

CURRICULUM VITAE

Education

- 1977-1980 B.S. Civil Engineering, Cal Poly Pomona
1980-1982 Master of Engineering, Structural Emphasis, Cal Poly Pomona

Professional Licensing

Registered Professional Engineer, State of California, PE License 34687
Structural Authority, State of California, SE License 2782

ACADEMIC EXPERIENCE

Over 20 years of teaching undergraduate and graduate engineering courses, including all design and most analysis courses.

- 2006-Present Professional Practice Professor (Full-Time Lecturer D), Civil Engineering Department, Cal Poly Pomona
2005-2006 Part-time lecturer, Civil Engineering Department, Cal Poly Pomona
Undergraduate Program: Structural Analysis, Timber Design
1984-1990 Associate Professor, Civil Engineering Department, Cal Poly Pomona
Undergraduate Program: Structural Analysis, Steel Design, Concrete Design, Timber Design, Contracts and Specifications.
Graduate Program: Advanced steel design, Advanced concrete Design, Pre-stressed concrete design.
1983-1984 Part-time Lecturer, Civil Engineering Department, Cal Poly Pomona
Graduate Program: Advanced Steel Design, Advanced Concrete Design.

PROFESSIONAL EXPERIENCE

Over 25 years of professional and management experience in consulting, manufacturing, and industry association environment (detailed employment history as an employee and employer is provided at the end of the document)

Most Recent Professional Services

- 2017-present Senior Advisor TallWood Design Institute (TDI)
2018-present Advisory Council Member - Joint Institute for Wood Products Innovation

Academic Service

ASCE Journal of Structural Engineering – reviewer
ASCE Journal of Constructed Facilities – reviewer
Journal of Mathematics and Architecture - reviewer

Professional Affiliations

Past Chair Wood Education Institute- WEI
Past Vice-Chair SEAOSC Seismology Committee
Member of ASCE, American Society of Civil Engineers
Past - Chair ASCE Wood Education Committee

Past Co-Chair Seismology Committee SEAOSC
Member of SEAOSC, Structural Engineers Association of Southern California
Member of Wood Committee of SEAOSC
Member of EERI, Earthquake Engineering Research Institute

Sample Publications

ICTB 2013

M. Gershfeld, J. Sheine. Case Study: Design of pedestrian timber bridges in an AE Studio
Proceedings of 2nd International Conference on Timber Bridges. Las Vegas, NV, 2013

CUEE 2013

J. van de Lindt, P. Bahmani, **M. Gershfeld**, X. Shao, W. Pang, M. Symans, G. Mochizuki. Performance-Based Seismic Retrofit of Soft-Story Light-Frame Wood Buildings. *Proceedings 10th International Conference on Urban Earthquake Engineering*. Tokyo Institute of Technology, Tokyo, Japan, 2013

2013 ISEC-7

J. van de Lindt, P. Bahmani, **M. Gershfeld**, G. Kandukari, D. Rammer, S. PEI. Seismic Retrofit of Soft-Story Wood-Frame Building Using Cross-Laminated Timber. *ISEC-7 New Developments in Structural Engineering and Construction. Proceedings of Seventh International Structural Engineering and Construction Conference*. Honolulu, HI, 2013.

Quake Summit 2013

M. Gershfeld, C. Chadwell, J. van de Lindt, W. Pang, E. Ziaei, M. Amini, S. Gordon, E. Jennings. Distributed Knee-Braced (DKB) System as a Complete or Supplemental Retrofit of Soft-story Wood-frame Buildings. Presentation only. ASCE, Reno, NV, 2013

2013 SEAOC Convention

M. Gershfeld, C. Chadwell, J. van de Lindt, W. Pang, E. Ziaei, M. J. Ferguson, J. Au, J. Savage and A. Gordon. Distributed Knee-Braced (DKB) System as a Complete or Supplemental Retrofit of Soft-story Wood-frame Buildings. *Proceedings of Structural Engineers of California Convention*. Indian Wells, CA, 2013

