

RESUME

Contact

Name: Ali Koohsari
E Mail: Ali.koohsari@gmail.com
Web page: <http://alum.sharif.edu/~koohsari>
Date of birth: August 23, 1984
Marital status: Married
Phone: +98 9112729640 +94 722246891
Address: New Andishe City, Tehran, Iran



Research interest & Skills

Software Design

HUIA: Geological Software
A2I3D: Software that import model geometry from Abaqus to Flac3D & 3DEC
BRDDesign-PCF: Software that Analyze and Design Blast Resistant Door
FESOIL: General FE software for structural and geotechnical analysis (under design)
TBM-M1685: Software that visualizes and analyzes data of TBM monitoring

Geotechnical Structures Modeling & Design

Tunnel: in rock or soil ground condition
Slope: in rock or soil ground condition
Pile & Micro pile, Foundations, etc.

Seismic Hazard analysis

DSHA, PSHA, UHS (Ref. to www.alum.sharif.edu/~koohsari/resume.html)

Modeling of Inelastic Solids & Structures

Anti-Explosion Doors
Geotechnical Structures
Water Moving

Slope Stability Analysis

Nailing and rock bolt
Retaining Wall and Other Methods

Development of UMAT for ABAQUS finite Element Package

Hoek-Brown (John Clausen)
Mohr-Coulumb (John Clausen)
Drucker-Prager

Concrete & Steel Structures Design & Modeling

Industrial and Residential Steel structure, Bridge, Pedestrian Bridge
Residential Concrete structure, Bridge

ARM Microcontrollers

Work on LPC series (LPC17xx, LPC21xx) ARM microcontrollers

Technical Skills

Programming Languages

- FORTRAN
- Python
- Visual Basic
- Advanced in C++
- Familiar with HTML & Java Script
- Familiar with BATCH programming

Design, Modeling & Graphics Software

- AutoCAD (2D & 3D)
- Civil 3D
- SAP 2000
- PLAXIS 2D, 3D
- Geo Office Software
- Roc Science Software
- FLAC 3D
- 3DEC

Finite Element Analysis Software

- Abaqus
- Ansys

Microcontroller related Software

- KEIL
- Proteus

Other Software

- Familiar with MSP Software
- Public Softwares

Commercial Developed Software

- A2I3D
- TBM-M1685

Education

2007-2009:

M.S. Civil Engineering Department (Geotechnical Engineering), Sharif University of Technology, Tehran, Iran, Thesis Title: "Investigation of group pile behavior under lateral loads in clayey soils"

2002-2006:

B.S. Civil Engineering Department, Mazandaran University (Babol Noshirvani University of Technology), Babol, Iran

2002:

Diploma in Mathematics & Physics, Motahari High School, Azadshahr, Golestan, Iran

Work Experiences

January 2014 – Present:

- 1 Parhoon Tarh Co.: Full time job in Technical Office in **Uma Oya Multipurpose Development project**. There are two separate project in the site; A TBM Hard rock tunnel, and A Drill & Blast tunnel. This huge project is located in **Sri Lanka**, a power house dam in which some famous company such as Herrenknecht, Amberg, Poyry, Farab, Mahab Ghodss and Parhoon Tarh are working.
 - Providing method statement of the blasting for blasting tunnel. Preparing and design of blast pattern for the tunnel and Valve chamber.
 - Providing method statement of the TBM double shield (rolling stock, segment repair, segment installation, rail installation, TSP for geology production)
 - Monitoring the Double shield machine and preparing the performance report for the Amberg Engineering. Write and develop individual software (**TBM-M1685**) by Python programming language to view, plot, and analysis the TBM data.
 - Providing the shotcrete and mesh support design and execution for the huge cavern and 1000 meter tunnel
 - Checking and approving the geological map that prepared by the geologists.
 - preparing the invoice document for the TBM and Blasting method for the Amberg and Poyry Engineering.

February 2013 – January 2014:

- 1 Parhoon Tarh Co.: Full time job in Steel Structure Workshop. Construction of Hydraulic structures of **Shah wa Aroos dam in Afghanistan**, and Construction of **Takhti Station** steel structures of **Isfahan Metro**. Provide method statement to build the most sensitive hydraulic steel structures of the dam. At now, this equipment has been installed in Afghanistan as well.
- 2 GMP Co.: Design & Construction supervision of Blast Resistant Steel Structures. Design unique bullet resistant door and blast resistant wall for japan embassy in Tehran.

February 2012 – April 2013:

- 1 Parhoon Tarh Co.: Part time job: Design & Construction Supervision of Blast Resistant Doors for **Phase 13 Asaluyeh**, Iran. This doors accepted by “Nargan Co.” and “POGC Co.” as well. At now, these doors have been installed in Phase 13 Asaluyeh. Number of the doors was 99, with three types. (Type 1: 1x2.1m, type 2: 2x2, and type 3: 3x3m) Abaqus, Ansys and AutoCAD were the most important soft wares that have been used.
- 2 Designer of Blast resistant steel Structures of “PIDMCO”, Shiraz, Iran. Design and built of these doors were exactly after the above doors (Phase 13 Asaluyeh) with the different dimension (2x3m). Based on these experiences, I write and develop individual software (**BRDDesign-PCF**) for design of blast resistant doors by Python programming language. This is graphical software that can design and check Blast doors.

February 2010 – April 2013:

- 1 Ghaem Construction Base: Full time job in the Consulting Engineers group at Technical section of Ghaem Construction Base: Designer of Structures and tunnel structure for “Iran Army Air Force”. This project was one of the hugest projects that have been done. A tunnel and a big trench in tunnel portal have been design. AutoCAD, Civil3D, Abaqus, FLAC3D, Phase2, 3DEC were most important soft wares that have been used for design of the mentioned project.
 - Consideration and Select position of the tunnel site with corporation of the passive defense in Army air force.
 - Consideration and corporation for preparing geological map of the project site.
 - Consideration and Design road and trench to the tunnel portal (phase I, II).
 - Seismic hazard analysis for project site and report seismic hazard of the site.
 - Design and draw mobilization buildings.
 - Preparing method statement for excavation of the trench and preparing drawings (phase II and III)
 - Preparing method statement for excavation of the tunnel and preparing drawings (phase II and III)
 - Design of the final lining of the tunnel against seismic hazard and blasting, and preparing the drawings (phase II and III)
 - Designer of Excavation Support. Support of tunnel and trench has been design and model by above mentioned soft wares.

Based on this experience, I write and develop software (**A2I3D**) by python programming language that can transmit models from Abaqus to Flac3D and 3DEC. At now, this software is commercial software, and can be ordered and bought by everyone.

February 2007 – January 2010:

- Designer of Industrial and Residential Steel structures in Tehran & Karaj. Design the regular building up to 8 stories.
- Designer of Pedestrian Bridge in Tehran & Mashhad. Design a pedestrian bridge in Tehran (Tehran Pars) for GMP Co and another one in Mashhad.
- Tehran Metro Line 1, “**Shariati Station**”, settlement analysis & determination of cement injection radius. Modeling and Analysis of the “Shariati station” has been done by Abaqus and FLAC3D as well.

References

Ali Koohsari

<http://alum.sharif.edu/~koohsari>

Dr. Ali Pak

Professor, Civil Engineering Department, Sharif University of Technology

Personal page: <http://sharif.edu/~pak>

Dr. Mohammad Hossein Sadaghiani

Associate Professor, Civil Engineering Department, Sharif University of Technology