Amanpreet Singh, Ph.D.

Dept. of Civil and Systems Engineering, Johns Hopkins University || amanprs@jhu.edu
Earthquake Engineering Group, National Institute of Standards and Technology || amanpreet.singh@nist.gov
Phone: +1 (858) 729-4857 || LinkedIn || Google Scholar || Website

EDUCATION

University of California San Diego (UCSD), La Jolla, CA, USA Mar'23
Doctor of Philosophy in Structural Engineering *GPA: 3.95/4.0*
Dissertation Title: Seismic Behavior of Cold-Formed Steel-Framed Wall-Line Systems in Mid-Rise Buildings
Dissertation Advisor: Dr. Tara C. Hutchinson

Indian Institute of Technology (IIT) Kanpur, Kanpur, UP, India Sep'16
Bachelor of Technology in Civil Engineering (with Distinction) *GPA: 8.6/10.0*
Master of Technology in Civil Engineering *GPA: 9.7/10.0*
Thesis Title: Dynamic Characterization and Seismic Assessment of Historic Masonry Structure of Rumi Darwaza
Thesis Advisor: Dr. Durgesh C. Rai

PROFESSIONAL EXPERIENCE

Johns Hopkins University, Baltimore, MD, USA June'23 - Dec'25
Postdoctoral Fellow, Dept. of Civil and Systems Engineering, Supervisor: Dr. Benjamin W. Schafer

National Institute of Standards and Technology, Gaithersburg, MD, USA Dec'23 - Dec'25
Associate, Earthquake Engineering Group, Supervisor: Dr. Matthew S. Speicher

- Spearheaded CFS10 team testing a 10-story CFS-framed building under seismic and live fire hazard scenarios
- Developed seismic design details demonstrating proof of concept of taller CFS building lateral systems
- Designed the experiment for examining seismic behavior and functionality of nonstructural components
- Realized volumetric modular CFS construction to evaluate efficiency boost relative to traditional methods
- Implemented AI-powered construction monitoring technologies for comprehensive damage documentation
- Curated the state-of-knowledge on performance of nonstructural elements into a relational database NED
- Led team of field adjusters and engineers on damage assessment, repair actions and loss estimation study
- Conducted a building risk assessment for identifying knowledge gaps in functional recovery estimation

UC San Diego, La Jolla, CA, USA Sep'16 - Mar'23
Graduate Researcher, Dept. of Structural Engineering, Supervisor: Dr. Tara C. Hutchinson

- Conducted shake table and quasi-static testing of 26 full-scale CFS-framed shear wall-line specimens
- Documented the impact of structural and nonstructural detailing for AISI S400-20 design code improvements
- Quantified the physical damage in wall-line specimens and its correlation with cyclic hysteretic response
- Developed an efficient practice-oriented modeling strategy for CFS building seismic response prediction

IIT Kanpur, Kanpur, UP, India Aug'15 - Sep'16
Graduate Researcher, Dept. of Civil Engineering, Supervisor: Dr. Durgesh C. Rai

- Conducted forced and ambient vibration tests on a five-story historic masonry monument *Rumi Darwaza*
- Investigated material composition of recreated lime-surkhi mortar and properties of masonry prisms
- Performed numerical analyses to assess performance of half-dome structure; proposed strengthening options

University at Buffalo, Buffalo, NY, USA June - July'15
Research Scholar, Dept. of Civil, Structural and Environmental Engineering, Supervisor: Dr. Andreas Stavridis

- Dynamic characterization of a progressively-damaged two-story RC-frame building using a mobile shaker
- Studied evolution of properties at different masonry-infill damage states for structural health assessment

Vakil Mehta Sheth Consultants Pvt. Ltd., Mumbai, MH, India May - July'14
Engineering Intern

- Performed seismic analysis of a 30-story RC-frame residential building and prepared structural drawings

