#### **Brief Introduction**

## Dr. Ayub Elahi

Post Doctorate Civil Engineering (2013)

The Queen's University of Belfast, UK

PhD Civil Engineering (2009)

University of Engineering and Technology, Taxila

under split PhD HEC funded program with The Queen's University of Belfast,



# Currently, working as;

- 1. Professor, Department of Civil Engineering, University of Engineering and Technology (UET), Taxila
- 2. Chairman Technical Evaluation Committee for PSDP Project titled as "Commencement of Four years undergraduate program in Water Resource Engineering and Petroleum Engineering" amounting to Rs: 779 PKR Million
- 3. Chairman of Following UET Taxila Committees
  - (i) Investment Committee (ii) Transport Committee, (iii) Examination Anomaly Committee
- 4. Member of Affiliation Committee/ Statutory Bodies of UET, Taxila and of various other Universities.

#### Holder of;

- 1. Professional Experience of 26 years, out of which 5 years at construction industry and more than 19 years' experience of Research/Teaching at Undergraduate & Postgraduate level/project administration.
- 2. Produced two PhD scholars and more than 35 MSc research students.
- 3. Supervising Four (04) PhD and seven MSc research Students
- 4. More than 60 International /National Journals Publications/ Refereed conference Proceedings.

## Served/ Serving at National Level as;

- 1- Member National Curriculum Revision Committee (NCRC) in (i) Architectural Engineering Technology (BSc), National Technology Council, Pakistan, 2022 and (ii) Disaster Management (BSc), Higher Education Commission (HEC), Pakistan, 2013.
- 2- Expert HEC Accreditation/inspection visit Committee for inspection of various undergraduate programs in Degree Awarding Institutes 2023-continue.
- 3- Program Evaluators/ Team Leader for accreditation of various BSc Civil Engineering/ BSc Civil Engineering Technology and allied Programs under Level-1 and Level-II of Pakistan Engineering Council (PEC)/ National Technology Council (NTC).
- 4- Principal/ Chief Organizer, 3<sup>rd</sup>/ 2nd International Conference on advances in Civil and Environmental Engineering (ICACEE-2022, 23), UET Taxila, 22-23 February 2023, 2024.
- 5- Focal person/Guest speaker at various CPD activities organized by Pakistan Engineering Council/various Universities at National Level.
- 6- Co-Arbitrator to decide a dispute of mega project between contractor and Punjab Industrial Estates Development & Management Company Multan, 2024.
- 7- Advisor/ subject expert/ Paper setter for recruitment of various Engineering/ teaching positions in PPSC, FPSC, KPKPSC, universities.
- 8- Member at various committees for review of research proposals/ journals/ research papers in various programs under Higher Education Commission Pakistan.
- 9- Honorary member with Small Effort Trust to run financial aid program by providing financial help for impoverished students/ people to continue/ start their education/ own businesses to break out of the cycle of poverty.

# Served at UET, Taxila as;

- 1. Project Director of PSDP Project, "Strengthening and upgradation of UET Taxila and its sub-campus" of amounting Rs. 785 Million, 2015-2023.
- 2. Project Director of PSDP Project, "Sewerage disposal system at UET Taxila" of amounting Rs. 30.9 Million, 2015-2016
- 3. Project Director, Water works and Water Distribution at UET Taxila of amounting Rs: 39 Million funded by UET self-supporting scheme, 2015-2017.
- 4. Chairman, Department of Environmental Engineering UET Taxila, 2019.
- 5. Resident Officer, UET Taxila 2015; Assistant Engineer, Building and Works, UET, Taxila 2000-2004; Hostel Resident Tutor, UET, Taxila, 2002-2007.

# Prof. Dr. Ayub Elahi

**Professor** 

**Department of Civil Engineering** 

University of Engineering & Technology,

Taxila. Pakistan

**Phone**: +92(51)9047655 **Fax**: +92(51)9047650

**Email**: ayub.elahi@uettaxila.edu.pk http://fms.uettaxila.edu.pk/Profile/dr.ayub Date of Birth: 06th June 1973

Nationality: Pakistani

Residence: House # A-8, Staff Colony UET Taxila, Pakistan Cell: +92(314)5363995

# **QUALIFICATION**

Post Doctorate Civil Engineering (2013): Queen's University of Belfast, UK.

PhD Civil Engineering (2009): University of Engineering & Technology Taxila, under split PhD

program funded by HEC (non-degree program) with The Queen's University of Belfast, UK.

