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# Hamid FARROKH GHATTE

**Current Position:** Assistant Professor Civil Engineering Department, Faculty of Engineering, Antalya Bilim University, Antalya, Turkey. <u>https://antalya.edu.tr/en/academic-staff/college-of-engineering/hamid-farrokh-ghatte</u>

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Google Scholler: https://scholar.google.com/citations?user=LGxFyo4AAAAJ&hl=en&oi=ao

Scopus:

https://www.scopus.com/authid/detail.uri?authorId=57217443956

## **Education (Academic Qualifications):**

Degree	Department/Program	University	Year	Country
BSc	Civil Engineering	Tabriz University	1999	Iran
MSc	Structural Engineering	Shahid Bahonar University	2006	Iran
PhD	Structural Engineering	Istanbul Technical University	2016	Turkey

Ph.D., Civil Engineering, Dept. of Istanbul Technical University, Istanbul, Turkey, 2010-2016.

Thesis: "Seismic Retrofitting of Rectangular RC Columns through CFRP Jacketing and External Steel Ties."

Supervisor: Prof. Dr. Alper Ilki, email address: ailki@itu.edu.tr

M.Sc., Civil Engineering, Dept. of Shahid Bahonar University, Kerman, Iran, 2003-2006. Thesis: "Experimental and Theoretical Investigation of Self-Compacting Concrete Joints."

Supervisor: Prof. Dr. Ali Akbar Maghsoudi



## Work Experience:

#### Assistant Professor

Civil Engineering Department, Faculty of Engineering, Antalya Bilim University, Antalya, Turkey. September 2018 https://antalya.edu.tr/en/academic-staff/college-of-engineering/hamid-farrokh-ghatte

#### Assistant Professor

Civil Engineering Department, Faculty of Engineering, Technical and Vocational University (TVU), Iran. October 2016 – August 2018 <u>https://tvu.ac.ir/en</u>

#### Chair of Civil Engineering Department

Civil Engineering Department, Faculty of Engineering, Technical and Vocational University (TVU), Iran. October 2016 – August 2018 <u>https://tvu.ac.ir/en</u>

### • MS Students Coordinator at Civil Engineering department

Faculty of Engineering, Antalya Bilim University, Antalya, Turkey. September 2018

#### Head of Civil Engineering Laboratories

Faculty of Engineering, Antalya Bilim University, Antalya, Turkey. September 2018

#### • Advising students in course /career planning and fulfilling graduation requirements

- A) Civil Engineering Department, Faculty of Engineering, Technical and Vocational University (TVU), Iran. October 2016 – August 2018
- **B**) Civil Engineering Department, Faculty of Engineering, Antalya Bilim University, Antalya, Turkey September 2018

https://antalya.edu.tr/en/academic-staff/college-of-engineering/hamid-farrokh-ghatte

### Research Assistant

Structural and Earthquake Engineering Laboratory, Istanbul Technical University, Istanbul, Turkey. http://istanbultek.academia.edu/Departments/Structural and Earthquake Engineering Lab

Supervisor: Prof.Dr. Alper Ilki

February 2010 – October 2016

#### • Project Manager Assistant, ISTKA:

The first full-scale field test of the ITU-ISTKA Project on seismic performance of existing sub-standard reinforced concrete buildings was completed on 26-27 July 2014. http://m.youtube.com/watch?v=5ch2\_1q\_YN4

#### •Project Assistant, TUBITAK:

Seismic Retrofitting of Rectangular RC Columns by Using CFRP Jacketing and Steel Anchorages (TUBITAK 1002 – HIZLI DESTEK PROGRAM) March 2011-October 2012 Fwd: FW: 111M431 http://www.tubitak.gov.tr/en

#### Research Assistant

University of Ljubljana and coworker of projects in The Slovenian National Building and Civil Engineering. September 2014 – July 2015 http://www.heromat.com/consortium/zag

### •Project Engineer and Supervisor

Organization for Development, Renovation, and Equipping Schools of Iran. March 2006 – October 2009 http://new.dres.ir/en

#### •Research Assistant

Structural and Earthquake Engineering Laboratory Shahid Bahonar University, Iran Supervisor: Prof. Dr. A.A Maghsoudi October 2003 - March 2006 http://uk.ac.ir/en/home

### •Project Engineer and Supervisor

Iranian Construction Engineering Organization - Urmia, Iran. March 1999- 2018 Membership No: 14-0-3-02870 Field: Civil Engineering Level: First Grade

### **Teaching Experience and Universities:**

Civil Engineering Department, Faculty of Engineering, Technical and Vocational University, Urmia, Iran.