RESEARCH INTERESTS

Mechanics of Sustainable & Resilient Materials & Structures; Natural Hazards Engineering; Structural Dynamics; Vibration Control & Response Modification; Cold-Formed Steel Structures; Post-hazard Functional Recovery; Vision-based Assessment; Experimental Investigation of Structural & Nonstructural Components

SERVICE, TEACHING AND MENTORSHIP

Voting Member, Consensus Body: *AISI S400-26 North American Standard for Seismic Design of Cold-Formed Steel Structural Systems*, Steel Framing Industry Association (SFIA) 2026

Reviewer: Engineering Structures; ASCE Journal of Computing in Civil Engineering; Steel and Composite Structures; Buildings; Applied Sciences; Infrastructures; Materials; NIST Editorial Review; National Conference on Earthquake Engineering, EERI

Guest Lecture, SE227 Seismic Design and Performance of Nonstructural Components and Systems (graduate), Dept. of Structural Engineering, UC San Diego Spring'24

Conference Volunteer

- EERI 12^{th} National Conference on Earthquake Engineering, Salt Lake City, UT 2022
- EERI 2020 National Earthquake Conference, San Diego, CA 2020

Teaching Assistant

Dept. of Structural Engineering, UC San Diego (Teaching Evaluations)

- SE242 Advanced Foundation Engineering (graduate) Fall'21
- SE151B Design of Prestressed Concrete (graduate/undergraduate) Spring'17, '18, '19, '21
- SE151A Design of Reinforced Concrete (undergraduate) Winter'17, '18
- SE181 Geotechnical Engineering (undergraduate) Fall'16

Dept. of Civil Engineering, IIT Kanpur

- CE242A Civil Engineering Materials (undergraduate) Winter'16
- TA101A Engineering Graphics (undergraduate) Autumn'15

Grader, *Dept. of Structural Engineering, UC San Diego*

- SE102 Introduction to Computing for Engineers (undergraduate) Fall'17

Research Mentor

Visiting Master's Thesis Scholars

- Maryam Soltani, University of Bologna, Italy 2020
- Filippo Sirotti, University of Bologna, Italy 2019
- Gian Marco Ghiaroni, University of Bologna, Italy 2017

NHERI Research Experience for Undergraduate (REU) Program Students

- Leah Seifert, California Polytechnic State University, San Luis Obispo, CA 2024
- Jesse Hernández-González, University of Puerto Rico Mayagüez, Puerto Rico 2021
- Faith Duffy, University of Massachusetts Amherst, Amherst, MA 2018

HONORS AND AWARDS

Research

- 2024 Best Paper Award (Steel & Space Structures Category) and Editor's Featured Paper Award for "Practice-oriented Numerical Model for Seismic Response of Cold-formed Steel-framed Mid-rise Buildings", *Engineering Structures* (2025)
- Best Student Paper Award for "Lateral Response of Cold-Formed Steel Framed Steel Sheathed In-line Wall Systems Detailed for Mid-Rise Buildings", *Cold-Formed Steel Research Consortium Colloquium 2020* (2020)
- Wei-Wen Yu Outstanding Student Paper Award for "Finite Element Modeling and Validation of Steel Sheathed Cold-Formed Steel Framed Shear Walls", *International Specialty Conference on Cold-Formed Steel Structures 2018* (2018)

– Summer Undergraduate Research Grant for Excellence (SURGE), *IIT Kanpur* (2013)

Travel Grants

– CFSEI Expo Young Engineer Stipend, *Cold-Formed Steel Engineers Institute 2024 Expo* (2024)
– NSF Early Career Local Participation Award, *NHERI Natural Hazards Research Summit 2024* (2024)
– EERI Travel & Registration Grant, 12^{th} *National Conference on Earthquake Engineering* (2022)
– NEC 2020 Registration Grant, *2020 National Earthquake Conference* (2020)
– Graduate Student Association Travel Grant, *UC San Diego* (2018)

