## Lecture Notes in Electrical Engineering

### Volume 694

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# Evolving Technologies for Computing, Communication and Smart World

Proceedings of ETCCS 2020



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## Preface

The International Conference on Evolving Technologies in Computing, Communications and Smart World (ETCCS-2020) targeted the researchers from different domains of recent technologies, computing, communication and smart world innovations at a single platform to show their research ideas. Conference covers the novel ideas based on algorithms, surveys, policies, architectures, communication challenges and future research aspects. There are five technical tracks to include the topics of interest, but are not limited to the following: (i) emerging computing technologies, (ii) network and computing technologies, (iii) wireless networks and Internet of Everything (IoE), (iv) communication technologies, security and privacy and (v) next-generation computing technologies. The conference provides a total of five technical tracks to all authors to identify the most suitable tracks for their manuscript. So, each author may identify the most suitable theme matching to their paper for submission.

As the theme of the conference is recent and tracks are as per the evolving technologies, it is expected that the submissions will attract the good citation in future, and proceedings will emerge as one of the good collections for download. The organizing team is confident that it will evolve as an intellectual asset in the long term year after year. The International Conference on Evolving Technologies in Computing, Communications and Smart World (ETCCS-2020) was held at CDAC Noida on 31 January to 1 February 2020 in association with Southern Federal University, Russia, and Jan Wyzykowski University, Polkowice, Poland, as academic partners. We are highly thankful to our valuable authors for their contribution and our Technical Programme Committee for their immense support and motivation towards making the ETCC-2020 a grand success. We are also grateful to our keynote speakers: Prof. J. K. Bhatnagar from University of Cincinnati, USA; Prof. Narayan C. Debnath, Eastern International University, Vietnam; Dr. Arpan Kumar Kar, DMS, IIT Delhi; Mr. Aninda Bose, Senior Editor, Springer; Dr. Zdzislaw Polkowski, Jan Wyzykowski University, Polkowice, Poland; and Industry Expert Sh. Alok Varshney, for sharing their technical talks and enlightening the delegates of the conference. We are thankful to various session chairs for chairing the session and giving invited talks whose names include: Dr. Vivek Sehgal, Dr. Yugal Kumar, Dr. D. Vaithiyanatha, Dr. R. K. Saini, Dr. Rohit Tanwar, Dr. Akshi Kumar, Dr. Praveen Kumar Malik, Prof. Pravin Chandra, Prof. Arvinder Kaur and Dr. Anupan Singh.

The volume editors are thankful to Sh. Vivek Khaneja, Executive Director, CDAC Noida, India, for providing the CDAC Noida as a venue. The CDAC Noida is thankful to MeitY for providing a grant to CDAC to support the conference. The CDAC Noida is also thankful to Dr. B. K. Murthy, Scientist G and Group Coordinator CDAC.

We express our sincere gratitude to our publication partner, LNEE Series, Springer, for believing in us.

Solan, India Noida, India Patna, India Ahmedabad, India Cincinnati, USA Noida, India Pradeep Kumar Singh Arti Noor Maheshkumar H. Kolekar Sudeep Tanwar Raj K. Bhatnagar Shaweta Khanna

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