

ALLEGATO B

Curriculum Vitae

Volkan Yozsarach

PERSONAL INFORMATION

Volkan Yozsarach (BG)
Volkan Öz Saraç (TR)



Sex : | Date of birth : [REDACTED] Nationality : I

POSITION FOR WHICH YOU COMPETE

INCARICO INDIVIDUALE DI LAVORO AUTONOMO OCCASIONALE AVENTE PER OGGETTO "SVILUPPO DI UN FRAMEWORK PER LA SELEZIONE DI ACCELEROGRAMMI SISMICI" Cod. 04-2023

WORK EXPERIENCE

Sep 2018 – Dec 2022

Graduate Teaching Assistant

Scuola Universitaria Superiore IUSS di Pavia, Palazzo del Broletto, Piazza della Vittoria, 15, 27100 Pavia, Italy <https://www.iusspavia.it/it>

- Assisted the lecturers in several courses for the Master's Degree in Programme Civil Engineering for Mitigation of Risk from Natural Hazards (CivRisk):
Fundamentals of Seismic Design - Academic Year 2020/2021
Dynamic of Structures - Academic Year 2019/2020
Bridge Structures - Academic Years 2019/2020, 2018/2019

June 2020 – Nov 2020

Earthquake Engineering Researcher

Scuola Universitaria Superiore IUSS di Pavia, Palazzo del Broletto, Piazza della Vittoria, 15, 27100 Pavia, Italy <https://www.iusspavia.it/it>

- Developed analytical fragility functions for liquid storage tanks and precast reinforced concrete buildings within a case-study industrial facility for the [ROSSINI project](#) which was funded by the [national institute for insurance against accidents at work](#). The project dealt with the design, implementation and validation of a system that permits the risk-aware navigation of industrial plants susceptible to large-scale incidents.

Mar 2018 – Nov 2018

Structural Engineer

Studio Calvi Engineering and Architecture, Palazzo Pellegrini in Via Boezio 10, Pavia, Italy, <https://www.studiocalvi.eu/it/>

- The architectural modifications which require demolition and reconstruction of some parts in an existing RC structure were requested by the client. Worked on seismic assessment of the structure, and development of the new structural design for the required modifications.

June 2015 – Sep 2015

Civil Engineering Intern

ATAK Engineering, Başkent O.S.B İnönü Bulvarı No:19 (İtfaiye Karşısı) Sincan/ANKARA, Türkiye, <http://atakeng.com.tr/?lang=en>

- Worked with the design team as a structural engineer. Worked on the development of finite element analysis (FEA) simulations and design optimizations for various steel industrial structures.

Aug 2014 – Oct 2014

Civil Engineering Intern

Gebze-Orhangazi-Izmir Otoyolu (Otoyol Yatırım ve İşletme A.Ş.) Çankaya, Ankara, Türkiye, <https://isletme.otoyolas.com.tr/>

- The clear span of Izmit Bay Bridge or Osmangazi Bridge, is considered the fourth longest in the world. In this project, worked with the quality control team, and made daily site inspections on the

bridge piers and anchors.

June 2014 – Aug 2014

Civil Engineering Intern

TAV Construction, Vadistanbul Bulvar, Ayazaga Mah, Azerbaijan Cad. 1B-Blok, Kat:19, 34396 Saryer/Istanbul, Türkiye <https://www.tavconstruction.com>

- Worked with the construction team of the project contractor on the high-rise building project (DAMAC Towers by Paramount in Dubai, AE). Made daily site inspections to ensure the quality of the work is sufficient.