2013 PCI Convention and National Bridge Conference

A. Schmitzberger, **M. Gershfeld**. 2012 AE Stuido-Precast Concrete: Student Work (Presentation only). 2013 PCI Convention and National Bridge Conference, Grapevine, TX, 2013

Northridge Earthquake Symposium (Northridge 20)

M. Gershfeld. NEES Wood Frame Soft Story Research Program (presentation only). Northridge Earthquake Symposium, UCLA, Los Angeles, CA, 2014

2014 Structures Congress*

M. Gershfeld, C. Chadwell, J. van de Lindt, W. Pang, E. Ziaei, M. Amini, S. Gordon, E. Jennings. Distributed Knee-Braced (DKB) System as a Complete or Supplemental Retrofit of Soft-story Wood-frame Buildings. *Proceedings of Structures Congress 2014*, Structural Engineering Institute of ASCE, Boston, MA, 2014

J. van de Lindt, P. Bahmani, S. Pryor, G. Mochizuki, **M. Gershfeld**, W. Pang, E. Ziaei, E. Jennings, M. Symans, X. Shao, J. Tian, D. Rammer. NEES-Soft Experimental Program for Seismic Risk Reduction of Soft-Story Woodframe Buildings. *Proceedings of Structures Congress 2014*, Structural Engineering Institute of ASCE, Boston, MA, 2014

2014 Sustainable Structures Symposium*

Sheine, J., **Gershfeld, M.** Case Study: Models for Architecture and Engineering Collaborations in Higher Education using Mass Timber, a Modern Sustainable Material. *Proceedings of the 5th Annual Sustainable Structures Symposium*. Portland University, Portland Oregon, 2014

2014 10NCEE – 10th National Conference Earthquake Engineering Conference*

Gershfeld M, Chadwell C, van de Lindt J, Pang W, Amini M, Gordon S. Distributed knee-braced system (DKB) as a complete or supplemental retrofit for soft-story wood-frame buildings. *Proceedings of the 10th National Conference in Earthquake Engineering*, Earthquake Engineering Research Institute, Anchorage, AK, 2014.

Tian J., Symans M.D., **Gershfeld M.**, Bahmani P. and van de Lindt J. Seismic Performance of a Full-Scale Soft-Story Woodframed Building with Energy Dissipation Retrofit. *Proceedings of the 10th NCEE*, EERI, Anchorage, AK, 2014.

Pang W, Ziaei E, Shao X, Jennings E, van de Lindt J, **Gershfeld M**, Symans M. A three-dimension model for slow hybrid testing of retrofits for soft-story wood-frame buildings. *Proceedings of the 10th National Conference in Earthquake Engineering*, Earthquake Engineering Research Institute, Anchorage, AK, 2014.

van de Lindt, J.W., Bahmani, P., Jennings, E.N., Pang, W., Ziaei, E., Mochizuki, G., **Gershfeld, M.**, Pryor, S., Shao, X., Symans, M., Tian, J., Rammer, D. Full-scale testing of a soft-story woodframe building with stiffness-based retrofits. *Proceedings of the 10th National Conference in Earthquake Engineering*, Earthquake Engineering Research Institute, Anchorage, AK, 2014.

2014 WCTE – World Conference on Timber Engineering*

M. Gershfeld, C. Chadwell, E. Jennings, E. Ziaei, W. Pang, X. Shao, J. van de Lindt. Seismic Performance of Distributed Knee-Brace (DKB) system as a retrofit for SOFT-story wood-frame buildings. *Proceedings of 2014 World Conference on Timber Engineering*. 68th International Convention Forest Product Society. Quebec City, Canada.

J. van de Lindt, P. Bahmani, **M. Gershfeld**, G. Mochizuki, X. Shao, S. Pryor, W. Pang, M. Symans, J. Tian, E. Ziaei, E. Jennings, D. Rammer. Seismic Risk Reduction for Soft-story Woodframe Buildings: Test Results and Retrofit Recommendations from the NEES-Soft Project. *Proceedings of 2014 World Conference on Timber Engineering*. 68th International Convention Forest Product Society. Quebec City, Canada.

