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AETA 2018 - Recent Advances in Electrical Engineering and Related Sciences: Theory and Application

 Springer

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Foreword

The modern world is based on vitally important technologies that merge electronics, cybernetics, computer science, telecommunication, and physics together. Since the beginning of our technologies, we have been confronted with numerous technological challenges such as finding the optimal solution of various problems including controlling technologies, power sources construction, and robotics. Technology development of those and related areas has had and continues to have profound impact on our civilization and our future lifestyle.

Therefore, this proceeding book containing articles of international conference AETA 2018 is a timely volume to be welcomed by the community focused on telecommunication, power control, and optimization as well as computational science community and beyond.

This proceeding book consists of the hottest topic areas of selected papers like telecommunication, power systems, digital signal processing, robotics, control system, renewable energy, power electronics, soft computing, and more. All selected papers represent interesting ideas and state-of-the-art overview.

Participations were carefully selected and reviewed; hence, this proceeding book certainly is one of the few discussing the benefit from the intersection of those modern and fruitful scientific fields of research. We hope that the proceeding book will be an instructional material for senior undergraduate and entry-level graduate students working in the area of electronics, power technologies, energy distribution, control and robotics, etc. The proceeding book will also be a resource and material for practitioners who want to apply discussed topics to solve real-life problems in their challenging applications. The important part of proceeding book is participation of four keynote speakers from the Russia, USA, and two from India.

The decision to organize AETA conference and to create this proceeding book was based on facts that technologies mentioned above, their use, and impact on life are interesting areas, which are under intensive research from many other branches of science today. This proceeding book is written to contain simplified versions of

experiments with the aim to show how, in principle, problems about power systems can be solved.

It is obvious that this proceeding book does not encompass all aspects of discussed topics due to limited space and time of the conference. Only the main ideas and results of selected papers are reported here. The authors and editors hope that the readers will be inspired to do their own experiments and simulations, based on information reported in this proceeding book, thereby moving beyond the scope of it.

This proceeding book is devoted to the studies of common and related subjects in intensive research fields of modern electric, electronic, and related technologies. For these reasons, we believe that this proceeding book will be useful for scientists and engineers working in the above-mentioned fields of research and applications.

At the end, we **would like to thank** Ton Duc Thang University (Ho Chi Minh City, Vietnam) and VŠB-Technical University (Ostrava, Czech Republic) for interest and strong support in AETA conference organization. Also, **many thanks** belong to Springer Publishing Company for its highly professional, precise, and quick production process. Without all of this, it would be impossible to organize successful conference joining participants from the whole world.

September 2018

Editors

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