M.Sc. Civil Engineering (2003): University of Engineering & Technology, Taxila, Pakistan

BSc. Civil Engineering (1998): University of Engineering & Technology, Taxila, Pakistan

SSC/ HSSC (1992): Board of Intermediate and Secondary Education Sargodha

### **Academic Positions**

Professor, BPS (21) 19-03- 2015 up to-date Associate Professor, BPS (20) 07-06-2013 to 19-03-2015

Assistant Professor (BPS-19) 13-11-2008 to 07-06-2013 Lecturer (BPS-18) 19-01-2004 to 13-11-2008

# PROFESSIONAL AFFILIATIONS WITH INTERNATIONAL ORGANIZATIONS

- Member Scientific Committee, 2nd INTERNATIONAL CONFERENCE ON NEW TRENDS IN INNOVATIVE CONSTRUCTION MATERIALS (NewMat'2024), Ministry of Higher Education and Scientific Research, Republic of Algeria, December 16–18, 2024.
- Review Editor for the Journal of Frontiers in Material, Impact Factor: 3.515 as per JCR.
- Member Review Committee for the Third European and Mediterranean Structural Engineering and Construction Conference (EURO MED SEC 3) August 3-8 2020 Limassol, Cyprus.
- Certificate of outstanding/ Excellent contribution in reviewing Elsevier ISI indexed journal CONSTRUCTION AND BUILDING MATERIALS, April 2018.
- Active reviewer for various international ISI indexed journals, including ACI MATERIALS
  JOURNAL, CONSTRUCTION AND BUILDING MATERALS, JOURNAL OF THE
  CHINESE INSTITUTE OF ENGINEERS, IRANIAN JOURNAL OF CIVIL ENGINEERING,
  INTERNATIONAL JOURNAL OF CIVIL ENGINEERING, JOURNAL OF CLEANER
  PRODUCTION, STRUCTURAL ENGINEERING AND MECHANICS, INTERNATIONAL
  JOURNAL OF TECHNO PRESS.

#### PROFESSIONAL AFFILIATIONS WITH NATIONAL ORGANIZATIONS

- Expert HEC Accreditation/ inspection visit Committee for inspection of various undergraduate programs in Degree Awarding Institutes 2023-continue.
- Member National Curriculum Revision Committee (NCRC) in the discipline of Architectural Engineering Technology (BSc), National Technology Council, Pakistan, 2022.
- Member National Curriculum Revision Committee (NCRC) for Disaster Management bachelor

- program, Higher Education Commission, Pakistan, 2013.
- Program Evaluators for accreditation of BSc Civil Engineering Programs under Level-1 and Level-II of Pakistan Engineering Council (PEC).
- Program Evaluators for accreditation for BSc Civil Engineering Technology programs under National Technology Council (NTC).
- Focal person/Guest speaker at various CPD activities organized by Pakistan Engineering Council/ various Universities at National Level.
- Advisor/ subject expert for recruitment of various Engineering/ teaching positions in PPSC, KPKPSC, FPSC and various universities.
- Member Technical committee for various Civil Engineering Conferences at national/international level, i.e., CSCE-19, to CSCE-22.
- Member at various committees for review of research proposals/ journals/ research papers in various programs under Higher Education Commission Pakistan.
- Member Departmental Tenure Review Committee (DTRC) Comsats University Islamabad, May 2024.
- Member Relevance Assessment Committee, University of Sargodha, March 2024

#### Member, Following Statutory Bodies of UET, Taxila

- Board of ASR&TD, 2019 to 2022
- Academic Council, since 2015.
- Board of Undergraduate, since 2004/ Postgraduate Studies since 2015 (CED)
- Bard of faculty (FC &EE) since 2015

## Member, Statutory Bodies of other Universities

- Board of studies of Civil Engineering Department, Mirpur University of Sciences and Technology Mirpur, Azad Kashmir, 2014-2017.
- Board of Studies of Civil Engineering Department, Islamia University Bahawalpur, 2020-2023.

Member Institute of Civil Engineers (MICE).

Member, Institution of Engineers, Pakistan (IEP).

Member, Pakistan Engineering Council (PEC).

#### **CERTIFICATES/ AWARDS**

- Post-Doctoral scholarship awarded by Higher Education Commission for United Kingdom, 2012-2013.
- PhD split Program scholarship awarded by Higher Education Commission for United Kingdom, 2007-2008.
- Certification for the Construction Project Management, an online non-credit course authorized by Columbia University and offered through Coursera, 2023.
- Certification for the Construction Scheduling, an online non-credit course authorized by Columbia University and offered through Coursera, 2023.
- Certificate of outstanding/ Excellent contribution in reviewing Elsevier ISI indexed journal CONSTRUCTION AND BUILDING MATERIALS, April 2018.

#### ADMINISTRATIVE EXPERIENCE

#### • Project Director

Strengthening and upgradation of UET Taxila and its sub campus amounting to Rs 785 million, 18-02-2015 to 14-03-2023.

**Duties:** As Project Director, I was responsible for overall management of the project including liaising with the donor; coordinating and leading partners; supervising members of the project team; and overseeing project implementation, financial and administrative oversight, reporting, monitoring and evaluation and submission of PC-IV of the Project.

#### • Project Director

PSDP Project entitled as "Sewerage Disposal System at UET Taxila." amounting to Rs 39 million, 2015-16 with duties same as above.

#### • Project Director

Water works and distribution at UET Taxila, amounting to Rs 40 million, 2015-16 with duties same as above

#### • Chairman

Department of Environmental Engineering, UET Taxila, 2019.

