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Introduction

This volume is a collection of technical papers presented at the 2009 SPIE Conference held in San Diego, California, on Sensors and Smart Technologies for Civil, Mechanical, and Aerospace Systems. This conference is unique in the emerging area of sensors and smart structures technologies because of its multidisciplinary representations from the aerospace, civil, and mechanical engineering communities. Participants were from more than 18 countries over the globe. The participation of the Asian-Pacific Network of Centers for Research in Smart Structure Technology (ANCRISST) as the conference cosponsor strengthened international participations. As you find in the roster of the program committee, members of the program committee represented the various fields of engineering. The conference started with a plenary session with two excellent keynote presentations: "Passive sensors for infrastructure monitoring" by Professor Sharon L. Wood, The Univ. of Texas at Austin, and "Some principles of active sensing revealed by study of the rat whisker system" by Professor Mitra J. Z. Hartmann, Northwestern University. The opening plenary session was followed by 33 topical sessions and one poster session. The papers in these sessions covered a wide range of topics in: fiber optics and other novel sensors, structural health monitoring, signal processing, damage detection and assessment, wireless technologies, and modeling and analysis of smart systems.

In conjunction with the broad technical base of the current conference program and its objectives, it is apparent that we must continue to develop and build a large, diverse constituency. In light of the increased number of submissions to this conference that we witnessed in recent years, we are optimistic in this regard. We would like to thank authors and presenters of this year's conference for their contributions. The outstanding conference program was put together by the fine effort of the program committee, and we are thankful to the members of the program committee for their contributions.

We trust that readers will find this conference volume useful and informative.

Masayoshi Tomizuka Chung-Bang Yun Victor Giurgiutiu