Service

– Certificate of Exemplary Leadership, *Students' Placement Office, IIT Kanpur* (2015)

Scholastic

– Academic Excellence Award, *IIT Kanpur* (2012)

CONTINUING EDUCATION AND TRAINING

– FEMA P-154: Rapid Visual Screening of Buildings for Potential Seismic Hazards, at *NIST* (2024)
– ATC-20: Postearthquake Safety Evaluation of Buildings, at *NIST* (2024)
– Responsible Conduct of Research, at *Johns Hopkins University* (2023)
– Introduction to College Teaching: Foundations of Equitable Teaching, at *UC San Diego* (2021)

PUBLICATIONS

Peer-Reviewed Journal Articles [7 published, 4 as first-author]

(J11) **Singh, A.**, Hutchinson, T. C., Schafer, B. W. et al. (n.d.). Functional Recovery, Loss and Risk Assessment of a 10-story Cold-formed Steel Building under Seismic and Fire Loading. (In Preparation)

(J10) **Singh, A.**, Hutchinson, T. C., Schafer, B. W. et al. (n.d.). Benchmarking Multi-hazard Resilience of a 10-story Cold-formed Steel-framed Building. Part 2: Nonstructural Component Performance. (In Preparation)

(J9) Hutchinson, T. C., **Singh, A.**, Schafer, B. W. et al. (n.d.). Benchmarking Multi-hazard Resilience of a 10-story Cold-formed Steel-framed Building. Part 1: Program Overview and Seismic Behavior. (In Preparation)

(J8) Zhang, Z., **Singh, A.**, Speicher, M. S., Peterman, K. D., Hutchinson, T. C., Schafer, B. W. (n.d.). Predicted Lateral Response of Finished Cold-formed Steel Framed Wall-lines with Steel Sheet Sheathed Shear Walls. (In Preparation)

(J7) Zhang, Z., **Singh, A.**, Speicher, M. S., Peterman, K. D., Hutchinson, T. C., Schafer, B. W. (2025). Modeling Cold-formed Steel Framed Wall-lines with Steel Sheet Sheathed Shear Walls. *Thin-Walled Structures*, *214*, 113408. DOI: 10.1016/j.tws.2025.113408

(J6) **Singh, A.**, Zhang, Z., Wang, X., Schafer, B. W., Hutchinson, T. C. (2024). Practice-oriented Numerical Model for Seismic Response of Cold-formed Steel-framed Mid-rise Buildings. *Engineering Structures*, *319*, 118833. DOI: 10.1016/j.engstruct.2024.118833. **(2024 Best Paper Award, Editor's Featured Paper)**

(J5) **Singh, A.**, Wang, X., Zhang, Z., Peterman, K. D., Schafer, B. W., Hutchinson, T. C. (2024). Physical Damage-Hysteretic Response Correlation for Steel Sheet Sheathed Cold-formed Steel-framed Wall-lines. *Earthquake Engineering & Structural Dynamics*, *53*(3), 1195–1215. DOI: 10.1002/eqe.4061

(J4) **Singh, A.**, Wang, X., Zhang, Z., Derveni, F., Castaneda, H., Peterman, K. D., Schafer, B. W., Hutchinson, T. C. (2022). Steel Sheet Sheathed Cold-Formed Steel Framed In-line Wall Systems. II: Impact of Nonstructural Detailing. *ASCE Journal of Structural Engineering*, *148*(12), 04022194. DOI: 10.1061/(ASCE)ST.1943-541X.0003434

(J3) **Singh, A.**, Wang, X., Zhang, Z., Derveni, F., Castaneda, H., Peterman, K. D., Schafer, B. W., Hutchinson, T. C. (2022). Steel Sheet Sheathed Cold-Formed Steel Framed In-line Wall Systems. I: Impact of Structural Detailing. *ASCE Journal of Structural Engineering*, *148*(12), 04022193. DOI: 10.1061/(ASCE)ST.1943-

