20th ASME Conference on Information Storage and Processing Systems, Santa Clara, CA, USA

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We are pleased to host the 20th ISPS conference and serve as the editors for this Special Issue. This Special Issue is a collection of peer-reviewed, journal quality papers contributed by authors from the 20th ASME Annual Conference on Information Storage and Processing Systems (ISPS) held in Santa Clara University, Santa Clara, California, USA on June 14 and 15, 2010. As the milestone to archive outstanding research and development work presented in the 20th ISPS conference, all authors of papers accepted by the conference were encouraged and invited to submit full paper to this Special Issue in Springer Journal of Microsystem Technologies. Manuscripts submitted to this Special Issue were rigorously reviewed by experts and researchers from universities and industry research and development centers. Out of 117 conference papers presented at the 20th ISPS conference, 85 invitations were made and 75 were submitted to this Special Issue for review. Through the peer-review process, 14 were rejected. Before being accepted and published in this Special Issue, many of the 61 contributions had to be revised substantially. Without doubts, papers published in this Special Issue are special collections of many technical topics presented at the 20th ISPS conference.

The 20th ASME ISPS conference is a very unique international conference that brings together academia and industry in joint sessions on research topics that are of interdisciplinary nature. Papers included in this Special

Issues were contributed by authors who presented their latest research and development work in following technical sessions at the 20th ISPS conference:

- Tribology, Head/Media Interface
- Actuator/Suspension and Sensor
- Servo Control Technology
- Shock and Flow Induced Vibrations
- Spindle Motor and Acoustics
- Micro/Nano Technology
- Biomedical and Intelligent Machines
- Robotics, Vision, and Automation
- Consumer Electronics and Future Tech
- Opto-Mechatronics
- Flexible Media Mechanics and Tape Storage.

In addition to the 117 conference contributions organized in 21 sessions over 2 days, one of the many highlights of the conference was the extraordinary conference dinner special seminar given by Mr. Dave Mosley who is the Executive Vice-President of Sales and Marketing of Seagate Technology. His presentation aiming at projecting future trends of magnetic disk storage provided informative insights and encouragement for researchers and engineers in moving forward to research and development of multi-terabyte and ultra high recording density hard disk drives.

The publication of this Special Issue signifies the closure of activities related to the 20th ASME ISPS conference. The organization and publication of this Special Issue would not have been possible without help of friends and colleagues within and outside ASME ISPS Division. Among the long list of people first we would like to thank are Professor Bharat Bhushan of Ohio State University for his coordination with the publisher to publish the Special Issue in a timely manner and Santa Clara University for the use of its facilities for the 20th ASME ISPS conference.

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Our gratitude also goes to the 2009–2010 ISPS Executive Committee members: the Division Vice-Chair Professor Frank Talke of University of California, San Diego, the Treasurer Mr. Neal Schirle from Hitachi Global Storage Technologies, the Award Chair Dr. Eng Hong Ong of Data Storage Institute, Singapore, the Program and Publication Chair Professor No-Cheol Park of Yonsei University, the Member and Publicity Chair Dr. Sinobu Yoshida currently at Hitachi Mechanical Engineering Research Laboratory, Japan, and the International Advisory Chair Dr. Srinivas Tadepalli of Seagate Technology, USA. We would like to

thank session chairs for seeking outstanding papers and organizing technical sessions in the 20th ISPS conference. Without their efforts, the 20th ASME ISPS conference would not be a success. Last, but not the least, we sincerely thank authors and reviewers for their invaluable effort and time in writing and evaluating the manuscripts for this Special Issue. Without timely responses from all reviewers and authors, this Special Issue will not appear so quickly. Wish you a successful year. We look forward to seeing you and working with you all in the next ASME ISPS conference.