Gulen Ozkula

University of the District of Columbia
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Washington, DC 20008

Contact

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PROFILE

Research Interests

- Seismic design, evaluation and rehabilitation of steel structures
- Cyclic stability, modeling, and design of steel columns
- Experimental methods in earthquake engineering
- High-performance steel materials
- Performance-based earthquake engineering
- Seismic risk assessment and collapse prevention using artificial intelligence
- Community Resilience to Natural Hazards

BIOGRAPHICAL SUMMARY

Dr. Gulen Ozkula is an Assistant Professor in the Department of Civil Engineering at the University of the District of Columbia. She has an extensive academic and professional background in structural engineering, with a focus on seismic design and rehabilitation of steel structures, and performance-based earthquake engineering. Dr. Ozkula earned her Ph.D. in Structural Engineering from the University of California San Diego, where her thesis focused on the seismic behavior modeling and design of wide-flange steel columns for special moment frames. She holds a Master's degree in Civil and Environmental Engineering from the University of Illinois at Urbana-Champaign, and a Bachelor's degree in Civil Engineering from Celal Bayar University, where she graduated as valedictorian. Additionally, she has an Executive MBA degree from Istanbul University. Dr. Ozkula is the current academic advisor for the ASCE Student Chapter and the AISC Student Chapter at UDC. Prior to her current role, Dr. Ozkula was an Assistant Professor at the University of Wisconsin, Platteville and Tekirdag Namik Kemal University (Turkey), where she also served as the Director of the Structural Laboratory. She has held visiting scholar positions at the Tokyo Institute of Technology (Japan) and Polytechnic Institute of Coimbra (Portugal). Dr. Ozkula's postdoctoral research at the University of California San Diego and Tokyo Institute of Technology further honed her expertise in the behavior of steel structures under seismic loads.

Dr. Ozkula's current **research** is focused on the behavior of steel columns. The objective of her research is to investigate the seismic performance of wide flange columns, particularly focusing on the differences in web width-to-thickness ratios between shallow and deep sections, and the impact of varying axial loads, to inform potential updates to AISC Specifications. Dr. Ozkula's research interests focuses on **three main areas**: analyzing resilience at the member, subassembly, and system levels; enhancing community resilience in earthquake engineering; and predicting failure mechanisms using machine learning techniques.

She **published** the results of her research in broad impacts journals such as Journal of Structural Engineering. Dr. Ozkula presents her work at national and international conferences, through **invited keynotes** and panels. She served as **co-editor** of European Journal of Engineering and Applied Sciences and serve as a reviewer for many journals such as Journal of Structural Engineering, Structures and Natural Hazards. Dr. Ozkula participated in several **reconnaissance activities** in Turkey, which led her to collaborate with the Ministry of Environment, Urbanization, and Climate Change in 2020 following the Izmir-Samos Earthquake. She was invited to join a **working group** to evaluate the post-earthquake evacuation process. Her subsequent reconnaissance activities in 2023 received extensive **media coverage** through citations and interviews, including features in newspapers and on television.

In addition to her research, Dr. Ozkula has been actively involved in **professional development** and **teaching**. She has been accepted as ASCE ExCEEd Teaching Fellow and has participated in various prestigious workshops, including the NHERI Summer Institute and the AISC Educators Workshop. Her commitment to education is further demonstrated by her role in **organizing** and participating in **summer programs** focused on the Water-Energy-Food-Climate Nexus for **K12 students**. In this program, she utilized Virtual Reality to sketch bridges that students physically built using simple materials. She also employed a Wildfire Mitigation Simulation to highlight the critical role that civil engineers play in addressing natural hazards resulting from climate change. This game-based teaching style aimed to help students communicate effectively within an extended group process involving multiple stakeholders and conflicting interests, make

decisions and reach consensus with other group members, and develop creative solutions in response to complex issues and unexpected dilemmas.

