

2015 ITU Kaleidoscope: Trust in the Information Society (K-2015)

**Barcelona, Spain
9 – 11 December 2015**



**IEEE Catalog Number: CFP1538E-POD
ISBN: 978-1-4673-7614-3**

**Copyright © 2015, International Telecommunication Union(ITU)
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:	CFP1538E-POD
ISBN (Print-On-Demand):	978-1-4673-7614-3
ISBN (Online):	978-9-2611-5821-7

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

TABLE OF CONTENTS

	Page
Foreword	i
Chair's message	iii
Committees.....	xii
 Keynote Summaries	
The Networked society – challenges and opportunities, <i>Jan Färjh</i> (Global Head of Standardization and Member of the Technology Leadership Team, Ericsson, Sweden)	3
Accountability in the Cloud, <i>Siani Pearson</i> (HP Security and Cloud Research Labs, Bristol, UK).....	5
The role of trust and standardization in the adoption of innovation, <i>Eric Viardot</i> (Director of the Global Innovation Management Centre, EADA Business School, Spain).....	17
 Session 1: Trust in the Infrastructure	
S1.1 Invited paper: Strengthening Trust in the Future ICT Infrastructure..... <i>Tai-Won Um</i> (Electronics and Telecommunications Research Institute (ETRI), Korea); <i>Gyu Myoung Lee</i> (Liverpool John Moores University (LJMU), United Kingdom); <i>Jun Kyun Choi</i> (Korea Advanced Institute of Science & Technology (KAIST), Korea)	27
S1.2 Wi-Trust: Improving Wi-Fi Hotspots Trustworthiness with Computational Trust Management..... <i>Jean-Marc Seigneur</i>	35
S1.3 WifiOTP: Pervasive Two-Factor Authentication Using Wi-Fi SSID Broadcasts <i>Emin Huseynov; Jean-Marc Seigneur</i>	43
S1.4 Vulnerability of Radar Protocol and Proposed Mitigation	51
<i>Eduardo Casanovas; Tomas Exequiel Buchailot; Facundo Baigorria</i>	
 Session 2: Trust through Standardization	
S2.1 Raising trust in security products and systems through standardisation and certification: the CRISP approach. <i>Irene Kamara; Thordis Sveinsdottir; Simone Wurster</i>	59
S2.2 Drones. Current challenges and standardisation solutions in the field of privacy and data protection..... <i>Cristina Pauner; Irene Kamara; Jorge Viguri</i>	67
 Session 3: Trust in the Cloud	
S3.1 Regulation and Standardization of Data Protection in Cloud Computing..... <i>Martin Löhe; Knut Blind</i>	77
S3.2 Autonomic Trust Management in Cloud-based and Highly Dynamic IoT Applications..... <i>Suneth Namal; Hasindu Gamaarachchi; Gyu Myoung Lee; Tai-Won Um</i>	83
S3.3 The Impact of Cloud Computing on the Transformation of Healthcare System in South Africa..... <i>Thembayena Mgozi; Richard Weeks</i>	91

Session 4: Advances in networks and services I

S4.1	WhiteNet: A White Space Network for Campus Connectivity Using Spectrum Sensing Design Principles	101
	<i>Hope Mauwa; Antoine Bagula; Marco Zennaro</i>	
S4.2	A DCO-OFDM system employing beneficial clipping method	109
	<i>Xiaojing Zhang; Peng Liu; Jiang Liu; Song Liu</i>	
S4.3	Adaptive Video Streaming Over HTTP through 3G/4G Wireless Network Employing Dynamic On The Fly Bit Rate Analysis.	115
	<i>Dhananjay Kumar; Nandha Kishore Easwaran; A. Srinivasan; A. J. Manoj Shankar; L. Arun Raj</i>	
S4.4	Cloud Based Spectrum Manager for Future Wireless Regulatory Environment.....	N/A
	<i>Moshe Timothy Masonta; Dumisa Ngwenya *</i>	

Session 5: Advances in networks and services II

S5.1	Seamless Mobility in Data Aware Networking	133
	<i>Jairo López; Li Zhu; Zheng Wen; Takuro Sato; Mohammad Arifuzzaman</i>	
S5.2	Proactive-caching based Information Centric Networking Architecture for Reliable Green Communication in Intelligent Transport System.....	141
	<i>Quang Ngoc Nguyen; Takuro Sato; Mohammad Arifuzzaman</i>	
S5.3	Network Failure Detection System for Traffic Control using Social Information in Large-Scale Disasters.	149
	<i>Chihiro Maru; Miki Enoki; Akihiro Nakao; Shu Yamamoto; Saneyasu Yamaguchi; Masato Oguchi</i>	

Session 6: The Need for Speed (Measurements)

S6.1	5G Transport and Broadband Access Networks: The Need for New Technologies and Standards.....	159
	<i>Tien Dat Pham; Atsushi Kanno; Naokatsu Yamamoto; Tetsuya Kawanishi</i>	
S6.2	A unified framework of Internet access speed measurements	167
	<i>Eduardo Saiz; Eva Ibarrola; Eneko Atxutegi; Fidel Liberal</i>	
S6.3	Why we still need standardized internet speed measurement mechanisms for end users.	175
	<i>Eneko Atxutegi; Fidel Liberal; Eduardo Saiz; Eva Ibarrola</i>	

Session 7: Trust but verify!?

S7.1	Connecting the World through Trustable Internet of Things.....	185
	<i>Ved P. Kafle; Yusuke Fukushima; Hiroaki Harai</i>	
S7.2	Is Regulation the Answer to the Rise of Over the Top (OTT) Services? An Exploratory Study of the Caribbean Market.....	193
	<i>Corlane Barclay</i>	

Session 8: Establishing Trust for Networked Things

S8.1	Invited Paper: A Required Security and Privacy Framework for Smart Objects	203
	<i>Antonio Skarmeta; José Hernandez-Ramos; Jorge Bernal Bernabe (University of Murcia, Spain)</i>	
S8.2	Smart Doorbell: an ICT Solution to Enhance Inclusion of Disabled People.....	211
	<i>Lucas M Alvarez Hamann; Luis Lezcano Airaldi; Maria E Baez Molinas; Mariano Rujana; Juliana Torre; Sergio Gramajo</i>	

Poster Session

P.1	MUNIQUE: Multi-view No-Reference Image Quality Evaluation..... <i>José Vinicius de Miranda Cardoso; Carlos Danilo Regis; Marcelo S. Alencar</i>	221
P.2	A presentation format of architecture description based on the concept of multilayer networks. <i>Andrey Shchurov; Radek Marik</i>	229
P.3	Privacy, Consumer Trust and Big Data: Privacy by Design and the 3C's. <i>Michelle Chibba; Ann Cavoukian</i>	235
P.4	SOSLite: Lightweight Sensor Observation Service (SOS) for the Internet of Things (IoT)..... <i>Juan Vicente Pradilla; Carlos Palau; Manuel Esteve</i>	241
P.5	Future Mobile Communication Services on Balance between Freedom and Trust.. <i>Yoshitoshi Murata</i>	249
P.6	Mauritius eHealth - Trust in Healthcare Revolution..... <i>Leckraj Bholah; Kemley Beharee</i>	257
Abstracts	N/A
Index of authors	279