
**Engr. Dr.
MUHAMMAD
ZAHID**



muhammadzahidutp@gmail.com
dr.muhammadzahid@bzu.edu.pk



+92-3017472033

Assistant Professor, Civil
Engineering Department,
Bahauddin Zakariya
University, Multan, Pakistan

I completed my PhD in Civil Engineering in 2019 from Universiti Teknologi PETRONAS (UTP), Malaysia, with a focus on Sustainable Civil Engineering Materials and Structures. Following this, I worked as a postdoctoral researcher at UTP's Institute of Self-Sustainable Building (ISSB), specializing in sustainable construction technologies.

With over 20 publications in high-impact indexed journals, it is noteworthy that I am the first author on most of my research articles. The cumulative impact factor of the articles for which I am the first author is 36.5, while my overall research has a cumulative impact factor of 57.7. Many of my works are published in prestigious journals such as *Construction and Building Materials*, *Journal of Cleaner Production*, *Structures*, and *Journal of Materials Research and Technology*, emphasizing innovative, sustainable solutions in civil engineering and material science. My postdoctoral research has significantly contributed to advancing sustainable building practices.

I am currently an Assistant Professor in the Civil Engineering Department at Bahauddin Zakariya University, Pakistan, where I continue to lead research in sustainable engineering. I have five years of post-PhD experience in teaching and research at the university level.

Sincerely,

Yours sincerely,

Engr. Dr. Muhammad Zahid

Dr. MUHAMMAD ZAHID

(Resume)

Email: muhammadzahidutp@gmail.com

EDUCATION

PhD in Civil Engineering..... 2016~2019

Universiti Teknologi PETRONAS, Malaysia

Thesis Title: *Development and mix design optimization of fly ash based high strength engineered geopolymer composite*

Master in Civil Engineering..... 2012~2014

University of Engineering & Technology (UET) Taxila, Pakistan

Thesis Title: *Factors affecting shear strength of concrete deep beams strengthened with carbon fiber reinforced polymer (CFRP)*

BSc in Civil Engineering2008~2012

University of Engineering & Technology (UET) Taxila, Pakistan

Final Year Project: *Mechanical properties of recycled polythene modified bitumen*

WORKING EXPERIENCE & APPOINTMENTS

Name of Institution	Position	Period		Brief Description of Task
		From	To	
Bahauddin Zakariya University, Pakistan	Assistant Professor	Nov 2021	current	Teaching also involve in research activities
NFC Institute of Engineering and Technology (IET) Multan	Assistant Professor	Feb 2020	Nov 2021	Teaching also involve in research activities.
Universiti Teknologi Petronas (UTP); Malaysia	Post-Doctoral Researcher	June 2019	Feb 2020	Graphene modified geopolymer for enhancing mechanical and microstructure properties
Universiti Teknologi Petronas (UTP); Malaysia	Graduate Assistant	2016	2019	Geopolymer concrete research and Graduate assistant
COMSATS university; Pakistan	Lecturer	2015	2016	Teaching
QCET Sahiwal; Pakistan	Lecturer	2014	2015	Teaching
UET Taxila; Pakistan	Research Associate	2012	2014	Research, publication and supporting research students.

PUBLICATIONS (Cumulative Impact Factor =57.7; First Author impact factor = 36.5)

Journal Articles (published; ISI Indexed)

