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# Advances in Power Systems and Energy Management

ETAEEERE-2016

 Springer

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# Preface

*Advances in Electronics, Communication and Computing* is a collection of research articles and critical review articles presented at the International Conference on ‘Emerging Trends and Advances in Electrical Engineering and Renewable Energy—ETAEEERE-2016’, organized by the Department of Electrical and Electronics Engineering (EEE) of Sikkim Manipal Institute of Technology (SMIT), Majhitar, Sikkim, India during December 17–18, 2016. This was a unique conference which combined renewable energy, electronics, computing, communication, systems, controls and automations under one roof. Moreover, it is a matter of honour for SMIT to learn that Springer was associated with ETAEEERE-2016 as a major publication sponsor for the event. The proceedings of this conference came out with four different book volume titles under Lecture Notes in Electrical Engineering (LNEE). This book is a compilation of research work in the interdisciplinary areas of electronics, communication and computing. The chapters of this book cover the different approaches and techniques for specific applications, such as particle swarm optimization, Otsu’s function and harmony search optimization algorithm, triple-gatesilicon-on-insulator (SOI) MOSFET, micro-Raman and Fourier Transform Infrared Spectroscopy (FTIR) analysis, high-k dielectric gate oxide, spectrum sensing in cognitive radio, microstrip antenna, ground-penetrating radar (GPR) with conducting surfaces and digital image forgery detection.

Eminent speakers like Prof. A Chakrabarti, former vice-chancellor of Jadavpur University; Prof. A Rajaraman of IIT, Chennai; Prof. Gyoo-Shee Chae of Baekseok University, South Korea; Prof. Avinash Konkani of University of Virginia, USA; Prof. Kamani KK, the global economic advisor of Karnataka; Prof. Manjesh of Bangalore University and Dr. Amitanshu Patnaik of DRDO Delhi shared their knowledge and experience. The conference attended and presented by participants from institutes such as IISc, IITs, NITs, NEHU, BIT, VIT, MIT Manipal, IIST Kolkata, and abroad deliberated on their research works. In addition, the paper presentations were accompanied by six keynote addresses from leading academic and industry researchers around the globe. The paper presentations took place in three different tracks with 18 parallel sessions. Through the platform of

ETAEEERE-2016, we got the opportunity to promote the national campaign 'Make In India'.

The review committee has done an excellent job in reviewing the articles and approving the high-quality research articles to be published in the conference proceedings. The editors are thankful to all of the faculty and students of these various committees for their dedication in making this a very successful conference and also to the editing and printing support staff of Springer for making the compilation possible. We sincerely hope that this volume will inspire researchers.

Majhitar, Sikkim, India

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