P. Bahmani, J. van de Lindt, S. Pryor, **M. Gershfeld**, G. Mochizuki, S. Park. Performance-Based Seismic Retrofit Methodology of Soft-Story Woodframe Buildings with Full-Scale Shake Table Test Validation. *Proceedings of 2014 World Conference on Timber Engineering*. 68th International Convention Forest Product Society. Quebec City, Canada.

J. van de Lindt, P. Bahmani, G. Mochizuki, **M. Gershfeld**, A. Iqbal. Observed Performance of Soft-Story Woodframe Building Retrofitted with CLT Rocking Walls. *Proceedings of 2014 World Conference on Timber Engineering*. 68th International Convention Forest Product Society. Quebec City, Canada.

W. Pang, E. Ziaei, E. Jennings, X. Shao, J. van de Lindt, **M. Gershfeld**. Numerical Model for Hybrid Simulation of a Three-Story Wood-Frame Building. *Proceedings of 2014 World Conference on Timber Engineering*. 68th International Convention Forest Product Society. Quebec City, Canada.

ASCE Journal of Architectural Engineering*

van de Lindt, Bahmani, Mochizuki, **Gershfeld**, and Pryor. "Experimental Seismic Collapse Study of a Full-Scale Four-Story Soft-Story Woodframe Building" *ASCE Journal of Architectural Engineering* special edition "Housing and Residential Building Construction" (under review)

ASCE Structural Engineering Journal*

Bahmani, van de Lindt, **Gershfeld**, Mochizuki, Pryor, Rammer. "Experimental Seismic Behavior of a Full-Scale Four-Story Soft-Story Woodframe Building I: Building, Retrofit Methodology, and Numerical Validation" *ASCE Journal of Structural Engineering*. (under review)

van de Lindt, Bahmani, Mochizuki, Pryor, **Gershfeld**, Tian, Symans, Rammer. "Experimental Seismic Behavior of a Full-Scale Four-Story Soft-Story Woodframe Building with Retrofits II: Shake Table Test Results" *ASCE Journal of Structural Engineering*. (under review)

Journal of Earthquake Engineering*

E. Jennings, J. van de Lindt, E. Ziaei, P. Bahmani, S. Park, X. Shao, W. Pang, D. Rammer, G. Mochizuki, and **M. Gershfeld**. Full-Scale Experimental Verification of Soft-Story-Only Retrofits using Hybrid Testing Submitted to *Journal of Earthquake Engineering*, May 2014 (under review)

Forest Product Society - Wood Design Focus

M. Gershfeld, C. Chadwell, J. van de Lindt, M. Amini, and S. Gordon. Retrofitting Soft-story Wood-frame Buildings with Distributed Knee-Braced (DKB) Frames. Submitted to Wood Design Focus. 2014

P. Bahmani, J. van de Lindt, S. Pryor, G. Mochizuki, **M. Gershfeld**, D. Rammer, J. Tian and M. Symans. Performance Based Seismic Retrofit of Soft Story Woodframe Buildings. Wood Design Focus. 2014

Structure Magazine

P. Bahmani, J. van de Lindt, S. Pryor, G. Mochizuki, **M. Gershfeld**, D. Rammer, J. Tian and M. Symans. Performance Based Seismic Retrofit of Soft Story Woodframe Buildings. Structure Magazine. June 2014 p24-27

Interests

I enjoy a variety of activities outside of my professional life: oil painting, tai chi, chess, read historical novels and biographies of political leaders. Whenever possible I try to find time to ski and hike.

PORTFOLIO – ACADEMIC (SUMMARY)

The following is more detailed description of my research and academic related activities over the last 12 years. Stopped taking on grant work 2018.

