

Tatheer Zahra

Lecturer, Civil Department
NED University of Engineering & Technology,
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Education and Honors

- a. **M.E. Structural Engineering**
NED University of Engineering and Technology, Karachi, 2012 CGPA: 3.85
- b. **B.E. Civil Engineering**
NED University of Engineering and Technology, Karachi, 2000 1st Division,
90.5%

Professional Affiliation

- a. Member of Pakistan Engineering Council (PEC)
- b. Member of Pakistan Chapter ACI

Provisional Certifications

- a. Lead Auditor Course ISO 14001
- b. Effective Teaching Practices from Higher Education Commission

Research Projects

- a. **Constitutive Modeling of Concrete subjected to Multiaxial Stress State using Damage Mechanics:**
Modification of software coded in FORTRAN (developed by Prof. Dr. Asad ur Rehman Khan) to trace behavior of concrete under triaxial stresses due to confinement and proportionate and non-proportionate loading.
- b. **Numerical Technique to perform Non-Linear Analysis of Reinforced Concrete Flexural Members:**
MATLAB based program which provide non-linear behavior of RCC flexural members by tracing moment – curvature curves, movement of neutral axis etc.
- c. **Software Development for Two Dimensional Analysis of Frames:**
FORTRAN based program which analyze beams and single bay frames.
- d. **Comparative Analysis of a High Rise Building**
A high rise building analyzed for a differing seismic zone, use of high strength concrete in columns, and use of light weight concrete in slabs and beams.

Experience as a University Lecturer

- a. Designing and conducting lectures of Mechanics of Solids, Advanced Mechanics of Solids, Engineering Drawing, Structural Analysis, Design of Structures, and Reinforced Concrete Design.
- b. Conducting lab sessions of material testing and AUTOCAD.
- c. Advising students on academic and related matters.
- d. Attending departmental and faculty meetings, conferences and seminars.
- e. Supervising research projects of undergraduate students.

Employment History

a. Professional Development in Education

i. NED University of Engineering and Technology Karachi (Jan 12 to date)

1. University Lecturer
2. Workshop Organizer - Organized workshop on ACI 318-11 Building Code
3. Geology Lab Incharge

ii. Sir Syed University of Engineering and Technology Karachi (Jul 07 to Jan 12)

1. University Lecturer
2. Graduate Advisor
3. Computer Lab Incharge

b. Professional Development in Structural Designing

AA Associates Consulting Engineers Karachi (Apr 2000 to Dec 2003)

1. Designing of pre-stressed Concrete Bridge (Northern Area Pakistan)
2. Detailing of Retrofitting drawings of 05 Steel Bridges (California, USA)
3. Designing of Connections of Steel industrial building and detailing of shop plans (Saudi Arabia)
4. Designing of Formwork and support systems for casting of Bridge Girders (Lyari Express Way Karachi)