

CURRICULUM VITAE

Name: **MUHAMMAD AKIF**
Profession: Civil Engineer
Specialization: Structural Engineering
Passport No: AA1389912
Driving License: Saudi Arabia & Pakistan
Nationality: Pakistani
Current Position: Senior Structural Engineer at **WEBUILD KSA**
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CAREER SUMMARY:

Professional Civil Engineer with over 17 years of combined design and site experience on major national and international infrastructure projects, including colony buildings, dams, powerhouses, superstructures, and underground tunnels. Skilled in managing the full project lifecycle from detailed design through construction while ensuring full compliance with project requirements and engineering standards. Extensive experience reviewing design drawings and technical reports for international projects such as the Trojena Dams Project, as well as evaluating contractor submittals for large-scale national projects including the Dasu Hydropower Project (5400 MW) and the Neelum–Jhelum Hydropower Project (970 MW). Recognized for working independently, delivering high-quality technical solutions, and taking on a wide range of engineering responsibilities. Strong commitment to health, safety, and environmental standards, with an ongoing focus on professional growth.

PROFESSIONAL MEMBERSHIP:

- Member of **Saudi Council of Engineers as Engineer** (*Membership: 1165444*)
- Member of Pakistan Engineering Council as **Professional Engineer Structures**
- Member of Institution of Engineers Pakistan
- Member of Pakistan Engineering Congress

ATTRIBUTES

- Client Relationships · Cost Optimization · Quality Assurance
- Strategic Planning · Time Management · Problem-Solving
- Communication and Coordination · Leadership and Team Collaboration
- Project Management and Completion · Building and Safety Code Enforcement
- Construction Management · Superstructure Construction

PROFESSIONAL WORK EXPERIENCE:

i) **Current Employer** : **WEBUILD S.p.A Saudi Branch**

Designation : Senior Structural Engineer
Project : Trojena Dams, Lakebed Treatment & Bow Project
Project Cost : **5 billion USD**
Duration : July 2024 – Present

Key Responsibilities:

- Led the review and validation of structural designs for major infrastructure components including tunnels, bridges, spillways, and utility structures, ensuring compliance with project specifications and international standards.
 - Directed design verification and optimization efforts in alignment with contractor requirements, improving constructability and driving cost-efficient engineering solutions.
 - Managed BOQ validation and quantity assessments across multiple project components, ensuring accuracy, cost control, and alignment with project budgets.
 - Managed cross-functional coordination with technical teams to deliver high-quality shop drawings, proactively resolving site construction challenges and minimizing delays.
 - Collaborated with procurement and cost control teams to align material planning with project timelines, optimizing resource utilization and mitigating future cost and schedule risks.
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ii) **Employer** : **Development & Management Consultants (DMC) (Pvt.) Ltd.**
Designation : Senior Design and Site Engineer Main Works
Project : DASU Hydropower Project (5400 MW) (242m high Roller Compacted Concrete Dam) [JV of NIPPON Koi, DOLSAR, DMC, NDC and PES]
Project Cost : **6.2 billion USD**
Duration : Aug 2019 – June 2024

Key Responsibilities:

- Conducted end-to-end structural design of large-scale underground & hydraulic infrastructure, including tunnels, caverns, retaining systems, and switchyard facilities.
- Designed reinforced concrete elements (slabs, beams, columns, walls, lintels, corbels) for Project area Colony structures ensuring safety, durability, and constructability under complex geological conditions.
- Provided technical leadership in geotechnical-structural integration, applying RMR/Q classification for optimized tunnel and excavation support design.
- Reviewed and approved contractor drawings, ensuring compliance with design intent, international codes, and project specifications.
- Managed design and validation of tunnel support systems (rock bolts, shotcrete, linings) in line with NATM principles.
- Reviewed construction methodologies to ensure alignment with engineering design and risk mitigation strategies.
- Produced and validated design reports, technical specifications, and cost estimates for major infrastructure components.

- Ensured adherence to international standards, HSE requirements, and quality assurance processes across all design deliverables.
 - Mentored junior engineers and contributed to technical capability development within the team.
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ii) Employer : Engineering Consultancy Services Punjab (Pvt.) Ltd.
 Designation : Senior Infrastructure Design Engineer
 Duration : Sep 2017 – Aug 2019

Key Responsibilities:

