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H. Felix Wu
Editor

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Introduction

The Conference 7983, Nondestructive Characterization for Composite Materials, Aerospace Engineering, Civil Infrastructure, and Homeland Security V, at the 2011 SPIE Smart Structures/NDE symposium contained a total of 18 sessions with two-day concurrent sessions including Laser, Ultrasound, Acoustic Emission NDE I & II; NDE in Civil Infrastructure I & II; NDE in Composites; NASA-based NDE/SHM Activities; PNNL-based NDE in Homeland Security Applications; NIST Technology Innovation Program on Civil Infrastructure Critical National Need: Advanced Sensing Technologies for the Infrastructure: Bridges, Roads, Highways, and Water Systems I, II, III, and IV; Fiber Optics Sensors Technologies; Radar/LiDAR NDE Technologies; Thermal, Infrared, and Radiographic NDE Technologies; Wireless Sensor Network and Energy Harvesting; Vibration-based NDE Technologies; Smart Materials Sensing Technologies; and posters. The conference received more than 140 abstracts. More than 70 papers were presented in oral format and the remaining papers were presented in poster sessions. The conference was very well received and had great attendance from March 7 to 10, 2011 in San Diego, California.

Among these 140 submissions, 47 technical papers were presented by National Institute of Standards and Technology (NIST) Technology Innovation Program (TIP) recipients representing 24 different organizations from 11 ongoing TIP-funded Civil Infrastructure critical national need projects. Dr. H. Felix Wu, a Program Manager of the NIST/TIP gave an overview paper to kickoff these special events. The opportunity widely opened up an excellent opportunity for the NIST/TIP program to disseminate technologies of high-risk, high-reward research in area of Civil Infrastructure critical national need.

On behalf of Conference Chairs of Conference 7983, I wanted to thank you with my whole heart for all your support and enthusiasm by submitting your good quality papers and for serving as session chairs to shine our conference at the SPIE 2011. Indeed, we had a very successful conference this year. In addition, we had a full-house for our four Invited Papers given by Professor Maria Q. Feng, University of California at Irvine; Professor Ming L. Wang, Northeastern University; Professor Nenad Gucunski, The State University of New Jersey at Rutgers; and Professor Masanobu Shinozuka, University of California at Irvine. Many outstanding experts served on the 18 session chairs were also greatly appreciated. I hope you all enjoyed the conference that we put together. Thank you for all your hard work and excellent contributions. I cannot express anything more, but sincerely wish all of you to continue to support our next year conference.

Dr. Andrew Gyekenyesi of NASA Glenn Research Center will be the Conference Chair for SPIE 2012. Dr. Aaron Diaz of Pacific Northwest National Laboratory, Professor Peter Shull of Penn State, Professor Tzu-Yang Yu of University of

Massachusetts at Lowell, and I will serve as Conference Co-Chairs to support him. I encourage all of you continue offering your support to Andy. I sincerely look forward to having another successful conference at the SPIE 2012.

H. Felix Wu