



# Guest Editorial

## Special Issue for the Second International Conference on 2016 Next Generation of Wind Energy (ICNGWE)

The Special Issue contains selected papers presented at the Second International Conference on Next Generation of Wind Energy (2016-ICNGWE), held at Lund University, Lund, Sweden, on Aug. 24–26, 2016. The U.S. National Science Foundation (NSF) sponsored the conference under Grant No. CBET 1539857. The Department of Energy Sciences, Lund University also provided support.

The selected papers from the conference cover a broader range of topics that are of fundamental and practical importance for wind power generation and utilization. The papers were invited from lead experts in the field worldwide, who shared their views and provided opportunities for discussion and extension. All the papers were peer-reviewed according to the ASME journal standard, and the guest editors handled the review process.

The papers in this issue were recommended by the reviewers and reveal the high level of presentations at the 2016-ICNGWE.

The subject areas of this Special Issue include: (1) the aerodynamic performance of turbine blades, (2) bioinspired turbine blade designs, (3) scaled wind turbine flow experimentation, (4) blade failure prevention, (5) noise problems, (6) wind farm power production, (7) power augmentation of shrouded wind turbines in a multirotor system, (8) computations from blade element momentum theory (BEMT), (9) wake instability, (10) floating offshore wind turbines, (11) wake deflection in long distance from a yawed wind turbines, (12) turbine blades with water droplets, (13) turbine blade icing problems, (14) power properties of two interacting wind turbine rotors, (15) aeroelastic mechanisms in near-wake instabilities, (16) wind power system tracking, (17) boundary layer on turbine blade airfoil, (18) shape morphing mechanism for improving wind turbines performance, and (19) computational fluid dynamics research on flows around wind turbines.

We would like to express our great appreciations to all those who contributed to the success of 2016-ICNGWE and this Special

Issue. The guest editors greatly appreciate the key role provided by members of the organizing committee as well as all the reviewers who assisted in reviewing the papers in a timely fashion. We would like to take this opportunity to show our sincere gratitude to Professor Hameed Metghalchi, Editor-in-Chief of the *ASME Journal of Energy Resources Technology* (JERT) for participating at the 2016-ICNGWE, accepting our request for the Special Issue, and his kind support during the entire process of publication. We also would like to take this opportunity to show our sincere thanks to Mrs. Christina McNeil, JERT Secretary, and Mrs. Tara Collins Smith at ASME for their help and support for publication of this Special Issue. We also like to thank all the authors for their contribution to this Special Issue as well as all the reviewers for providing their reviews to improve the quality of the published papers. We also like to thank all the faculty, staff, and students at Lund University for their excellent arrangements of the 2016-ICNGWE. Finally, the editors thank the U.S. National Science Foundation for their financial support of the conference.

**Ryo Amano**  
 Department of Mechanical Engineering,  
 University of Wisconsin-Milwaukee,  
 Glendale, WI 53212

**Bengt Sunden**  
 Department of Energy Sciences,  
 Lund University,  
 Lund 22100, Sweden

**Ashwani Gupta**  
 Department of Mechanical Engineering,  
 University of Maryland,  
 College Park, MD 20742