Nepal Earthquake Reovery Buidling Code Review & Update
Project ID: CEEn_2017CPST_011

by

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A Capstone Project Final Report

Submitted to

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Executive Summary

PROJECT TITLE: Nepal Earthquake Recovery Building Code Review and Update>
PROJECT ID: CEEn-2016CPST-011
PROJECT SPONSOR: Bishnu H. Adhikari
TEAM NAME: Team Bhukampa Aid

Nepal experienced a 7.8 R. Scale earthquake in April of 2015. The Nepalese Building Code (NBC) has seismic loading provisions, but requires third party vetting of the code. Compare the seismic provision in the NBC with the International Building Code.

< Total 1 page or less -- Concise summary of the project requirements, expectations, results and conclusions/recommendations>

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Introduction

In the course of analyzing and comparing the NBC to the IBC, it was noticed that there have been many research articles, symposiums, and conferences in the past 3 decades to discuss the issue of earthquake safety in Nepal. From this vast pool of knowledge and expertise we have organized the various articles based on recommendations and most current research. The focus of this study is

- How the code should be organized
- How the code is worded (mandatory rule of thumb, etc.)
- Code compliance
- Method of design
- Seismic hazard levels
- Static and Dynamic Methods

By focusing on these topics, we can condense the many opinions and suggestions for the NBC to give an easier way for the Nepalese government to decide what actions should be emphasized in updating the Nepalese Building Code.

< Overview of the project, conditions, expectations and requirements >

Schedule

January 8, 2018—Met with Dr. Richards, our Capstone faculty mentor. Discussed the IBC and ASCE 7. After meeting with Dr. Richards we proceeded to compare the NBC with the seismic sections of ASCE 7.

February 8, 2018—Met with Paul Thorley, a member of the Capstone Committee. Discussed the progress of our Capstone progress and where to focus our efforts. Concluded the best course of action was to compile the research done on Nepal earthquake safety over the past 30 years.

March 15, 2018—Meet with Bishnu Adhikari

< Project time line with important milestones, accomplishments etc. >

Assumptions & Limitations

< Concise explanation of the assumptions used in the projects and their limitations.>

Design, Analysis & Results

< Detailed descriptions of the design and analysis process as well as discussions of the results. Use as much graphics (i.e. pictures, tables, figures etc.) with concise descriptions as possible to convey your message instead of paragraphs of words. >

Lessons Learned

< Listed what challenges you encountered while doing this project and how you overcome it (see your status reports). This is for others to learn and avoid for future projects and/or extension of this project >

Conclusions

< Concise description of the conclusions your team has learned from the results of this project >

Recommendations

< List what you recommend your customer to do: i.e. Perform follow-on analysis; assess/evaluate followed by proposal to their customer for implementation etc. >

Appendix A

< 1 page resume for each team member and graduate mentor with each on a new page by itself ***after this page***. This is your chance to advertise for yourselves and your team. Who knows, you may be applying for a job at this company some day in the future. >

< Add other Appendices as necessary for data, numerical results and result summary tables, software/app source code & sample software/app execution, etc. >