Ahmed, S. (2026) Utilization of Thar Fly Ash as a Green Material for Reducing Carbon Footprint in Concrete Production. In *Proceedings of the Global Conference on Green Construction Materials and Practices 2025: GCCG 2025, February 5-6, Karachi, Pakistan* (p.87-95). Springer Nature. <https://doi.org/10.1007/978-981-95-6592-4>

Rafi, M. M., Khan, S., & **Bhutto, M. A.** (2026). Lateral Load Capacity of Unreinforced Block Masonry Walls: Mortar Strength and Block Type Considerations. *Journal of Structural Design and Construction Practice*, 31(2), 04025151.

2. **Bhutto, M.A.**, Nasir, M., and Marri, A. (2024) Impact Assessment of Construction Materials used in Water Supply and Sewerage Infrastructure, *International Journal of Energy, Environment, and Economics*, 32(1), 75-96.
3. **Bhutto M.A.**, Rafi M.M. (2024). Experimental Testing of Shear Web Panels of Steel Plate Girders Strengthened by Fibre Reinforced Polymer Composites. *Practice Periodical on Structural Design and Construction* 2024. <https://doi.org/10.1061/PPSCFX/SCENG-1467>.
4. **Bhutto M.A.**, Rafi M.M. (2024). Strengthening of Slender Webs of Steel Plate Girders Using Fibre Reinforced Polymer Composites. *Structures and Buildings (Proceedings of the ICE)*, 177(11):976-988. <https://doi.org/10.1680/jstbu.22.00174>.

5. Rafi, M.M., & **Bhutto, M. A.** (2024) Comparison of Analytical Models for Shear Strength Estimation of Steel Plate Girders. *Bridge Structures*, 20(1-2);47-70. <https://doi.org/10.3233/BRS-240221>.
6. Rafi, M.M., Khan, S. and **Bhutto, M.A.** (2024) Experimental Assessment of Compressive and Shear Behaviour of Adobe Masonry, *Journal of Materials in Civil Engineering*, 36(6), 04024131. <https://doi.org/10.1061/JMCEE7/MTENG-17451>
7. Rafi, M. M., Khan, S., Marri, A., & **Bhutto, M. A.** (2023). Experimental Evaluation of Flexural and Bond Behaviours of Adobe Masonry. *Practice Periodical on Structural Design and Construction*. <https://doi.org/10.21203/rs.3.rs-3271740/v1>
8. Rafi, M. M., Khan, S., & **Bhutto, M. A.** (2023). Experimental Assessment of Mechanical Properties of Adobe Masonry. *Journal of Materials in Civil Engineering*, 35(9), 04023319. <https://doi.org/10.1061/JMCEE7/MTENG-15430>
9. **Bhutto, M.A.**, Khan, A. and Marri, A. (2022) Inflation and Its Impact on Highway Construction Materials, *International Journal of Business and Management Sciences*, 3(4) (*Accepted for publication*).
10. Bhangwar, S.N., Memon, A.H., **Bhutto, M.A.**, Rahman, I.A. and Memon, F.A. (2022) Risk Level of the Types and Causes of Claims in Construction Projects of Pakistan, *Quaid-E-Awam University Research Journal of Engineering, Science & Technology*, 20(01), 13-20.
11. **Bhutto, M.A.**, Ahmed, K. and Aamir. M.U.B. (2022) Production and Optimization of Self-Healing Concrete by Using Indigenous Bacteria. *International Journal of Biology and Biotechnology*, 19 (4): 561-568.
12. Khan, H.M., Waseemullah, **Bhutto, M.A.**, Khan, S.M. & Baig, M.A. (2022) Analysis of 3D Building Construction Applications in Augmented Reality. *International Journal of Computer Science and Network Security*, 22(10), 340-346.
13. Kisaiezehra, Farooq, M.U., **Bhutto, M.A.** & Kazi, A.K. (2022). Real-Time Safety Helmet Detection Using Yolov5 at Construction Sites. *Intelligent Automation & Soft Computing*, 36(1), 911-926
14. Beg, T., Siddiqui, M. O. R., **Bhutto, M. A.**, Iqbal, K., & Sun, D. (2022). Utilization of textile denim sludge waste in high load-bearing structural applications. *Polimery*, 67(7-8), 298-307.

