

CURRICULUM VITAE



Name and Surname: Ugur DEMIR

Date of Birth: 01 July 1982

Education: PhD.

Degree	Department/Program	University	Gradute Year
BSc.	Civil Engineering	Kocaeli University	2007
MSc.	Structural Engineering	Istanbul Technical University (ITU)	2013
PhD.	Structural Engineering	Istanbul Technical University (ITU)	2020

Masters Thesis : Demir, U., "Axial behavior of high performance fiber reinforced cementitious composites wrapped by FRP sheets", Istanbul Technical University, 2013.

Supervisor: Prof.Dr. Alper ILKI - ITU

Doctoral Thesis : Demir, U., "Assessment of post-fire seismic behavior of RC members through large scale testing", Istanbul Technical University, 2020.

Supervisor: Prof.Dr. Alper ILKI – Istanbul Technical University / Turkey

Co-Supervisor: Prof.Dr. Mark F. Green – Queen’s University / Canada

Missions:

Title	Place	Year
Research/Teaching Assistant	Reinforced Concrete Division/Structural Engineering Program/Civil Engineering Faculty, ITU-Turkey	2010-2020
Owner	Dem İnşaat Ltd. Şti.	2008-2010

Research Projects :

- "Earthquake Performance of Substandard RC Members and Use of New Materials for Enhancement of Structural Performance" PSF (Pakistan Science Foundation)-TUBITAK (The Scientific and Technological Research Council of Turkey) Bilateral Collaboration Research Project, 2019-2022. **Research Associate**, (329,000.- TL ~ 60,000.-USD)
- "Seismic Performance of Sub-standard Columns Subjected to High Axial Stresses and Long Term Loading" TUBITAK 1001 Project, 2019-2022. **Research Associate**, (537,000.- TL ~ 100,000.-USD)
- "Rapid Earthquake Risk Assessment and Post-Earthquake Disaster Management Framework for Substandard Buildings in Turkey", RCUK (Research Council of United Kingdom) - TÜBİTAK Bilateral Collaboration Research Project, 2017-2020. **Research Associate**, (1,780,000.- TL ~ 402,000.- Pounds)
- "Impact of fire damage to the seismic behavior of RC columns produced by recycled-aggregate", (TUBITAK) Project, 2017-2018, **Researcher**, (29,700.- TL ~ 8,700.- USD)
- "Assessment of post-fire seismic behavior of RC columns", ITU Scientific Research (BAP) Project, 2016-2017, **Researcher**, (14,700.- TL ~ 5,250.- USD)

- "Assessment of Seismic Performance of Existing Buildings with Full-Scale Tests", ISTKA-2012/AFT, Istanbul Development Agency, 2013-2014. **Research Associate**, (664,300.- TL ~ 350,000.- USD)

Some Collaborated Applications/Technical Reports :

- Structural Damage Assessment of Guvenevler Housing Estate after 2014 Gokceada Earthquake, Canakkale, 2015
- Vibration Monitoring of OTOKOC Main Building Under Blast Loads of Nearby Shopping Center Construction, Istanbul, 2015.
- Tunneling Induced Vibration Assessment during Eye Surgery in Sadik Eratik Eye Clinic of Haydarpasa Hospital, Istanbul, 2014.
- Review of Structural Design of DAP Kartal Bridge, Istanbul, 2014.
- Review of Structural Design of Kocaeli-Basiskele Municipality Building, Istanbul, 2014.
- Seismic Safety Assessment of Arif Bey Apartment, Istanbul, 2014.

Assisted Lectures :

Reinforced Concrete I
Reinforced Concrete II

Organization Comitee Membership :

- The Fourth Conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures, SMAR 2017, Zurich, 2017
- The Third Conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures, SMAR 2015, Antalya, 2015
- 8th National Conference on Earthquake Engineering, Istanbul, 2015
- International Workshop on Large-scale and/or On-site Structural Testing for Seismic Performance Assessment, Istanbul, 2014

Technical Comitee Membership :

- DASK (Turkish National Catastrophe Insurance Pool) Earthquake resistant building design competition, 2015
- DASK (Turkish National Catastrophe Insurance Pool) Earthquake resistant building design competition, 2017

International SCI/SCI-E Indexed Journals:

A11. Demir, U. and and Ilki, A. (2022). Influence of FRP Repair on the Axial Behavior of Fire Damaged Concrete. **(drafted)**.

