

SUJIT BHANDARI

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EDUCATION

Dual Ph.D. Degree in Wood Science and Civil Engineering, Expected Graduation: Spring 2022
Oregon State University, Oregon, USA

Master of Science in Structural Engineering, 2017 – 2019 (Distinction)
Tribhuvan University, Institute of Engineering, Lalitpur, Nepal

Bachelor's Degree in Civil Engineering, 2009 – 2012 (First Division)
Tribhuvan University, Institute of Engineering, Lalitpur, Nepal

EXPERIENCE

Graduate Research Assistant at Oregon State University, Oregon, USA – July 2019 – Present

- Conduct ongoing research aimed at design and demonstration of modular housing from cross-laminated timber using underutilized forest resources

Consultant (Structural Design) Engineer at Frontier Engineering Consultancy, Kathmandu, Nepal – July 2017 – June 2019

- Designed and analyzed several residential housing projects

Project Engineer at Deutsche Welthungerhilfe e.V., United Nations WFP Funded Project, Dhading, Nepal – May 2018 – December 2018 and December 2016 – June 2017

- Designed and implemented about 700 small rural community infrastructures, such as drinking water projects, irrigation projects, community housing, roads and trails.
- Served as technical head and acting project manager of project leading 10 engineers

Civil Engineer at Earthquake Reconstruction Project, Ministry of Urban Development, Government of Nepal – May 2016 – December 2016

- Trained more than 1,000 engineers, sub-engineers and construction workers on earthquake resistant building practices
- Inspected 500 residential buildings for earthquake resiliency and provided technical support

Project Engineer at D.S. Engineering, Kathmandu – May 2015 – May 2016

- Supervised construction of a commercial building

Civil Engineer at Al Madina Palace General Contracting, Abu Dhabi, UAE - March 2013 – April 2015

- Prepared tender documents and shop drawings and procured materials for construction
- Oversaw construction of 8 residential buildings with around 50 workers

PUBLICATIONS

Bhandari, S., Jahedi, S., Riggio, M., Muszynski, L., Luo, Z., & Polastri, A. (2021). CLT Modular Low-rise Buildings: A DfMA Approach for Deployable Structures using Low-grade Timber. *World Conference in Timber Engineering*, Santiago, Chile

Jahedi, S., **Bhandari, S.**, Muszynski, L., & Riggio, M. (2021). Investigating a Potential for Utilization of Low Value Ponderosa pine Lumber in CLT Modular Structures. *World Conference in Timber*

Engineering, Santiago, Chile

- Bhandari, S.,** Riggio, M., Fischer, E., Muszynski, L., & Jahedi, S. (2021). Behavior of In-plane Butt-Joints with 45° screws in Ponderosa Pine CLT. *Proceedings of SWST 64th International Convention*, Flagstaff, Arizona, USA
- Jahedi, S., Muszynski, L., Riggio, M., & **Bhandari, S.** (2021). Mechanical Performance of Prototype CLT Layouts Made of Restoration Harvested Ponderosa Pine. *Proceedings of SWST 64th International Convention*, Flagstaff, Arizona, USA
- Shrestha, J. K., & **Bhandari, S.** (2020). A Model for In-Plane Capacity of Multi-Leaf Stone Masonry Walls. *Journal of Engineering*, 2020. <https://doi.org/10.115/2020/4028675>
- Shrestha, J. K., **Bhandari, S.**, Pradhan, S., & Gautam, D. (2020). Simplified frame model for capacity assessment of masonry buildings. *Soil Dynamics and Earthquake Engineering*, 131(January), 106056. <https://doi.org/10.1016/j.soildyn.2020.106056>
- Bhandari, S.**, Shrestha, J. K., & Pradhan, S. (2019). In-Plane Capacity of Multi-leaf Stone Masonry Walls. *Proceedings of IOE Graduate Conference, 2019-Summer*, pp. 93–100, Lalitpur, Nepal
- Pradhan, S., Shrestha, J. K., & **Bhandari, S.** (2019). The Influence of Brick Bond in a Brick Masonry Using Simplified Micro Modelling Approach. *Proceedings of IOE Graduate Conference, 2019-Summer*, pp. 499–504, Lalitpur, Nepal

ACADEMIC PROJECTS

- “Demonstrating Use and Performance of a CLT Modular Building Utilizing Low-Value Pine Lumber from Logs Harvested in Pacific NW Forest Restoration Programs” – Ph.D. Research Project, Oregon State University
- “A Simplified Capacity Assessment Technique for Multi-Leaf Stone Masonry Structures”– Master’s Thesis submitted to Department of Civil Engineering, Tribhuvan University – May 2019
- Project on “Design of Suspended Bridge” - Civil Engineering Students’ Society (CESS-Nepal) – January 2012

PRESENTATIONS

- Behavior of In-plane Butt-Joints with 45° screws in Ponderosa Pine CLT, SWST 64th International Convention, Flagstaff, Arizona, USA
- “Modular CLT Emergency Housing using Ponderosa Pine from Restoration Forests”, Invited Speaker, Oregon Society of Certified Public Accountants, Forest Products Conference, Virtual, June 2021
- Invited Speaker, Grad Inspire, Oregon State University, Virtual, February 2021
- “On Use of Low-Grade Cross Laminated Timber in Low-Rise Buildings”, Forest Products Society International Conference, Virtual, July 2020
- “Use of Low-Grade Cross Laminated Timber in Low-Rise Buildings”, Western Forestry Graduate Research Symposium, Virtual, May 2020
- “In-Plane Capacity of Multi-leaf Stone Masonry Walls”, Institute of Engineering Graduate Conference, Lalitpur, Nepal, May 2019

TRAINING AND SKILLS

Language Skills: Fluent in English, Nepali, Hindi and Bengali. Basic knowledge of Arabic.

Software Experience: ANSYS, OpenSees, SAP2000, ETABS, 3Muri, GIS, AutoCAD, AutoCAD Civil 3D, SketchUp, MS Office (Word, Excel, PowerPoint and Access)

Programming Experience: Python, MATLAB, FORTRAN, VBA Excel, C++

Trainings:

- Advanced Design Course on Seismic Safety of Buildings (PDH 20) – October 2017
- GIS Specialization Courses by University of California, Davis (online) – October 2017
- Training of Trainers on Earthquake Resistant Building Construction – August 2016

SCHOLARSHIPS AND AWARDS

- Awarded 2021-22 P.F. and Nellie Buck Yerex Graduate Scholarship,
- Awarded 2020-21 Forestry Graduate Fellowship, 2020-21 Oregon Lottery Graduate Scholarship, Charles F. and Elaine Mellen Sutherland College of Forestry Education Fund Scholarship.
- Awarded 2019-20 Oregon State University Provost's Distinguished Graduate Scholarship
- First Position on nationwide entrance examination in civil engineering category for admission in Master of Science in Structural Engineering (2017), Institute of Engineering

ORGANIZATIONS

- Secretary, Earthquake Engineering Research Institute (EERI), OSU Chapter
- WSE Department Representative, Graduate Student Council, CoF, OSU
- Registered Engineer, Civil "A" Category, Nepal Engineering Council