**Duties:** As Chairman, I was responsible to monitor, lead, train, and manage staff and to ensure that overall day-to-day operations run smoothly.

• Chairman Technical Evaluation Committee for PSDP Project titled as "Commencement of Four years BSc program in Water Resources and Petroleum Engineering" amounting to Rs: 1000 PKR Million.

#### **Management Courses**

- Executive Course on ISO 9000-2000 "Quality Management System Standards" organized by UET, Taxila, Pakistan 15/09/2001to 16/09/2001.
- PUBLIC POLICY: CONCEPTS, ISSUES AND CHALLENGES ENGINEER'S PERSPECTIVE, organized by Pakistan Engineering Council, 26th July 2022,

#### SUBJECTS TAUGHT AT UNDERGRAD LEVEL

• Reinforced Concrete-1, Reinforced Concrete-II, Properties of Concrete, Civil Engineering Practice, Surveying (Pr), Design of Structure (Pr)

# **Subjects Taught at POSTGRAD LEVEL**

• Deterioration Mechanism in concrete (PhD), Shear Behavior in RC Structures (PhD), recent Development in Cement technology (PhD),

Bridge Engg (MSc), Properties of Concrete and its Constituents (MSc) Durability of Concrete (MSc), Matrix Analysis and Structures (MSc)

# CPD/ technical Lectures delivered to Professional Engineers on Continuous Professional Development

- Keynote speaker in 4<sup>th</sup> Conference on sustainability in Civil Engineering, CUST, 31<sup>st</sup> August 2022, Islamabad.
- Performed as CPD expert/ resource person for one day CPD workshop organized by Pakistan Engineering Council
  - PEC Regional Office Quetta on 30th August 2018.
  - Mirpur University of Science and Technology Mirpur, AJK on 22nd February 2017.
  - PEC Head Quarter Islamabad on 13th May 2015.
  - Karakoram International University, Gilgit on 29th April 2014.
- Performed as CPD expert/ resource person for one day CPD workshop organized by University of Sargodha on 9th May 2022.
- Performed as CPD expert/ resource person for one day CPD workshop organized by COMSATS WAH in COMSATS, institute of Information Technology Wah on 26th May 2017.
- Delivered technical lecture on "Use of waste materials in concrete" organized by IEP in Islamabad auditorium on 31st January, 2009.
- Delivered technical presentation on "Durability properties of High-Performance Concrete" in Queen s' University Belfast United Kingdom on 13th October 2008.

#### PRESENTED RESEARCH PAPERS IN INTERNATIONAL CONFERENCES:

- Sixth International Conference on Durability of Concrete Structures Wednesday 18 July Friday 20 July 2018, The University of Leeds, LEEDS, UK.
- Ninth International Structural Engineering and Construction Conference Valencia, Spain, July 24-July 29, 2017.
- International Seminar on "ADVANCED CONCRETE TECHNOLOGY & ITS APPLICATIONS" (ACTA-2014) September 30, 2014, NUST, Islamabad, Pakistan.
- 3rd International Conference on the Durability of Concrete Structures, 17-19 September 2012, Belfast, United Kingdom.

First Makassar International Conference on Civil Engineering (MICCE2010), Indonesia, March 9-10, 2010.

#### RESEARCH PROFILE

International/ National Journal Publications: 31, including 24 impact factor publications