EDUCATION AND TRAINING

Sep 2018 – Dec 2022

PhD in Understanding and Managing Extremes (UME)

Scuola Universitaria Superiore IUSS di Pavia, Palazzo del Broletto, Piazza della Vittoria, 15, 27100 Pavia, Italy <https://www.iusspavia.it/it>

- Completed 48 months long PhD programme UME with the Curriculum in Earthquake Engineering and Engineering Seismology. Delivered the PhD thesis, and waiting for the defence being held in June 2023.
- **Thesis Title:** Integrated Evaluation of Earthquake-Induced Economic Losses for Multi-Span Reinforced Concrete Bridges
- **Supervisors:** Prof. Ricardo Monteiro, Prof. Gian Michele Calvi
- **Research Topic:** Development of seismic risk assessment framework incorporating both direct and indirect losses at component level while investigating several aspects that can alter seismic risk. Within the scope of the thesis, ground motion record selection and processing, structural modelling and analysis, and risk assessment software tools were developed to facilitate the implementation of the proposed seismic loss evaluation framework. The software tool developed in Python for ground motion record selection can be found herein: <https://github.com/volkanozsarac/EzGM>

Sep 2016 – Feb 2018

MSc in Earthquake Engineering and Engineering Seismology (MEEES)

Scuola Universitaria Superiore IUSS di Pavia, Palazzo del Broletto, Piazza della Vittoria, 15, 27100 Pavia, Italy <https://www.iusspavia.it/it>

- Completed 18 months long joint MSc degree MEEES programme coordinated by Scuola Universitaria Superiore IUSS di Pavia. Spent one semester in Middle East Technical University (Ankara/Türkiye) and two semesters in Scuola Universitaria Superiore IUSS di Pavia.
- **Thesis Title:** Investigation of seismic performance of floating roof steel storage tanks with consideration of new type of energy dissipation system
- **Supervisors:** Prof. Roberto Nascimbene, Emanuele Brunesi
- **Research Topic:** Proposal of an energy dissipation system consisting of a floating roof and external dampers that are utilized to control liquid vibration by augmenting the level of damping for liquid storage tanks. The response of liquid storage tanks with damped and undamped floating roofs was studied through high-fidelity finite element models.

Sep 2011 – Jun 2016

BSc in Civil Engineering

Middle East Technical University, Üniversiteler Mahallesi, Dumlupınar Bulvarı No:1, 06800 Çankaya/Ankara, Türkiye, <https://www.metu.edu.tr/>

- Attended Basic English Department for two semesters (Sep 2011 – Jun 2011) and satisfactorily completed. Then, completed 4 year-long BSc. Programme in Civil Engineering with a GPA of 3.61 out of 4.00 as the 5th ranked student among 172 students who graduated.

PERSONAL SKILLS

Mother Language Turkish

Other Language

	COMPREHENSION		SPEAKING		WRITING
	Listening	Reading	Interaction	Oral Production	
English	C1	C2	C1	C1	C2
Italian	A2	B1	A2	A2	B1
Bulgarian	A2	A2	A2	A2	A2

Communication Skills

Able to communicate effectively with a wide range of people, by showing interest and carefully listening to their needs:

- Communicated with construction works on the site internships
- Communicated with engineers, architects and the client for structural design projects
- Communicated with individual or team of researchers for research projects
- Strong presentation and demonstrating skills
- Confident, articulate and professional speaking abilities:
- Tutored graduate students for their coursework and thesis work
- Delivered oral presentations in several conferences

Organizational and management Skills

- Able to solve problems under time pressure (Decision-making, time-management)
- Able to effectively organise collaboration with others involved in the project/work (Collaboration, teamwork)
- Able to identify the milestone steps to achieve the desired outcome (Planning)
- Able to pay attention to details which are most important for the desired outcome (Analysing)

Professional Skills

- Design of engineering structures (Bridges, Buildings, Liquid Storage Tanks)
- Advanced numerical analysis through finite element models
- Design of seismic isolation and dissipation devices
- Seismic Risk Assessment of engineering structures (Regional and Structure-specific)

Software Skills

- Software: Microsoft Office (5/5), LaTeX (2/5), QGIS (2/5), OpenQuake (3/5), DEEPSOIL (4/5), Seismosoft Products (5/5), OpenSees (5/5), LS-DYNA (3/5), MIDAS FEA (3/5)
- Programming: Python (4/5), MATLAB (4/5), C++ (2/5)

