

# Foreword

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The Student Leadership Council (SLC) is a formal incarnation of the students who are involved in performing MCEER research under a faculty advisor. Since its inception, MCEER has included and encouraged student efforts throughout its research program and in all of the disciplinary specialties concerned with earthquake engineering.

Throughout the years, students have been an integral component in advancing research in earthquake hazard mitigation. Many former students are now employed in academia, professional practice or government agencies applying knowledge gained during their exposure to MCEER research. While associated with MCEER, students participate in Center annual meetings, attend conferences, workshops and seminars, and have the opportunity to make presentations at these events. The SLC was formed in the year 2000 to formalize these programs and to afford students from many different institutions the opportunity to meet with each other and develop/improve interaction.

The idea for the *Student Research Accomplishments* was conceived by the SLC and features the work of MCEER's current students. Topics range from traditional civil and lifeline engineering to applications of advanced technologies to social impacts and economic modeling.

This volume was coordinated and edited by Amanda Bonneau, MS/Ph.D. student in the School of Civil and Environmental Engineering at Cornell University. Previous editors were Ramiro Vargas, Benedikt Halldorsson, and Diego Lopez Garcia, all from the Department of Civil, Structural and Environmental Engineering, University at Buffalo, and Gauri Guha, Department of Energy, Environmental and Mineral Economics, the Pennsylvania State University.

All papers included in this volume were entered into MCEER's *Best Student Article Competition*. Members of MCEER's Industry Advisory Board (IAB) judged the 11 submissions, and selected a winner and two honorable mentions. The winner of this year's competition is outgoing SLC President Jeffrey Berman, University of Buffalo, and honorable mentions were awarded to Anita Jacobson, Cornell University and Michael Astrella, University of Buffalo, for their outstanding efforts. All three students were invited to present their research at the 2005 MCEER Annual Meeting. Our thanks go to John Abruzzo, Thornton-Tomasetti Group, Sreenivas Alampalli, New York State Department of Transportation, Scott Campbell, Kinetics Noise Control, Inc., Paul Hough, Armstrong World Industries, Inc., Amarnath Kasalanati, Dynamic Isolation Systems, Inc., Leon Kempner, Bonneville Power Administration, Peter Lee, Skidmore, Owings & Merrill, Paul Senseny, FM Global Research, Andy Taylor, KPFF Consulting Engineers, Doug Taylor, Taylor Devices, Inc. and Michael Willford, ARUP for their reviews and recommendations.

Finally, MCEER wishes to extend its thanks to the Student Leadership Council for its endeavors, and in particular to Jeffrey Berman, current president, and A. Natali Sigaher, past president, for their able guidance of the SLC.