Editorial

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Biographical notes: Francesco Piccialli received his PhD in Computational and Computer Science from the University of Naples 'Federico II', Italy in 2016. He joined the Computer Science Inter-University Consortium (CINI) in 2014, where he is currently a Research Collaborator. He joined the Department of Mathematics and Applications 'Renato Caccioppoli' in 2013, where he is currently a researcher. He has served as an Associate Editor for *IEEE Access* since 2016, and he is currently a member of the Editorial Board of *Future Generation Computer Systems and Personal and Ubiquitous Computing* journals, since 2016. His research interests include data mining, internet technology, sensor network and internet of things.

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1 Introduction

This special issue collates a selection of representative research articles that were primarily presented at the 1st International Workshop on Data Mining on IoT Systems. This annual workshop brings together researchers and practitioners from both academia and industry who are working on data mining approaches on the internet of things (IoT)

with applications in the smart city framework and in the cultural heritage research domain, in order to promote an exchange of ideas, discuss future collaborations, and develop new research directions.

The adoption of future internet (FI) technology, and in particular of its most challenging components like the IoT and internet of services (IoS), can constitute the basic building blocks to progress towards unified ICT platforms for a variety of applications within the large framework of smart cities. IoT refers to a plethora of interconnected objects sensing and sharing an huge amount of heterogeneous data. Multimedia data and services in the IoT can potentially reach several areas and touch people's lives in different ways. For example, real-time multimedia communication applied to the cultural heritage domain. Moreover, citizens can report traffic and environmental conditions uploading real-time multimedia data through mobile services.

The scope of this special issue is broad and is representative of the multi-disciplinary nature of the IoT framework.

In particular, this special issue focuses on all recent technologies and applications related to the IoT and multimedia data and services within the large framework of the smart cities.

We thank all the international reviewers for their professional services. We deeply thank Professor Jong-Hyouk Lee, the Editor-in-Chief, for providing the opportunity to publish this special issue. With his continuous support, encouragement and guidance throughout this publishing project, this special issue has been very successful.

2 Articles

Piccialli and Chianese propose the design and the implementation of an intelligent cultural exhibition supported by an IoT platform within the framework of the cultural heritage. Visitors can be guided among the exhibition rooms by the exposed sculptures through their mobile devices. Post-visit questionnaires were used to evaluate the users' satisfaction, system usability, and improvements in the knowledge transmission process.

Cuomo et al. present the design of an IoT framework for the estimation of European option price. Authors also addressed numerical issues for European option pricing.

Bonacini presents an interesting survey of the Google strategy on the enhancement of the archaeological sites in the world and a preview of the pilot project in progress at the UNESCO site Agrigento Valley of the Temples. The author states that IoT technology offer considerable possibilities in terms of both conservation and dissemination and communication of cultural heritage.

Mirarchi et al. present the application of a predictive algorithm in data mining technique for the analysis of data coming from VEMPs test. In particular, the system has been realised to save and manage personal data, clinical data and annotated several disorders coming from patients of the audiological medicine unit of the Magna Graecia University of Catanzaro.

Finally, Galletti and Maratea discuss an explicit mapping of the reliability of the alr transformed data is derived within an IoT scenario.