



**Call for Book Chapters for the Springer-Verlag
Handbook:**

Mobile Big Data

A Roadmap from Models to Technologies

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**To be published in the “Lecture Notes on Data Engineering and Communications Systems” book series,
Springer (2017)**

Introduction

The usage of mobile devices steadily grows causing an enormous raise in the mobile data traffic over the Internet. Data is not produced only by handheld devices, such as mobile phones and tablets, but also by pervasive and wearable devices. They are configured for collecting and delivering data to related servers that host online/mobile social networks. To further support this argument, the explosion of data (i.e., web traffic and social network comments, as well as software and sensors) helps businesses to guide decisions, trim costs and lift sales. The link of communicating sensors to computing intelligence motivates the rise of Internet of Things (IoT) or Industrial Internet. However, the computer tools for gleaning knowledge and insights from the unstructured data are fast gaining ground. In this context, the multi-source collection of data brings into the researchers’ attention issues that should be investigated, like novel access mechanisms and multi-source Mobile Big Data Collecting techniques. Also, the huge amount of data raises issues of distributed Big Data Storing methodologies and Intra/Inter-Big Data processing.

In addition, the new trends of mobile networks that enable the inter-connection of new types of devices along with their services rise the need for adopting new data management solutions and network architectures to support the provision of novel services and applications. Furthermore, the fifth generation (5G) wireless communication systems are envisaged to lead to higher-level mobile users’ experiences, while it will also contribute to host novel services and applications, which in turn will produce a vast amount of data. With the emergence of ultra-fast 5G mobile networks and highly-featured smartphones, tablets and wearable computing devices, the prerequisites will be met for bringing cloud computing to the mobile domain. This book indicates the emerging advances in Mobile Big Data based on an engineering perspective, which are underway in research and cover a wide range of mobile applications as well as scenarios.

The Overall Objective of the Book

This book aims to become a state-of-the-art reference, discussing progress made, as well as prompting future directions on the theories, practices, standards and strategies that are related to the Mobile Big Data domain. The book will target methodologies aiming to take Mobile Big Data to the Cloud, and be able to process Real-Time Streaming Events on-the-move. The need of high velocity processing and low latency response will be one of the major characteristics of the aims and objectives of the sections related in the proposed book. Another aim of the proposed book is to discuss methods and practices to improve multi-source Big Data collecting techniques, as well as the integration of resources' availability through the 3As (Anywhere, Anything, Anytime) paradigm.

Topics:

Chapters should be written in a manner readable for both specialists and non-specialists.

Recommended topic areas include, but are not limited to:

- Mobile Big Data and Internet of Things (IoT) advances and challenges
- Analysis of the various aspects for Mobile Big Data storage services
- Pervasive Computing and Computational Technologies for Mobile Big Data and IoT
- Mobile Big Data models, novel network infrastructures and approaches in 5G mobile networks
- Security and privacy issues for Mobile Big Data in 5G mobile networks
- Big Data analytics in 5G mobile networks
- Machine-to-Machine (M2M) Big Data processing and controlling networking at the edge (sensing and sensor signal processing, sensor networking protocols, energy harvesting and energy management)
- Data management and analytics: business intelligence from sensor data, social networks analysis in 5G mobile networks
- Mobile Big Data theories and mobile cloud models
- Mobile Big Data infrastructures and systems
- Mobile Big Data management
- Mobile Big Data mining
- Mobile Big Data and crowdsourcing
- Mobile Big Data applications and services
- Mobile Big Data standardizations
- Energy-aware issues for Mobile Big Data
- Big Data and mobile cloud Resource Management
- Mobile Big Data for multimedia communications and game computing
- Mobile Big Data storage issues

Any other relevant topics with the Mobile Big Data paradigm are of primary interest and can be hosted as a chapter in the Book.

Sections of the above-mentioned topics will be hosted under the following sections:

Section I — Introduction and Applications of Mobile Big Data

Section II — Architectures for Mobile Cloud Computing (MCC) and Mobile Big Data

Section III— Big Data paradigm in Ubiquitous Engineering and Computing Systems

Section IV— Data Security and Personal Privacy for Mobile Big Data

Section V— Social Networks and Mobile Big Data

Section VI— Resource and Power management for the Mobile Big Data

Schedule & Deadlines

- **30th September 2016**
Chapter proposal (max. 2-pages)/Intention to submit a chapter to the following e-mail addresses and via Easychair: “skourletopoulos.g@unic.ac.cy” and cc to “gmastorakis@staff.teicrete.gr” and “mavromoustakis.c@unic.ac.cy”
- **31st December 2016**
Full chapter submission (only the pdf) via Easychair
(<https://easychair.org/conferences/?conf=mobilebigdata2017>)
- **28th February 2017**
Review comments
- **30th April 2017**
Submission of the revised version
- **31st May 2017**
Final acceptance notification
- **30th June 2017**
Final manuscript

Manuscript Preparation

- Please follow the manuscript formatting guidelines below and submit the original version (in **Microsoft word**) and or **LaTeX** format as per the guidelines (URL: [http://www.cs.unic.ac.cy/cmavrom/2017_springer\(For-the-editors-contributed+books\).zip](http://www.cs.unic.ac.cy/cmavrom/2017_springer(For-the-editors-contributed+books).zip). See also <http://www.cs.unic.ac.cy/cmavrom/calls.html> for the related samples/templates.
- Each final manuscript should be 30 pages long (**formatted**). Depending on the number of submissions, longer manuscripts will also be accepted.
- Please prepare your manuscript according to the following guidelines:
<http://www.springer.com/gp/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324>

Submit the proposal of your chapter(s) via e-mail and via **Easychair**.

The submission web site is:

- <https://easychair.org/conferences/?conf=mobilebigdata2017>
- Please note that both (**e-mail and via EasyChair**) submission methods should be used for cross confirmation.