# Refereed International/ National conference Proceedings: 31

**Total Publications: 62** 

Author's ORCID profile: https://orcid.org/0000-0001-5507-1867

Author ID for Scopus Profile: 35319745900

Researcher ID: https://publons.com/researcher/GLU-8665-2022

Total Citation (as per Google Scholar): 984, h-Index: 15, i10-Index: 16

**Total Impact factor= 43.986** 

## ISI INDEXED INTERNATIONAL JOURNALS (24)

- 1- Muhammad Mehtab Ahmad, Ayub Elahi, Salim Barbhuiya, Comparative Analysis of Reinforced Concrete Beam Behavior: Conventional Model vs. Artificial Neural Network Predictions, Materials, MDPI, Volume 16, Issue 24, Pages 7642, 2024.
- 2- Rana Muhammad Waqas, Ayub Elahi, etc, Maintenance of crack with infilling polymer modified mortar for shear deficient of reinforced concrete beam, Scientific Reports, Volume 14, Issue 1, Page 358, 2024.
- 3- Muhammad Sarmad Mahmood, Ayub Elahi, etc, Enhancing Compressive Strength Prediction in Self-Compacting Concrete Using Machine Learning and Deep Learning Techniques with Incorporation of Rice Husk Ash and Marble Powder, Case Studies in Construction Materials, Volume 19, Pages e02557, 2023.
- 4- Muhammad Saad, Ayub Elahi, Performance of Self Compacting Concrete Using Bentonite, Tehnički vjesnik, Volume 30, Issue 5, Pp. 1567-1575, 2023.
- 5- Atizaz Ali, Zahoor Hussain, Muhammad Akbar, Ayub Elahi, Samiullah Bhatti, Muhammad Imran, Pu Zhang, and Nembo Leslie Ndam, Influence of Marble Powder and Polypropylene Fibers on the Strength and Durability Properties of Self-Compacting Concrete (SCC), Advances in Materials Science and Engineering Volume 2022, Article ID 9553382, 12 pages https://doi.org/10.1155/2022/9553382.
- 6- IU Haq, A Elahi, A Nawaz, SA Qadeer, S Ali, Mechanical and durability performance of concrete mixtures incorporating bentonite, silica fume, and polypropylene fibers, Construction and Building Materials, Volume 345, 2022.
- 7- Saeed Ahmad, Ayub Elahi, Rana Faisal Tufail, Muhammad Zahid, Saad Bin Tariq Experimental investigation and strength model of RC deep beams externally bonded by CFRP Advances in Structural Engineering, Volume 24, Issue 16, pp.3645-3657, 2021.
- 8- Bilal Masood, Ayub Elahi, Salim Barbhuiya and Babar Abbasi, Mechanical and durability performance of recycled aggregate concrete incorporating low calcium bentonite. Construction and Building Materials. Volume 237, 2020.
- 9- Saeed Ahmad, Arslan Yaqub, Ayub Elahi, "Shear behavior of pile cap strengthened with carbon fibre reinforced polymers" Proceedings of the ICE- Structures and Buildings. Volume

- 172, Issue 3, pp. 159-169, 2019.
- 10- Saeed Ahmad, Ahmad Butt, Ayub Elahi, "Effect of polymer-strengthened webs on notched concrete beams" Proceedings of the ICE- Structures and Buildings. Volume 170 Issue 6, pp. 437-450, 2017.
- 11- LA Qureshi, M Jawad, A Elahi, A Ajwad, EFFECT OF CFRP ON STRUCTURAL BEHAVIOR OF HOLLOW CORE SLABS, "Proceedings of the ICE Structures and Buildings", Volume 169 Issue 4, pp. 278-289, 2015.
- 12- S. Ahmad, A. Elahi, H. Pervaiz, A.G.A. Rahman, S. Barbhuiya, "Experimental study of masonry wall exposed to blast loading", MATERIALES DE CONSTRUCCIÓN Vol. 64, Issue 313, January–March 2014, e007, ISSN-L: 0465-2746, http://dx.doi.org/10.3989/mc.2014.01513.
- 13- Muhammad Usman Arshid, Faisal Shabbir, Jawad Hussain, Ayub Elahi, Afaq Ahmed, Imran Khan Tahir, "Assessment Of Variation In Soil Parameters, For Design Of Lightly Loaded Structural Foundations" Life Science Journal 2013;10(12s).
- 14- Saeed Ahmad, Ayub Elahi, Samiullah Kundi , Waseemul Haq, "Investigation of Shear Behaviour of Corbel Beams Strengthened with CFRP", Life Science Journal 2013; 10 (12s).
- 15- Mehwish Asad, Ayub Elahi, Huma Pervaiz, Usman Ali Naeem, Sidra Iftekhar, Muhammad Bilal Asif, Amber Taseer, Ayyaz Tajammal Mirza, Naeem Ejaz, "Role of Supplementary Cementitious Materials in enhancing Concrete Properties" Life Science Journal 2013; 10 (12s).
- 16- Saeed Ahmad, Ayub Elahi, Junaid Hafeez, Muhammad Fawad, Zaheer Ahsan, "Evaluation of the Shear Strength of Dapped Ended Beam" Life Science Journal 2013;10(3).
- 17- Saeed Ahmad, Ayub Elahi, Salim Barbhuiya, Yaqub Farooqi, "Repair of cracks in simply supported beams using epoxy injection technique", Materials and Structures (2013) 46:1547–1559
- 18- Muhammad Ali SHAMIM, Renji REMESAN, Dawei HAN, Naeem EJAZ, Ayub ELAHI, "An improved technique for global daily sunshine duration estima-tion using satellite imagery", Journal of Zhejiang University-SCIENCE A (Applied Physics & Engineering) 2012 13(9):717-722.
- 19- S. Ahmad, A. Elahi, S.A. Barbhuiya, Y. Farid, "Use of polymer modified mortar in controlling cracks in reinforced concrete beams", Construction and Building Materials 27 (2012) 91–96.
- 20- S Ahmad, A Elahi, J Iqbal, MA Keyani and AGA Rahman, "Impulsive loading on reinforced concrete wall", Proceedings of the ICE Structures and Buildings, Volume 166, Issue 3, January 2012 pages 153 –162.
- 21- S. Ahmad, A. Elahi, S.A. Barbhuiya, A. Ghaffar, "Shear strengthening of reinforced concrete continuous beams", Proceedings of the ICE Structures and Buildings, Volume 166, Issue 5, January 2012 pages 247 –256.
- 22- A. Elahi, Q. U. Z. Khan, S. A. Barbhuiya, P. A. M. Basheer, M. I. Russell, "Hydration Characteristics of Cement Paste Containing Supplementary Cementitious Materials", Arabian Journal for Science and Engineering (2012) 37:535–544.
- 23- S. AHMAD, S. A. BARBHUIYA, A. ELAHI AND J. IQBAL, "Effect of Pakistani bentonite on properties of mortar and concrete", Clay Minerals, (2011) 46, pp 85–92.
- 24- A. Elahi , P.A.M. Basheer , S.V. Nanukuttan , Q.U.Z. Khan, Mechanical and durability properties of high performance concretes containing supplementary cementitious materials, Construction and Building Materials, Volume 10, Issue 3, March 2010, pp. 292-299.