15. Rafi, M.M., **Bhutto, M.A.**, and Aziz, T. (2022) Study of Strength and Durability Characteristics of Concrete Mixes Made by Unwashed Sea Sand as Fine Aggregates (2022) *Advances in Civil Engineering Materials*, 11(1), 321-338
16. Jakhrani, N. H., Mukwana, K. C., **Bhutto, M. A.**, Mangi, D. M., & Hafeez, M. (2021). Analysis of the Physicochemical Characteristics of Distillery Wastewater at Habib Sugar Mills, Nawabshah. *Engineering, Technology & Applied Science Research*, 11(6), 7788-7792.
17. Jakhrani, A. Q., Jakhrani, S. H., **Bhutto, M. A.**, Jatoi, A. R., Sandilo, U. G., & Ahsan, M. J. (2021). Performance Analysis of Solar Water Pumping System at Nawabshah. *Quaid-E-Awam University Research Journal of Engineering, Science & Technology, Nawabshah.*, 19(2), 49-53.
18. Jakhrani, A. Q., Jatoi, A. R., **Bhutto, M. A.**, Sahito, W. S., Soomro, A., & Shar, N. Z. (2021). Groundwater Quality Analysis of Different Villages in Two Union Councils of District Tando Muhammad Khan. *Quaid-E-Awam University Research Journal of Engineering, Science & Technology, Nawabshah.*, 19(2), 8-14.
19. Bangwar, D. K., Saand, A., **Bhutto, M. A.**, Zardari, M. A., & Keerio, M. A. (2019). Reducing the Effect of Carbonation and Corrosion in Rice Husk Ash Concrete by Incorporating Polymer. *Tehnicki Vjesnik-Technical Gazette*, 26(3), 881-884.
20. Memon, A. H., Soomro, M. A., Lakho, N. A., Memon, A. N., & **Bhutto, M. A.** (2018). A Survey on the Criteria for Measuring the Profitability of a Construction Organization. *Engineering, Technology & Applied Science Research*, 8(3), 2879-2881.
21. Memon, M. A., **Bhutto, M. A.**, Lakho, N. A., Halepoto, I. A., & Memon, A. N. (2018). Effects of uncrushed aggregate on the mechanical properties of no-fines concrete. *Engineering, Technology & Applied Science Research*, 8(3), 2882-2886.
22. Memon, N. A., Larik, A. H., **Bhutto, M. A.**, Lakho, N. A., Memon, M. A., & Memon, A. N. (2018). Effect of Prepackaged Polymer on Compressive, Tensile and Flexural Strength of Mortar. *Engineering, Technology & Applied Science Research*, 8(3), 3044-3047.
23. Jawaid, S., Ahmed, K., & **Bhutto, M. A.** (2018). Bio concrete: an overview. *Int J Biol Biotech*, 15(4), 801-813.

24. Memon, N.A., Abro, F.R., **Bhutto, M.A.** and *Sumadi, S.R.* (2015) *Marble powder as stabilizer in natural clayey soils*, Science International Journal, 27(5), p 4105-4110
25. Ansari, A.A., **Bhutto, M.A.**, Bhatti, N.K., and Memon, R.A. (2015) *Strength of wall-slab junction with new form of shear reinforcement in a laterally loaded tall shear wall building*, Journal of Civil Engineering and Architecture, 9(2), p193-206
26. Memon, N.A., Keerio, N.U., **Bhutto, M.A.** and *Sumadi, S.R.* (2014) *Experimental study of compressive strength of resin grout with marble powder*, European International Journal of Science and Technology (EIJST), 3(4), p87-95
27. Jatoi, A.R., Samo, S.R., Abbasi, H. and **Bhutto, M.A.** (2014) *Monitoring and assessment of noise pollution: Case study of Cantonment railway station Karachi, Pakistan*, Sindh University Journal of Research (Science Series),46(1), p59-62
28. **Bhutto, M.A.**, Ansari, A.A. and Memon, N.A. (2013) *Prediction of behaviour of steel plate subjected to shear*, International Journal of Engineering and Advanced Technology (IJEAT), 10(10), p1-5.
29. Ansari, A.A., Bhatti, N.K. and **Bhutto, M.A.**, (2013) *Suitability of pre-perforated post-reinforced baked clay beam panels for low cost housing*, American Journal of Civil Engineering, 1(1), p6-15.
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