

# Sandesh Lamsal

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## Employment History

- 2022 – Present █ **Research/Teaching Assistant**, Civil and Architectural Engineering, University of Miami, Coral Gables, FL
- 2021 – 2022 █ **Graduate Teaching Assistant**, Texas Tech University, Lubbock, TX
- 2019 - 2021 █ **Project Manager**, Isotech Consultants, Kathmandu, Nepal
- 2017 - 2019 █ **Civil Engineer**, Isotect Consultants, Kathmandu, Nepal
- 2017 - 2021 █ **Civil Structural Engineer (Part-time)**, Tensile Structures (P.) Ltd., Kathmandu, Nepal

## Education

- 2022 – Present █ **Ph.D., Civil Engineering (Structures)** University of Miami, Coral Gables, FL
- 2021 – 2022 █ **M.S., Civil Engineering (Structures)** Texas Tech University, Lubbock, TX
- 2013 – 2017 █ **Bachelor's Degree, Civil Engineering** Tribhuvan University, Kathmandu, Nepal

## Research Publications

### Conference Proceedings

- 1 S. Lamsal, G. Aguilar, P. Tan, *et al.*, “Quantifying wave energy dissipation in perforated breakwater structures: An experimental study with porous hexagonal seahive configurations,” 2024.
- 2 B. K. Norris, B. Reguero, C. G. Lasserre, *et al.*, “Reefense: Design considerations in developing low-crested structures with reef restoration for coastal defense,” 2024.

## Skills

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|------------|--|
| Languages  | <span style="color: #800000;">█</span> Fluent in Nepali (Native Speaker), English.   |
| Coding     | <span style="color: #800000;">█</span> MATLAB and Python, Machine Learning (Supervised Learning, Unsupervised Learning, Reinforcement Learning, Deep Learning, TensorFlow, PyTorch, Regression, Classification, Clustering, Neural Networks) |
| Software   | <span style="color: #800000;">█</span> CSI SAP2000, ETABS, ABAQUS, AutoCAD, REVIT  |
| Analysis   | <span style="color: #800000;">█</span> Earthquake Load, Wind Load, ASCE 7-16, ACI 318-19, FEM Linear Analysis  |
| Design     | <span style="color: #800000;">█</span> Reinforced Concrete Building Design, Steel Building Design, Steel Connection Design, 2D and 3D Drafting of Building and Bridges with Rebars and Steel Shop Drawing Preparation                        |
| Research   | <span style="color: #800000;">█</span> Structural Engineering, Coastal Engineering, Morphological Investigation, Physical Testing, Wind and Wave Loading Effects, Building Design Codes, Resilience.   |
| Leadership | <span style="color: #800000;">█</span> Team Leadership, Project Management, Collaboration.   |

## Miscellaneous Experience

### Awards and Achievements

- 2021.08.12  **Engaged Scholarship Award**, Texas Tech University, TX, USA
- 2022.11.14  **Edward E. Whitacre Jr. College of Engineering Merit Based Award**, Texas Tech University, TX, USA

### Certifications

- 2024-02-23  **OpenFoam CFD**, OpenFoam Ltd. UK
- 2023-12-01  **Machine Learning**, University of Miami
- 2019-07-01  **Bridge Design Certification**, Engineering Helpline Pvt. Ltd.
- 2018-02-01  **Professional Engineering Certificate**, Nepal Engineering Council

### Involvements

- 2024  **GSA Senate**, University of Miami
- World Ocean Day 2023  **Volunteer**, X-REEFS Showcasing Research at Frost Science Museum, Miami
- 2021 – 2022  **Member**, TTU ASCE Students Society
- Since 2018  **Active member**, American Society of Civil Engineers(ASCE)
-  **Member**, Nepal Engineers' Association
- 2015 – 2017  **Secretary**, National College of Engineering Civil Engineering Student's Society

## References

### Dr. Landolf Rhode-Barbarigos

Associate Professor  
Department of Civil and Architectural Engineering  
University of Miami,  
 landolfrb@miami.edu

### Dr. Brian Haus

Professor  
Department Chair of Ocean Sciences  
University of Miami,  
 b.haus@miami.edu