As a first-generation woman engineer, Dr. Ozkula understands the unique challenges and barriers that underrepresented groups face in the field of engineering. Her journey has been shaped by her experiences as one of the few women in her undergraduate civil engineering program and the determination to overcome societal biases. This background has fueled her passion for mentoring students from similar backgrounds. Currently, Dr. Ozkula is **mentoring** students from underrepresented groups, including women, providing them with the encouragement and support that she once needed. By sharing her experiences and knowledge, she aims to inspire and guide the next generation of engineers, helping them navigate their academic and professional paths with confidence and resilience. Her involvement in various organizations, such as the Turkish Chamber of Civil Engineering and the Society of Women Engineers, has further enabled her to reach out to and impact many aspiring engineers, reinforcing her commitment to diversity and inclusion in the engineering community.

EDUCATION

2021 - 2023 **Istanbul University**
Executive MBA

2019 - 2020 **Tokyo Institute of Technology**
Postdoctoral Researcher, Department of Architecture and Building Engineering
Advisor: Prof. Kikuo Ikarashi

2017 - 2018 **University of California, San Diego**
Postdoctoral Researcher, Structural Engineering
Advisor: Prof. Chia-Ming Uang

2011 - 2017 **University of California, San Diego**
PhD, Structural Engineering
Thesis: Seismic Behavior, Modelling and Design of Wide-Flange Steel Columns for Special Moment Frames
Advisor: Prof. Chia-Ming Uang

2009 - 2011 **University of Illinois at Urbana Champaign**
Master of Science, Civil and Environmental Engineering
Thesis: High Strength Steel for Seismic Resistance of Beam-to-Column Connections: Novel Metal Investigation

2003 - 2007 **Celal Bayar University, Manisa, Turkey**
Bachelor of Science, Civil Engineering
Valedictorian

2004 - 2007 **Anadolu University, Eskisehir, Turkey**
Associate Degree, Business Administration

RESEARCH EXPERIENCE

University of Wisconsin, Platteville
Civil and Environmental Engineering **June 2023 – June 2024**

In seismic design for Special Moment Frames (SMF) and Intermediate Moment Frames (IMF), deep wide-flange columns are commonly used. However, issues arise with their slender webs in terms of stabilization compared to shallower columns. Research sponsored by NIST/ATC and AISC indicates that certain web width-thickness limits in the AISC 341-16 aren't conservative enough. The more recent AISC 341-22 has stricter limits, resulting from the aforementioned research. There were concerns during the last code cycle review about these limits' application in braced frame columns, leading to a decision to revert to the older h/tw limits pending further study. The main challenges with the new limits concern the stabilization capabilities of shallow section webs and axial load considerations for capacity design. The NIST/AISC study primarily tested columns under constant axial loads, which might not reflect real-world conditions for braced frame columns. A comparison of two W18x130 columns revealed significant performance differences based on the axial load types. Ultimately, for a more cost-effective column design in braced frames, the variable axial load's positive effect should be taken into account. Additional testing on columns with shallow sections is recommended, aiming to refine current limits and develop new seismic h/t_w limits. Two solutions are proposed: adjusting current limits to account for varying axial load effects or redefining effective C_a for web buckling checks.

Tokyo Institute of Technology
Architectural and Building Engineering **October 2020 – October 2021**

- ✓ **Deep Wide-Flange Beam-Columns**

Steel Special Moment Frame (SMF) is a preferred seismic force-resisting system for its architectural flexibility and high ductility. Before the Northridge earthquake, shallow columns (section depth less than 356 mm.) were used generally in these seismic force-resisting systems. However, to achieve economy in design, there were growing trend to use deeper columns (section depth greater than 356 mm.) to satisfy the code-enforced story drift requirements in recent years. Despite the wide use of these columns, very few research were available on the deep columns hinging behavior under axial compression and cyclic drift. Since a deep column has larger slenderness ratio and is more vulnerable to both local and global buckling, it is essential to investigate its behavior. These buckling modes can severely affect the response of the SMFs by producing undesirable effects such as axial shortening, which increases as the applied forces of compression becomes larger an as the ground motion used as seismic input becomes more severe.