1. **Zahid M**, Khan MI, Shafiq N, Abbas YM, Khatib JM. Achieving superior mechanical performance in one-part geopolymer composites through innovative hybrid fiber systems of recycled steel and PVA fibers. *Journal of Materials Research and Technology* (2024);32:1772–87. (Impact Factor: 6.2, Q1)
2. **Zahid M**, Abbas YM, Shafiq N, Khan MI. Sustainable Engineered Geopolymer Composites Utilizing Gamma-Irradiated PET and Graphene Nanoplatelets: Optimization and Performance Enhancement. *Sustainability* (2024); 7455. (Impact Factor: 3.3, Q1)
3. Zaman, M. F., Bukhari, S. M. A., Husnain, N., Abbas, Z., Ayyub, A., Najmi, M. F., Manan, A., & **Zahid, M.** (2024). Effect of zirconium carbide coating on thermal behavior of heavy-duty V12 diesel engine using finite element method. *Engineering Research Express*, (2024) 6(2), 25549. (Impact Factor: 0.9, Q3)
4. Ismail, F., Shafiq, N., Abbas, Y. M., Sayed, E., **Zahid, M.**, Bheel, N., Benjeddou, O., & Abdulkadir, I. (2023). The behavior of graphene-nanoplatelets-based high-performance concrete under ambient curing. *Structures*, 47 (2023), 694–708. (Impact Factor: 3.9, Q1)
5. Saeed, A., Elahi, Faisal, R., and **Zahid M.** “Experimental investigation and strength model of RC Deep Beams externally bonded by CFRP.” *Advances in Structural Engineering*, (2021):1–13. (Impact Factor: 2.1, Q2)
6. **Zahid M**, Shafiq N, Nooriza S, Razak A, Faisal R. Investigating the effects of NaOH molarity and the geometry of PVA fibers on the post-cracking and fracture behavior of engineered geopolymer composite. *Construction and Building Materials* 265, 120295 (2020). (Impact Factor: 7.4, Q1)
7. Feng, X., Faisal, R., and **Zahid M.** “Statistical modeling of rubberized concrete beams confined by FRP using RSM technique.” *Sādhanā*, (2020). (Impact Factor: 1.4, Q4)
8. **M. Zahid** and N. Shafiq, “Effects of Sand/Fly Ash and the Water/Solid Ratio on the Mechanical Properties of Engineered Geopolymer Composite and Mix Design Optimization,” *Minerals*, vol. 10, no. 333, pp. 1–22, (2020). (Impact Factor: 3.1, Q1)
9. Feng, X., Faisal, R., and **Zahid M.** “Behavior of unconfined and CFRP confined rubberized concrete.” *International Journal of Low-Carbon Technologies* (2020). (Impact Factor: 2.455, Q2)
10. N. Shafiq, R. Kumar, **Zahid**, and R. F. Tufail. “Effects of Modified Metakaolin Using Nano-Silica on the Mechanical Properties and Durability of Concrete.” *Materials*, vol. 12, no. 14, p. 2291, (2019). (Impact Factor: 3.1, Q1)
11. Jalal, Shafiq, and **Zahid**. “Investigating the Effects of Fiber Reinforced Concrete on the Performance of End-Zone of Pre-Stressed Beams.” *Materials*, vol. 12, no. 13, p. 2093, (2019). (Impact Factor: 3.1, Q1)
12. Feng, X., Faisal, R., and **Zahid M.** “Experimental Investigation and Statistical Modeling of FRP Confined RuC Using Response Surface Methodology.” *Civil Engineering Journal-Iran*, 5(2): 268–283, (2019). (Impact Factor: 4.3, Q1)
13. **M. Zahid**, N. Shafiq, M. Hasnain Isa, L. Gill. “Statistical modeling and mix design optimization of fly ash-based engineered geopolymer composite using response surface methodology.” *Journal of Cleaner Production*, 194 (2018). (Impact Factor: 9.7, Q1)
14. **M. Zahid**, N. Shafiq, A. Jalal. “Investigating the effects of solar cure curing method on the compressive strength, microstructure, and polymeric reaction of fly ash-based geopolymer.” *Construction and Building Materials*, 181 (2018) 227–237. (Impact Factor: 7.4, Q1)

Journal Articles (Scopus indexed)

1. **M. Zahid**, N. Shafiq, M. F. Nuruddin, E. Nikbakht, and A. Jalal, "Effect of Partial Replacement of Fly Ash by Metakaolin on Strength Development of Fly Ash Based Geopolymer Mortar," in *Key Engineering Materials*, 2017, vol. 744, pp. 131–135.
2. A. Jalal, N. Shafiq, E. Nikbakht, R. Kumar, **M. Zahid** "Mechanical Properties of Hybrid Basalt-Polyvinyl Alcohol (PVA) Fiber Reinforced Concrete" *Key Eng. Mater.* 744 (2017) 3–7.
3. Tufail, R. F., Yaqub, M., Khan, Q. U. Z., Mehmood, M. S. and **Zahid, M.** (2013) 'Effect of carbon fibre reinforced polymer jacketing on low, normal, medium and high strength concrete', *Life Science Journal*, 10(12 SPL.ISS.), p. 2017
4. Muhammad Hussain, Imran Hafeez, M.A. Kamal, Rana Faisal Tufail, **Muhammad Zahid**, M. A. Q. (2013) 'The Evaluation of Structural Performance of New Benazir Bhutto International Airport Islamabad, Pakistan', *Life Sciences Journal*, 10, pp. 647–652
5. A. Ajwad, L. A. Qureshi, and **M. Zahid**, "Sustainable Transport Measures : Acceptance Rate in Lahore," *Tech. Journal, Univ. Eng. Technol. Taxila, Pakistan*, vol. 22, no. II, pp. 2–8, 2015.
6. **M. Zahid**, N. Shafiq, and M. Ali, "Statistical Modelling of Ultrasonic Pulse Velocity of Fly Ash Based Geopolymer Mortar using Response Surface Methodology," *J. Archit. Environ. Struct. Eng. Res.*, vol. 02, no. 04, pp. 11–17, 2020.

