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# NURULLAH BEKTAS

**Research Assistant** 

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# **Education:**

2020-	PhD in Structural Engineering and Geotechnics, Széchenyi István	
	University, Győr, Hungary	
2017-2020	MSc in Civil Engineering, İzmir Institute of Technology, İzmir, Turkey	
2011-2016	BSc in Civil Engineering, İzmir Institute of Technology, İzmir, Turkey	

# Employment

	a)	Academic employment
2023-		Research Assistant, Department of Structural Engineering and Geotechnics
		Széchenyi István University, Győr, Hungary

# b) Other employment

01/2024	NHERI Graduate Student Council (GSC), Chair of Research
11/2023 - 01/2024	NHERI Graduate Student Council (GSC), Vice Chair of Research
02/2023 - 11/ 2023	NHERI Graduate Student Council (GSC), Vice Chair of Treasure
2019–2019	Is Yapı ve Yapı Malzemeleri San. Tic. Ltd. Şti. / İzmir – Turkey
	Civil Engineer
2017-2018	Demirtaş Mühendislik Plan Proje Tic. Ltd. Şti. / İzmir – Turkey
	Civil Engineer
2017-2017	Modül Yapı Denetim Ltd. Şti / İzmir – Turkey
	Civil Engineer
2016-2016	Yaşar Yıldız – Yaser Müh. İnş. Taah. Ltd. Şti. / Ankara – Turkey
	Civil Engineer

# **Current Research Interests**

#### **Publications**

- a) Articles in refereed journals
- Nurullah Bektaş, A Holistic Framework to Prioritizing Building Interventions for Sustainable and Resilient Construction in Seismic-Prone Regions, Chemical Engineering Transactions, 107. <u>https://doi.org/10.3303/CET23107001</u>
- Nurullah Bektaş, Ferenc Lilik, Orsolya Kegyes-Brassai, Development of a fuzzy inference system based rapid visual screening method for seismic assessment of buildings presented on a case study of URM buildings, Sustainability, 14, 16318. <u>https://doi.org/10.3390/su142316318</u>

- 3. Nurullah Bektaş, Orsolya Kegyes-Brassai, Development in fuzzy logic-based rapid visual screening method for seismic vulnerability assessment of buildings, Geosciences 2022, 13, 6. <u>https://doi.org/10.3390/geosciences13010006</u>
- 4. Nurullah Bektaş, Engin Aktaş, Seismic Vulnerability Assessment of an Unanchored Circular Storage Tank Against Elephant's Foot Buckling, Journal of Vibration Engineering and Technologies, 2022. <u>https://doi.org/10.1007/s42417-022-00663-0</u>
- 5. Nurullah Bektaş, Orsolya Kegyes-Brassai, Conventional RVS methods for seismic risk assessment for estimating current situation of existing buildings: A state-of-the-art review, Sustainability 2022, 14, 2583. <u>https://doi.org/10.3390/su14052583</u>
  - b) Articles in referred conference proceedings
- Yasemin Didem Aktas, Emily So, Cassidy Johnson, Eser Cabuk, Fatma Sevil Malcioglu, Kokcan Donmez, Mariana Asinari, Orestis Adamidis, Pietro Milillo, Tugce Tetik, Viviana Novelli, Ahsana Parammal Vatteri, Aisling O'kane, Akbey Kalkan, Ali Tolga Ozden, Anton Andonov, Enrica Verrucci, Eyitayo Opabola1, Hristo Pavlov Markov, Giorgia Giardina, Gopal Madabhushi, Ioanna Triantafyllou, Ji-Eun Byun, Joshua Nathan Jones, Matthew Free, Nurullah Bektaş, Ozcan Gozenoglu, Sahin Dede, Sarah Jean Boulton, Sinan Acikgoz, Tansu Gokce, Teoman Efeoglu, HYBRID EEFIT MISSION TO FEBRUARY 2023 KAHRAMANMARAŞ EARTHQUAKE SEQUENCE, SECED 2023 Conference Earthquake Engineering & Dynamics for a Sustainable Future, 14-15 September 2023, Cambridge, UK. Link: <u>https://www.researchgate.net/publication/374371838\_HYBRID\_EEFIT\_MISSION\_T</u> O FEBRUARY 2023 KAHRAMANMARAS EARTHOUAKE SEQUENCE
- Nurullah Bektaş, Orsolya Kegyes-Brassai, Development in machine learning based rapid visual screening method for masonry buildings, 10th International Conference on Experimental Vibration Analysis for Civil Engineering Structures (EVACES 2023), 29 August 2023, Milan, Italy. DOI: <u>https://doi.org/10.1007/978-3-031-39117-0\_42</u>
- 3. Nurullah Bektaş, Janos Gergely, Orsolya Kegyes-Brassai, A comparative evaluation of post-earthquake RVS forms for determining building vulnerability and improving existing methods, Challenges in the Western Balkans: Infrastructure and Development in the Region International Conference 2023 IFEES/GEDC/EPOKA Tirana, Albania, 29-30 March 2023, pp 45-52. Link:

https://www.researchgate.net/publication/369753811\_A\_comparative\_evaluation\_of\_post-

earthquake\_RVS\_forms\_for\_determining\_building\_vulnerability\_and\_improving\_exi sting\_methods

- 4. **Nurullah Bektaş**, Orsolya Kegyes-Brassai, A comparative study of rapid visual screening methods to detailed seismic assessment of a reinforced concrete residential building, The Third European Conference on Earthquake Engineering and Seismology, 2022, Link: <u>https://3ecees.ro/</u>.
- Nurullah Bektaş, Orsolya Kegyes-Brassai, A case study of seismic vulnerability assessment of residential URM buildings based on rapid visual screening in Gyor, Hungary, Tempus Public Foundation – Stipendium Hungaricum PhD Conference. 2023, Link: <u>https://tka.hu/kiadvany/16992/stipendium-hungaricum-phd-studentconference-2022</u>

- Nurullah Bektaş Fuzzy logic based rapid visual screening methodology for structural damage state determination of URM buildings, 8th European Congress on Computational Methods in Applied Sciences and Engineering, 5-9 June 2022, Oslo, Norway. Link: <u>https://www.scipedia.com/public/Bektas\_2022a</u>.
- 7. Nurullah Bektaş, Orsolya Kegyes-Brassai, An overview of S-RVS methods necessity to enhance traditional RVS methods comparison with post-earthquake findings presented in a case study, 12th IEEE International Conference on Cognitive Infocommunications, 2021. Link: <u>https://www.researchgate.net/publication/357166246\_An\_overview\_of\_S-RVS\_methods\_necessity\_to\_enhance\_traditional\_RVS\_methods\_comparison\_with\_p ost-earthquake\_findings\_presented\_in\_a\_case\_study</u>

c) Published technical reports

- Alami, M., S. Gunay, K. Mosalam, L. Vargas, W. Hassan, Y. Merino-Peña, H. Burton, B. ALhawamdeh, T. Lahna, S. Xu, M. Marinkovic, J. Archbold, L. Iturburu, A. Martin, Nurullah Bektaş, L. Ceferino, B. Duran, M. Nobahar, X. Romão, C. Wang, G. Zhou, A. Zaoui, T. Kijewski-Correa. (2023) "StEER: Oukaïmedene Morocco Preliminary Virtual Reconnaissance Report (PVRR)", in StEER 2023 Oukaïmedene Morocco Earthquake. DesignSafe-CI. <u>https://doi.org/10.17603/ds2gw0j-6757</u> v1
- A. Dilsiz, S. Gunay, K. Mosalam, E. Miranda, C. Arteta, H. Sezen, E. Fischer, M. Hakhamaneshi, W. Hassan, B. ALhawamdeh, S. Andrus, J. Archbold, S. Arslanturkoglu, Nurullah Bektaş, L. Ceferino, J. Cohen, B. Duran, K. Erazo, G. Faraone, T. Feinstein, R. Gautam, A. Gupta, S. Haj Ismail, A. Jana, S. Javadinasab Hormozabad, A. Kasalanati, M. Kenawy, I. Khalil, Z. Liou, M. Marinkovic, A. Martin, Y. Merino, M. Mivehchi, L. Moya, C. Pájaro Miranda, J. quintero, n. Rivera, X. Romão, M. Lopez Ruiz, S. Sorosh, L. Vargas, P. Velani, H. Wibowo, S. Xu, T. YILMAZ, M. Alam, G. Holtzer, T. Kijewski-Correa, I. Robertson, D. Roueche, A. Safiey, "StEER: 2023 Mw 7.8 Kahramanmaras, Türkiye Earthquake Sequence Preliminary Virtual Reconnaissance Report (PVRR)", in StEER- February 6, 2023, Kahramanmaras, Türkiye, Mw 7.8 Earthquake. DesignSafe-CI, 2023. <a href="https://doi.org/10.17603/ds2-7ry2-gy66">https://doi.org/10.17603/ds2-7ry2-gy66</a> v1
- Halil Sezen, Ahmet Can Altunisik, Mehmet Emin Arslan, Naci Caglar, Aydin Demir, Nurullah Bektaş, Abdullah Dilsiz, Selim Günay, Zeyad Khalil, Marko Marinković, Amir Safiey, Mohammad Alam, Tracy Kijewski-Correa, Khalid M. Mosalam, "StEER - November 23 2022, Duzce, Turkey, Mw 6.1 Earthquake", Structural Extreme Events Reconnaissance (StEER): Data to Knowledge Framework for Coordinated Reconnaissance following Natural Hazard Event | CMMI-2103550, ID: PRJ-3800, Report, 2023. <u>https://doi.org/10.17603/ds2-8710-ad45</u>