541X.0003433

(J2) Zhang, Z., **Singh, A.**, Derveni, F., Torabian, S., Peterman, K. D., Hutchinson, T. C., Schafer, B. W. (2022). Cyclic Experiments on Steel Sheet Connections for Standard CFS Framed Steel Sheet Sheathed Shear Walls. *ASCE Journal of Structural Engineering*, *148*(2), 04021261. DOI: 10.1061/(ASCE)ST.1943-541X.0003233

(J1) Zhang, Z., **Singh, A.**, Derveni, F., Torabian, S., Peterman, K. D., Hutchinson, T. C., Schafer, B. W. (2021). Cyclic Experiments on Isolated Steel Sheet Connections for CFS Framed Steel Sheet Sheathed Shear Walls with New Configurations. *Engineering Structures*, *244*, 112805. DOI: 10.1016/j.engstruct.2021.112805

Conference Papers [15 published, 7 as first-author; 12 submitted, 3 as first-author]

† - denotes author which presented paper at conference

(C29) Eladly, M. M., Zhang, Z., Zhang, J., **Singh, A.**, Speicher, M. S., Hutchinson, T. C., Schafer, B. W. (2026, September). Pre-Test Evaluation of Ground Motion Sequence Effects on a Ten-Story Cold-Formed Steel Framed Structure. *Proceedings of the 11th European Scientific Conference on Steel and Composite Structures (Eurosteel 2026)*, Cracow, Poland. (In Preparation)

(C28) **Singh, A.**, Speicher, M. S., Cook, D. T., Zhang, J., Malatesta, A., Hutchinson, T. C., Schafer, B. W. (2026, September). FEMA P-58 Assessment of a 10-story Shake Table Tested Cold-formed Steel Building. *Proceedings of the 12th International Conference on the Behaviour of Steel Structures in Seismic Areas (STESSA)*, New Delhi, India. (In Preparation)

(C27) **Singh, A.**, Speicher, M. S., Cyizere Rukundo, F., Hutchinson, T. C., Schafer, B. W. (2026, July). Application of 360 Degree Imaging and Construction Progress Documentation Platforms in Large-scale Experiments: a CFS10 Case Study. *Proceedings of the 13th National Conference on Earthquake Engineering*, Earthquake Engineering Research Institute, Portland, OR. (In Review)

(C26) Cook, D. T., Bhatta, J., **Singh, A.**, Eladly, M. M., Zsarnóczay, A., Sattar, S., Schafer, B. W., Speicher, M. S. (2026, July). Development of Nonstructural Fragility Models Using an Expanded Research Database. *Proceedings of the 13th National Conference on Earthquake Engineering*, Earthquake Engineering Research Institute, Portland, OR. (In Review)

(C25) Zhang, Z., Eladly, M. M., **Singh, A.**, Cyizere Rukundo, F., Karns, J., Jones, H., Schafer, B. W., Hutchinson, T. C. (2026, July). Performance of Continuous Tie-Rod Systems within a 10-Story Cold-Formed Steel Shake Table Tested Building. *Proceedings of the 13th National Conference on Earthquake Engineering*, Earthquake Engineering Research Institute, Portland, OR. (In Review)

(C24) Eladly, M. M., Zhang, Z., Zhang, J., **Singh, A.**, Hutchinson, T. C., Schafer, B. W. (2026, July). Pre-Test Assessment of a Ten-Story Cold-Formed Steel-framed Building under MCE_R-Level Ground Motions. *Proceedings of the 13th National Conference on Earthquake Engineering*, Earthquake Engineering Research Institute, Portland, OR. (In Review)

