# Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering

93

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# Mobile Wireless Middleware, Operating Systems, and Applications

4th International ICST Conference, Mobilware 2011 London, UK, June 22-24, 2011 Revised Selected Papers



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## **Preface**

The fourth edition of the International ICST Conference on Mobile Wireless Middleware, Operating Systems, and Applications (MobilWare 2011) was held June 22–24, 2011, at the University of Westminster, London. The development of mobile computing has revolutionized contemporary society and greatly influenced its economic and social progress in the last decade. Nowadays, the rapid emergence of innovative hardware and software products in this area is due to the diligent work of both researchers and practitioners and the great synergy in research and implementation across disciplines and geographical boundaries.

MobilWare 2011 was a three-day event with several high-quality technical and scientific papers that emphasized many aspects of mobile computing ranging from communication infrastructures, networks, to societal scale mobile applications and their impacts. The conference featured two keynote addresses on topics of emerging relevance to the field of mobile computing. Lajos Hanzo's keynote on "Shannonian Lessons for Wireless, the 'World-Wide Wait' and 'Green' Radios" contrasted lessons from theory with the practical constraints imposed on stateof-the-art multimedia communicators. Gordon Blair's keynote on "Revisiting Interoperability: The Case for Emergent Middleware" discussed interoperability challenges in enabling dynamic connectivity at run-time to match current context and requirements of heterogeneous devices and applications. There were regular tracks of technical paper presentations in relevant topic areas including mobile sensor networks, SoC for mobile applications, networking platforms, mobile distributed systems, and mobile frameworks. Highlights of the conference included a special session on mobile systems in education organized by Daphne Economou, a panel on "Novel Infrastructures and Applications for Mobile Computing" (featuring views from experienced researchers) and a poster session. The rich and diverse program provided new perspectives on research in mobile computing. It was particularly positive to see research efforts of a number of young researchers included as papers in these proceedings and in the associated Posters Session.

We would like to take this opportunity to acknowledge some of the volunteer leaders. We are all deeply indebted to Aza Swedin's all encompassing support in every aspect of conference planning and organization. Publicity Chairs Carlos Becker Westphall and Panagiotis Chountas together with our excellent Web Chair Carlo Giannelli provided substantial help for the publicity of Mobilware 2011. We are also indebted to our Local Chair Alexander Bolotov for his support and enthusiasm for the local arrangements. Also, I wish to thank all the reviewers for contributing their time and expertise and thus providing invaluable help in the selection process. I would like to thank the Organizing Committee members, Special Session Chairs, the Technical Program Committee members, and all reviewers who contributed immensely toward the success of this event.

#### VI Preface

Finally and most importantly, thanks are due to all of the authors for their highquality research work, results, and papers that we are proud to publish in these proceedings.

We very much look forward to another successful conference in 2012 in Italy with MobilWare 2012, and in the forthcoming years.

Vladimir Getov Stephan Steglich Nalini Venkatasubramanian

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# **Table of Contents**

Mobile Systems in Education	
A-VIEW: Context-Aware Mobile E-Learning for the Masses	1
Mobile Augmented Reality for Cultural Heritage	15
WMIN-MOBILE: A Mobile Learning Platform for Information and	
Service Provision	23
SOC for Mobile Apps (SOC)	
Extending the Power of Mobile Phone Using Service Oriented	
Computing	34
Web of X Service Environment for Ubiquitous Computing	45
An Autonomous Middleware Model for Essential Services in Distributed Mobile Applications	57
Networking Platforms (NW)	
Designing Smart Adaptive Flooding in MANET Using Evolutionary Algorithm	71
Peer-to-Peer Cooperative Networking for Cellular Mobile Devices	85

PSD: One-to-Many Routing Protocol for Publish/Subscribe Applications in DTN	98
Yuan Feng	
Satcom Access in the Evolved Packet Core	107
A Packet Reassembly and Segmentation Protocol for Low Rate Applications in Bluetooth Sniff Mode	119
Mobile Execution Frameworks (MFW)	
Running Android Applications without a Virtual Machine	121
A Framework for Building and Operating Context-Aware Mobile Applications	135
Secure Middleware for Mobile Phones and UICC Applications	143
Mobile Cloud (MC) and Distributed Execution	
An Investigation of Different Computing Sources for Mobile Application Outsourcing on the Road	153
Mobility-Tolerant, Efficient Multicast in Mobile Cloud Applications Ju Wang, Hui Chen, Kostadin Damevski, and Jonathan Liu	167
Virtual Device: Media Service Fitness, Selection and Composition Niall Murray, Brian Lee, A.K. Karunakar, Yuansong Qiao, and Enda Fallon	181
User Centric Replication Approach to Maintain Data Availability in	105
MANET	195
Mobile Sensor Networks	
An Adaptive Smoothing Method for Sensor Noise in Augmented	000
Reality Applications on Smartphones	209

Table of Contents	XIII
Mobile Architecture for Dynamic Generation and Scalable Distribution of Sensor-Based Applications	219
Verification and Validation of Smartphone Sensor Networks	233
Author Index	249