

# FAHAD ABDULLAH

Assistant Professor

NED University of Engineering and Technology, Karachi, Pakistan

E-mail: [fahadabdullah@neduet.edu.pk](mailto:fahadabdullah@neduet.edu.pk)

Phone (work): +92-21-9926-1261 Ext. 2454

Phone (cell): +92-333-356-5928

---

## Education

Masters of Engineering Management – 3.41/4.0 CGPA (2015)

Discipline: Water Resources

NED University of Engineering and Technology, Karachi.

Bachelors of Engineering - 3.1/4.0 CGPA (2011)

Discipline: Civil Engineering

NED University of Engineering and Technology, Karachi

---

## Professional Experience

### Research Project(s)

**Title:** Development of Geodatabase and rehabilitation of existing stormwater drainage network of Karachi through hydrologic and hydraulic modeling.  
**Year:** 2020-21  
**Client:** Government of Sindh, Pakistan

**Title:** IWRM roadmap for Sindh with a focus on Keenjhar Lake.  
**Year:** 2019-2020  
**Client:** Water Sector Improvement Project (WSIP), Government of Sindh, Pakistan – (Funded by: World Bank)

**Title:** Preparation of Drought Mitigation and Investment Plan for Sindh Province.  
**Year:** 2019-2020  
**Client:** Community Resilience Initiative (CRI)– (Funded by: World Bank)

**Title:** Balochistan Water Resources Development Project – Climate Risk and Vulnerability Analysis Report.  
**Year:** 2018-2019  
**Client:** Techno-Consult International – (Funded by: Asian Development Bank)

**Title:** Hydrologic assessment for the feasibility study of rail link from Quetta to Kotla Jam (538 Kms) updating of existing feasibility study & feasibility study of up-gradation of existing railway line from Rohri to Kohi Taftan via Quetta, including the realignment of Sibi spezand section (1022 Kms).  
**Year:** 2018-2019  
**Client:** Spectra Engineering Solutions – (Funded by: Pakistan Railway)

**Title:** Hydrologic Modeling of Zhob and Mulla River watersheds for observed and projected climate conditions.  
**Year:** 2017-2018  
**Client:** Techno-Consult International – (Funded by: World Bank)

---

## Core Courses

- Sustainable water resources management
- Water quality management
- Irrigation system design and management

### Extra Course(s)

- Hydro climatology

---

## Research Interests

- Climate Change
- Climate Modeling
- Remote sensing and GIS
- Watershed Management
- Hydrology
- Hydrologic modeling
- Hydraulic modeling
- Flood assessment
- Drought assessment
- Flood mitigation
- Drought mitigation
- Irrigation and drainage
- Sea water intrusion
- Water distribution

## Software

### RS/GIS

- ArcGIS
- QGIS
- Global Mapper
- Basins
- ENVI
- Erdas Imagine
- Google Earth Engine

### MODELING

- HSPF
- Arc SWAT
- HEC-RAS
- HEC-GeoRAS

### COMPUTATIONAL TOOLS

- Python
  - MATLAB
  - R
-

---

Title:	Flood Inundation modelling and vulnerability analysis for the city of Karachi.
Year:	2014-2015
Client:	Community Resilience Initiative (CRI) – (Funded by: World Bank)
Title:	Flood Inundation modelling and mitigation strategies for the city of Islamabad.
Year:	2014-2015
Client:	Network of Disaster Management Practitioners (NDMP)
Title:	Hazard analysis and flood Inundation modelling for Quetta city.
Year:	2014-2015
Client:	Community Resilience Initiative (CRI) – (Funded by: World Bank)
Title:	Hydrologic assessment of Naval Anchorage (Residential scheme) at Gawadar.
Year:	2017-2018
Client:	PROMAG – (Funded by: Pakistan Navy (PN))
Title:	Surface and Ground water quantity and quality analysis for Lahore city.
Year:	2017
Client:	Soil Testing Services (STS)
Title:	Ground water disposal studies at Thar Coal Mine.
Year:	2014
Client:	Sindh Engro Coal Mine Company (SECMC)
Title:	Hydrologic modelling and flood inundation modelling for Gadap Town Disaster Risk Management Plan.
Year:	2013-2014
Client:	UN HABITAT

---

### **Publication(s) and Research Work(s)**

- Ahmed, Syed Imran, Areba Syed, **Syed Muhamad Fahad Abdullah**, and Shoaib Ahmed. (2016). *Assessment of Floods and Hazard Analysis for the City of Karachi Using Simulation Models*. In 8<sup>th</sup> International Civil Engineering Congress, p. 271.
- Syed A., **Syed M. F. Abdullah** and Syed I. Ahmed. (2014). *Climatic Trends in Three Coastal Hubs of South Asia*. Conference on Climate Change Adaptation Coastal Areas of Pakistan. May 2. Karachi, Pakistan

### Master's Thesis

*Modeling impacts of climate change on integrated water resources management of Hub Dam.*

### Bachelor's Research Project

*Establishing Trip Rates and Parking Ratios for Selected Land use and Socio Economic Zones of Karachi.*

### Other Research Work(s)

- Climatic trends analysis for 5 major cities of Pakistan.
  - Assessing the reliability & use of climate models for the southern arid regions of Pakistan.
  - Profiling ground water of selected areas of Karachi.
  - A GIS based appraisal of groundwater quality along Lyari river.
-

