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Engineering & Scientific Consulting

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Professional Profile

Dr. Hunt specializes in damage assessments and failure investigations of residential, commercial, and industrial structures. He has evaluated damage to steel, concrete, masonry, and wood-frame buildings as well as to other structures, including parking garages, bridges, retaining walls, tanks, and industrial facilities. Dr. Hunt has investigated structures damaged by earthquake, wind, fire, snow, blast loading, water intrusion, earth movement, and material degradation such as wood decay and steel corrosion. He has also evaluated claims of construction defects, design errors and deficiencies, and building code compliance issues on structures under construction and in service.

Dr. Hunt has led investigations of civil and structural engineering design and construction issues on large infrastructure projects, including international arbitration disputes on projects in Australia, Asia, North America, and the Middle East. He is experienced at working on multi-disciplinary teams and consulting at all stages of disputes, from initial claim development to expert report and testimony preparation.

Dr. Hunt has evaluated construction accidents using structural analysis and computer animations. He also provides peer review services for structural design and retrofit of complex structures using performance-based earthquake engineering and nonlinear and dynamic structural analysis.

Prior to joining Exponent, Dr. Hunt was a researcher at the University of California, Berkeley, where he investigated the seismic response and reparability of precast concrete cladding systems. Dr. Hunt is active in the earthquake engineering research community. He currently serves on the Earthquake Engineering Research Institute's Board of Directors for the Southern California Chapter and on the Learning from Earthquakes Executive Committee.

Academic Credentials & Professional Honors

Ph.D., Civil and Environmental Engineering, University of California, Berkeley, 2010

M.S., Civil and Environmental Engineering, University of California, Berkeley, 2005

B.S., Architectural Engineering, University of Texas, Austin, *high honors*, 2004

Fulbright Research Grantee, Universität Stuttgart, Germany, 2006-2007

IASS Hangai Prize, 2008

Licenses and Certifications

Licensed Professional Civil Engineer, California, #C79454

Licensed Professional Engineer, West Virginia, #23859

Safety Assessment Evaluator, California Emergency Management Agency, ID#72757

Professional Affiliations

Structural Engineers Association of Southern California (member, 2010-present)

- Chair, Post Disaster Performance Observation Committee (PDPOC), serving the SEAOC Earthquake Performance Evaluation Program (EPEP), 2013-2018

Earthquake Engineering Research Institute (member, 2010-present)

- Member, Board of Directors, EERI Southern California Chapter, 2016-present
- Member, EERI Learning from Earthquakes (LFE) Executive Committee, 2015-present
- Chair, EERI Reconnaissance Tools and Training Committee, 2014-2017

Publications

Jampole E, Hunt, J. Structural performance factors and building damage following the 19 September 2017 Puebla, Mexico Earthquake. 17th U.S.-Japan-New Zealand Workshop on the Improvement of Structural Engineering and Resilience, Applied Technology Council, Queenstown, New Zealand, 2018.

Hunt J, Osteraas J, Luth, G. Innovative lateral system with mechanical fuses and strongback frames. Proceedings, 11th U.S. National Conference on Earthquake Engineering, Los Angeles, CA, June 25-29, 2018.

Weiser D, Hunt J, Jampole E, Gobbato M. M7.1 Puebla, Mexico Earthquake on September 19, 2017. Earthquake Reconnaissance Team Report, Earthquake Engineering Research Institute (EERI), February 2018.

Osteraas J, Hunt J, Luth, G. Performance based seismic design of the Gigafactory in Tesla time. Proceedings, Structural Engineers Association of California (SEAOC) Convention, San Diego, CA, September 13-15, 2017.

Adan S, Hunt J. SEAOC EPEP after-action perspective: 2014 South Napa Earthquake. Proceedings, Structural Engineers Association of California (SEAOC) Convention, Maui, HI, October 12-15, 2016.

McDonald B, Hunt J. Thermal load-induced failure of steel space frame structure. Proceedings, 6th Congress on Forensic Engineering, San Francisco, CA, October 31-November 3, 2012.

Krawinkler H, Osteraas J, McDonald B, Hunt J. Development of damage fragility functions for URM chimneys and parapets. Proceedings, 15th World Conference on Earthquake Engineering, Lisbon, Portugal, September 24-28, 2012.

