IEEE GC 2015 Workshop on Optical Wireless Communication

December 6, 2015 in Room Cobalt 500, Hilton San Diego Bayfront

Workshop Program

8:15 AM
Welcome

8:15 AM 9:45 AM
Invited Talks
Session Chair: Hany Elgala, SUNY Albany, USA

Pre and Post Equalization Technologies for the High Speed Visible Light Communication Systems
Nan Chi, Fudan University, P. R. China

Dense Networking with Visible Light Communications
Thomas Little, Boston University, USA

9:45 AM 10:15 AM
Coffee Break and Poster Session
Session Chair: Julian Cheng, UBC, Canada

Challenges in Wide Coverage Indoor Optical Communications Using Fibre Wireless Fibre Links for Terabit data rates
Ariel Gomez Diaz, Crisanto Quintana and Grahame Faulkner (University of Oxford, United Kingdom); Dominic O’Brien (Oxford University, United Kingdom)

High-speed Optical and Millimeter-wave Wireless Link for Disaster Recovery
Ken’ichi Kitayama and Yuki Yoshida (Osaka University, Japan); Kosuke Nishimura (KDDI R&D Laboratories Inc. & Optical Access Network Laboratory, Japan); Abdelmoula Bekkali (KDDI R&D Laboratories Inc., Japan); Masayuki Oishi (KDDI Corporation, Japan); Naoyasu Kamiya (KDDI labs, Japan); Keiji Tanaka (KDDI R&D Laboratories Inc., Japan); Kazukiyo Yoshin (Fujitsu Limited, Japan); Kaoru Higuma (Sumitomo Osaka Cement Co. Ltd., Japan); Satoshi Oikawa (Sumitomo Osaka Cement Co., Ltd., Japan); Junichiro Ichikawa (Sumitomo Osaka Cement, Japan); Yuya Yamaguchi and Hirochika Nakajima (Waseda University, Japan); Hidenori Iwai (Trimatiz Limited, Japan); Kazuya Ota (Trimatiz, Japan); Norihiko Sato (Trimatiz Limited, Japan); Nobuhiko Shibagaki (Hitachi, Japan); Atsushi Kanno and Tetsuya Kawanishi (National Institute of Information...
On the Capacity of the 2-User IM-DD Optical Broadcast Channel
Anas Chaaban (King Abdullah University of Science and Technology, Saudi Arabia); Zouheir Rezki (King Abdullah University of Science and Technology (KAUST), Saudi Arabia); Mohamed Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

Max- Min Fairness and Sum-Rate Maximization of MU-VLC Local Networks
Thanh Pham (University of Aizu & Computer Communications Lab., Japan); Anh T. Pham (The University of Aizu, Japan)

Novel Demodulation Scheme Based on Blurred Images for Image-Sensor-Based Visible Light Communication
Yuki Ohira and Shintaro Arai (National Institute of Technology, Kagawa College, Japan); Tomohiro Yendo (Nagaoka University of Technology, Japan); Takaya Yamazato, Hiraku Okada and Toshiaki Fujii (Nagoya University, Japan); Koji Kamakura (Chiba Institute of Technology, Japan)

Multi-Element Transmitter Design and Performance Evaluation for Visible Light Communication
Yusuf Eroglu, Alphan Şahin, Ismail Güvenç and Nezih Pala (Florida International University, USA); Murat Yuksel (University of Nevada Reno, USA)

Adaptive Modulation for Two Users in VLC
Saed Abdullah (UniSA, Australia); SiuWai Ho (University of South Australia, Australia); Chi Wan Sung (City University of Hong Kong, Hong Kong)

On the Development of Modular Optical Wireless Elements (MOWE)
Asaad Kaadan (University of Oklahoma, USA); Hazem Refai (Oklahoma University, USA); Peter LoPresti (Tulsa University, USA)

10:15 AM 10:45 AM
Optical Wireless Using Visible Light Communication
Session Chair: Nan Chi, Fudan University

Nonlinear Distortion in SPAD-Based Optical OFDM Systems
Yichen Li (The University of Edinburgh, United Kingdom); Majid Safari and Robert Henderson (University of Edinburgh, United Kingdom); Harald Haas (The University of Edinburgh, United Kingdom)
**Performance of Color Shift Keying under non-linear system model and illumination constraints**

Pankil M. Butala (Boston University & NSF Smart Lighting ERC, USA); Hany Elgala (University at Albany, SUNY & NSF Smart Lighting ERC, USA); Thomas DC Little (Boston University & NSF Smart Lighting ERC, USA)

10:45 AM 11:30 AM
Invited Talk
Session Chair: Majid Safari, University of Edinburgh, UK

**Internet Connectivity for Developing Countries**

Hamid Hemmati, Facebook Inc., USA

11:30 AM 12:00 PM
Optical Wireless Communication Using Free Space Optical Signal
Session Chair: Hamid Hemmati, Facebook, USA

**Outage Performance of Hybrid FSO/RF System with Low Complexity Power Adaptation**

Tamer Rakia (University of Victoria & IEEE Student Member, Canada); HongChuan Yang (University of Victoria, Canada); Fayez Gebali (The University of Victoria, Canada); Mohamed Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

**Mixed RF and Hybrid RF/FSO Relaying**

Vahid Jamali (Friedrich Alexander University Erlangen Nurnberg, Germany); Diomidis S. Michalopoulos (University of Erlangen Nuremberg & Institute for Digital Communications, Germany); Murat Uysal (Ozyegin University, Turkey); Robert Schober (University of British Columbia, Canada)