

2016 4th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (MobileCloud 2016)

**Oxford, United Kingdom
29 March – 1 April 2016**



**IEEE Catalog Number: CFP16MCC-POD
ISBN: 978-1-5090-1755-3**

**Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

******This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP16MCC-POD
ISBN (Print-On-Demand):	978-1-5090-1755-3
ISBN (Online):	978-1-5090-1754-6

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

2016 4th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering

MobileCloud 2016

Table of Contents

Welcome Message from the IEEE Mobile Cloud 2016

General Chairsvii

Welcome Message from the IEEE Mobile Cloud 2016

Technical Program Committee Chairsviii

Steering Committeex

Program Committeexi

Full Papers

Mobile Cloud Computing Techniques for Extending Computation and Resources in Mobile

Devices1

Stefania Farrugia

Standby Energy Analysis and Optimization for Smartphones11

Chengke Wang, Yao Guo, Yunnan Xu, Peng Shen, and Xiangqun Chen

Moitree: A Middleware for Cloud-Assisted Mobile Distributed Apps21

Mohammad A. Khan, Hillol Debnath, Nafize R. Paiker, Narain Gehani, Xiaoning Ding,

Reza Curtmola, and Cristian Borcea

Flexible and Secure Resource Sharing for Mobile Augmentation Systems31

Andreas Reiter and Thomas Zefferer

Face Extraction Using Skin Color and PCA Face Recognition in a Mobile Cloudlet Environment41

Praseetha V. M. and S. Vadivel

Application Offloading Based on R-OSGi in Mobile Cloud Computing46

Sen Yang, Xiangshun Bei, Yongbing Zhang, and Yusheng Ji

Cloud Computing Potability with Risk Assessment53

A. Chopra, P. W. C. Prasad, Abeer Alsadoon, S. H. Ali, and A. Elchouemi

Dynamic Improvements in a Cloud-Based Speech Recognition Engine by Incorporating

Trending Data60

Milind Bhavsar, Prudhvi Kosaraju, G. Ananthakrishnan, Gurudas Subray Shet, and Saurav Anand

Short Papers

Context Aware Mobile Cloud Services: A User Experience Oriented Middleware for Mobile Cloud Computing	67
<i>Michael J. O'Sullivan and Dan Grigoras</i>	
Common Platform Architecture for Network Function Virtualization Deployments	73
<i>Dharma Rajan</i>	

Poster Papers

Mobile Cloud Networking: Lessons Learnt, Open Research Directions, and Industrial Innovation Opportunities	79
<i>Paolo Bellavista</i>	
A Survey of Computational Offloading in Mobile Cloud Computing	81
<i>Zhaosheng Zhang and Shuyu Li</i>	
Mobile Edge Computing: Progress and Challenges	83
<i>Hongxing Li, Guochu Shou, Yihong Hu, and Zhigang Guo</i>	
Cybermatics for Cyberization towards Cyber-Enabled Hyper Worlds	85
<i>Jianhua Ma</i>	
A Remote Engine Health Management System Based on Mobile Cloud Computing	87
<i>Jian Xiong and Hong Gu</i>	
A Secure Mobile Cloud Identity: Criteria for Effective Identity and Access Management Standards	89
<i>Nitin Naik and Paul Jenkins</i>	

Invited Papers

Specifying a Trust Model for Academic Cloud Services	91
<i>Kazutshuna Yamaji, Motonori Nakamura, Yasuhiro Nagai, Tomohiro Ito, and Hiroyuki Sato</i>	
Efficient Exploitation of Mobile Edge Computing for Virtualized 5G in EPC Architectures	100
<i>Eleonora Cau, Marius Corici, Paolo Bellavista, Luca Foschini, Giuseppe Carella, Andy Edmonds, and Thomas Michael Bohnert</i>	
GA-Based Resource Augmentation Negotiation for Energy-Optimised Mobile Ad-hoc Cloud	110
<i>Elhadj Benkhelifa, Thomas Welsh, Loai Tawalbeh, Abdallah Khreishah, Yaser Jararweh, and Mahmoud Al-Ayyoub</i>	

Author Index	117
--------------------	-----