

## Section 4 - Curriculum Vitae of Hamed Khezzzadeh



### Personal Information:

Family name, Name: **Khezzzadeh Hamed**

Date of Birth: **23/09/1981**

### Scientific Publications in Peer Reviewed Journals

Jarrah, M., **Khezzzadeh, H.**, Mofid, M. and Jafari, K., Experimental and numerical evaluation of piston metallic damper (PMD). *Journal of Constructional Steel Research*, **154**: 99-109, 2019.

**Khezzzadeh H.**, A statistical micromechanical multiscale method for determination of the mechanical properties of composites with periodic microstructure, *Composites Part B: Engineering*, **115**:138-143, 2017.

**Khezzzadeh H.** Overall properties of particulate composites with fractal distribution of fibers, *Mechanics of Materials*, 96: 1-11, 2016. doi:10.1016/j.mechmat.2016.01.014

**Khezzzadeh, H.**, Wnuk, M.P., and Yavari, A., Influence of material ductility and crack surface roughness on fracture instability. *Journal of Physics D: Applied Physics*, **44**:395302, 2011.

Yavari, A., and **Khezzzadeh, H.**, Estimating terminal velocity of rough cracks in the framework of discrete fractal fracture mechanics. *Engineering Fracture Mechanics*, **77**:1516–1526, 2010.

**Khezzzadeh, H.**, and Mofid, M., Interpretation of tensile softening in concrete, using fractal geometry. *Scientia Iranica*, **15**(1):8-15, 2008.

Rasekh, A., Mofid, M., and **Khezzzadeh, H.**, On the effect of large deflection on nonlinear behaviour of an eccentric bracing system. *The Structural Design Of Tall and Special Buildings*, **17**(4):795-808, 2007.

**Khezzzadeh, H.**, and Mofid, M. Tensile fracture behavior of heterogeneous materials, based on fractal geometry. *Theoretical and Applied Fracture Mechanics*, **46**:46-56, 2006.

Jafari H., and **Khezzzadeh, H.**, Analytical study of steel-FRP bridges

vibration subjected to moving mass, *Modares Civil Engineering Journal*, 2018, *Accepted* (In Persian).

**H. Khezzadeh**, Geometrical method for determination of mechanical properties of particle reinforced composites, *Modares Mechanical Engineering*, **16**(3): pp. 202-210, 2016 (in Persian)

**International Scientific Conferences**

**Khezzadeh, H.**, A statistical micromechanical multiscale method for determination of the mechanical properties of composites with periodic microstructure, *2016 International Workshop on Multiscale Innovative Materials and Structures (MIMS16)*, 28-30 October, 2016. Salerno, Italy.

**Khezzadeh, H.**, and Mofid, M. New method in characterizing tensile softening procedure in concrete. In: *Proceedings of the Sixth International Structural Engineering and Construction Conference (ISEC-6)*, 21-26 June, 2011. Zurich, Switzerland.

**Education**

**Sharif University of Technology**, Tehran, Iran

**Ph.D.**, Mechanics of Structures and Materials, (23/09/2006-26/02/2012)

- Thesis Topic: *Stable and Unstable Growth of Fractal Cracks*
- Advisors: Professor Massood Mofid and Professor Arash Yavari (Georgia Institute of Technology)
- Area of Study: Fracture Mechanics

**M.Sc.**, Mechanics of Structures and Materials, (23/09/2003-21/11/2005)

- Thesis Topic: *On the Study of Heterogeneous Materials Behavior Subjected to Tensile Stresses, Using Fractal Geometry*
- Advisor: Professor Massood Mofid
- Area of Study: Mechanics of Materials

**B.Sc.**, Civil Engineering, (23/09/1999-22/09/2003)

**Current Position**

**Assistant Professor of Structural Engineering** (12/02/2014- Now)  
Faculty of Civil and Environmental Engineering, Tarbiat Modares University, Tehran, Iran

**Previous Positions**

**Adjunct Professor of Structural Engineering** (23/09/2012-12/02/2014)  
Faculty of Civil and Environmental Engineering, Tarbiat Modares University, Tehran, Iran

**Graduate Course Teacher** (23/09/2007-10/02/2009)

Mahan Institution, Andishe Parsian Institution.

Teaching courses: Engineering Mathematics, Theory of Elasticity, Theory of Plates and Shells, Dynamics of Structures.