Civil Engineering Department, Faculty of Engineering Urmia University, Urmia, Iran. Civil Engineering Department, Faculty of Engineering Urmia Azad University, Urmia, Iran. Civil Engineering Department, Faculty of Engineering Aeine Kamal University, Urmia, Iran. Civil Engineering Department, Faculty of Engineering, Antalya Bilim University.

# Given Courses (Undergraduate Program):

Subject	Language
Statics	English/Persian
Strength of Material	English/Persian
Concrete Technology	English/Persian
Reinforced Concrete Structures I and II	English/Persian
Computer-Aided Design	English
Computer-Aided Structural Design	English
Dynamic of Structures	English/Persian
Rehabilitation and Retrofitting of the Structures	English/Persian
Senior Project	English/Turkish/Persian

## Given Courses (Postgraduate Program):

Subject	Language
Advanced Reinforced Concrete Structures	English/Persian/Turkish
Finite Element Methods	English/Persian
Advanced Dynamic of Structures	English/Persian
Advanced methods for Retrofitting and Rehabilitation of Structures	English/ Turkish
Natural Disasters and Structures (Opened for the first time at ABU)	English/Turkish
MS Thesis	English/Turkish

## **International Reviewed Journal Papers:**

- 1) Farrokh Ghatte Hamid, Comert M, Demir C., Ilki A "Evaluation of FRP Confinement Models for Substandard Rectangular RC Columns Based on Full-Scale Reversed Cyclic Lateral Loading Tests in Strong and Weak Directions." Polymers 2016, 8(9), 323; doi:10.3390/polym8090323.
- 2) Farrokh Ghatte Hamid, Comert M, Demir C., Ilki A "Seismic Performance of Full-Scale FRP Retrofitted Substandard Rectangular RC Columns Loaded in the Weak Direction." Applied Mechanics and Materials, Vol. 847, pp.347-353, 2016.
- 3) Farrokh Ghatte Hamid, Comert M, Demir C., Akbaba, M, Ilki A. (2019) "Seismic Retrofit of Full-Scale Substandard Extended Rectangular RC Columns through CFRP Jacketing: Test Results and Design Recommendations" <u>Journal of Composites for</u> <u>Construction, 23(1), 04018071.</u>
- 4) Farrokh Ghatte, Hamid. (2020) "External steel ties and CFRP jacketing effects on seismic performance and failure mechanisms of substandard rectangular RC columns" <u>Composite Structures Volume 248, 15 September 2020, 112542.</u>

https://doi.org/10.1016/j.compstruct.2020.112542.

- 5) Gholizadeh, S., Hassanzadeh, A., Milani, A. et al. "On the seismic collapse capacity of optimally designed steel braced frames" Engineering with Computers (2020). https://doi.org/10.1007/s00366-020-01096-7
- 6) Shahmansouri, A. A., Yazdani, M., Ghanbari, S., Bengar, H. A., Jafari, A., & Ghatte, H. F. (2020). Artificial neural network model to predict the compressive strength of eco-friendly geopolymer concrete incorporating silica fume and natural zeolite. <u>Journal of Cleaner Production Volume 279, 10 January 2021, 123697</u>.
- 7) Ghatte, H. F. (2020). Failure mechanisms and cracking performance of T-shaped SCC beam-column connections at top floor: Test results and FE modeling. <u>Structures</u> <u>Volume 28, December 2020, Pages 1009-1018</u>
- 8) Ghatte, H. F. (2020). Farrokh Ghatte, H. A Hybrid of Firefly and Biogeography-Based Optimization Algorithms for Optimal Design of Steel Frames. Arab J Sci Eng (2020).<u>https://link.springer.com/article/10.1007/s13369-020-05118-w</u>
- 9) Shahmansouri, A. A., Yazdani, M., Hosseini, M., Bengar, H. A., & Ghatte, H. F. (2022). The prediction analysis of compressive strength and electrical resistivity of environmentally friendly concrete incorporating natural zeolite using artificial neural network. <u>Construction and Building Materials</u>, 317, 125876.
- 10) Adibi, M., Talebkhah, R., and Ghatte, H. F. (2023). Seismic reliability of precast concrete frame with masonry infill wall. <u>Earthquakes and Structures, Volume 24,</u> <u>Number 2, February 2023, pages 141-153</u>

# National Reviewed Journal Papers:

 1) Farrokh Ghatte, Hamid. (2019) "Evaluation of Reinforcing Bars Ratio Effects on SCC Beam-Column Joint Performance" <u>Uludağ University Journal of The Faculty of</u> <u>Engineering, 24 (3), PP 141-152, 2019.</u>

