Data Mining and Smart Cities Applications Workshop (DAMASCA 2015)

April 13, 2015
Seoul, Korea

in conjunction with the
2015 IEEE 31st International Conference on Data Engineering (ICDE 2015)

April 13–17, 2015
FOREWORD

Welcome to the Data Mining and Smart Cities Applications Workshop (DAMASCA 2015) which aims at providing a forum to discuss challenges and opportunities of pattern mining in smart cities and to promote interaction among experts in that area.

In today’s urbanizing world, cities have not only physical infrastructures, such as road networks, utilities, or buildings, but also comprise a knowledge infrastructure ranging from low-level sensor networks to public databases and social media streams. The data emerging from all those sources is a very precious resource to make cities more intelligent, innovative and integrated beyond the boundaries of isolated applications. Although such “big data” has been popularized in the media as the “new currency”, fuelling a future vision of contextual systems that will transform our cities, the reality is that we just began to recognize significant research challenges across a spectrum of topics (that must be addressed to realize the vision: information retrieval, knowledge representation, semantic reasoning, data mining and many others). In fact, if we cannot find the ways to harvest the city data and to transform it into tangible insights, our vision of offering innovative solutions to the real-world problems of the cities will not go beyond an expressed wish.

This workshop addresses such a timely issue to turn the city data into insightful information. To reflect this, the program committee accepted eight papers that cover a variety of topics rooting from different scientific fields, in order to enable novel research to mine important patterns from city data and to apply them in various emerging application areas, such as smart mobility/transportation, smart tourism, smart buildings and participation. Those application areas pose unique challenges giving the opportunity to researchers in different communities, including database, knowledge management and information retrieval, to discuss the emerging research topic of pattern mining in smart cities, identifying its unique challenges, opportunities and future directions. We hope that these proceedings serve as a valuable reference on data mining and smart cities applications for researchers and developers.

Many people contributed to the success of DAMASCA 2015. First of all, we would like to thank all authors for their contributions. We would like to express our gratitude to the program committee members who worked hard in reviewing papers and providing suggestions for improvements. Also a special thanks goes to our keynote speakers.

We wish you a great workshop and a fruitful and productive conference!

Michele Berlingerio, Veli Bicer, Mirco Nanni, Roberto Trasarti

DAMASCA 2015 General Co-Chairs
GENERAL CO-CHAIRS

Michele Berlingerio  IBM Research, Ireland
Veli Bicer  IBM Research, Ireland
Mirco Nanni  KDDLab CNR, Italy
Roberto Trasarti  KDDLab CNR, Italy

PROGRAM COMMITTEE

Adi Botea  IBM Research, Ireland
Stefano Braghin  IBM Research, Ireland
Riccardo Guidotti  KDDLab CNR, Italy
Nuno Lopes  IBM Research, Ireland
Mirco Musolesi  University of Birmingham, UK
Andrea Passarella  IIT CNR, Italy
Dino Pedreschi  University of Pisa, Italy
Raffaele Perego  ISTI CNR, Italy
Fabio Pinelli  IBM Research, Ireland
Zbigniew Smoreda  Orange Labs, France
Philip Yu  University of Illinois, USA

SUPPORTER

This workshop was supported by the PETRA project, funded by the European Commission 7th Framework Programme (FP7-SMARTCITIES-2013) under project number 609042.