FOREWORD

Special Section on nanoscale nonlinear systems: Vibrations and applications

This special section has been organized for transmitting recent research results related to nanoscale nonlinear systems, especially, from engineering and application standpoints. Through the papers included in this section, a variety of topics has been covered and these topics include the following: i) analysis of nonlinear vibrations in nano-scale and micro-scale mechanical systems, ii) nonlinear vibration control application for mechanical systems, iii) nonlinear dynamics of composite mechanical systems, iv) material surface characterization on the basis of nanoscale vibrations, and v) energy localization in nonlinear lattices and periodic structures and nonlinear phenomena in nanoscale systems.

On behalf of the editorial committee of this special section, we hope that the papers provide valuable new information and insights into nonlinear science and engineering. In addition, we would like to mention that nanoscale technology is a developing technology, which we expect to play a significant role in the future. It is our belief that the knowledge gained through this special section could serve as an important basis for future applications.

We would like to express our sincere thanks to all authors who submitted their manuscripts to this special section. The tremendous service provided by the reviewers is acknowledged. Finally, we would like to express our sincere gratitude to Dr. Masayuki Kimura, who served as the secretary for this special section. Without his hard work, this publication would not have been possible. Our appreciation also goes to the journal, for providing us a forum to organize this special section.

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