PREFACE

The California Strong Motion Instrumentation Program (CSMIP) in the California Geological Survey of the California Department of Conservation established a Data Interpretation Project in 1989. Each year CSMIP funds several data interpretation contracts for the analysis and utilization of strong-motion data. The primary objectives of the Data Interpretation Project are to further the understanding of strong ground shaking and the response of structures, and to increase the utilization of strong-motion data in improving post-earthquake response, seismic code provisions and design practices.

As part of the Data Interpretation Project, CSMIP holds annual seminars to transfer recent research findings on strong-motion data to practicing seismic design professionals, earth scientists and post-earthquake response personnel. The purpose of the annual seminar is to provide information that will be useful immediately in seismic design practice and post-earthquake response, and in the longer term, useful in the improvement of seismic design codes and practices. Proceedings and individual papers for each of the previous annual seminars are available at http://www.conservation.ca.gov/cgs/smip/docs/seminar/Pages/default.aspx in PDF format. Due to the State budget restraints, CSMIP did not fund as many projects as in other years and did not hold an annual seminar in 2010 or 2011. The SMIP17 Seminar is the twenty-sixth in this series of annual seminars.

The SMIP17 Seminar is divided into two sessions in the morning and two sessions in the afternoon. There are a total of nine presentations including one invited presentation and eight presentations on the results from CSMIP-funded projects. The sessions in the morning include four presentations. The first session will focus on ground motions. Professor Stewart of UCLA will present small-strain damping for ground response analysis. It will be followed by a presentation by Professor Motamed of University of Nevada Reno on the nonlinear site response at California downhole arrays. The second session will focus on results from building response data: code torsional provisions by Professor Zareian of UC Irvine and building soil-structure interactions by Dr. Ebrahimian of Caltech. During the lunch break, Professor Miranda of Stanford University is invited to present his observations from the M7.1 earthquake occurred in Mexico on September 19, 2017.

The third session in the afternoon will focus on lifeline structures. Professor Taciroglu of UCLA will present spatial variability of bridge foundation input motions. Professor Armstrong will present embankment dam deformations. The last session will include presentations of inelastic response from the ground motions recorded during the 2014 South Napa Earthquake by Dr. Mazzoni of UC Berkeley, and ground motion intensities for record selections by Professor Miranda of Stanford University. Individual papers and the proceedings are available to the SMIP17 participants in an USB flash drive, and will be available at the CSMIP website.

Moh Huang CSMIP Data Interpretation Project Manager

Appreciation to Members of the Strong Motion Instrumentation Advisory Committee

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