A10. Demir, U. and Ilki, A. (2022). Cyclic Behavior of RC Columns Externally Jacketed by CFRP Sheets after Fire Exposure **(drafted)**.

A9. Demir, U., Goksu, C., Demir, C., Comert, M., Sanver, A.N. and and Ilki, A. (2021). Impact of Fire Damage on Seismic Performance of a Reinforced Concrete Building: A Case Study. **(under review)**.

A8. Demir, U., Inci, P., Goksu, C., Demir, K., Barutcu, B. and Ilki, A. (2021). Monitoring of an Eye Clinic Subjected to Ground-Borne Vibrations Caused by Tunnel Construction: A Case Study. **(under review)**.

A7. Demir, U., Unal, G., Saribas, I., Goksu, C. and Ilki, A. (2021). Post-fire Seismic Behavior of RC Columns Built with Sustainable Concrete. *Journal of Earthquake Engineering*, 1-24. DOI: 10.1080/13632469.2021.1927897.

A6. Demir, U., Green, MF. and Ilki, A. (2020). Post-fire Seismic Performance of Precast RC Columns. *PCI Journal*, 65(6), 62-80.

A5. Demir, U., Unal, G., Goksu, C., Green, MF. and Ilki, A. (2020). Effect of Fire Damage on Seismic Behavior of Cast-in-Place RC Columns. *ASCE Journal of Structural Engineering*. 146(11), 04020232.

A4. Demir, U., Goksu, C., Binbir, E. and Ilki, A. (2020). Impact of Time after Fire on Post-Fire Seismic Behavior of RC Columns, *Structures*, 26, 537-548.

A3. Demir, U., Sahinkaya, Y., Ispir, M. and Ilki, A. (2019). Axial Behavior of Noncircular High-Performance Fiber-Reinforced Cementitious Composite Members Externally Jacketed by CFRP Sheets. *ASCE Journal of Composites for Construction*, 23(4), DOI: 10.1061/(ASCE)CC.1943-5614.0000940.

A2. Demir, U., Sahinkaya, Y., Ispir, M. and Ilki, A. (2018). Assessment of Axial Behavior of Circular HPFRCC Members Externally Confined with FRP Sheets. *Polymers*, 10(2), 138.

A1. Goksu C., Inci P., **Demir, U.,** Yazgan, U. and Ilki, A. (2017). Field Testing of Substandard RC Buildings Through Forced Vibration Tests. *Bulletin of Earthquake Engineering*, 15(8), 3245-3263.

International EI Indexed Journals :

B1. Ilki, A. and **Demir, U.** (2019). Factors Affecting the Seismic Behavior of Reinforced Concrete Structures after Fire Exposure. NED University Journal of Research-Special Issue on First South Asia Conference on Earthquake Engineering.

International Conference/Symposium/Workshop Proceedings:

C15. Demir, MN., **Demir, U.,** Demir, C. and Ilki, A. (2021). Seismic Performance of CFRP Jacketed Sub-standard RC Columns under High Axial Stress and Shear Demand. In the 10th International Conference on FRP Composites in Civil Engineering (CICE 2021),8-10 December 2021 **(accepted)**.

C14. Gundogan, S., Baltaci, A., **Demir, U.,** Turan, OT. and Ilki, A. (2021). Seismic performance of substandard rc columns subjected to high axial stresses. In the 6th International Conference on Earthquake Engineering and Seismology (ICEES 2021) in Kocaeli, Turkey, 13-15 October 2021 **(accepted)**.

C13. Luleci, MC., Sari, B., **Demir, U.,** Marasli, M. and Ilki, A. (2021). Seismic behavior of substandard extended rectangular rc columns jacketed with sprayed GFRM. In the 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2021) in Athens, Greece, 28-30 June 2021.

C12. Demir, U., Baltaci, A. and Ilki, A. (2021). Numerical modelling of post-fire seismic behavior of RC columns using OpenSees framework. In the 9th Turkish Conference on Earthquake Engineering in Istanbul, Turkey, 2-4 June 2021.