Book Chapter

1. N. Shafiq, Noor Amila, **M.Zahid** "Achieving sustainability in the construction materials - the need for a paradigm shift" in *Advances in Civil Engineering (Volume - 3)* AKiNik Publications, 2019. **Paperback ISBN:** 978-93-5335-547-0; **E-Book ISBN:** 978-93-5335-548-7

Conference Proceedings Papers

1. **Muhammad Zahid**, Sajjad Ahmad et al, (2024) Enhancing Geopolymer Performance: Optimization of Sand to Fly Ash and Water to Geopolymer Solid Ratios Using Response Surface Methodology, 1st international conference, Emerging trends in civil engineering for sustainable development (ICTCE-2024).
2. Iqbal, A., Ahmad, S., Zahid, H. A., Latif, A., & **Zahid, M.** (2023). Evaluation of Adhesion and Moisture Susceptibility of Cotton Stalk Modified Bitumen. 2nd International Conference on Engineering , Natural and Social Sciences, 177–183.
3. R. Kumar, N. Shafiq, T. H. Ali, A. Jalal and **M. Zahid**, "Statistical Assessment of Compressive Strength of High Strength Concrete Mixtures with Hybrid Blends of Metakaolin and Fly ash," in *International Conference on Sustainable Development in Civil Engineering*, MUET, Pakistan (23th – 25th Nov, 2017), 2017, pp. 1–5.
4. Muhammad Imran Khan, Muslich Hartadi Sutanto, **Muhammad Zahid**, Aliyu Usman and Madzlan Bin Napihah "Optimization of Cementitious Grouts for Semi-Flexible Pavement using Response Surface Methodology" 5th International Conference on Civil and Environmental Engineering for Sustainability in Johor Malaysia (IConCEES 2019) article in Scopus indexed journal (IOP Conference Series: Earth and Environmental Science)

PATENT

1. Nasir Shafiq, **Muhammad Zahid**, "A Solar Cured Engineered Geopolymer Composite", PI 2019002073, April 15, 2019. (Submitted)

GRANT OBTAINED

(2017-2019)

YAYASAN UNIVERSITI TEKNOLOGI PETRONAS – FUNDAMENTAL RESEARCH GRANT (YUTP-FRG)

Title: Investigating the functional characteristics of hybrid graphene nanoplatelets as an additive in the geopolymer paste for protecting the offshore structures; Research center “Self- Sustainable Buildings”

Persons involved: Prof. Dr Nasir Shafiq; AP. Dr. Noor Amila Wan Zawawi; **Dr. Muhammad Zahid**; Amount: RM 197,154.00/-

(2024-2025)

BZU ORIC ANNUAL RESEARCH FUNDING

Title: Bio Influenced-Healing Cementitious Composites for Chemical Exposure in Fertilizer Plants

Persons involved: **Assistant Prof. Dr. Muhammad Zahid**; Amount: PKR 200,000/-

AWARDS AND FELLOWSHIPS

- **Gold Award**, SMART-EGPC: A State Of The Art & Green Engineered Composite Of Polymeric Materials, *30th International Invention Innovation & Technology Exhibition (ITEX)*, KL, Malaysia 2-4 May 2019
- **Academic excellence award** by Chair, Civil and Environmental Engineering Department, Universiti Teknologi Petronas (UTP) Malaysia

RESEARCH COLLABORATIONS

- Department of Civil Engineering, College of Engineering, King Saud University, Riyadh 11421, Saudi Arabia; Department of Civil and Environmental Engineering, Florida International University, Miami, FL 33174, USA; Department of Civil Engineering, Universiti Teknologi PETRONAS, Seri Iskandar 32610, Malaysia; research title “Sustainable Engineered Geopolymer Composites Utilizing Gamma-Irradiated PET and Graphene Nanoplatelets: Optimization and Performance Enhancement”
- GIK Institute of Engineering Sciences and Technology, Topi 23460 KPK, Pakistan and College of Architecture and Environment, Sichuan University, Chengdu 610065, China -research title “Effects of Modified Metakaolin Using Nano-Silica on the Mechanical Properties and Durability of Concrete”
- Universitat Politecnica de Catalunya, Spain-research title “Statistical modeling and mix design optimization of fly ash based engineered geopolymer composite using response surface methodology”

- University of engineering and technology (UET) Taxila -research title “Sustainable Transport Measures: Acceptance Rate in Lahore”

SHORT COURSES AND CO-CURRICULUM ACTIVITIES

- Multidisciplinary Short Course series on “Sustainable Development and role of Engineers”
- Multidisciplinary Short Course series on “Seismic Design of RC Structures Based on Eurocode 8”
- Participated on climate diplomacy day
- Appointed as coordinator for 3rd National Geopolymer competition Malaysia
- Participated in Dean’s FUTSAL league 2019; UTP Malaysia
- 3-Day Volunteer Service “2018 BADANG ETHNOSPORT CHALLENGE” Hosted by ministry of Tourism Art and Culture Malaysia.
- 1- Day Volunteer Service in GOTONG ROYONG KAMPUNG SERI KANTAN hosted by Dewan Orang Ramai Kampung Seri Kantan, Tronoh Perak Malaysia
- 3-Day workshop “testing and evaluation” Hosted by faculty development academy CPOMSATS Islamabad Pakistan
- One day seminar on Renewable engineering technologies (Solar), university of engineering and technology Lahore Pakistan
- One day seminar on Self Compacting Concrete hosted by Pakistan engineering council Pakistan

REFERENCE

- 1. Prof. Dr. Nasir Shafiq** (PhD Research Advisor)
Department of Civil and Environmental Engineering
Universiti Teknologi PETRONAS
32610 Bandar Seri Iskandar. Perak Darul Ridzuan, Malaysia
Email: nasirshafiq@utp.edu.my
Phone: +60-165445930