#### HEC APPROVED NATIONAL JOURNALS (4)

- 25- Elahi, Ayub, and Atizaz Ali. "EXPERIMENTAL INVESTIGATION OF FIBRE REINFORCED SELF-COMPACTING CONCRETE CONTAINING MARBLE POWDER." NED University Journal of Research 14.1 (2017): 27-35.
- 26- Naeem Ejaz, Daulat Khan, Usman Ali Naeem, Ayub Elahi, Causes of delay and cost overruns during construction projects in developing countries; a case study of Pakistan, Journal of Engineering and Applied Sciences, Volume 30, issue 1, 2011.
- 27- Naeem Ejaz, Muhammad Ali Shahmim, Ayub Elahi, Usman Ghani, Muhammad Yaqub &Usman Ali Naeem, Efficient treatment of dairy effluent containing rich nutrients using Up-flow Multilayer Bio-Reactor (UMBR), Journal of Enineering and Applied Sciences, Volume 30, issue 1, 2011.
- 28- Naeem Ejaz, Usman Ali Naeem, Muhammad Ali Shahmim, Ayub Elahi and N.M

Khan, Environmental impacts of small dams on agriculture and ground water development: a case study of Khanpur dam. Pakistan Journal of Engineering and Applied Sciences, Vol. 10, Jan., 2012, p-45-50.

## **OTHER JOURNALS**

- 29- Mehwish Asad, Muhammad Asad Bhatti, Muhammad Safdar, Ayub Elahi, Performance of Self Compacting Concrete Exposed to Marine Environment, International Journal of Innovative Science and Research Technology ISSN No:-2456-2165, Volume 8 Issue 3, March 2023.
- 30- Saeed Ahmad, Attaullah Shah, R. Tabassam, Ayub Elahi, "EVALUATION OF THE STRENGTH OF STRUTS IN PILE CAPS USING STRUT AND TIE MODEL" Journal of Civil, Structural, Environmental, Water resources and Infrastructure Engineering Research (JCSEWIER), ISSN 2278-3539, Vol.2, Issue 2 Sep 2012 pp 65-83.
- 31- Muhammad Iqbal Bashir, Ayub Elahi, Micro Structural study of Concrete with Indigenous Volcanic Ash, Saeed Ahmad, Attaullah Shah, R. Tabassam, Ayub Elahi, "EVALUATION OF THE STRENGTH OF STRUTS IN PILE CAPS USING STRUT AND TIE MODEL" Journal of Civil, Structural, Environmental, Water resources and Infrastructure Engineering Research (JCSEWIER), ISSN 2278-3539, Vol.2, Issue 2 Sep 2012 pp 65-83., 44, 19. <a href="https://doi.org/10.3390/engproc2023044019">https://doi.org/10.3390/engproc2023044019</a>.