In this study, total of fifteen four-story steel SMFs' behavior was investigated using the finite element program simulations. Four key factors that affect the behavior of these frames were studied: 1) Column bracing; 2) Beam bracing; 3) Column stiffening; and 4) Strong Column Weak Beam (SCWB) ratio. Effect of the axial force level and the column section properties were also investigated for broadening the investigation. It is shown that deep columns can suffer local and/or global instabilities even at relatively low story drift levels. The findings indicate that the performance of SMFs can be improved by bracing deep columns at the top and bottom level of beam flanges and by adding stiffeners on the web of these columns. It is suggested that column shortening can be controlled by increasing SCWB ratio.

University of California, San Diego
Structural Engineering Department **September 2011 – June 2017**
Graduate Student Researcher

- ✓ **Advisor**: Prof. Chia-Ming Uang
- ✓ **Swaged Bulkhead Verification**

Findings: Thin steel plates with welded stiffeners are extensively used in ship structures. General Dynamics NASSCO studied the use of swaged bulkheads as non-load bearing components in order to reduce the overall cost of ship design, construction, and life cycle maintenance. To investigate their application for load carrying structural component, both experimental and analytical studies was conducted at University of California, San Diego. In my first year as PhD student, I worked on "*Swaged Bulkhead Analysis Verifications: Full-Scale Testing of Swaged and Bulb Stiffened Bulkheads*" project. Finite element models are validated by experimental data, and it was concluded that swaged bulkheads were shown to be 63% stronger than bulb bulkheads.

- ✓ **Built-up Box Columns**

Findings: A total of three full-scale built-up box column welded connections with reduced beam section (RBS) were tested. The testing program was in support of the design development of a new 24-story San Diego Central Courthouse facility to investigate the moment frame connection prequalification limits of AISC 358 for effective, economic and reliable application of steel SMF with large built-up box columns in high seismic regions. Results of finite element model of specimens were validated by experimental data. Primary issues investigated in the testing program included evaluating connection response with respect to: i) the use of electro-slag welding (ESW) process for making the continuity plate complete-joint-penetration groove weld; ii) RBS geometry and beam-to-column force transfer mechanism; and iii) modifications needed to improve connection response.

- ✓ **Deep Wide-Flange Beam-Columns**

Findings: Steel Special Moment Frame (SMF) is preferred for seismic force-resisting system for its architectural flexibility and high ductility. To meet the story drift limit specified in building code, design engineers prefer to use deep columns for their high in-plane flexural stiffness about the strong axis. However, unlike plastic hinging at the beams, steel deep beam-columns at large inelastic deformations associated with strong earthquake ground motions is limited, at best. To fill this gap, twenty-five deep (W24) columns were cyclically tested to (i) generate an experimental database, and (ii) evaluate the adequacy of design requirements of deep columns at AISC 341 and ASCE 41. First phase of the project included five W24 sections (W24×55 to W24×176) to cover a wide range of element slenderness ratios for local buckling as well as member slenderness ratios for lateral-torsional buckling. Second phase of the research covers another twenty-three specimens with different section depth (W30, W24 and W18) to provide more data to cover a wider range of section and member slenderness ratios. Similar to Phase I specimens, first batch of Phase II specimens were selected to investigate the effect of slenderness ratios. In addition, the boundary condition effect and varying axial load effects is also investigated. Utilizing a total of forty-six experimental test data in addition to parametric studies with over one-hundred different sections, new acceptance criteria will be proposed for the ASCE-41 standard.

