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Digital Communication


Towards a Smart
and Secure Future Internet

28th International Tyrrhenian Workshop, TIWDC 2017
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Proceedings

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Preface

Over the past decade, the evolution of the Internet has been characterized by the proliferation of mobile smartphones as dominant devices for accessing the network, and by the impressive growth of connected objects with sensing and actuation capabilities within the paradigm of the Internet of Things in different application domains, such as critical manufacturing, emergency services, energy, financial services, health care and public health, information technologies, and transportation systems.

The proliferation of data and connections is creating new opportunities to leverage knowledge and to manage systems in innovative ways, but is also introducing new risks due to the increased interactions between entities, in particular in the context of critical infrastructures. This leads to a variety of conflicting requirements and technical challenges for the Future Internet: On the one hand, it is required to improve the mechanisms to retrieve information, distribute contents, and manage knowledge; on the other, it is essential to deal with data protection, privacy, and access control.

The goal of the 2017 Tyrrhenian International Workshop on Digital Communications (TIWDC 2017) was to investigate emerging paradigms and solutions for the design of a smart and secure Future Internet: TIWDC 2017 offered to the scientific community an opportunity of exchanging results and perspectives about these challenging topics.

This volume gathers the contributions that were presented at TIWDC 2017 and collects the original results that were presented in the technical sessions that were devoted to the topics of biometric systems, multimedia forensics, software defined networks, emerging services with NFV, security protocols, and technologies for IoT. The contributions come from renowned international experts and researchers in the fields.

The editors would like to express their sincere and grateful appreciation to the Technical Program Committee co-chairs, Prof. Mario Marchese and Prof. Pietro Paolo Corso, and valuable members for their support and to all authors for their contributions.

Finally, the editors would also like to thank the members of the Organizing Committee for their valuable and committed work, which made an important contribution to the success of TIWDC 2017.

September 2017

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