Curriculum Vitae
Updated August 2024

Ian N. Morrell, Ph.D.
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A. Education and Employment History

1.Education

Ph.D. Civil Engineering and Wood Science (dual major), Oregon State University, 2022.
Ph.D. Dissertation: Cross-Laminated Timber-Concrete Composite Floor Systems for Tall Building Design

M.S. Civil Engineering, Washington State University, 2018.
M.S. Thesis: Development of an Inter-Panel Connector for Cross-Laminated Timber Rocking Walls Capable of Reverse Cyclic Loading

B.S. Civil Engineering, Gonzaga University, 2016. Honors College, Cum Laude.
Senior Project: Sustainable Fire Resistant Housing in Central Washington
Undergraduate Thesis: Music in The Modern City: An Application of a Baudelairean-Rimbaudian Dichotomy to the Seattle Indie Music Scene
Study Abroad: Gonzaga-in-Florence, Florence, Italy Spring 2014

2. Employment

8/2024 – Present	Assistant Professor, Department of Civil & Environmental Engineering, Tennessee Technological University.
3/2022 – 7/2024	Post-Doctoral Scholar, Department of Wood Science and Engineering, Oregon State University.
4/2018 – 3/2022	Graduate Research Assistant, Department of Civil and Construction Engineering and Department of Wood Science and Engineering, Oregon State University.
2/2018 – 3/2018	Lab Technician, Department of Wood Science and Engineering, Oregon State University.
8/2016 – 12/2017	Teaching Assistant, Department of Civil and Environmental Engineering, Washington State University.

6/2016 – 08/2016 Lab Assistant, Department of Wood Science and Engineering,
6/2015 – 8/2015 Oregon State University.

8/2014 – 8/2014 Quality Assurance Technician, Knife River Prestress Precast Concrete
5/2013 – 8/2013 Harrisburg, Oregon.

B. Teaching, Advising, and Other Assignments
1. Instructional Summary

For-Credit Courses

Course Number	Credits	Course Title	Term	Number of Students	Institution
WSE 461/561	4	Introduction to Timber Product Manufacturing	2022 F	6	Oregon State University
WSE 592	4	Advanced Wood Design	2022 S	17	Oregon State University

Guest Lectures

- WSE 592: Advanced Wood Design – 5 Lectures, Spring Term 2024. Oregon State University
- WSE 599: Wood Science for Architects – 1 Lecture, November 2, 2021, Fall Term 2021. Oregon State University

Teaching Assistantships

- CE 465- Integrated Civil Engineering Design. Teaching Assistant. August 2016-December 2017. Washington State University. Pullman, WA.
- CE 215- Mechanics of Materials. Teaching Assistant. August 2017-December 2017. Washington State University. Pullman, WA.

2. Advising and Mentorship
Current and Former Undergraduate Students

Student	Degree	Role	Program	Institution	Period
Ellie Cauthen	BS	REEU[1] Mentor	Sustainable Materials and Technology	North Carolina State University	5/2024-8-2024
Dashiell Fitzgerald	BS	REEU[1] Mentor	Civil Engineering	University of Maryland	5/2023-8/2023
Anthony Newton	BS	Mentor	Renewable Materials	Oregon State University	09/2022-03/2024
Fernando Medrano-Ruvalcab	BS	REEU[1] Mentor	Civil Engineering	Oregon State University	06/2022-09/2022
Prescott Benner	BS	REEU[1] Mentor	Civil Engineering	Oregon State University	06/2022-09/2022

1. Research and Extension Experiences for Undergraduates, USDA.

C. Scholarship and Creative Activity

1. Peer-reviewed Publications

Morrell, I., A. Sinha, D. Cheney, R. Taylor, F. Potter, D. Way, and T. Deboodt. (2024). "Reverse-cyclic performance of United States prescriptive code connectors in a novel mass timber structural composite panel." *Case Studies in Construction Materials*, 21: e03524. DOI: 10.1016/j.cscm.2024.e03524

Udele, K.E., I. Morrell, J. Morrell, and A. Sinha. (2024). "Biological durability of cross-laminated timber connections." *Data in Brief*, 55: 110698. DOI: 10.1016/j.dib.2024.110698

Morrell, I., Sinha, A., Higgins, C., Tunc, B., and Barbosa, A.R. (2024). "Two-Way Bending Behavior of Cross-Laminated Timber-Concrete Composite Floors with Alternative Shear Connectors." *Journal of Structural Engineering*. DOI: 10.1061/JSENDH/STENG-13290