University of Illinois at Urbana Champaign
Civil and Environmental Engineering Department **August, 2009 - August, 2011**

- ✓ **Supervisor**: Prof. Amr Elnashai
- ✓ **Advanced Steel Materials for Seismic Design**
- ✓ **Research**: research and knowledge about high strength steel (HSS) lagged, preventing its widespread applicability in seismic resistance structures. Due to the lack of sufficient theoretical and experimental studies regarding ductility, deformation of structures, and rotational capacity of connections made by HSS, current codes recommend that connections remain in elastic range. Semi-rigid connections with components made from new bainitic steel, an alloy possessing greater ductility, strength and weldability due to its particular microstructure formation.

Celal Bayar University,
Civil Engineering Department
Manisa, Turkey — **September 2003 – July 2007**

- ✓ **Supervisor**: Prof. Umit Gokkus
- ✓ **Submarine Pipelines**
- ✓ **Research**: Senior thesis, "Plastic Design of Submarine Pipelines using the Influence Coefficients and Time History based on SAP 2000," used Stokes' theory pertaining to third order waves to create a theoretical model for analyzing pressure on underwater pipelines. While most similar projects had focused on elastic design, I was able to draw conclusions about the optimal diameter with plastic design.

PROFESSIONAL EXPERIENCE

University of the District of Columbia — **Jan 2024 - Present**
Assistant Professor
Department of Civil Engineering

University of Wisconsin, Platteville — **Jan 2023 - Jan 2024**
Assistant Professor
Department of Civil and Environmental Engineering

Tokyo Institute of Technology — **Oct 2019 - Oct 2020**
Postdoctoral Researcher / Visiting Scholar
Architectural and Building Engineering

Polytechnic Institute of Coimbra — **Sep 2019**
Visiting Professor
Department of Civil Engineering

Tekirdag Namik Kemal University — **Dec 2020 – Dec 2023**
Director of Structural Laboratory
Department of Civil Engineering

Tekirdag Namik Kemal University — **July 2018 - Jan 2023**
Assistant Professor
Department of Civil Engineering

University of California, San Diego — **June 2017 - Jan 2018**
Postdoctoral Researcher
Department of Structural Engineering

University of California, San Diego — **Sep 2015 - Dec 2016**
Instructor
Department of Structural Engineering

University of California, San Diego — **Sep 2011 – June 2017**
Graduate Research Assistant
Department of Structural Engineering

University of Illinois at Urbana Champaign — **Aug 2009 – Aug 2011**
Graduate Research Assistant
Department of Civil and Environmental Engineering

Teknik-El Company, Torbali, Turkey — **Aug - Dec 2007**
Civil Engineer

- ✓ Design of steel construction forms for bridge, tunnels and hydraulic power plant

City of Karsiyaka, Izmir,Turkey — **June – Aug 2006**
Summer Intern

- ✓ Handled cost of material estimation
- ✓ Report and document tracking
- ✓ On-site project visits
- ✓ Invoice/agreement verification and building permit applications

Alarko Group of Companies, Adana, Turkey **June - Aug 2005**
Summer Intern

- ✓ On-site project visits
- ✓ Participate in tunnel design

TEACHING EXPERIENCE

University of the District of Columbia **June 2024**
Assistant Professor
Civil and Environmental Engineering Summer Programs Focus on Water-Energy-Food-Climate Nexus (for High School Students)

University of the District of Columbia **Jan 2024 - Present**
Assistant Professor
Steel Structures, Concrete Structures, Statics, Numerical Analysis, Theory of Structures

University of Wisconsin, Platteville **Jan 2023 – Jan 2024**
Assistant Professor
Steel Structures, Statics, Intro to Struct. Eng., Senior Design

Tekirdag Namik Kemal University **June 2018 – Dec 2022**
Assistant Professor
Steel Structures, Advanced Steel Structures, Intro. To Earthquake Eng., Engineering Math, Construction Management, Engineering Ethics

Istanbul Kultur University **Spring 2021**
Adjunct Professor
Design of Steel Structures

Istanbul Medipol University **Spring 2021**
Adjunct Professor
Design of Steel Structures

UC San Diego, Center for Engaged Teaching **Winter 2015**
Teaching Assistant
Introduction to College Teaching
Took classes to learn how to teach in college level and how students learn.