**Design Designer** (02/09/2005-10/06/2007)

Niroo Research Institute (Research Center of Ministry of Energy)

Design Engineer for HV substation evaluation and rehabilitation projects (8 400KV substations)

**Construction Manager** (11/11/2007-11/09/2010, 06/03/2014-11/07/2017)

Construction manager in two EPC (Engineering-Procurement-Construction) building projects in Tehran province

**Design Engineer** (09/11/2009-Now)

Professional Licenced Engineer from the Ministry of Roads & Urban Development (Tehran province), Head of Parseh Design and Supervision Office

Design Projects:

- 1- Sasan Tower (100m height from base over 30000 square meters)- Velenjak, Tehran
- 2- Diamond Tower (60m height from base over 15000 square meter) with triangular structure, Dolatabad Tehran
- 3- Dozens of commercial and residential buildings (total of over 1,000,000 square meters of gross building area)

**Personal Advisor to the Mayor** (10/09/2008-25/09/2009)

Pakdasht Municipality advisor in construction projects

**Design Engineer** (06/09/2009-06/12/2009)

Design Engineer of HV power transmission towers

**Supervision of Graduate Students** **Tarbiat Modares University**

Pouya Fatehi (MSc Structural Engineering, 11/09/2017-Now)

Topic: Damage detection in FRP composite decks by using Piezoelectric sensors (MSc thesis)

Sara Hajizadeh (MSc Earthquake Engineering, 11/09/2017-Now)

Topic: A Hybrid SMA-Elastomer seismic damper (MSc thesis)

Taher Hassan Najjar (MSc Structural Engineering, 11/09/2017-Now)

Topic: Environmental effects of replacing common building floors with FRP decks (MSc thesis)

Helda Pahlevani (PhD Structural Engineering, 23/09/2017-03/02/2018)

Topic: Mechanical metamaterials and theirs applications (PhD seminar I)

Saleh Ahmadi Soleimani (PhD Structural Engineering, 03/02/2017-05/07/2017)

Topic: Vibration-based damage detection (PhD seminar II)

Hamed Jafari (MSc Structural Engineering, 04/02/2015-10/05/2017)

Topic: Effect of moving mass on FRP decks (MSc thesis)

Samad Noorani (MSc Structural Engineering, 04/02/2015-01/01/2017)

Topic: SMA-Elastomer cover for retrofitting of concrete beam (MSc thesis)

**Sharif University of Technology**

Ali Sadrara (MSc Structural Engineering jointly supervised with Professor M. Mofid) (04/02/2015-14/07/2016)

Topic: Analytical-numerical analysis of hybrid steel-FRP floor decks (MSc

thesis)

Kamal Shaker Ardakani (MSc Structural Engineering jointly supervised with Professor M. Mofid) (04/02/2015-15/01/2017)

Topic: A damage model of media containing rough cracks (MSc thesis)

Majid Jarrah (MSc Earthquake Engineering jointly supervised with Professor M. Mofid) (04/02/2015-14/01/2017)

Topic: Experimental and numerical evaluation of piston metallic damper (PMD) (MSc thesis)

**Major Collaborations** School of Civil and Environmental Engineering, Georgia Institute of Technology, USA; Professor Arash Yavari

Department of Civil Engineering and Mechanics, University of Wisconsin – Milwaukee, USA; Professor Michael P. Wnuk

Department of Civil Engineering, Center of Excellence in Structures and Earthquake Engineering, Sharif University of Technology, Iran; Professor Massood Mofid

Civil Engineering Department, University of British Columbia, Canada; Dr. Ali Rasekh

Topics: Dynamic Fracture, Subcritical Growth of Cracks, Ductile Damage, Seismic Dissipation Devices, Mechanics of Materials,

**Honours and Awards** Highly Talented Students Fellowship, 2007–2009  
Research Assistant Fellowship, 2008-2010  
National Elites Foundation Award 2011  
ACI Nationwide Student Concrete High Strength Cube Competition Award 2001  
Ranked 1st in scientific and theoretic competition in the 3rd Nationwide Civil Engineering Students Festival 2003

**Technical Skills and Competences** **ICDL skills**  
MS Word, MS Excel, MS Powerpoint, CorelDRAW, WinEdt, TexStudio, Adobe Acrobat

**FE Softwares**  
Abaqus, Ansys, COMSOL Multiphysics

**Mathematical Softwares**  
Mathematica, Matlab

**Engineering Softwares**  
CSI Sap2000, CSI Etabs, CSI Safe, CSI Section Builder, AutoDesk AutoCad

**Hotspots** Infrastructure, structural engineering, micromechanics of defects, fracture mechanics, dynamics fracture, mechanics of composite materials, seismic dissipation devices, innovative materials, moving mass