Morrell, I., Udele, K.E., Morrell, J.J., and Sinha, A., (2024). "Effect of Biodeterioration on Modeling Parameters of Code-Compliant Cross-Laminated Timber Lateral Connections." *Forest Products Journal*. 74 (2): 130–142. DOI: 10.13073/FPJ-D-23-00064

Morrell, I., Higgins, C., Sinha, A., Barbosa, A.R., and Srivastava, M. (2023). "Performance Evaluation of Self-Tapping Screws for Use in Mass Timber-Concrete Composite Floor Connections.", *Journal of Materials in Civil Engineering***.** DOI: 10.1061/JMCEE7.MTENG-15865

Morrell, I., Higgins, C., Sinha, A., and Barbosa, A.R. (2023). "Experimental Assessment of Alternative Shear Connections in Cross-Laminated Timber-Concrete Floor Systems.", *Journal of Structural Engineering.* DOI: 10.1061/JSENDH/STENG-11443

Morrell, I., Soti, R., Miyamoto, B., and Sinha, A. (2020). "Experimental Investigation of Base Conditions Affecting Seismic Performance of Mass Plywood Panel Shear Walls." *Journal of Structural Engineering*, 146(8), 04020149.

Miyamoto, B. T., Sinha, A., and Morrell, I. (2020). "Connection Performance of Mass Plywood Panels." *Forest Products Journal,* 70(1), 12.

Soti, R., Sinha, A., Morrell, I., and Miyamoto, B. T. (2020). "Response of Self-Centering Mass Plywood Panel Shear Walls." *Wood and Fiber Science*, 52(1), 102–116.

Way, D., Akgul, A., Morrell, I., and Sinha, A. (2016). "Lateral Connection Behavior of Molded Core Sandwich Panels with Self-Tapping Screws", *Wood and Fiber Science.*

Morrell, P.D., and Morrell, I. (2016). "Using Pokemon Go to meet NGSS science and engineering practices". *The Oregon Science Teacher.*

Sinha, A., Morrell, I., and Akgul, T. (2016). "Thermal degradation modeling for single-shear nailed connections", *Wood Material Science & Engineering*, DOI: 10.1080/17480272.2016.1226947.

Non-Refereed Proceedings

Morrell, I. Dolan, J.D., Phillips, A., Blomgren, H. (2018). "Development of an Inter-Panel Connector for Cross-Laminated Timber Rocking Walls." Proceedings of *World Conference on Timber Engineering*. Seoul, Korea. Presenter

Sinha, A., Morrell, I., Miller, T., Milaj, K., Tokarczyk, J. (2018). "Evaluating Environmental Impacts of Wood Substitution in Existing Buildings Using Life-Cycle Analysis." Proceedings of *World Conference on Timber Engineering*. Seoul, Korea. Presenter

Blomgren, H., Pei, S., Powers, J., Dolan, J.D., Wilson, A., Morrell, I., Jin, Z. (2018). "Cross-Laminated Timber Rocking Wall with Replaceable Fuses: Validation through Full-Scale Shake Table Testing." Proceedings of *World Conference on Timber Engineering*. Seoul, Korea.

Morrell, J., Sinha, A., Morrell, I., Treblehorn, D. (2018). "Moisture Intrusion in Cross Laminated Timber and the Potential for Fungal Attack." Proceedings of *World Conference on Timber Engineering*. Seoul, Korea.

Professional Meetings and Volunteered Presentations/Posters at Professional Meetings

Morrell, I., Fitzgerald D., Sinha, A. (2024). "Time-Dependent Relaxation of Nailed Connections in Mass Timber and Solid-Sawn Timber." *Society of Wood Science and Technology International Convention*. Portorož, Slovenia. Presenter.

Yadama, V., Morrell, I., Chanda, A., Bakri, M.K.B., Sinha, A., (2024). "Connection Performance of New Mass Timber Panels Fabricated from Low-Quality Small Diameter Trees." *Society of Wood Science and Technology International Convention*. Portorož, Slovenia.

Morrell, I., Udele, K., Bhandari, S., Sinha, A., Morrell, J.J., (2023). "Fragility Analysis Approaches to Biodeterioration of Cross-Laminated Timber Connections." *Society of Wood Science and Technology International Convention.* Asheville, North Carolina, USA. Presenter.