University of California, San Diego **Winter 2016 – Fall 2017**
Instructor
Design of Steel Structures

RECOGNATIONS, AWARDS, AND SCHOLARHIPS

2024 ASCE ExCEEd Teaching Fellow
2024 American Council on Education, Invited Faculty Evaluator
2023 Advancing Structural Steel Teaching Award
2023 Invited Keynote – 2023 Turkey Earthquake Field Observations, National Taiwan University, NCREE
2023 Invited Speaker – Dokuz Eylul University, Engineering Conference
2022 Selected by Turkish Chamber of Civil Engineering to be a mentor for Women in Civil Engineering Program
2022 Member of the Organizing Committee of Dokuz Eylul University International Civil Engineering Symposium
2021 Committee Member of Structural Division at Chamber of Turkish Civil Engineering
2020 Invited Speaker – International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake
2020 Erasmus+ Visiting Professor Award
2019 The Scientific and Technological Research Council of Turkey, Postdoctoral Research Award

2018	Invited Scientific Committee Member at 13th International Congress on Advances in Civil Engineering, Ege University
2018	Asian Dean's Rising Starts Women in Engineering Workshop Shortlisted Participant
2016	AISC Travel Award to attend the NASCC National Steel Conference
2016	UC San Diego Dissertation Fellowship
2015	AISC Travel Award to attend the NASCC National Steel Conference
2010	UIUC Women Engineers Association Scholarship
2008-2017	Full Scholarship for MS and PhD abroad from Turkish Ministry of National Education (MEB), Republic of Turkey
2007	Valedictorian in Civil Engineering Department
2007	Ranked Fourth among Engineering Departments at Celal Bayar University
2006-2007	Dean's List, Celal Bayar University

KEY SKILLS

Proficient or familiar with a vast array of programming languages, concepts and technologies, including:

- SPlus, MATLAB
- ABAQUS, OpenSees, SAP2000, Risa2D, Roumoko
- AutoCAD, SolidWorks, MathCAD
- Microsoft Office

AFFILIATIONS

- Member, Society of Women Engineers
- Member, American Society of Civil Engineers (ASCE)
- Member, Structural Engineers Association of California (San Diego Branch)
- Member, American Institute of Steel Construction (AISC)
- Member, Earthquake Research Institute (EERI)
- Member, American Society of Engineering Education (ASEE)
- Member, Structural Extreme Event (STEER)
- Member, Turkish Construction Professionals of Southern California
- Member, Turkish Structural Steel Association (TUCSA)
- Earthquake Engineering Research Institute (Vice President, EERI-UCSD Student Chapter, 2015-2017)
- Member, Mentor at TurkishWIN (Women Powerment)
- Member, UCSD Graduate Women in Science and Engineering (GradWISE)
- Executive Member, American Turkish Association South California
- Member, Turkish Chamber of Civil Engineers
- Mentor at Women in Civil Engineering Programs (Beyaz Baretli Kadinlar)

CERTIFICATES IN BUSINESS

University of California, San Diego
Business Administration Department — **Sep 2016 - June 2017**
Leadership and Teamwork Certificate Program

University of California, San Diego
School of Business Administration — **Sep - Dec 2014**
Micro MBA Certificate Program

University of Pennsylvania, — **May 2007 - May 2008**
Business Intensive Certificate Program

PUBLICATIONS

Refereed archival journal publications

- Sepulveda, C.; **Ozkula**, G.; Mosqueda, G.; Uang, C.M; Chou, C.C; Wang, K.J.; Huang, C.W., Huang, P.C, El-Tawil, S., McCormick, J. (2025) "Full-Scale Beam-To-Column Subassemblage Testing For Seismic Evaluation Of Deep Columns", Earthquake Engineering and Structural Dynamics.
- **Ozkula**, G., Dowell, R.K., Baser, T., Lin, J.L, Numanoglu, O.A., Ilhan, O., Olgun, C.G., Huang, C.W, and Uludag, T.D. (2023). "Field Reconnaissance and Observations from the February 6, 2023, Turkey Earthquake Sequence", *Natural Hazards*, 119, pages 663–700.