d) Research Presented in Conferences

 Nurullah Bektaş, Yvonne A. Dadson, Rajendra Gautam (2023, May), Enhancing Community Resilience Against Earthquakes: A Study of Existing Buildings in Western Region, Nepal, NHERI GSC Mini Conference, June 2023. <u>https://www.designsafe-ci.org/media/filer\_public/bf/70/bf70bdd8-b135-4f5a-964a-91d7d625284a/2023\_nheri\_gsc\_mini-conference\_proceedings.pdf</u>

- Nurullah Bektaş, Kevin Karanja Kuria, Orsolya Kegyes-Brassai (2023, May), Risk Reduction in Urban Areas: Seismic Vulnerability Assessment of Existing Buildings in Győr, Hungary, NHERI GSC Mini Conference, June 2023. <u>https://www.designsafe-ci.org/media/filer\_public/bf/70/bf70bdd8-b135-4f5a-964a-91d7d625284a/2023\_nheri\_gsc\_mini-conference\_proceedings.pdf</u>
- Benjamin Labar, Nurullah Bektaş, Orsolya Kegyes-Brassai (2023, May), Risk Reduction in Urban Areas: Seismic Vulnerability Assessment of Existing Buildings in Győr, Hungary, NHERI GSC Mini Conference, June 2023. <u>https://www.designsafe-ci.org/media/filer\_public/bf/70/bf70bdd8-b135-4f5a-964a-91d7d625284a/2023\_nheri\_gsc\_mini-conference\_proceedings.pdf</u>
- 4. Nurullah Bektaş, Kevin Karanja Kuria, Orsolya Kegyes-Brassai, A comparative vulnerability assessment of reinforced concrete buildings using rapid visual screening methods and pushover analysis, European Geosciences Union (EGU), Chapter in Book (Abstract), 2023. <u>https://doi.org/10.5194/egusphere-egu23-468</u>
- 5. Nurullah Bektaş, Orsolya Kegyes-Brassai, A case study of comparative seismic assessment of reinforced concrete structures using rapid visual screening methods, European Geosciences Union (EGU), Chapter in Book (Abstract), 2022. https://doi.org/10.5194/egusphere-egu22-12593
- 6. Nurullah Bektaş, Ferenc Lilik, Orsolya Kegyes-Brassai, Enhancing Rapid Assessment of URM Buildings using Fuzzy Logic, 17th Miklós Iványi International PhD & DLA Symposium: Architectural, Engineering and Information Sciences, Chapter in Book (Abstract), 2021. Link: <u>https://www.researchgate.net/publication/365301361\_Enhancing\_Rapid\_Assessment</u> of URM Buildings using Fuzzy Logic

# **Editorial Responsibilities**

April, 2023 Convener: EGU General Assembly 2023

Papers Presented to other academic bodies

- 1. Nurullah Bektaş, A Holistic Framework to Prioritizing Building Interventions for Sustainable and Resilient Construction in Seismic-Prone Regions, Chemical Engineering Transactions, 107. <u>https://doi.org/10.3303/CET23107001</u>
- Nurullah Bektaş, Orsolya Kegyes-Brassai, Development in machine learning based rapid visual screening method for masonry buildings, 10th International Conference on Experimental Vibration Analysis for Civil Engineering Structures (EVACES 2023), 29 August 2023, Milan, Italy. DOI: <u>https://doi.org/10.1007/978-3-031-39117-0\_42</u>
- 3. Nurullah Bektaş, Janos Gergely, Orsolya Kegyes-Brassai, A comparative evaluation of post-earthquake RVS forms for determining building vulnerability and improving existing methods, Challenges in the Western Balkans: Infrastructure and Development in the Region International Conference 2023 IFEES/GEDC/EPOKA Tirana, Albania, 29-30 March 2023, pp 45-52. Link:

https://www.researchgate.net/publication/369753811\_A\_comparative\_evaluation\_of\_post-

earthquake\_RVS\_forms\_for\_determining\_building\_vulnerability\_and\_improving\_exi
sting\_methods