Morrell, I., Morrell, J.J., Nairn, J., and Sinha, A. (2022). "Volumetric and Fracture Effects Due to Moisture Intrusion in Douglas-Fir Larch Cross-Laminated Timber." *Society of Wood Science and Technology International Convention.* Kingscliff, NSW, Australia. Presenter.

Morrell, I. (2022). "Withdrawal of Self-Tapping Screws from Mass Timber Panels." 2022 *Mass Timber Conference*. Portland, Oregon, USA. Poster

Morrell, I., Soti, R., Sinha, A., Miyamoto, B., Fitzgerald, D. (2019). "Experimental Investigation of a Mass Plywood Panel Self-Centering Rocking Wall System." *Society of Wood Science and Technology International Convention*. Fish Camp, California, USA. Presenter

Morrell, I., Sinha, A. (2019). "Experimental Investigation of Mass Plywood Panel Shear Walls." *2019 Mass Timber Conference.* Portland, Oregon, USA. Poster.

Higgins, C., Morrell, I.**,** Sinha, A., Barbosa, A.R. (2019). "Cross-Laminated Timber and Concrete Composite Floor Systems." *2019 Tallwood Design Institute Symposium*. Corvallis, Oregon, USA. Presentation.

Morrell, I. Dolan, J.D., Phillips, A., Blomgren, H. (2018). "Development of an Inter-Panel Connector for Cross-Laminated Timber Rocking Walls." *World Conference on Timber Engineering*. Seoul, Korea. Presenter

Sinha, A., Morrell, I., Miller, T., Milaj, K., Tokarczyk, J. (2018). "Evaluating Environmental Impacts of Wood Substitution in Existing Buildings Using Life-Cycle Analysis." *World Conference on Timber Engineering*. Seoul, Korea. Presenter

Blomgren, H., Pei, S., Powers, J., Dolan, J.D., Wilson, A., Morrell, I., Jin, Z. (2018). "Cross-Laminated Timber Rocking Wall with Replaceable Fuses: Validation through Full-Scale Shake Table Testing." *World Conference on Timber Engineering*. Seoul, Korea.

Morrell, J., Sinha, A., Morrell, I., Treblehorn, D. (2018). "Moisture Intrusion in Cross Laminated Timber and the Potential for Fungal Attack." *World Conference on Timber Engineering*. Seoul, Korea.

Morrell, I., Higgins, C., Sinha, A., Barbosa, A.R. (2018). "Composite Concrete-CLT Floor Systems for Tall Building Design." *2018 Tallwood Design Institute Symposium*. Corvallis, Oregon. Poster.

Funded Projects

Morrell I., and Sinha A. (2023). Determination of material equivalency between mechanically jointed and monolithic panels. Boise Cascade Corp. $46,000. Duration: 1 year.

Morrell I., and Sinha, A. (2023). Determination of connection equivalency for Hinoki Cypress and Japanese Sugi. Japanese Lumber Inspection and Research Association, Ministry of Agriculture, Forestry, and Fisheries. $48,000. Duration: 1 year.

Sinha, A. and Morrell, I. (2022). Determination of seismic performance and connection equivalency for veneer laminated timber. Boise Cascade Corp. $66,000. Duration: 1 year.

D. Professional Activity

Professional Registration

E.I.T.- State of Washington License number 22026516

Professional Societies

Member, Society of Wood Science and Technology (2019-Present)

Associate Member, American Society of Civil Engineers (2024-Present)
Member, Society of Wood Science and Technology Membership Committee (2022-Present)
Chair, Session on Mass Timber-New Materials, Properties, and Connections, 2023 Society of Wood Science and Technology International Convention, Asheville, North Carolina, USA.

Journal Referee

Construction and Building Materials – Reviewer
Engineering Structures – Reviewer
Holzforschung – Reviewer
Journal of Structural Engineering – Reviewer
Wood and Fiber Science – Reviewer

Grant Reviewer

USDA Forest Service Wood Innovations Funding Program National Review Panel (2023, 2024)

Activities and Honors

- Boy Scouts of America – Eagle Scout, Bronze Palm
- Tau Beta Pi (inducted Fall 2013), Secretary Washington Delta Chapter (2015-2016)
- Outstanding Teaching Assistant in Civil Engineering Award Washington State University (2017)
- Forest Utilization Society (Vice President 2019-2020)
- ARCS Foundation Fellowship Scholar 2018-2021
- Published photographer, National Geographic Explorer 2020