- **Ozkula**, G. (2023). "Key Factors that Affect the Behavior of Steel Beams and Columns in Special Moment Frames", *Dicle University Journal of Engineering*., 14:2, p. 361-375.
- **Ozkula**, G. and Uang, C.-M. (2023). "Classification and Identification of Buckling Modes of Steel Columns under Cyclic Loading." *Journal of Structural Engineering*, ASCE.
- Chou, C.C., Lai, Y.C., Xiong, H.C., Lin, T.H., Uang, C.M., Mosqueda, G., **Ozkula**, G., El-Tawil, S., McCormick, J. P. (2022) *"Effect of Boundary Condition on the Cyclic Response of I-shaped Steel Columns: Two-Story Subassemblage versus Isolated Column Tests*" Earthquake Engineering and Structural Dynamics
- Akansel V.H., **Ozkula** G. (2021). "The 30 October 2020, Mw 6.6 Sisam (Samos) Earthquake: Interpretation of Strong Ground Motions and Post-Earthquake Condition of Nearby Structures", European Journal of Engineering and Applied Sciences, 4(2), 66-89.
- **Ozkula**, G., Harris, J., and Uang, C.-M. (2021). "Development of Enhanced Seismic Compactness for Webs in Wide-Flange Steel Columns", *Journal of Structural Engineering*, ASCE.
- Chansuk, P., **Ozkula**, G., Uang, C.-M. (2020). "Application of Timoshenko Beam-Column Theory in Data Correction for Steel Beam-Column Testing", *Journal of Structural Engineering*, ASCE, 146(3).
- **Ozkula**, G., Garai, R., Lee, P. and Uang, C.-M. (2019). "Cyclic Behavior of Electroslag Welded Joints in Beam-to-Built-up Box Column Steel Moment Connections." *Journal of Structural Engineering*, ASCE, 145(12).
- **Ozkula**, G., Harris, J., and Uang, C.-M. (2017). "Cyclic Backbone Curves for Steel Wide-Flange Columns: A Numerical Study." *Ernst & Sohn Verlag für Architektur und technische Wissenschaften GmbH & Co.* KG, Berlin, pp. 3365-3374.
- **Ozkula**, G., Harris, J., and Uang, C.-M. (2017). "Observations from Cyclic Tests on Deep, Wide-Flange Beam-Columns." *Engineering Journal*, 1st Quarter, AISC, pp. 45-59.

Books

- Ozkula, G. (2023). *Professor's Path to Academic Excellence: Navigating Success in Academia*. Barnes & Noble.
- Ozkula, G. (2023). *Rise & Shine: the Undergrad's Blueprint to Graduate Success*. Barnes & Noble (in progress)

