AIMS^2 Research Project in Civil Engineering and Construction Management

Research Duration:	Fall 2017 – Spring 2018
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Contact No:	Dr. Zirakian: JD 4439, 818-677-7718, TR 12:30-1:45 PM Dr. Boyajian: JD 4417, 818-677-7714, MW 8:00-9:15 AM
Title of Project:	Augmentation of a Structural Engineering Encounter (SEE) Active-Learning Laboratory Environment: Phase I

Goals and Objectives of the Project, Expectations and Outcomes

During the initial development phase of the Structural Engineering Encounter (SEE) Active-Learning Laboratory Environment back in the Summer of 2016, the faculty mentors directed the AIMS^2 student researchers to successfully construct a single-story, single-bay portal frame with complete instrumentation. As a result of the ensuing experimental, theoretical, and numerical studies, one paper was published in the proceedings of the American Society for Engineering Education (ASEE) 124th Annual Conference & Exposition, and one poster was presented at the 21st Annual Student Research & Creative Works Symposium at California State University, Northridge. In addition, the two student researchers were personally invited to present their work at the 35th Annual Conference of Hispanic Association of Colleges & Universities (HACU) in San Antonio, TX.

In this present academic year of 2017-18, the faculty mentors envision the first phase of augmenting the Structural Engineering Encounter (SEE) Active-Learning Laboratory Environment. To this end, student researchers will be involved in the fabrication and instrumentation of new structural models that they will conduct experiments on along with theoretical and numerical investigations. The expected outcomes of this research endeavor will involve the drafting of a detailed testing manual as well as publication(s) and presentation(s). The products and findings of this research effort will be used in the following three areas: (i) enhancing the Mechanics Lab (AM 317) course at CSUN, (ii) recruiting college and high school aged students by introducing them to the world of engineering, and (iii) developing new research endeavors.