- Performed structural analysis and design of multistory buildings, foundations for sports infrastructure (pole structures) ensuring compliance with design standards and project requirements.
 - Conducted site inspections and developed structural assessment reports for design of water-retaining structures (overhead and underground tanks) based on actual site conditions.
 - Provided technical support to project leadership, coordinating with international consultants and managing client correspondence.
 - Prepared contract amendments, variation orders, and tender/bidding documentation.
 - Participated in high-level meetings with clients and international consultants to resolve technical and contractual issues.
 - Led third-party design validation and structural assessment for buildings and infrastructure works.
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iii) Employer : National Development Consultants (Pvt.) Ltd.
 Designation : Senior Engineer-Structures
 Project : Neelum Jhelum Hydroelectric Project (969 MW) [JV of MWH Global, NORPLAN, NESPAK, NDC and ACE]
 Project Cost : **4.7 billion US\$**
 Duration : July 2015 – Aug 2017

Key Responsibilities were:

- Structural analysis and design of concrete linings for TBM tunnels of varying diameters under high in-situ stress conditions, ensuring safety, durability, and compliance with international standards.
- Provided expert on-site technical guidance to the Design Team Leader, resolving complex design issues and directing necessary revisions to ensure construction drawings remained accurate and fit for purpose.
- Reviewed and approved structural shop drawings submitted by the contractor for major project components, including Staff Colony, Powerhouse, Transformer Hall, Switchyard, Substation, Control Building, Tunnel concrete lining, etc.

- Directed coordination efforts with multidisciplinary teams to ensure timely review and approval of shop drawings, minimizing construction delays and maintaining project schedules.
- Led collaboration with site engineering teams to resolve construction and design challenges, delivering efficient, practical, and cost-effective engineering solutions.
- Supported project leadership by undertaking additional responsibilities as delegated by the Team Leader and Project Manager, contributing to overall project delivery and performance.

Designation	: Structural Engineer
Project	: DASU Hydropower Project (5400 MW) [JV of NIPPON Koi, DOLSAR, DMC, NDC and PES]
Project Cost	: 6.20 billion US\$
Duration	: Nov 2011 – Jun 2015

Key Responsibilities were:

- Analysis, Design & Structural Calculations of Diversion Tunnels on “SAP 2000 version 15” (using EM 1110-2-2901, EM 1110-2-2104 and Building Code ACI 318-08 M) and prepared the structure design report of the component.
- Analysis and design of building components and earth retaining walls.
- Prepared & finalized the Detailed Design drawings of building/ Dam component work.
- Involved in calculating the Quantities of building works, and other components dam like galleries, spillways, tunnels etc.
- Worked on the Construction/ Reinforcement Drawings of building, tunnels, and retaining wall structures.
- Co-ordination with draftsmen in preparation of the design/ construction drawings.
- Assisted in the Preparation of Bidding Documents of different Contracts for Project Colony, Relocation of Karakoram Highway, Re-settlement of Villages and for main works Dams & Powerhouse Contracts.
- Prepared Bid Evaluation Reports to select suitable Contractor/ Bidder by evaluating their qualifications, experience, resources and manpower etc.
- Prepared Monthly and Quarterly Progress Reports for the Contract Section.

iv) Employer	: Associated Consulting Engineers (Pvt.) Ltd.
Designation	: Design/ Site Engineer
Duration	: Dec 2008 – Oct 2011

Key Responsibilities were:

- Feasibility study of Spat Gah (252 MW) Hydropower Project.
- Analysis, Design and Structural calculations of Sub Structures and Super Structures (like underground water tank, multi-storied building) of different projects such as in Kahuta, Mirpur and Multan on “ETABS”.

- Provided technical, on-site inspection of the progress and quality of the construction work performed.
 - Prepared BOQ's and Engineering Cost Estimates of building structures.
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v) **Employer** : **Amin Tariq Associates**
 Designation : Junior Engineer
 Duration : Aug 2008 – Nov 2008

Key Responsibilities were:

- Analysis and design of multistory buildings (like shopping malls and Hospitals) on “Etabs” software (using Building Code Requirements for Structural Concrete ACI 318-08).
 - Quantity Calculation of the designed components.
 - Preparation of BOQ's and Engineering Cost Estimates.
 - Co-ordination with draftsman in preparation of tender and construction drawings.
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EDUCATION:

Name of Institution : **University of Engineering & Technology, Lahore**
 Degree : M.Sc. [Structural Engineering]
 Duration : 2008-2013
 Thesis Title : Application of ISO 9000 Quality Management in Pakistan Construction Industry

Name of Institution : **University of Engineering & Technology, Lahore**
 Degree : B.Sc. [Civil Engineering] with honors
 Duration : 2004-2008
 Thesis Title : Analysis of Akbar Newcastle Pressure-meter Test Data by Full Displacement Method

COMPUTER SKILLS:

1- SAP 2000 v 15	2- ETABS	3- AutoCAD
4- SAFE	5- MS Office	6- SP Structure Point (SP-Column, SP Slab)
