AQSA ZAHID

Academic qualifications

Master in Civil Engineering (ME)

(Specialization: Water Resource Engineering)

2019-2021 NED University of Engineering & Technology

(3.8 CGPA)

Bachelor in Urban & Infrastructure Engineering (BE) 2014 – 2017 NED University of Engineering & Technology (Third Position)

Thesis: "Flood Plain Planning of Lower Sindh by Flood Simulation of River Indus Using MikeShe and HECRAS"

Work experience

1. **NED University of Engineering and Technology**
   Lecturer, (July 2022 to Present)
   Department of Urban and Infrastructure Engineering

2. **Euro Consultants (ECPAK)**
   Wet Utilities Design Engineer (Feb 2022 – July 2022)

3. **AA Associates Pvt Limited**
   Design Engineer, Water Resources (June 2021 – January 2022)

4. **Eijaz Sons International (Private)Limited**.
   Design Engineer, Water Resources
   Department (Feb2020 to March 2021)

5. **Techno Consult International (Pvt) Ltd (Water and Energy Division)**
   Junior Design Engineer (Jan 2018 to Jan2020)

Honors and Awards

- **Third Position (2017)**
  Bachelor of Engineering – Urban Engineering
- **First Position (2016)**
  Urban Day-NEDUET
- **Second Position in St. Joseph's College and 11th Position in Karachi (2013)**
  Kangaroo International Mathematics Competition

Key skills

AREAS OF EXPERTISE

- Hydrologic Modeling
- Hydraulic Modeling & Design of Hydraulic Structures
- Infrastructure Design of Wet Utilities
- Design of Irrigation Systems
- Water Quality Assessment and Modeling

COMPUTER SKILLS

➢ **Hydrologic Modeling**

- HEC-HMS and HEC Geo HMS
- ARCSWAT
- HSPF
- MIKESHE

➢ **Hydraulic Modeling**

- HEC-RAS and HEC Geo-RAS,
- WaterGEMS/SewerGEMS,
- Storm & Sanitary Analysis
- Civil 3D

➢ **Remote Sensing and Geographic Information System (RSGIS)**

- ArcGIS
- QGIS
- Global Mapper

➢ **Others**

- AUTOCAD
- MATLAB,
- Python (beginner)
- Surfer
- Groundwater Vista
- MS Office

PROFESSIONAL AFFILIATIONS

- Institute of Engineers Pakistan (IEP).
- Pakistan Engineering Council (PEC).

CO-CURRICULAR ACTIVITIES

- Won school-level certificates in Badminton competitions
- Member of the Handicraft Society in Federal School and participated in many handicraft competitions.

CONTACT DETAILS

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Publication

- Conference publication on Hydrodynamic Flood Modeling for Kunhar River Basin, Pakistan.

Projects

Digitization of utilities using Remote Sensing and Detailed Design of Sewerage Network

By using QGIS, Global Mapper, and Sewergems, digitized the existing and designed utilities within the project area and designed the sewerage network.

Design Review of Malir Basin Wastewater Interceptors & Treatment Plant (STP-IV) under (S-III)

(Client by: Karachi Water and Sewerage Board – KWSSIP)

Improvement of Water Supply and Sewerage in Ten Additional Low-Income Communities, for Phase – II

(Client: Karachi Water and Sewerage Board – KWSSIP) Detailed engineering design of water and sewerage infrastructure including population projection using PBS and JICA criteria, survey and engineering drawings, and mapping of utilities.

Priority Sewer Network Rehabilitation & Extension and Rehabilitation of Wastewater Pumping Stations

(Client: Karachi Water and Sewerage Board – KWSSIP), Job duties included the identification of sewer hotspots, rehabilitation, and design of the sewerage network.

Hydrological assessment and Design of Culverts, Design of Storm Water Drains, and Sewerage Network

Detailed engineering design of stormwater drains, sewerage network, and culverts in 08 Quetta roads, along with hydrological assessment.

ADB Sindh Roads Project

Hydrological assessment and design of culverts, causeways, and bridges, scouring analysis of bridge and causeway.

Kotky Bridge (Padidan) – Hydrological Assessment of Bridge

Hydrological assessment and modeling of a bridge located at Padidan

Malir Expressway – Design review and hydrological assessment

Design review and hydrological assessment of Culverts and bridges

Design of Urban Drainage Network

Design of drainage network of: Mustaqim dyeing, Style Mangala, Naveena, Premier cement, Nishat Linen

Design Review of the KIV Project

Conducted a detailed hydrologic and hydraulic design review of the KIV water conveyance network.

Hydrologic and Hydraulic Design of HUB Dam Bridge and Nai-Gaj Dam

Modeled the past and present flows of the hub river, river geometric and inundation design, and scouring analysis. Performed the hydrological assessment of the Gaj River for the construction of the Nai-Gaj Dam.

Condition Assessment and Rehabilitation of Existing Water Filtration Plants in Karachi

Conducted a detailed condition assessment of existing Water Filtration Plants in Karachi and designed a proposal for rehabilitation.

Reference

Reference will be available on request.