## International and National Conference Papers:

- 1) Maghsoudi, A.A. and FARROKH GHATTE, H., "Ductility and Ultimate State Investigation of Self Compacting Concrete Joints." 1st International Congress on Seismic Retrofitting, 25-27 April 2006, Iran Tehran.
- 2) FARROKH GHATTE, H, and, Maghsoudi, A.A. "Experimental and Theoretical Investigation of Self Compacting Concrete Joints." ICCEIE 2012: International Conference on Civil, Environmental and Infrastructure Engineering Paris, France November 28- 29, 2012.
- ➢ 3) GOLBANDI, Hamid, and, FARROKH GHATTE, Hamid. "Seismic Performance Evaluation of the Structural System Consisting of RC Columns and Shear Walls of an Eight Story Building." ICCEIE 2012: International Conference on Civil,

Environmental and Infrastructure Engineering Paris, France November 28 -29, 2012.

- A) COMERT Mustafa, DEMIR Cem., FARROKH GHATTE Hamid and Ilki Alper "Seismic Performance of Full-Scale FRP Confined Sub-Standard Columns Subjected to High Axial Load." The 7th International Conference on FRP Composites in Civil Engineering, International Institute for FRP in Construction, August 20-22, 2014, Vancouver, British Columbia, Canada.
- 5) FARROKH GHATTE Hamid, COMERT Mustafa, DEMIR Cem and ILKI Alper "Performances of FRP Confinement Models for Predicting the Behavior of Full-Scale FRP Retrofitted Columns under Simulated Seismic Actions." APFIS-2015, Joint Conference, 14-16 December 2015, Nanjing, China.
- 6) FARROKH GHATTE Hamid, HAMIDI Peyman, CHARBGO Tohid "Evaluation of retrofitting methods and seismic performance of masonry buildings in Urmia." 5th.International Congress on Civil Engineering and Urban Development 26-28 December 2017, Shahid Beheshti University, Tehran, Iran.
- 7) FARROKH GHATTE Hamid and SALEHAHAR Reza "Seismic Retrofitting of Reinforced Concrete columns through their weak directions." National Conference on Construction in Earthquake- Prone Areas CEPA, 11-12 August 2017, Tabriz University, Tabriz, Iran.
- 8) FARROKH GHATTE Hamid, GHANATE BARI Amir "Evaluation of seismic design codes in the moment frame RC structures (ACI, CSA and Iranian seismic design code)" 1st. National Conference on Infrastructure Engineering 10-11 October 2018, Urmia University, Urmia, Iran.
- 9) BAGHERPOUR Mehdi and FARROKH GHATTE Hamid "Seismic performance of RC columns with special cross-sections (cross, T and L shaped) in moment frame system based on Spectral analyses." National Conference on Basic Research in Civil Engineering, Architecture, and Urban Planning, 29 June 2018, Tehran, Iran.
- 10) FARROKH GHATTE Hamid and AKSAKAL Can "Analytical Investigation of Reinforced Concrete Frames Considering Construction Sequences." 12th International Scientific Conference on Production Engineering DEVELOPMENT AND MODERNIZATION OF PRODUCTION, 18 -20 September 2019, Sarajevo, Bosnia.
- 11) DANANDEH MEHR Ali, FARROKH GHATTE Hamid "Treated Wastewater for Concrete Mixing; A Comparative Study between ASTM and Turkish Standards." 12th International Scientific Conference on Production Engineering DEVELOPMENT AND MODERNIZATION OF PRODUCTION, 18 -20 September 2019, Sarajevo, Bosnia.
- 12) BEYRAMNEJAD Yousef, HAMIDI Peyman, and FARROKH GHATTE Hamid "Ductility Performance of Reinforced Concrete Structures with Shear Walls Based on Nonlinear Static Analysis." 6th National Congress on CIVIL ENGINEERING, ARCHITECTURE, AND URBAN DEVELOPMENT, 10-12 December 2019, Iran University of Science and Technology, Tehran Iran.

 13) FARROKH GHATTE Hamid "Facade Damage Assessment of the Buildings in Bam, Iran 2003 and Kermanshah, Iran 2017 Earthquakes." 13th International Scientific Conference on Production Engineering, 29 September-1 Oktober 2021, Sarajevo, Bosnia.

In IOP Conference Series. Materials Science and Engineering (Vol. 1208, No. 1). IOP Publishing.

14) FARROKH GHATTE Hamid "Mix Properties and Serviceability Performance of Self Compacting Concrete Connections" 13th International Scientific Conference on Production Engineering, 29 September-1 Oktober 2021, Sarajevo, Bosnia.