#### **INTERNATIONAL CONFERENCE/PROCEEDINGS (18)**

- 32- Saeed Ahmad, Ayub Elahi, Hafiz Waheed Iqbal, and Faiza Mehmood, (2018) Effects of Incorporating Fiber Cocktail on Mechanical Properties of Concrete, MATEC Web of Conferences 203, 06011, ICCOEE 2018. https://doi.org/10.1051/matecconf/201820306011.
- 33- A Elahi, Salim Barbhuiya, (2018) Durability Properties of High-Performance Concrete Containing High Volumes of Supplementary Cementitious Materials, Sixth International Conference on the Durability of Concrete Structure, 18-20 July 2018, University of Leeds, Leeds, West Yorkshire, LS2 9JT, United Kingdom
- 34- A Elahi, A Ali (2017), "Effect of Clay on Properties of Concrete", Paper# M-44 doi: 10.14455/ISEC.res.2017.226, ISBN: 978-0-9960437-4-8, Ninth International Structural Engineering and Construction Conference Valencia, Spain, July 24-July 29, 2017.
- 35- S Ahmad, A Elai, Z Mehar, Assessment of the effect of recycled coarse "A comparative study on durability design practices aggregates on properties of concrete, 42<sup>nd</sup> Conference on OUR WORLD IN CONCRETE & STRUCTURES, 23-25 August 2017, Singapore.
- 36- S Ahmad, M A Babrus and A Elahi (2015), "The Role of Dolomite Powder on the Properties of Self Compacting Concrete", Proc. Of 40<sup>th</sup> Conference in Concrete and structures, 27-28 August 2015, Singapore.
- 37- S Ahmad, SA Barbhuiya and A Elahi (2014), "EFFECTS OF REPLACING NATURAL SAND WITH CRUSHED SAND ON WORKABILITY AND STRENGTH PROPERTIES OF CONCRETE" Proc. Of 39<sup>th</sup> Conference in Concrete and structures, 20- 22 August 2014, Singapore.
- 38- International Seminar on "ADVANCED CONCRETE TECHNOLOGY & ITS APPLICATIONS" (ACTA-2014) September 30, 2014, NUST, Islamabad, Pakistan.
- 39- Ahmad, Elahi, Aslam, Sabir and Hanif, "Properties of self-compacting concrete with mineral admixtures", 3<sup>rd</sup> International Conference on the Durability of Concrete Structures, 17-19 September 2012, The Queen's University of Belfast, UK.
- 40- Bilal Iftikhar, Ayub Elahi "Effect of Supplementary Cementitious Materials on Properties of Concrete", Sixth International Conference on Construction in the 21st Century (CITC- VI) "Construction Challenges in the New Decade" July 5 -7 2011, Kuala Lumpur, Malaysia.
- 41- Saeed Ahmad, I. A. Bukhari, Ayub Elahi, "Shear Behavior of Pre-Stressed Concrete Beams with Varying Shear Span to Depth Ratio5th International Symposium on NOTEWORTHY DEVELOPMENTS IN PpibsP, Singapore on 25-27 August 2010.
- 42- Saeed Ahmad, Ayub Elahi, M. Yaqoob Farooqi, "Control of Flexural Cracks in a Simply Supported Beam By Epoxy Injection Technique". 35<sup>th</sup> Conference on OUR World in Concrete & Structure, Singapore on 26-27 August 2010.
- 43- Muhammad Fiaz Tahir, Qaiser-uz Zaman Khan, Naeem Ejaz, Ayub Elahi, "Reasons of

- Selecting Higher Plinth Levels of Buildings in Pakistan and its adverse effect on Socio economic Domain", 2<sup>nd</sup> International conference on Construction in Developing Countries, Cairo, Egypt, August 3-5, 2010, pp. 413-418-.
- 44- A. Elahi, Q.U.Z. Khan, S.A. Barbhuiya and Z. Mehmood, performance of concretes and cement pastes containing fly ash, First Makassar International Conference on Civil Engineering (MICCE2010), Indonesia, March 9-10, 2010, ISBN 978-602-95227-0-9, pp. 391-396.
- 45- S. Ahmad, J. I. Siddiqui, H. Mehmood and A. Elahi, "Emerging Perceptions in Impact Testing: An Experimental Attempt, 6<sup>th</sup> Asia-Pacific Conference on Shock & Impact Loads on Structures in Perth, Australia December 07-09, 2005, pp. 91-98.
- 46- S. Ahmad, M. Yousaf and A. Elahi, "Design Comparison between AASHTO & NHA Pakistan Live Loading for Long Span Segmentally Cast Balanced Cantilever Box-Girder Bridge over River Indus at Khairabad, Pakistan", 4<sup>th</sup> International Conference on "New Dimensions in Bridges, Flyovers, Overpasses & Elevated Structures", Fuzhou, China 24-25 October, 2005 pp. 97-104.
- 47- S. Ahmad, J. Iqbal and A. Elahi, "Analysis and Design Considerations of Underground Structure", 3<sup>rd</sup> International Conference on "Conceptual Approach to Structural Design" in Singapore, 25-26 August, 2005 p-33-38.
- 48- S. Ahmad, M. Nawaz and A. Elahi, "Effect of Super plasticizers on Workability and Strength of Concrete", 30<sup>th</sup> Conference on OUR World in Concrete & Structure, Singapore XXIV, 23-24 August, 2005 p-141-152.
- 49- S. Ahmad and A. Elahi, "Effect of Reinforcement Ratio and Shear Span on Shear Strength of High Strength Concrete", 28<sup>th</sup> Conference on OUR World in Concrete & Structure, Singapore XXII, 28-29 August, 2003, pp-179-186.