(C23) **Singh, A.**, Sorosh, S., Zhang, X., Zhang, J., Cyizere Rukundo, F., Eladly, M. M., Ji, R., Rivera, D., Padgett, L., Meacham, B. J., Gernay, T., Emberley, R. L., Schafer, B. W., Hutchinson, T. C. (2026, May). Physical Damage - Measured Response Correlation for Nonstructural Components Tested under Multi-hazard (Earthquake and Fire) Demands in the CFS10 Building. In *Structures Congress 2026*. Reston, VA: American Society of Civil Engineers. (In Review)

(C22) Hutchinson, T. C., Zhang, J., Sorosh, S., Ji, R., Rivera, D., Zhang, X., **Singh, A.**, Cyizere Rukundo, F., Eladly, M. M., Jones, H., Karns, J., Padgett, L., Emberley, R. L., Gernay, T., Meacham, B. J., Schafer, B. W. (2026, May). Overview of the CFS10 Program: Full-scale Shake Table (Earthquake and Fire) Testing of a 10-Story Cold-Formed Steel Building. In *Structures Congress 2026*. Reston, VA: American Society of Civil Engineers. (In Review)

(C21) Hutchinson, T. C., Eladly, M. M., Ji, R., Rivera, D., Cyizere Rukundo, F., **Singh, A.**, Sorosh, S., Zhang, J., Zhang, X., Padgett, L., Jones, H., Karns, J., Schafer, B. W. (2026, March). Advancing use of Cold-formed

Steel Framing Systems for Mid-Rise Residential Construction in Seismic Zones via Full-Scale Shake Table Testing. *Proceedings of the 8th Residential Building Design & Construction Conference*, Pennsylvania Housing Research Center, State College, PA. (Accepted)

(C20) Rivera, D., Zhang, J., **Singh, A.**, Ji, R., Sorosh, S., Eladly, M. M., Cyizere Rukundo, F., Rivera, D., Ellis, M., Padgett, L., Jones, H., Karns, J., Stewart, D., Schafer, B. W., Hutchinson, T. C. (2026, March). Investigating Construction Methods in a Landmark 10-story Cold-Formed Steel Residential Building Specimen Shake Table Test Program. *Proceedings of the 8th Residential Building Design & Construction Conference*, Pennsylvania Housing Research Center, State College, PA. (Accepted)

(C19) Eladly, M. M., Zhang, Z., Zhang, J., **Singh, A.**, Speicher, M. S., Hutchinson, T. C., Schafer, B. W. (2026, March). Pre-Test High-Fidelity Numerical Modeling of a Ten-Story Cold-Formed Steel Framed Building under Seismic Loading. *Proceedings of the 8th Residential Building Design & Construction Conference*, Pennsylvania Housing Research Center, State College, PA. (Accepted)

(C18) **Singh, A.**, Cyizere Rukundo, F., Ameen, J., Fathali, S., Jaramillo, J., Torbin, B., Huntress, J., Szakats, G., Cook, D. T., Speicher, M. S., Sattar, S., Hutchinson, T. C., Schafer, B. W. (2026, March). Interaction of Suspended Ceilings and Pressurized Piping in a Full-scale 10-story Cold-formed Steel Building Shake Table Program. *Proceedings of the 6th International Workshop on Seismic Performance of Non-Structural Elements (SPONSE)*, Yokohama, Japan. (Accepted)

(C17) Cook, D. T., Bhatta, J., **Singh, A.**, Eladly, M. M., Zsarnóczay, A., Sattar, S., Schafer, B. W., Speicher, M. S. (2026, March). An Open-Source Nonstructural Element Database to Shorten the Tech Transfer Gap Between Nonstructural Research and Building Design. *Proceedings of the 6th International Workshop on Seismic Performance of Non-Structural Elements (SPONSE)*, Yokohama, Japan. (Accepted)

(C16) Zhang, J., Sorosh, S., **Singh, A.**, Schafer, B. W., Hutchinson, T. C. (2026, January). Evolution of Modal Characteristics and Model Comparison for a 10-Story Cold-Formed Steel Framed Building under Seismic Excitation. *Proceedings of the International Modal Analysis Conference (IMAC) XLIV*, Palm Springs, CA. (Accepted)

