

M. U. Bokhari · Namrata Agrawal
Dharmendra Saini *Editors*

Cyber Security

Proceedings of CSI 2015

Advances in Intelligent Systems and Computing

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Preface

The last decade has witnessed remarkable changes in the IT industry, virtually in all domains. The 50th Annual Convention, CSI-2015, on the theme “Digital Life” was organized as a part of CSI@50, by CSI at Delhi, the national capital of the country, during December 2–5, 2015. Its concept was formed with an objective to keep ICT community abreast of emerging paradigms in the areas of computing technologies and more importantly looking at its impact on the society.

Information and Communication Technology (ICT) comprises of three main components: infrastructure, services, and product. These components include the Internet, infrastructure-based/infrastructure-less wireless networks, mobile terminals, and other communication mediums. ICT is gaining popularity due to rapid growth in communication capabilities for real-time-based applications. New user requirements and services entail mechanisms for enabling systems to intelligently process speech- and language-based input from human users. CSI-2015 attracted over 1500 papers from researchers and practitioners from academia, industry, and government agencies, from all over the world, thereby making the job of the Programme Committee extremely difficult. After a series of tough review exercises by a team of over 700 experts, 565 papers were accepted for presentation in CSI-2015 during the 3 days of the convention under ten parallel tracks. The Programme Committee, in consultation with Springer, the world’s largest publisher of scientific documents, decided to publish the proceedings of the presented papers, after the convention, in ten topical volumes, under ASIC series of the Springer, as detailed hereunder:

1. Volume 1: ICT Based Innovations
2. Volume 2: Next Generation Networks
3. Volume 3: Nature Inspired Computing
4. Volume 4: Speech and Language Processing for Human-Machine Communications

5. Volume 5: Sensors and Image Processing
6. Volume 6: Big Data Analytics
7. Volume 7: Systems and Architecture
8. Volume 8: Cyber Security
9. Volume 9: Software Engineering
10. Volume 10: Silicon Photonics & High Performance Computing

We are pleased to present before you the proceedings of Volume 8 on “Cyber Security.” The title “Cyber Security” is devoted primarily to enhance the awareness about cyber security. It brings together much learning from skilled industry experts, academicians, and researchers. The title also covers national and international collaborations and cooperation in cyber security as an essential element of overall security of the system.

The technology in general and Internet in particular are being used widely for various kinds of transactions, information, and communications. It is really a huge challenge to stay secured on the ‘open and un-trusted Internet,’ and there are potential security risks presented by the Internet. The title uncovers the various nuances of information security, cyber security, and its various dimensions.

The title “Cyber Security” also covers latest security trends, ways to combat cyber threats including the detection and mitigation of security threats and risks. This volume is designed to bring together researchers and practitioners from academia and industry to focus on extending the understanding and establishing new collaborations in these areas. It is the outcome of the hard work of the editorial team, who have relentlessly worked with the authors and steered up the same to compile this volume. It will be a useful source of reference for the future researchers in this domain. Under the CSI-2015 umbrella, we received over 200 papers for this volume, out of which 48 papers are being published, after a rigorous review process, carried out in multiple cycles.

On behalf of organizing team, it is a matter of great pleasure that CSI-2015 has received an overwhelming response from various professionals from across the country. The organizers of CSI-2015 are thankful to the members of *Advisory Committee, Programme Committee, and Organizing Committee* for their all-round guidance, encouragement, and continuous support. We express our sincere gratitude to the learned *Keynote Speakers* for support and help extended to make this event a grand success. Our sincere thanks are also due to our *Review Committee Members* and the *Editorial Board* for their untiring efforts in reviewing the manuscripts, giving suggestions and valuable inputs for shaping this volume. We hope that all the participated delegates will be benefitted academically and wish them for their future endeavors.

We also take the opportunity to thank the entire team from Springer, who have worked tirelessly and made the publication of the volume a reality. Last but not least, we thank the team from Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, for their untiring support, without which the compilation of this huge volume would not have been possible.

Aligarh, India
Faridabad, India
New Delhi, India
December 2017

M. U. Bokhari
Namrata Agrawal
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This book comprises
Society of India. Divided into 10 topical volumes, the proceedings present papers on state-of-the-art research, surveys, and succinct reviews. The volume covers diverse topics ranging from information security to cryptography and from encryption to intrusion detection. This book focuses on Cyber Security. It aims at informing the readers about the technology in general and the internet in particular. The book uncovers the various nuances of information security, cyber security and its various dimensions. This book also covers latest security trends, ways to combat cyber threats including the detection and mitigation of security threats and risks. The contents of this book will prove useful to professionals and researchers alike.

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