- 2015 – 2020 NIST CoE Risk Based Community Resiliency
Multi-university research project
Researcher, Structural Engineering
- 2010 - 2014 NEES-Soft, NSF
co-PI NEES-Soft, multi-university team to investigate retrofit options for soft story wood frame buildings. Presently preparing for a hybrid pseudo-dynamic testing of a three-story wood-frame building at University of Buffalo and shake table test of a four-story building at UCSD, testing will take place summer 2012. Completion is scheduled for 2014.
- 2008 - 2010 Woodworks
PI WEI, responsible for managing the development of the online educational content to assist in improving wood design education in the undergraduate engineering programs. The project resulted in setting up WEI-Wood Education Institute. The grant was a seed investment. Currently discussing transitioning developed material to TallWood Design Institute.
- 2011 - 2012 PCI
AE Studio-Precast, funded studio.
Co-developer of the AE Studio with Axel Schmitzberger. Resulted in publication of student work in 2011 and 2012.
- 2007 - 2012 AE Studio – Timber
Co-developer of the AE studio with Judith Sheine and Gary McGavin. This resulted in paper presentation at 2010 ASEE Conference, Vancouver, BC, Canada.
- 2010 - 2012 Advanced Timber Design
Developed graduate level course in timber design. The course is bi-annually offered graduate level course with focus on Mass Timber and other advanced topics.
- 2009 - 2012 Faculty Advisor for EERI Seismic Competition, 2nd place 2011
- 2011 - 2012 Co-advisor, ASCE Steel Bridge Design Competitions.
- 2020 – 2021 Co-advsior, Timber-Strong Design Competition.

PROFESSIONAL EXPERIENCE

- 2004-2006 Engineered Wood Association, Field Services in Southern California
Education for Architects, Engineers and Building Officials related to proper use of engineered wood.
- 1990-1994 Gershfeld Engineering, division of Inline, Inc., La Habra, CA
- 1985-1990 Gershfeld Engineering, La Habra, CA
- 1983-1985 Gershfeld/Alkhaseh Consulting Engineers, Ontario, CA
A structural Consulting firm involved in structural design of a variety of commercial, high end residential, institutional and light industrial buildings.
- 1982-1983 Project Engineer, Cygna Consulting, Inc. Marina Del Rey, CA
Design of Grossmont Medical Center, Shriner Hospital remodel, Jonathan Club Remodel, UCLA Bridge retrofit analysis.
- 1981-1982 Project Engineer, Jacobs Engineering, Pasadena, CA
- 1980-1981 Design Engineer, Jacobs Engineering, Pasadena, CA
Heavy industrial structures: coal and oil industry.

MANAGEMENT EXPERIENCE

- 2019-Present CEO Ticomtec USA, start-up. Manufacturing wood-concrete, wood-steel composite connections.
- 1999-2001 CEO and member of the Board of Directors, Altinex, Inc., Brea, CA
Start-up. Responsible for engineering, sales, marketing and manufacturing operation of the company. The company grew to 80+employees.
- 1994-1999 Vice-President and member of the Board of Directors, Altinex, Inc., Brea, CA
Responsible for management of sales and marketing, and administrative aspects of the company. Started with five employees.
- 1990-1994 CEO and Chairman of the Board, Inline, Inc., La Habra, CA
Start- up. Design, Manufacturing and Sales of High-Resolution Video Systems for Command and Control Centers. Responsible for all aspects of company operation: sales, marketing, design and manufacturing. Company 40+ employees.

PORTFOLIO - Professional (examples of work)

The following are examples of the projects for which I am listed as the engineer-of-record.

Commercial



High Park Commercial Center, Alicia Parkway, El Toro, CA
AJA Architects

This is a three story commercial spec building. The structural system consisted of a SMRF and a wood floor system.

Retail



Deer Creek Shopping Plaza, Heaven Ave., Ontario, CA
Fitzgerald Architects

This is a large shopping plaza with a Brunswick Bowling Alley. The structural system consisted of masonry walls for the bowling alley and wood framing for the rest of the center. The large span steel trusses were used to span 118 ft span of the bowling alley.

Educational - Remodel



Camarillo Elementary School, Camarillo, CA
Remodeling and Addition

This is a very simple one story wood structure. A new addition and some remodel of the existing building were required.

Civic



Costa Mesa Senior Center, Costa Mesa California
WLC Architects

This is a Senior Citizen Center with large open atriums. Wood shear wall system with steel frames at selected locations.



Carlsbad Senior Center, Carlsbad, CA

WLC Architects

Two-story wood shear wall system with steel frame at selected locations.



City of Banning Civic Center, Banning, CA

Masonry and Wood Construction