(C15) Eladly†, M. M., Zhang, Z., **Singh, A.**, Zhang, J., Hutchinson, T. C., Schafer, B. W. (2025, April). Stability assumptions in numerical modeling of cold-formed steel-framed buildings under seismic loading. *Proceedings of the Annual Stability Conference Structural Stability Research Council 2025*, Louisville, KY. (link)

(C14) **Singh, A.**, Zhang†, J., Rivera, D., Eladly, M. M., Jones, H., Kovac, A., Padgett, L., Rivera, D., Smith, K., Torabian, S., Peterman, K. D., Schafer, B. W., Hutchinson, T. C. (2024, July). CFS-NHERI 10-Story Building Shake Table Test Specimen: Design Updates. *18th World Conference on Earthquake Engineering*, Milan, Italy. (link)

(C13) Zhang†, J., **Singh, A.**, Eladly, M. M., Schafer, B. W., Hutchinson, T. C. (2024, July). Pre-test Numerical Modeling of the CFS-NHERI 10-Story Capstone Building. *18th World Conference on Earthquake Engineering*, Milan, Italy. (link)

(C12) Zhang†, J., **Singh, A.**, Eladly, M. M., Marcinek, S., Guha, S., Peterman, K. D., Schafer, B. W., Hutchinson, T. C. (2024, July). Ground Motion Selection and Scaling Considerations for the CFS-NHERI Capstone 10-Story Building Specimen. *18th World Conference on Earthquake Engineering*, Milan, Italy. (link)

(C11) **Singh†, A.**, Hutchinson, T. C., Torabian, S., Schafer, B. W., Peterman, K. D., Padgett, L. Jones, H. (2022, October). Structural Design Narrative of the CFS-NHERI 10-story Test Building for Multi-dimensional Shake Table Testing. *Proceedings of the Cold-Formed Steel Research Consortium Colloquium.* (link)

(C10) Zhang†, J., **Singh, A.**, Hutchinson, T. C., Wang, X. (2022, October). Seismic Analysis of the 10-Story CFS-NHERI Building. *Proceedings of the Cold-Formed Steel Research Consortium Colloquium.* (link)

(C9) Zhang†, Z., Speicher, M.S., **Singh, A.**, Hutchinson, T. C., Schafer, B. W. (2022, October). Effects of Modeling Decisions on the Lateral Performance of Cold-Formed Steel Framed Walls. *Proceedings of the Cold-Formed Steel Research Consortium Colloquium.* (link)

(C8) **Singh†, A.**, Zhang, Z., Castaneda, H., Peterman, K.D., Schafer, B.W., Hutchinson, T. C. (2022, July). Correlating fastener damage to hysteretic response and performance levels in steel sheet sheathed CFS wall-lines. *Proceedings of the 12th National Conference on Earthquake Engineering*, Earthquake Engineering Research Institute, Salt Lake City, UT. (link)

(C7) Zhang†, Z., Speicher, M.S., **Singh, A.**, Hutchinson, T. C., Schafer, B. W. (2022, July). Impact of detailing on the lateral performance of cold-formed steel framed walls. *Proceedings of the 12th National Conference on Earthquake Engineering*, Earthquake Engineering Research Institute, Salt Lake City, UT. (link)

(C6) **Singh†, A.**, Wang, X., Zhang, Z., Derveni, F., Castaneda, H., Peterman, K. D., Schafer, B. W. (2020, October). Lateral Response of Cold-Formed Steel Framed Steel Sheathed In-line Wall Systems Detailed for Mid-Rise Buildings. *Proceedings of the Cold-Formed Steel Research Consortium Colloquium.* (link) **(Best student paper award)**