Hunt J, Stojadinovic B. Seismic performance assessment and probabilistic repair cost analysis of precast concrete cladding systems for multistory buildings. PEER Report No. 2010/110, Pacific Earthquake Engineering Research Center (PEER), University of California, Berkeley, November 2010.

Hunt J, Stojadinovic B. Repair cost analysis of multistory buildings with precast concrete cladding.

Proceedings, 9th US National and 10th Canadian Conference on Earthquake Engineering, Toronto, Canada, July 25-29, 2010.

Hunt J. Seismic performance assessment and probabilistic repair cost analysis of precast concrete cladding systems for multistory buildings. Doctoral Dissertation, Structural Engineering, Mechanics and Materials, Department of Civil and Environmental Engineering, University of California, Berkeley, CA, Spring 2010.

Hunt J, Haase W, Sobek W. A design tool for spatial tree structures. Journal of the International Association for Shell and Spatial Structures 2009; 50(1):3-10.

Hunt J, Haase W, Sobek W. Designing adaptive spatial structures. Journal of the International Association for Shell and Spatial Structures 2008; 49(3):167-173.

Hunt J, Stojadinovic B. Nonlinear dynamic model for seismic analysis of non-structural cladding. Proceedings, 14th World Conference on Earthquake Engineering, Beijing, China, October 12-17, 2008.

Hunt J, Stojadinovic B, McMullin K. Modeling the effect of non-structural cladding in buildings. Proceedings, 6th Annual NEES Meeting, The Value of Earthquake Engineering Research, Portland, OR, June 18-20, 2008.

Presentations

Hunt J. Innovative lateral system with mechanical fuses and strongback frames. 11th U.S. National Conference on Earthquake Engineering, Los Angeles, CA, June 25-29, 2018..

Hunt J. Performance based seismic design of the Gigafactory in Tesla time. Structural Engineers Association of California (SEAOC) Convention, San Diego, CA, September 13-15, 2017.

Hunt J. Introduction to EERI and reconnaissance; Building evaluations after EQs through the ATC-20 procedure, EERI Annual Meeting: The Really Big One: Road to Resilience, Portland, OR, March 7-10, 2017.

Hunt J. Post-earthquake reconnaissance workshop. EERI Annual Meeting: Beyond the Epicenter, Expanding Our Risk Perspective, San Francisco, CA, April 5-8, 2016.

Hunt J. Earthquake reconnaissance: Getting EERI members involved. EERI Annual Meeting: Old Cities, New Earthquakes, Boston, MA, March 31-April 3, 2015.

Hunt J, Turner F. M6.0 South Napa Earthquake: SEAOC Earthquake Performance Evaluation Program (EPEP). Structural Engineers Association of California Webinar, October 23, 2014.

Hunt J. Clearinghouse/field investigation protocols. California Earthquake Clearinghouse Meeting, Menlo Park, CA, July 30-31, 2013.

Hunt J. Recent advances in California on post-earthquake damage assessments. DrHouse Final Workshop, Alessandria, Italy, April 16-18, 2013.

Hunt J. Thermal load-induced failure of steel space frame structure. 6th Congress on Forensic Engineering, San Francisco, CA, October 31-November 3, 2012.

Hunt J. Seismic performance assessment of three precast cladding designs using the PEER PBEE repair cost methodology. SEMM Seminar, Department of Civil and Environmental Engineering, UC Berkeley, Berkeley, CA, September 20, 2010.

Hunt J. Repair cost analysis of multistory buildings with precast concrete cladding. 9th US National and 10th Canadian Conference on Earthquake Engineering, Toronto, Canada, July 25-29, 2010.

Hunt J. Designing adaptive spatial structures. Symposium IASS-2008, Shell and Spatial Structures: New Materials and Technologies, New Designs and Innovations - A Sustainable Approach to Architectural and Structural Design, Acapulco, Mexico, October 27-31.

Hunt J. Nonlinear dynamic model for seismic analysis of non-structural cladding. 14th World Conference on Earthquake Engineering, Beijing, China, October 12-17, 2008.

Hunt J. Modeling the effect of non-structural cladding in buildings. 6th Annual NEES Meeting, The Value of Earthquake Engineering Research, Portland, OR, June 18-20, 2008.