Driving License

B (21/01/2013)

PUBLICATIONS**Journal Articles**

- Ozsarac, V., Monteiro, R., Askan A., and Calvi, G.M. (2023). Impact of local site effects on seismic risk assessment of reinforced concrete bridges. *Soil Dynamics and Earthquake Engineering*, 164, 107624
- Yaghmaei-Sabegh, S., Karimzadeh, S., Ebrahimi, M., Ozsarac, V., Du, W. (2022). A new region-specific empirical model for prediction of ground motion significant duration in Turkey. *Bulletin of Earthquake Engineering*, 20(10), 4919–4936
- Ozsarac, V., Monteiro, R., and Calvi, G.M. (2021). Probabilistic seismic assessment of reinforced concrete bridges using simulated records. *Structure and Infrastructure Engineering*, 1–21.
- Ozsarac V., Brunesi E., and Nascimbene R. (2021). Earthquake-induced nonlinear sloshing response of above-ground steel tanks with damped or undamped floating roof. *Soil Dynamics and Earthquake Engineering*, 144, 106673.
- Ozsarac V., Karimzadeh S., Askan A., and Erberik M.A. (2021). Seismic demands of bare and base-isolated steel frames for real against simulated records of a past earthquake. *Structure and Infrastructure Engineering*, 1–16
- Karimzadeh S., Ozsarac V., Askan A., and Erberik M.A. (2019). Use of simulated ground motions for the evaluation of energy response of simple structural systems, *Soil Dynamics and Earthquake Engineering*, 123, 525-542

Book Chapters

- Calvi G.M., Moratti M., Scattarreggia N., Özsarac, V., Calvi P.M., Pinho R. (2021) Numerical Investigations on the Collapse of the Morandi Bridge. *Developments in International Bridge Engineering*. Springer Tracts on Transportation and Traffic, vol 17. Springer, Cham

Conference Proceedings

- Ozsarac V. and Monteiro, R. (2022). Influence of local-site effects on the seismic assessment of a reinforced concrete bridge. *3rd European Conference on Earthquake Engineering and Seismology*, Bucharest, Romania, 357-366
- O'Reilly G.J., Shahnazaryan D., Nafeh, A.M.B, Ozsarac, V., Sarigiannis, D., Dubini, P., Dacarro, F., Gotti, A., Rosti, A., Silvestri, D., Brunesi, E., Mascetti, S., Ducci, M., Carletti, D., Ciucci, M., Marino, A (2022). Utilization of a sensor array for the risk-aware navigation in industrial plants at risk of natech accidents. *Proceedings of the ASME 2022 Pressure Vessels and Piping Conference PVP2022*, Las

Vegas, USA.

- Ozsarac V., Brunesi E., and Nascimbene R. (2020). Seismic performance of floating roof steel storage tanks with consideration of energy dissipation system. 17th World Conference on Earthquake Engineering, Sendai, Japan
- Ozsarac V., Karimzadeh S. and Askan A. (2019). Comparison of structural responses for a base isolated building under real and simulated records. 16th World Conference on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures, St. Petersburg, Russia.
- Ozsarac V., Karimzadeh S., Erberik M.A. and Askan A. (2019). Comparison of energy-based responses of structural systems to real and simulated ground motion records. 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Crete, Greece, 2, 2234-2243
- Karimzadeh S., Ozsarac V., Askan A. and Erberik M.A. (2018). An energy-based seismic response evaluation of simple structural systems with simulated ground motions. 11th National Conference on Earthquake Engineering 2018: Integrating Science, Engineering, and Policy, NCEE 2018, California, USA, 8, 4819-4829
- Ozsarac V., Karimzadeh S., Erberik M.A. and Askan A. (2017). Energy-based response of simple structural systems by using simulated ground motions. EURO-DYN 2017 international Conference on Structural Dynamics, Rome, Italy, 236-241

Attachment

Copy of BSc and MSc degrees obtained

Data 02/03/2023

Firma

Documento
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