(C5) Zhang†, Z., **Singh, A.**, Derveni, F., Torabian, S., Peterman, K. D., Hutchinson, T. C., Schafer, B. W. (2020, October). Cyclic Performance of Steel Sheet Connections for CFS framed Steel Sheet Sheathed Shear Walls. *Proceedings of the Cold-Formed Steel Research Consortium Colloquium.* (link)

(C4) **Singh, A.**, Wang, X., Torabian, S., Hutchinson, T. C., Peterman, K. D., Schafer, B. W. (2020, April). Seismic Performance of Symmetric Unfinished CFS In-Line Wall Systems. In *Structures Congress 2020* (pp. 629-642). Reston, VA: American Society of Civil Engineers. DOI: 10.1061/9780784482896.058

(C3) Rai†, D. C., **Singh, A.**, Patnana, V. (2019, June). Correlating brick compressive strength to its fundamental transverse natural frequency. In P.B. Dillon & F.S. Fonseca (Eds.), *Proceedings of Thirteenth North American Masonry Conference*. Paper presented at the 13th North American Masonry Conference, Salt Lake City, Utah (pp. 746-755). Longmont, CO: The Masonry Society. (link)

(C2) **Singh†, A.**, Hutchinson, T. C. (2018, November). Finite Element Modeling and Validation of Steel Sheathed Cold-Formed Steel Framed Shear Walls. *CCFSS Proceedings of International Specialty Conference on Cold-Formed Steel Structures.* 5, St. Louis, MO. (link) **(Wei-Wen Yu outstanding student paper award)**

(C1) **Singh, A.**, Rai†, D. C. (2017, June). Dynamic Characterization and Seismic Assessment of Historic Masonry Structure of Rumi Darwaza. *Proceedings of 13th Canadian Masonry Symposium*, Canada Masonry Design Centre, Halifax, Canada. (link)

Conference Presentations/Posters (Without Papers or Extended Abstracts only)

† - denotes presenter

(P9) Hutchinson†, T. C., Eladly, M. M., Emberley, R., Gernay, T., Jones, H., Karns, J., Padgett, L., Cyizere Rukundo, F., Rivera, D., Seifert, L., **Singh, A.**, Sorosh, S., Zhang, J., Schafer, B. W. (2025, September). *CFS10: Full-scale Shake Table (Earthquake and Fire) Test Program on a 10-story Cold-formed Steel Building.* 2025 SEAOC Convention, San Diego, CA. (link)

(P8) **Singh†, A.**, Zhang, J., Rivera, D., Eladly, M. M., Ji, R., Gernay, T., Emberley, R., Meacham, B., Peterman, K. D., Schafer, B. W., Hutchinson, T. C. (2024, May). *Innovations in Cold-Formed Steel Design and Construction: Towards Tall, Fast, Dry, Multi-hazard Resilience.* Natural Hazards Research Summit 2024, College Park, MD. (link)

(P7) Zhang†, J., **Singh, A.**, Hutchinson, T. C. (2023, April). *Numerical Investigation of the Response of a Mid-rise Cold-Formed Steel Building under the Türkiye/Syria Earthquake Sequence Scenario.* 2023 EERI Annual Meeting, San Francisco, CA. (link)

(P6) **Singh†, A.** (2022, May). *Finite Element Modeling and Validation of the CFS-HUD 6-story Test Building.* Cold-Formed Steel Research Consortium Summer Symposium. (link)

(P5) **Singh†, A.** (2021, June). *Seismic Behavior of Cold-Formed Steel Framed Steel Sheathed Wall Systems Detailed for Multi-story Buildings.* Cold-Formed Steel Research Consortium Summer Symposium. (link)

(P4) Wang, X., and **Singh†, A.** (2021, June). *Test Protocol Development and Adaptive Motion Scaling Strategies for Shake Table Testing.* Cold-Formed Steel Research Consortium Summer Symposium. (link)

