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**ATC-17-1 Seminar on Seismic Isolation,
Passive Energy Dissipation, and Active
Control**

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Volume 1: Seismic Isolation Systems

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Preface

On March 11-12, 1993 Applied Technology Council conducted the ATC-17-1 Seminar on Seismic Isolation, Passive Energy Dissipation, and Active Control. Held in San Francisco, California, the purpose of the Seminar was to present a complete picture of available research information and current practice relating to the design of seismic isolation, passive energy dissipation, and active control systems. A corollary objective was to update and expand the information presented in the initial ATC-17 Seminar, held in San Francisco in March 1986.

The Seminar technical program consisted of 70 state-of-the-art and state-of-the-practice oral and poster papers. The technical presentations included invited state-of-the-art theme papers on the four major systems considered (seismic isolation, energy dissipation, active control, and hybrid control systems) as well as competitively selected papers covering the major issues of concern: ground motion issues, performance criteria, life-cycle costs, code/design procedures, methods of analysis, peer review, performance testing, owners' perspectives, case studies, large scale testing, applications, analysis issues, earthquake performance, hardware, guidelines for testing and evaluation, reliability-based design, and control strategies.

ATC gratefully acknowledges the many individuals who contributed to the success of the

Seminar. Steering Committee members Ian G. Buckle (Co-Chair), Christopher Rojahn (Co-Chair), Robert E. Bachman, Nicholas F. Forell, Robert D. Hanson, Gary C. Hart, James M. Kelly, Ronald L. Mayes, Roland L. Sharpe, and T. T. Soong developed the seminar program, reviewed the technical papers, and chaired the technical sessions. The affiliations of these individuals are provided in Appendix A. Patty Christofferson, ATC Manager of Administration and Public Relations, coordinated the manuscript review process and prepared these Proceedings.

Some of the material presented in this report is based upon work supported by the National Center for Earthquake Engineering Research and the National Science Foundation. The Government has rights in this material. Any opinions, findings, and conclusions or recommendations expressed in such material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation or the National Center for Earthquake Engineering Research.

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Christopher Rojahn (Principal Investigator)
ATC Executive Director

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