#### **NATIONAL CONFERENCES (13)**

- 50- Aleem Sultan, Ayub Elahi, Role of waste materials in the Development of a Sustainable Concrete, 2rd International Conference on Advances in Civil and Environmental Engineering (ICACEE-2024), 21st and 22nd February 2024, University of Engineering & Technology Taxila, Pakistan.
- 51- Irfan Munir, Ayub Elahi, Saqib Zubair, Jawad Hussain, Durability of High-Strength Self Compacting Concrete (HSSCC) modified with Supplementary Cementitious Materials (SCMs), 2nd International Conference on Advances in Civil and Environmental Engineering (ICACEE-2023), 22nd and 23rd February 2023, University of Engineering & Technology Taxila, Pakistan.
- 52- Adil Khan, Ayub Elahi, Climate Resilient Reinforced Concrete Based on Chloride Resistance, 2nd International Conference on Advances in Civil and Environmental Engineering (ICACEE-2023), 22nd and 23rd February 2023, University of Engineering & Technology Taxila, Pakistan.
- 53- Muhammad Waqas, Ayub Elahi, Effect of Human Hair Fiber on Mechanical Properties of Concrete (Paper ID: 132), 4th Conference on Sustainability in Civil Engineering (CSCE'22) Department of Civil Engineering Capital University of Science and Technology (CUST), Islamabad, 31st August 2022, Pakistan.
- 54- Iftikhar Younis, Mehwish Asad, Ayub Elahi, FRESH AND MECHANICAL PROPERTIES OF HIGH STRENGTH SELF-COMPACTING CONCRETE MODIFIED WITH FLY ASH AND SILICA, 4th Conference on Sustainability in Civil Engineering (CSCE'22) Department of Civil Engineering Capital University of Science and Technology (CUST), Islamabad, 31st August 2022, Pakistan
- 55- Mudasar Hassan, Ayub Elahi, Mehwish Asad, Performance of Fibre Reinforced Self Compacting Concrete Against Chloride Attack, 12th International Civil Engineering Conference (ICEC-2022) "Integrating Technology in Civil Engineering" May 13-14, 2022, Karachi, Pakistan.
- 56- Saqib Zubair, Ayub Elahi, Syed Aamir Qadeer Shah, Muhammad Asif, Effect of bentonite and silica fume on mechanical properties of concrete reinforced with polypropylene fibers, Proceedings of the 1st International Conference on Recent Advances in Civil and Earthquake Engineering, 8th October, 2021, Peshawar, Pakistan.
- 57- N. Shahid, A. Elahi, S. Mahmood (2021), EVALUATION OFPERFORMANCE OF SELF

- COMPACTING CONCRETE WITH MINERALADMIXTURES BYARTIFICIAL NEURALNETWORKS, 3rd Conference on Sustainability in Civil Engineering (CSCE'21), Paper ID: 150, August 11, 2021, Islamabad Pakistan.
- 58- I. U. Haq, A. Elahi, S. A. Q. Shah, M. A. Ghaffar (2021), Mechanical and Durability Properties of Poly propylene Concrete Containing Bentonite and Silica fume, 3rd Conference on Sustainability in Civil Engineering (CSCE'21), Paper ID: 151, August 11, 2021, Islamabad Pakistan.
- 59- S. Mahmood, A Elahi, S. H. A. Shah (2021), Development and Validation of Compressive Strength of Marble Powdered Self-Compacting Concrete Containing Rice Husk Ash Using Artificial Neural Network Technique, 4th International Conference on Emerging Trends in Engineering, Management and (ICETEMS-2021), Ref. No. ICETEMS-21-093, October 13-14 Peshawar, Pakistan.
- 60- M. U. Anwar, A Elahi (2020), Effect of Heavy Weight Magnetite Aggregate on Mechanical and Radiation Shielding Properties of Concrete, 11th International Civil Engineering Conference (ICEC-2020), March 13-14, 2020, Karachi, Pakistan.
- 61- International Seminar on "ADVANCED CONCRETE TECHNOLOGY & ITS APPLICATIONS" (ACTA-2014) September 30, 2014, NUST, Islamabad, Pakistan.
- 62- Shamim, M. A., Ejaz N., Elahi A. and Naeem U.A. (2012), "River Flow Modelling using a Hybrid Wavelet based SVM Scheme", International Bhurban Conference on Applied Science and Technology (IBCAST), 9-12 January, 2012, Islamabad.

# PhD Produced:

- 1- Dr Hammad Salahuddin (14-UET/PhD-CE-69), Development and Performance Evaluation of Reactive Powder Concrete, September 2022.
- 2- Dr Tausif Arshad (13-UET/PhD-CE-63), Effect of Externally Bonded Materials on Shear Strength of Rc Deep Beams, 2023.

## PhD Research Work under Supervision

- 1- Development and performance evaluation of self-compacting concrete with hybrid fibers reinforcement
- 2- Performance of self-compacting concrete under marine Environment.
- **3-** Durability and Mechanical properties of concrete containing supplementary Cementitious Materials

# REVIEWER FOR FOLLOWING NATIONAL JOURNALS

- SCIENCE INTERNATIONAL (ISSN 1013-5316)
- THE NUCLEUS (ISSN: 0029-5698)
- PAKISTANI JOURNAL OF ENGINEERING AND APPLIED SCIENCES, UNIVERSITY OF ENGINEERING AND TECHNOLOGY LAHORE
- PAKISTAN JOURNAL OF SCIENCE
- JOURNAL OF SCIENCE AND TECHNOLOGY, UNIVERSITY OF PESHAWER
- JOURNAL OF HIMALAYAN EARTH SCIENCES, UNIVERSITY OF PESHAWER