---

## Employment History

- (Mar. 2018 – Till date) **Assistant Professor**  
Department of Urban and Infrastructure Engineering  
NED University of Engineering and Technology, Pakistan
- (Nov. 2017 – Mar. 2018) **Visiting Teacher**  
NED University of Engineering and Technology, Pakistan
- (Jul. 2015 – Feb. 2018) **Research Associate**  
Water Resources Engineering and Management  
NED University of Engineering and Technology, Pakistan
- (Jul. 2013 – Jun. 2015) **Research Assistant**  
Water Resources Engineering and Management  
NED University of Engineering and Technology, Pakistan
- (Feb. 2012 – Jul. 2013) **Site Engineer** (S. K. Construction)

### Other Teaching and Knowledge Dissemination Work Experience

- (Sep. 2016 – Dec. 2017) **Teachers' Trainer and Sales Executive**  
EDLAB Pakistan
- (Feb. 2016 – Sep. 2016) **Project Director for Mathlers Showdown 2016**  
Mathlers (Mathlers Educational Society)
- (Mar. 2014 – Feb. 2016) **Students' Counsellor and Science Teacher**  
The SET School

## Teaching Course(s)

### Theory

- Fluid Mechanics (UE-214)
- Geo-informatics (UE-207)
- Urban Hydrology and Municipal Engineering (UE-320/323)
- Hydraulic Engineering and Water Resources Management (UE-418)

### Practical

- Hydraulics Engineering and Water Resources Management
- Fluid Mechanics

## Interests

- Research
- Teaching
- Engineering
- Reading
- Travelling
- Socializing
- Sports

---

## Certificate(s), Course(s), Workshop(s)

Title	Course on Remote Sensing and GIS Applications to Land Administration
Organizer	National Center of Remote Sensing and Geo Informatics (NCRG, IST Karachi campus)
Duration	5 days (02-06 December, 2019)
Venue	NCRG, IST Karachi campus, Karachi

Title	Postgraduate Courses on Introduction to Remote Sensing and GIS
Organizer	National Center of Remote Sensing and Geo Informatics (NCRG, IST Karachi campus)
Duration	16 Weeks (October 2019 to January 2020)
Venue	NCRG, IST Karachi campus, Karachi

Title	IST-KIU Training workshop on Climate and Hydrological Modeling for Climate change impact assessment on Water Resources
Organizer	Institute of Space Technology (IST, Islamabad) and Karakoram International University (KIU, Gilgit)
Duration	10 days (July 22-31, 2019)
Venue	Karakoram International University, Gilgit, Pakistan

Title	A Comprehensive Course For Professionals In Water Sector on Water Law
Organizer	Panjwani-Hisaar Water Institute (PHWI, NEDUET, Karachi)
Duration	5 days (30 August – 3 September, 2019)
Venue	NED University of Engineering and Technology, Karachi

---

## Societies and Affiliations

### Professional

- IGS Pakistan Chapter
- Pakistan Engineering Council (PEC)
- Institute of Engineers' Pakistan (IEP)
- Water Modeling Center (WMC) at NEDUET

### Social

- Green Society, NEDUET
  - MATHLERS (Mathlers educational society) (Co-Founder & President: since December, 2013 till date)
  - TIPS Foundation
  - Saran Education Trust (Trustee, member executive committee, chair/convenor school management committee)
  - Holding Hands (HH)
  - National Welfare and Education Trust (Co-Founder of one of the chapters)
  - Hashmians (School alumni)
-

---

Title	2-day workshop on Climate Change Mitigation and Adaptation
Organizer	Department of Civil Engineering, NEDUET
Duration	2 days (November 2016)
Venue	NED University of Engineering and Technology, Karachi

Title	Certificate course in MS-Project
Organizer	NED University
Duration	5 days (December, 2011)
Venue	NED University

---

## Volunteer Work

- Organized **Water Day 2013, 2014, and 2015** held at NED University of Engineering & Technology, Karachi.
- Organizer of 2 day workshop on “**Climate change mitigation/adaptation**” at Department of Civil Engineering, NED University of Engineering & Technology, Karachi.
- Organizer of Mathlers’ annual **Mathlers Showdown** at various less-privileged areas of Karachi (2013 till 2016).
- Teachers’ Trainer at **EDLAB Pakistan** (January 2016 – June 2018).
- Regular engagements in the activities of affiliated societies like **TIPS Foundation, Holding Hands, Saran Education Trust** (for The SET School) and **National Welfare and Education Trust (NWET)**.
- Active and one of the founding members of School alumni, **The Hashmians**.
- Helped organizing Alumni Association at The **SET School**.

## References

### ***Dr Syed Imran Ahmed***

Professor,  
Department of Civil  
Engineering,  
NED University of  
Engineering and  
Technology, Karachi,  
Pakistan.

[imranahmed@neduet.edu.pk](mailto:imranahmed@neduet.edu.pk)

### ***Dr Mujtaba Hassan***

Assistant Professor,  
Geospatial Research and  
Education Lab,  
Institute of Space  
Technology, Islamabad,  
Pakistan.

[mujtaba@mail.ist.edu.pk](mailto:mujtaba@mail.ist.edu.pk)