### **Supervised MSc Thesis:**

- 1) Mehdi BAGHERPOUR (2017) "Seismic performance of RC columns with special cross-sections (cross, T and L shaped) in moment frame system based on Spectral analyses." The University of Aein Kamal, Urmia, Iran.
- 2) Rostam OLOVPOUR (2018) "Finite element modeling of retrofitted RC columns through FRP jacketing" the University of Aein Kamal, Urmia, Iran.
- 3) Mirali ASGHARI (2018) "Seismic performance and Finite element modeling of retrofitted RC Beams through FRP jacketing" the University of Aein Kamal, Urmia, Iran.
- 4) Amir GHANAT BARI (2018) "Evaluation of seismic design codes in the moment frame RC structures (ACI, CSA and Iranian seismic design code)." Islamic Azad University, Urmia, Iran.
- 5) Erfan MONTAZAMI (2019) "Finite element modeling and rehabilitation of rocking walls" The University of Aein Kamal, Urmia, Iran.
- ▶ 6) Akbar PORASAD YENGEJEH (2019) "Effective Parameters of Plastic Hinging Length in RC Beam-Column Joints." Islamic Azad University, Urmia, Iran.
- 7) Soheyl GHOLIBEYGI (2019) "Seismic behavior of Rectangular RC Columns with a different Cross-Sectional Aspect Ratio" Islamic Azad University, Urmia, Iran. http://thesis.iaurmia.ac.ir/Public/Professor/ProfHome.aspx?PID=1133

- 8) Ismail Sait SOYER (2022) "Damage Assessment and Failure Mechanisims of Buildings after Wildfire Based on Manavgat."Antalya Bilim University, Antalya, Turkey.
- 9) Damlanur ISPIR (2022) "Seismic Risk Assessment of the Buildings Stock in Esenler, Istanbul."Antalya Bilim University, Antalya, Turkey.
- 10) Emre DANISMAN (2022) "Experimental Study of using Aggregates Obtained From Şanliurfa Quarries in Concrete Production."Antalya Bilim University, Antalya, Turkey.
- 11) Necmetddin KOCOGLU (2022) "Evaluation of Reinforced Concrete Buildings Designed According to DBYBHY 2007 and TBDY 2018 with Rock-Type Soils (Z-A)in Antalya."Antalya Bilim University, Antalya, Turkey.
- 12) Baran CELIK (2022) "Evaluation of Reinforced Concrete Buildings Designed According to DBYBHY 2007 and TBDY 2018 with Loos Sand Soils (Z-D) in Antalya."Antalya Bilim University, Antalya, Turkey.

https://akademik.yok.gov.tr/AkademikArama/view/viewAuthorThesis.jsp

### **Personal Seminar and Keynote Speaker:**

Rehabilitation and Retrofitting of RC Structures, 07 March 2019 IMO Antalya, Turkey. Construction Control methods in Iran and Turkey, 28 March 2019 TMMOB Ankara, Turkey.

### **Reviews for International Scientific Journals:**

Materials - *Open Access Journal* https://www.mdpi.com/journal/materials Sustainability - *Open Access Journal* https://www.mdpi.com/journal/materials Applied Sciences - Open Access Journal https://www.mdpi.com/journal/applsci Infrastructures - Open Access Journal https://www.mdpi.com/journal/infrastructures Iranian Journal of Science and Technology https://www.springer.com/journal/40995 *Open Journal of Civil Engineering* https://www.scirp.org/journal/OJCE

## **Awards and Honors**

- Recognition of the Best Experimental Thesis in Civil Engineering Department, Shahid Bahonar University of Kerman, Iran 2006.
- Recognition of an Exemplary Engineer in School Building Office in Urmia, Iran, 2007.
- Recognition of an Exemplary Instructor in Technical & Vocational University of Iran, Urmia, Iran 2009.
- Recognition of the Best Coordinator in Technical & Vocational University of Iran, Urmia, Iran 2017.

# **Skills and Qualification:**

- Microsoft Office
- AutoCAD
- > ETABS
- > SAP
- > SAFE
- > XTRACT
- > ABAQUS
- Seismostruct
- Internet

# Languages Known:

- Persian (Fluent)
- English (Fluent)
- Turkish (Fluent)
- Azerbaijani (Fluent)

English (TOEFL IBT; 94/120)

# **Research Interests:**

- Reinforced Concrete Structures.
- Self-Compacting Concrete (SCC) and High Strength Concrete (HSC).
- Seismic Performance and Retrofitting of RC Structures
- Rehabilitation of Reinforced Concrete Structures.
- Finite Element Analysis.
- Dynamic Analysis.
- > Assessment and Retrofitting after Natural Disesters.
- Artificial iIntelligence in Civil Engineering .