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# Security in Computing and Communications

6th International Symposium, SSCC 2018
Bangalore, India, September 19–22, 2018
Revised Selected Papers

Springer

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# Preface

These proceedings contain the papers presented at the 6th International Symposium on Security in Computing and Communications (SSCC 2018). SSCC aims to bring together researchers and practitioners from both academia and industry to exchange their knowledge and discuss their research findings. The symposium was held at the PES Institute of Technology (South Campus), Bangalore, India during September 19–22, 2018. SSCC 2018 was co-located with the International Conference on Applied Soft Computing and Communication Networks (ACN 2018). This edition also hosted a Workshop on Detecting Malicious Domain Names (DMD 2018).

In response to the call for papers, 94 papers were submitted for presentation and inclusion in the proceedings of the conference. The papers were evaluated and ranked on the basis of their significance, novelty, and technical quality. A double-blind review process was conducted to ensure that the author names and affiliations were unknown to the Technical Program Committee (TPC). Each paper was reviewed by the members of the Program Committee and finally, 34 regular papers and 12 short papers were selected for presentation at the symposium. These proceedings also contain nine invited papers presented at the symposium.

We wish to thank all the authors who submitted papers and all participants and contributors of fruitful discussions. We would like to sincerely thank the TPC members and additional reviewers for their tremendous effort in guaranteeing the quality of the reviewing process, thereby improving the quality of these proceedings. We express our most sincere thanks to all keynote speakers who shared with us their expertise and knowledge.

Thanks to the members of the Advisory Committee for their guidance. We thank the PES Institute of Technology, Bangalore, for hosting the conference. Sincere thanks to Dr. M. R. Doreswamy, Chancellor, PES University, and Dr. D. Jawahar, Pro-Chancellor, PES University, for their valuable suggestions and encouragement. We would like to thank the Organizing Committee, and the many other volunteers who worked behind the scenes to ensure the success of this symposium. Dr. J Surya Prasad, Dr. Sudarshan T. S., and Dr. Shikha Tripathi deserve special mention for their unwavering support.

We wish to express our thanks to Suvira Srivastav, Associate Editorial Director, Springer, New Delhi, for her help and cooperation. Finally, we would like to acknowledge Springer for their active cooperation and timely production of the proceedings.

September 2018

Sabu M. Thampi
Sanjay Madria
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# Workshop on Detecting Malicious Domain Names (DMD 2018)

## Preface

The DMD 2018: Shared Task and Workshop on Detecting Malicious Domain Names, held in Bangalore, India, on September 20, 2018 was co-located with the 6th International Symposium on Security in Computing and Communications (SSCC 2018).

In total, 19 teams registered for DMD 2018, and the baseline system and dataset are shared with the participants. The submitted papers based on this dataset were reviewed by at least three reviewers. The authors of accepted papers were given ample time to revise their papers on the basis of the reviewers' comments. This was the first shared task in detecting malicious domain names. We hope that it will energize the cybersecurity community to organize more such tasks in the future.

First and foremost, we would like to thank Dr. Sabu M. Thampi for providing an opportunity to organize the DMD 2018 workshop as part of SSCC 2018. We would like to thank everyone who participated in the DMD 2018 shared task and all authors who presented their papers at the workshop. We are thankful to the members of the Organizing and Technical Program Committee, Advisory Committee, keynote speakers, and the external referees for their timely expertise in carefully reviewing the papers.

Detecting Malicious Domain Names (DMD 2018) research was supported in part by Paramount Computer Systems and Lakhshya Cyber Security Labs. We are also grateful to NVIDIA India, for the GPU hardware support, and to the Computational Engineering and Networking (CEN) Department, Amrita Vishwa Vidyapeetham, for encouraging the research.

September 2018

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