- 4. **Nurullah Bektaş**, Orsolya Kegyes-Brassai, A comparative study of rapid visual screening methods to detailed seismic assessment of a reinforced concrete residential building, The Third European Conference on Earthquake Engineering and Seismology, 2022, Link: <u>https://3ecees.ro/</u>.
- Nurullah Bektaş, Orsolya Kegyes-Brassai, A case study of seismic vulnerability assessment of residential URM buildings based on rapid visual screening in Gyor, Hungary, Tempus Public Foundation – Stipendium Hungaricum PhD Conference. 2023, Link: <u>https://tka.hu/kiadvany/16992/stipendium-hungaricum-phd-studentconference-2022</u>
- 6. Nurullah Bektaş Fuzzy logic based rapid visual screening methodology for structural damage state determination of URM buildings, 8th European Congress on Computational Methods in Applied Sciences and Engineering, 5-9 June 2022, Oslo, Norway. Link: <u>https://www.scipedia.com/public/Bektas\_2022a</u>.
- 7. Nurullah Bektaş, Orsolya Kegyes-Brassai, An overview of S-RVS methods necessity to enhance traditional RVS methods comparison with post-earthquake findings presented in a case study, 12th IEEE International Conference on Cognitive Infocommunications, 2021. Link:

<u>https://www.researchgate.net/publication/357166246\_An\_overview\_of\_S-</u> <u>RVS\_methods\_necessity\_to\_enhance\_traditional\_RVS\_methods\_comparison\_with\_p</u> <u>ost-earthquake\_findings\_presented\_in\_a\_case\_study</u>

Non-academic talks

July, 2023 **Presentation:** Experience and observations from the EEFIT Türkiye-Syria Earthquake mission

May, 2023**Presentation:** Observations from the 2023 Kahramanmaraş Earthquake<br/>Sequence, and Local Hazard and Building Vulnerability Assessment for<br/>Risk Determination in an Urban Area Győr, Hungary; Ion Mincu<br/>University of Architecture and Urban Planning, Bucharest, Romania

# Other Important Forms of Scholarly Productivity

Research Grants and Academic Awards

2020-	Stipendium Hungaricum, Doctoral Fellow, Széchenyi István University
2024	EGU General Assembly 2024, the Early Career Scientist's Travel Support
	in Vienna, Austria
2023	EGU General Assembly 2023, the Early Career Scientist's Travel Support
	in Vienna, Austria
2022	8th European Congress on Computational Methods in Applied Sciences
	and Engineering (ECCOMAS Congress 2022), ECCOMAS Scholarship
	for participation at the ECCOMAS 2022 Congress in Oslo, Norway
2012-2016	Ministry of Youth and Sports of Turkey, Scholarship

Professional Associations

- 2021- Structural Extreme Events Reconnaissance (StEER)
- 2021- NHERI Graduate Student Council (GSC)
- 2021- The Earthquake Engineering Field Investigation Team (EEFIT)

- 2021-The Earthquake Country Alliance (ECA)
- Geotechnical Extreme Events Reconnaissance (GEER) 2023-
- 2023-SUstainable Material Management Extreme Events Reconnaissance (SUMMEER)

Professional Volunteering

March 2023 EEFIT mission to 6 February 2023 Kahramanmaras Earthquake Sequence

# **Consultancies and Contract Research**

Academic Responsibilities

Undergraduate courses taught. a)

- 2023-2024 **Engineering Maintenance** • Autumn
  - Analysis and Design of Structures •

Supervision – MSc. b)

- 2022-
- External Supervisor, Benjamin Beeior Labar (Going to be Defended • in January 2024)
- External Supervisor, Thobani Thabo Cyprian Cebekhulu (Defended • in June 2023)

Supervision - TDK c)

- Second Supervisor, Benjamin Beeior Labar •
- November 2023
- Supervisor, James Wangai
- Supervisor, Marie Gisele Sibomasimbi