

2014 3rd International Workshop in Optical Wireless Communications

(IWOW 2014)

**Funchal, Madeira Island, Portugal
17 September 2014**



**IEEE Catalog Number: CFP14IWP-POD
ISBN: 978-1-4799-6677-6**

Program

2014 3rd International Workshop in Optical Wireless Communications (IWOW)

Free Space Optics I

<i>On the Performance of Free-Space Optical Communication Systems with Multiuser Diversity</i> Liang Yang (Guangdong University of Technology, P.R. China), Xiqi Gao (Southeast University, P.R. China), Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)	1
<i>Outage Performance Analysis of Underlay Cognitive RF and FSO Wireless Channels</i> Imran Shafique Ansari (King Abdullah University of Science and Technology, Saudi Arabia), Mohamed M. Abdallah (Texas A&M University at Qatar & Cairo University at Cairo, Qatar), Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia), Khalid A. Qaraqe (Texas A&M University at Qatar, USA)	6
<i>Outage Analysis of Hybrid FSO/RF Systems based on Finite-State Markov Chain Modeling</i> Hossein Kazemi (Ozyegin University & Communication Theory and Technologies Laboratory, Turkey), Murat Uysal (Ozyegin University, Turkey), Farid Touati (Qatar University, Qatar)	11
<i>Generalized Performance Analysis of Mixed RF/FSO Systems</i> Ehsan Soleimani-Nasab (Graduate University of Advanced Technology, Iran), Murat Uysal (Ozyegin University, Turkey)	16
<i>Relative Intensity Noise of Vertical-Cavity Surface-Emitting Lasers Subject to Variable Polarization-Optical Feedback</i> Salam Nazhan Ahmed (Northumbria University, United Kingdom), Zabih Ghassemloo (Northumbria University, United Kingdom), Krishna Busawon (Northumbria University, United Kingdom), Stanislav Zvanovec (Czech Technical University in Prague, Czech Republic)	21

Free Space Optics II

<i>On the Low SNR Capacity of Log-Normal Turbulence Channels with Full CSI</i> Fatma Benkhelifa (King Abdullah University of Science and Technology, Tunisia), Abdoulaye Tall (Orange Labs, France), Zouheir Rezki (King Abdullah University of Science and Technologie (KAUST), Saudi Arabia), Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)	25
<i>Analysis of Field Correlations in Atmospheric Optical MIMO Systems</i> Yahya K. Baykal (Cankaya University, Turkey), Murat Uysal (Ozyegin University, Turkey)	30
<i>Free Space Optics to Enable High Data Rate Download from LEO Satellites: the Impact of Clouds</i> Lorenzo Luini (Politecnico di Milano, Italy), Carlo Capsoni (Politecnico di Milano, Italy), Roberto Nebuloni (Ieiit - Cnr, Italy)	35
<i>Modeling Scintillation Effects on Free Space Optical Links using Radiosounding Profile Data</i> D. Carrozzo (Sapienza University of Rome, Italy), Saverio Mori (Sapienza University of Rome, Italy), Frank S. Marzano (Sapienza University of Rome, Italy)	40

Visible Light Communication Systems Applications

<i>Continuous Synchronization for LED-to-LED Visible Light Communication Networks</i> Stefan Schmid (ETH Zurich & Disney Research, Switzerland), Giorgio Corbellini (Disney Research Zurich, Switzerland), Stefan Mangold (Disney Research, Switzerland), Thomas R. Gross (ETH Zurich, Switzerland)	45
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

<i>Optical CDMA Codes for an Indoor Localization System using VLC</i> Steven De Lausnay (KU Leuven, Belgium), Lieven De Strycker (KU Leuven, Belgium), Jean-Pierre Goemaere (KU Leuven, Belgium), Bart Nauwelaers (Katholieke Universiteit Leuven, Belgium), Nobby Stevens (KU Leuven, Belgium)	50
<i>Experimental Demonstration of an Indoor Visible Light Communication Positioning System Using Dual-Tone Multi-Frequency Technique</i> Pengfei Luo (Northumbria University, United Kingdom), Zabih Ghassemlooy (Northumbria University, United Kingdom), Hoa Le Minh (Northumbria University, United Kingdom), Mohammad-Ali Khalighi (Ecole Centrale Marseille, France), Xiang Zhang (Beijing University of Posts and Telecommunications, P.R. China), Min Zhang (Beijing University of Posts and Telecommunications, P.R. China), Changyuan Yu (National University of Singapore, Singapore)	55
<i>Effectiveness of Blue-filtering in WLED based Indoor Visible Light Communication</i> Hyunchae Chun (Oxford University, United Kingdom), Sujan Rajbhandari (University of Oxford, United Kingdom), Grahame Faulkner (University of Oxford, United Kingdom), Dominic O'Brien (Oxford University, United Kingdom)	60

Visible Light Communication Systems Modelling and Characterization

<i>The Impact of Location Errors on Achievable Rates in OFDM-Based Multi-User Visible Light Communication Systems</i> Mohamed Kashef (Texas A&M University at Qatar, Qatar), Mohamed M. Abdallah (Texas A&M University at Qatar & Cairo University at Cairo, Qatar), Khalid A. Qaraqe (Texas A&M University at Qatar, USA), Murat Uysal (Ozyegin University, Turkey)	65
<i>Spatial ODAC performance for indoor environment</i> Ales Dobesch (Brno University of Technology, Czech Republic), Luis Nero Alves (DETI, Universidade of Aveiro, Instituto de Telecomunicações & Instituto de Telecomunicações, Portugal), Otakar Wilfert (Brno University of Technology, Czech Republic)	70
<i>Channel Characterization for Indoor Visible Light Communications</i> Shihe Long (Ecole Centrale Marseille, France), Mohammad-Ali Khalighi (Ecole Centrale Marseille, France), Mike Wolf (Ilmenau University of Technology, Germany), Salah Bourennane (Ecole Centrale Marseille & Fresnel Institute, France), Zabih Ghassemlooy (Northumbria University, United Kingdom)	75
<i>Clipping Noise Mitigation using Partial Transmit Sequence for Optical OFDM Systems</i> Zekeriyya E Ankarali (University of South Florida, USA), Syed Imtiaz Hussain (Texas A&M University at Qatar, Qatar), Mohamed M. Abdallah (Texas A&M University at Qatar & Cairo University at Cairo, Qatar), Khalid A. Qaraqe (Texas A&M University at Qatar, USA), Huseyin Arslan (University of South Florida, USA), Harald Haas (The University of Edinburgh, United Kingdom)	80
<i>Precoded Generalized Space Shift Keying for Indoor Visible Light Communications</i> Ishaque Ashar Kadampot (King Abdullah University of Science and Technology (KAUST), Saudi Arabia), Ki-Hong Park (King Abdullah University of Science and Technology (KAUST), Saudi Arabia), Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)	85