Conference Proceedings

- Higgs, B., **Ozkula**, G. (2024). "Fostering the Development of Engineering Skills Using Online Tools", ASEE Mid Atlantic Session Conference, New York, USA
- Sepulveda, C., Mosqueda, G., Uang,C.M., **Ozkula**, G., Wang, K.J, Chou, C.C., Huang, P.C., Huang, C.W., Cheng, M., Becker, T. (2022). "Hybrid Simulation of Moment Frames with Deep Columns Experiencing Axial Shortening", *Proceedings*, 8th Asia Conference on Earthquake Engineering, Taipei, Taiwan.
- Uang C.M., **Ozkula** G., and Chansuk P., (2019) "Research on Seismic Design of Deep Wide-Flange Steel Columns in the U.S.", *Proceedings*, 12th Pacific Structural Steel Conference Tokyo, Japan.
- **Ozkula** G., Harris J.L., and Uang C.-M., (2018) "Buckling-Induced Shortening of Deep W-shape Columns in Seismic Steel Frames." *Proceedings,* 11th U.S. National Conference on Earthquake Engineering, LA, USA.
- **Ozkula** G., Harris J.L., and Uang C.-M., (2017) "Cyclic Backbone Curves for Steel Wide-Flange Columns: A Numerical Study." *Proceedings*, EuroSteel Conference, Copenhagen, Denmark.
- **Ozkula** G., Harris J.L., and Uang C.-M., (2017) "Classifying Cyclic Buckling Modes of Steel Wide-Flange Columns under Cyclic Loading." *Proceedings*, *Structures Congress*, ASCE, Denver, CO.
- Uang C.M., **Ozkula** G., Harris J.L., (2015) "Observations from Cyclic Tests on Deep, Slender Wide-Flange Structural Steel Beam-Column Members." *Proceedings*, Annual Stability Conference, Structural Stability Research Council, Nashville, TN. (**presenter: G. Ozkula**)
- Uang C.M., **Ozkula** G., Harris J.L., (2015) "Cyclic Performance of Deep Wide-Flange Steel Columns." *Proceedings*, ICASS, Lisbon, Portugal.
- Lee, P., Garai, R., **Ozkula**, G., Uang, C.-M., and Sarkishian, M., (2014). "Issues on Using Welded Built-up Box-Columns in Steel Special Moment Frames." *Proceedings*, 10th US National Conference on Earthquake Engineering Frontiers of Earthquake Engineering, Anchor, Alaska.
- Sarkisian, M., Lee, P., Garai, R., **Ozkula**, G., and Uang, C.-M. (2013). "Effect of Built-up Box Column Electroslag Welding on Cyclic Performance of Welded Steel Moment Connections." *Proceedings*, Structural Engineers Association Annual Convention, San Diego, CA.

Technical Reports

- Uang, C.H., Hioe, B., **Ozkula**, G. (2023). "Qualification Testing of a Type of Friction Dampers for Seismic Retrofit of a Cedars-Sinai Medical Center Building" *Report No. TR-23/01,* University of California, San Diego, La Jolla, CA.
- **Ozkula** G., Baser, T., Dowell, R.K., Huang, C.W., Ilhan, O. Lin, J.L, Numanoglu, O.A., Olgun, C.G., Uludag, T.D. (2023) "Preliminary Earthquake Reconnaissance Report: Turkiye Earthquake Sequence on February 6, 2023"

Earthquake Engineering Research Institute.

- **Ozkula** G. (2020). "Seismic Behavior of Steel Moment Frames with Deep Columns", 2219 International Postdoctoral Research Fellowship Program, TUBITAK
- **Ozkula**, G., Chansuk, P., Uang, C.-M. (2017). "ATC-106: Seismic Behavior and Design of Deep, Slender Wide-Flange Structural Steel Beam-Column Members Phase II" *Report No. SSRP-17/06*, University of California, San Diego, La Jolla, CA.
- **Ozkula**, G., Uang, C.-M. (2016). "Subassemblage Testing of CoreBrace Buckling-Restrained Braces (NZ Series)." *Report No. TR-16/03*, University of California, San Diego, La Jolla, CA.
- **Ozkula**, G., Uang, C.-M. (2015). "ATC-106: Seismic Behavior and Design of Deep, Slender Wide-Flange Structural Steel Beam-Column Members." *Report No. SSRP-15/06*, University of California, San Diego, La Jolla, CA.
- **Ozkula**, G., Mashayekh, A., and Uang, C.-M. (2014). "Swaged Bulkhead Analysis Verification: Phase III Study on Full-Scale Testing of Swaged and Bulb Stiffened Bulkheads." *Report No. SSRP-14/02*, University of California, San Diego, La Jolla, CA.
- **Ozkula**, G., Uang, C.-M. (2013). "Cyclic Testing of Steel RBS Moment Connections with Built-up Box Column for the San Diego Central Court House." *Report No. TR-13/01*, University of California, San Diego, La Jolla, CA.
- **Ozkula**, G., Uang, C.-M. (2013). "Swaged Bulkhead Analysis Verification: Phase II Study on Full-Scale Testing of Swaged and Bulb Stiffened Bulkheads." *Report No. SSRP-13/15*, University of California, San Diego, La Jolla, CA.
- **Ozkula**, G., Kim, D.-W., Uang, C.-M. (2012). "Swaged Bulkhead Analysis Verification: Phase I Study on Full-Scale Testing of Swaged and Bulb Stiffened Bulkheads." *Report No. SSRP-12/02*, University of California, San Diego, La Jolla, CA.

