2015 Summer Research Experience at the University of Memphis

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I. INTRODUCTION

The Brazil Scientific Mobility Program - BSMP is an exchange program of the Brazilian government, administrated by the Institute of International Education – IIE in the United States of America. This program aims to send Brazilian undergrad students to several countries around the world, and I am one of thousands of students contemplated with an opportunity in the USA. Currently, I am a Bachelor Student at FEPI – Academic Center of Itajubá in Brazil, and since I came to the USA, in August 2014, I have studied at the University of New Mexico where I took an intensive English course in the fall of 2014 that allowed me to apply for the university in the spring of 2015. Also, as part of the BSMP, I should get either a Summer Internship or Summer Research, and at this point the University of Memphis began to be part of my studies abroad experience. I would like to be a Research Assistant in some project regarded to sustainability and structure, and through the professor Dr. Adel Abdelnaby the Civil Engineer Department granted me this opportunity.

II. THE RESEARCH

The project consists in building a real scale wood frame shear wall using the state-of-the-art testing facility at the Structural Laboratory at the University of Memphis as showed in the following figures.

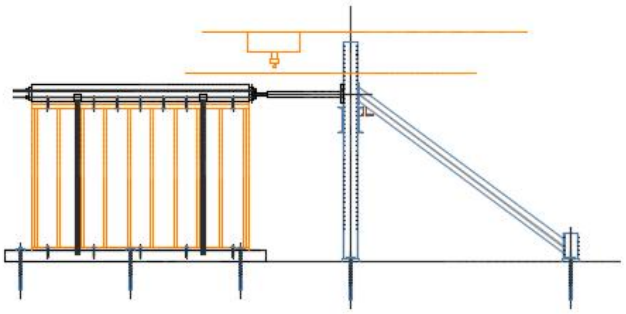


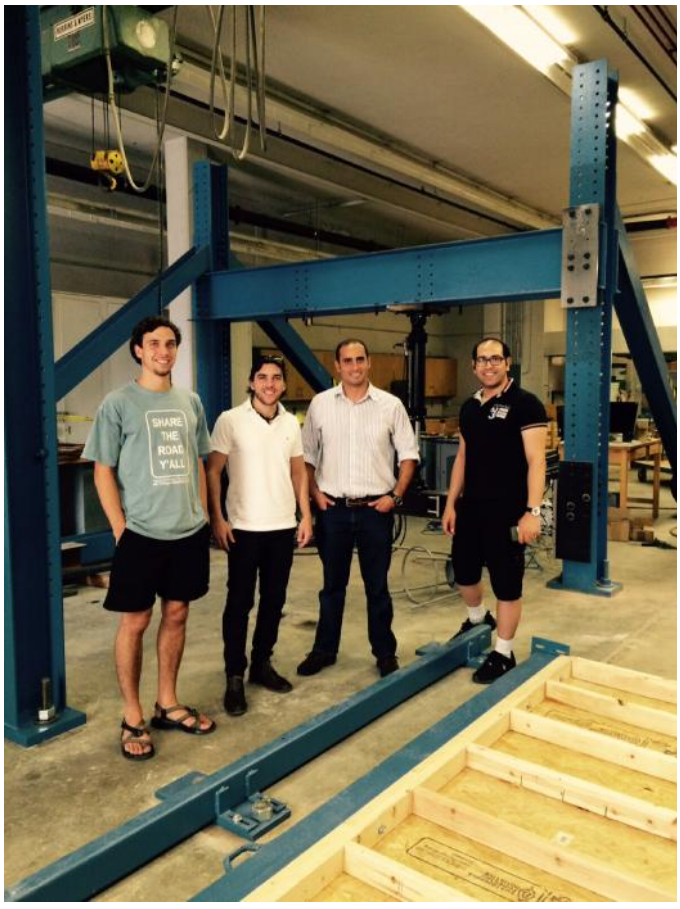
Figure 1 - Drawing Model

Figure 2 - Wood Wall Material

It will be subjected to loads, simulating ground motion, and then the wall response will be compare to the analytical model which has been developed by Sean Pezeshk, who is concluding his Master's Degree in Civil Engineering. My duties were reading articles, presenting reports, making presentations, assisting Sean in organizing the laboratory, preparing the space necessary to assemble the wood frame shear wall and setting up all necessary equipment that shall be used both for loading as collecting the resulting data.

III. Conclusion

Since the final experiments were delayed, I will not be able to watch them, but in the time I worked in this project I could have a better idea of a research project, and mainly, how complex a master thesis can be. Furthermore, I could be in a research environment in touch with new equipment and methods. In my major, in Brazil, there is no courses related to analysis of structures subjected to earthquake simulations, so all the issues included in this project were new for me which was a good opportunity to expand my knowledge in Civil Engineering. Beyond my academic experience, I had the wonderful experience of living in Memphis, a city I always had the desire of living in. I met new people, new cultures, made new friends, knew new places and improved my English, what I have most sought in that period. For me, an international student, making some contacts at the university can represent a good chance for futures studies as master's degree and so on. In sum, without any doubt, one of the best experiences I have had in the USA.



Acknowledgment

I am glad I had this opportunity to work as research assistant at the Civil Engineering Department at the University of Memphis. I would like to thank Dr. Adel Abdelnaby for helping me in many ways and being my advisor here. Also, Dr. Charles Camp, Dr. Shahram Pezeshk, and Sean Pezeshk for their assistance in my Academic Training, and all the people that somehow were part of my life here.

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