C11. Narlitepe, F., Kian, N., **Demir, U.,** Demir, C. and Ilki, A. (2021). Seismic Strengthening of Sub-Standard RC Columns through a Novel Hybrid Thin Jacketing Method. In the fib

Symposium - Concrete Structures: New Trends for Eco-Efficiency and Performance in Lisbon, Portugal, 14-16 June 2021.

C10. Ilki, A. and **Demir, U.** (2019). Prediction Of Seismic Response of Fire-Damaged RC Columns. In the 5th International Conference on Earthquake Engineering and Seismology (5ICEES)-Haluk Sucuoğlu Workshop, in Ankara, Turkey, 08 – 11 October 2019. **Published as a book chapter in: Global Advances in Earthquake Engineering (pp. 232-241).**

C9. Ilki, A., Yazgan, U., Demir, C., Ates, AO., **Demir, U.**, Kupcu, E., Unal, G., Altinok, MA., Karakaya, B., Narlitepe, F. (2019). Development of a Framework for Rapid Earthquake Risk Assessment for Substandard Buildings in Turkey. In the proceedings of fib 2nd International Workshop on Advanced Materials and Innovative Systems in Structural Engineering: Novel Researches (IWAMISSE2019), in Istanbul, Turkey, 20 September 2019.

C8. Yazgan, U., Ilki, A., Demir, C., **Demir, U.**, Ates, AO., Kupcu, E., Unal, G., Altinok, MA., Karakaya, B., Narlitepe, F. (2019). Challenges in Developing Seismic Vulnerability Models for Substandard Building Stocks in Turkey. In the proceedings of fib 2nd International Workshop on Advanced Materials and Innovative Systems in Structural Engineering: Novel Researches (IWAMISSE2019), in Istanbul, Turkey, 20 September 2019.

C7. **Demir, U.**, Unal, G., Sert, AF., Calis, RO. and Ilki, A. (2019). Influence of FRP Repair on the Axial Behavior of Fire Damaged Concrete. In the 5th International Conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures (SMAR2019), in Potsdam, Germany, 27 – 29 August 2019.

C6. **Demir, U.**, Unal, G., Binbir, E. and Ilki, A. (2019). Cyclic Behavior of RC Columns Externally Jacketed by CFRP Sheets after Fire Exposure. In the 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2019), in Crete, Greece, 24 – 26 June 2019.

C5. **Demir, U.**, Unal, G. and Ilki, A. (2019). Axial Behavior of Square RC Columns Repaired with FRP Sheets after Fire. In the fib Symposium- Innovations in Materials, Design and Structures, Krakow, Poland. 27-29 May 2019.

C4. **Demir, U.**, Unal, G., Goksu, C. and Ilki, A. (2019). Impact of Fire Exposure on Seismic Behavior of Full-Scale RC Columns. In the 7th Structural Engineers World Congress (SEWC2019), Istanbul, Turkey. 24-26 Apr 2019.

C3. Ilki, A. and **Demir, U.** (2019). Factors Affecting The Seismic Behavior of Reinforced Concrete Structures after Fire Exposure. In the First South Asia Conference on Earthquake Engineering (SACEE2019), Karachi, Pakistan. 21-22 Feb 2019. **(Invited Keynote Lecture).**

C2. **Demir, U.**, Sahinkaya, Y., Ispir, M. and Ilki, A. (2018). HPFRCC Members Externally Confined with FRP Sheets. In the 4th International Conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures, SMAR2017, Zürich, Switzerland.

C1. Inci, P., Goksu, C., **Demir, U.** and Ilki, A. (2017). Ambient Vibration Testing of a Three-Storey Substandard RC Building at Different Levels of Structural Seismic Damage. In International Conference on Earthquake Engineering and Structural Dynamics, ICESD 2017, Reykjavík/Iceland. **Published on Springer, Cham. (pp. 219-231).**

Courses/Training:

- SAFIR training workshop in **Liege/Belgium**. 7-8 January 2019

- Japan-Turkey Cooperative Education Program on Resilience Engineering for Energy and Urban Systems in **Tokyo/Japan**. 10-31 January 2016
- FRP Training Course in Cost Action TU-1207 in **Ghent/Belgium**. 26-31 January 2015

Certificates:

- YOKDIL English: 88.75

Softwares:

- MS Office, Perform3d, SAFIR, SAP 2000/ETABS

Awards:

- fib Achievement Award for Young Engineers 2021 – Candidate of national delegation