Posters

- Cyclic Behavior of Deep Steel Columns." *Asians Dean's Forum the Rising Stars Women in Engineering Workshop*, HKUST, Hong Kong, October 2018.
- "Cyclic Behavior of Deep Steel Wide-Flange Columns for Moment Frame Applications." *Research Expo, Jacobs School of Engineering,* University of California, San Diego, CA, April 2015.
- "High Strength Steel for Seismic Resistance of Beam-to-Column Connections: Novel Metal Investigation." *7th Annual EKS Retreat,*. February 2011.
- "Fragility Analysis of Steel Frames Using Computational Intelligence." *UIUC 6th Annual EKS Retreat,* University of Illinois at Urbana Champaign, February 2010.

CONSULTING

Applied Technology Council (ATC), Redwood City CA (2015)

Conducted by ATC under a prime contract with the National Institute of Standards and Technology (NIST) in support of the National Earthquake Hazards Reduction Program (NEHRP) and NIST.

- Member of working group (ATC-114 Phase 2 Project) to develop cyclic modeling parameters for deep steel wide-flange columns for "Guidelines for Nonlinear Analysis of Structural Steel Moment Frames."

PROFESSONAL DEVELOPMENT

ASCE ExCEEd Teaching Workshop **July 2024**

ASCE ExCEEd Teaching Workshop is a prestigious 6-day practicum designed to enhance the teaching abilities of engineering educators. This workshop equipped me with valuable skills and knowledge. I gained insights into effective teaching practices, learned to apply learning style models in class organization and delivery, utilized classroom assessment techniques to gauge student learning, and developed the ability to assess and improve my teaching from both student and self-assessment perspectives. This experience has significantly contributed to my professional development as an educator.

NHERI Research Summit **May 2024**

This summit provided me with a comprehensive understanding of advanced experimental techniques, data analysis, and modeling approaches, which have significantly enhanced my research capabilities. Additionally, I participated in a specialized workshop focused on utilizing the SimCenter research tool, further refining my technical skills and enabling me to integrate sophisticated simulations into my research projects. This experience has not only broadened my technical expertise but also enriched my professional development, equipping me with the knowledge and skills necessary to contribute effectively to innovative engineering research and education.

AISC Educators Workshop **June 2023**

During my attendance at the 2023 AISC faculty workshop, I gained valuable insights and knowledge on effectively teaching steel design to students. The workshop provided a comprehensive understanding of the connection between the specification and the design process of steel-framed buildings. I learned various strategies and techniques to help students visualize the behavior of systems and components, enabling them to comprehend the underlying principles behind the equations.

NHERI Summer Institute **June 2023**

Throughout the workshop, I gained a comprehensive understanding of various aspects related to the NHERI program. This included insight into the programs' missions, the capabilities of different NHERI network sites, the process of requesting NHERI network resources, and the NHERI Science Plan. I also acquired valuable knowledge and guidance on NSF grant proposal writing, enabling me to enhance my skills in the critical area of research funding.

MEDIA COVERAGE

Chanel 3 : https://www.youtube.com/watch?v=TkT6jX64gAA&t=1s
ABC 10 News: https://www.youtube.com/watch?v=2UrV9i3fms8
Structure Magazine : https://www.structuremag.org/?p=25337