#### FUNDING RESEARCH PROJECTS/ PROPOSALS REVIEWED

- NATIONAL RESEARCH PROGRAM FOR UNIVERSITIES (2015-2022)
- TECHNOLOGY DEVELOPMENT FUND (2015-17)
- Pakistan-U.S. Science and Technology Cooperative Program, 2009
- Pak-Turk Research Program
- Pak France PERIDOT Researcher Mobility Program (2019-20)

#### M.Sc. Research Thesis (selected) Supervised

- Durability of High-Strength Self Compacting Concrete (HSSCC) modified with Supplementary Cementitious Materials (SCMs), 2023.
- Effect of Human Hair Fiber on Mechanical Properties of Concrete, 2022.
- Effect of bentonite and silica fume on mechanical properties of concrete reinforced with polypropylene fibers, 2021.
- Effect of Heavy Weight Magnetite Aggregate on Mechanical and Radiation Shielding Properties of Concrete, 2020.
- Behavior of Flexural Deficient Reinforced Concrete Beams retrofitted/ strengthened with Polymer Modified Mortar, 2018.

- Effects of Mixing Fiber Cocktail on Mechanical Properties of Concrete, 2017.
- Strengthening of Flexure Deficient Reinforced Concrete Beams with Polymer Modified Mortar, 2016.
- Sulphate attack on cement sand mortar with supplementary cementitious materials, 2012.
- Use of GROUND GRANULATED BLAST FURNACE SLAG and Fly Ash in binders exposed to Sulphate environment, 2012.
- Effect of blending of Portland cement on properties of concrete, 2007

#### **Field Experience**

- Worked as Project Director on additional Charge for two PSDP projects and one self-supporting project.
- ❖ Worked as Site Engineer in construction industry (contractor as well as consultant) on Form to Market Roads from 1998 to 2000 with responsibilities for setting out roads, supervising work operations, quality control and quantity estimation.
- ❖ Worked as Assistant Engineer in Building and Works Department of UET Taxila, from 2000 to 2004.
- ❖ Act as Co-Arbitrator to decide a dispute of mega project between contractor and Punjab Industrial Estates Development & Management Company Multan, 2024.
- Currently Providing consultancy service as part of the Department of Civil Engineering to number of departments, organization of government as well as private sectors. Clients include Capital Development Authority Pakistan, Islamabad Airport, National Highway Authority, Communication and Works Department, NESPAK.

# **ACHIEVEMENT**

#### Awards

- PhD split Program award 2007-08 for United Kingdom
- HEC Post-Doctoral award 2012-13 for United Kingdom
- Member national technical committee for various Conferences on Sustainability in Civil Engineering held at Capital University of Science and Technology, Islamabad Pakistan 2019 2023.
- PhD supervisor approved by Higher Education Commission of Pakistan

#### PEC/ NTC Program Evaluator

• Accreditation/Re-Accreditation multiple visits as Expert/ team lead of visiting teams for various institutes throughout the country.

## OTHER ASSIGNMENTS AS EXPERT

- Nominated as a panel member under Thematic Panel for Engineering & Technology to assist HEC in shortlisting NRPU projects received under the call 2021, August 20, 2021.
- Member of the committee "Engineering and Technology" constituted by HEC to evaluate the applications of research journals for HEC accreditation, May 30, 2022.
- Member/ Expert, NRPU-Presentation committee nominated by Higher Education Commission, Pakistan, 20th April 2018.
- Expert, for evaluation panel in HEC for evaluation of Civil Engineering and Allied related proposals under "Technology Development Fund" through Defense Presentation, appointed by Higher Education Commission Pakistan, 10th April 2018.
- Expert, for evaluation panel in HEC for evaluation of Mechanical Engineering and Allied related proposals under "Technology Development Fund" through Defense Presentation, appointed by Higher Education Commission Pakistan, 29th March 2018.
- Member review committee appointed by Higher Education Commission Pakistan for shortlisting "Research Proposals of Civil Engineering/Structural Engineering" submitted under National Research Program for universities (NRPU) annual call 2017, 31-1-2018.
- Appointed as external examiners a number of times for final year projects at COMSATS Wah, COMSATS Abbottabad, BZU Multan, Capital University of Sciences and Technology Islamabad.

- Expert for evaluation / presentations of research projects under "University Industry Technical Support Program, of Higher Education commission Pakistan", 7th October 2016
- Expert, nominated by Mehran University of Engineering and Technology, Jamshoro to review the applicant's Biodata for the suitability of candidates for the Senior posts (2015 to date).
- Member, committee constituted by UET Taxila, to formulate 1<sup>st</sup> unfair means policy, 2022.
- Member, committee constituted by UET Taxila, to formulate 1<sup>st</sup> Conflict of interest (COI) policy, 2022.
- Member, various inquiry/ fact finding committee constituted by UET Taxila, to investigate the facts related to different issues regarding discipline and construction contracts problems at UET Taxila (2014).

# **References:**

Can be provided on demand