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EDITORIAL

## Recent advances in adaptive and active materials 2017

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## Editorial

# Recent advances in adaptive and active materials 2017

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The 10th ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS) was held in the Snowbird Resort and Conference Center in Little Cottonwood Canyon, Utah (USA) from September 17–20, 2017. The goal of this annual conference is to bring together researchers in academia, governmental agencies, and industry to exchange ideas and share their latest research results in smart and adaptive materials/structures. As in years past, leaders in these interdisciplinary fields kickstarted each day with a keynote presentation on: ‘From Muscles to Plants—Nature-Inspired Multifunctional Metastructures’ by Prof. Kon-Well Wang (University of Michigan); ‘Additive Manufacturing and Architected Metamaterials’ by Dr Christopher Spadaccini (Lawrence Livermore National Laboratory); and ‘Are We There Yet? The Long Road to Achieving the Widespread Adoption of Smart Materials in Automobile Design’ by Prof. Marcelo Dapino, who is also the winner of the 2017 ASME Adaptive Structures Prize.

SMASIS 2017 was divided into eight symposia, which spans basic research, applied technological design and development, and industrial and government integrated systems and application demonstrations:

Symposium 1: Development & Characterization of Multifunctional Materials

Symposium 2: Mechanics and Behavior of Active Materials

Symposium 3: Modeling, Simulation and Control of Adaptive Systems

Symposium 4: Integrated System Design and Implementation

Symposium 5: Structural Health Monitoring

Symposium 6: Bioinspired Smart Materials and Systems

Symposium 7: Energy Harvesting

Symposium 8: Emerging Technologies

In particular, Symposium 8 on Emerging Technologies was brand new and aimed to solicit emerging and cutting-edge research works that are aligned with the general theme of SMASIS but may not fit in other already established symposia. Each symposium featured invited speakers, in addition to technical papers, oral presentations, and poster contributions. We sincerely thank the Executive Committee, members of the ASME Aerospace Division Adaptive Structures and Material Systems Branch, the Symposium Chairs/Co-Chairs, and ASME staff for their tremendous support and hard work to make this a successful conference.

This special issue features research works that were presented in Bioinspired Smart Materials and Systems (Symposium 6) and Energy Harvesting (Symposium 7). Shortly after SMASIS 2017, the authors were invited to submit a full journal manuscript on the topic presented at the conference for consideration of publication and inclusion in this *Smart Materials and Structures* special issue. Following the standard peer-review process, the seven papers that appear in this special issue showcase the exceptional quality and breadth of research presented at

the SMASIS Conference. We thank all the contributing authors, as well as the reviewers and guest editors, for their efforts to produce this special issue collection.

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