(P3) **Singh†, A.** (2020, May). *Lateral Response of Cold-formed Steel Framed Steel Sheathed In-line Wall Systems Detailed For Mid-rise Buildings.* Cold-Formed Steel Research Consortium Summer Symposium. (link)

(P2) **Singh†, A.**, Wang, X., Hutchinson, T.C., Zhang, Z., Schafer, B.W., Torabian, S. Castaneda, H., Derveni, F., Peterman, K.D. (2020, March). *Material, Component, and System Level Experimental Efforts within CFS NHERI.* 2020 National Earthquake Conference, San Diego, CA. (link)

(P1) Zhang†, Z., Derveni, F., **Singh, A.**, Wang, X., Castaneda, H., Torabian, S., Peterman, K. D., Hutchinson, T. C. Schafer, B. W. (2020, March). *Simulation of Cold-Formed Steel Framed Shear Walls for Buildings: Efforts within CFS-NHERI.* 2020 National Earthquake Conference, San Diego, CA. (link)

Technical Reports

(R3) Wang, X., **Singh, A.**, Hutchinson, T. C. (2024). *Adaptive Motion Scaling Strategies for Seismic Performance Assessment in Shake Table Testing: Application to CFS-NHERI Wall-Line Tests.* Structural Systems Research Report SSRP-24/02, University of California San Diego, La Jolla, CA (link)

(R2) **Singh, A.**, Hutchinson, T. C. (2022). *Lateral Response of Cold-Formed Steel Framed Steel Sheathed In-line Wall Systems Detailed for Mid-Rise Buildings. Part II: Quasi-Static Test Phase.* Structural Systems Research Report SSRP-19/06, University of California San Diego, La Jolla, CA (link)

(R1) **Singh, A.**, Wang, X., Hutchinson, T. C. (2021). *Lateral Response of Cold-Formed Steel Framed Steel Sheathed In-line Wall Systems Detailed for Mid-Rise Buildings. Part I: Shake Table Test Phase.* Structural Systems Research Report SSRP-19/05, University of California San Diego, La Jolla, CA (link)

Datasets

(D3) **Singh, A.**, Hutchinson, T., Wang, X., Zhang, Z., Schafer, B., Castaneda, H., Derveni, F., Peterman, K. (2022). "Wall Line Tests: Phase 2 – Quasi-Static Tests", in CFS-NHERI: Seismic Resiliency of Repetitively Framed Mid-Rise Cold-Formed Steel Buildings. DesignSafe-CI. DOI: 10.17603/ds2-encf-vj32

(D2) **Singh, A.**, Hutchinson, T., Wang, X., Zhang, Z., Schafer, B., Derveni, F., Castaneda, H., Peterman, K. (2021). "Wall Line Tests: Phase 1 – Shake Table Tests", in CFS-NHERI: Seismic Resiliency of Repetitively Framed Mid-Rise Cold-Formed Steel Buildings. DesignSafe-CI. DOI: 10.17603/ds2-mvj8-8386

(D1) Zhang, Z., Torabian, S., **Singh, A.**, Derveni, F., Peterman, K., Hutchinson, T., Schafer, B. (2021). "Cyclic Experiments on Isolated Steel Sheet Connections for CFS Framed Steel Sheet Sheathed Shear Walls", in CFS-NHERI: Seismic Resiliency of Repetitively Framed Mid-Rise Cold-Formed Steel Buildings. DesignSafe-CI. DOI: 10.17603/ds2-y1wv-yz51

Theses

(T2) **Singh, A.** (2023). *Seismic Behavior of Cold-Formed Steel-Framed Wall-Line Systems in Mid-Rise Buildings.* Doctoral dissertation, University of California San Diego, La Jolla, CA. (link)

(T1) **Singh, A.** (2016). *Dynamic Characterization and Seismic Assessment of Historic Masonry Structure of Rumi Darwaza.* Master's thesis, Indian Institute of Technology Kanpur, Kanpur, India. (link)