2015 International Workshop on Fiber Optics in Access Network (FOAN 2015)

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Program

Tuesday, October 6

09:00 - 12:00

ICUMT: Openinig Session and Keynot Talks

Opening ceremony for all ICUMT and FOAN participants

12:50 - 13:00

FOAN2015: Opening session

Chair: Edvin Skaljo (BH Telecom Sarajevo, Bosnia and Herzegovina)

13:00 - 13:30

INVITED TALK 1: Is The Smart Home The Next Big Thing

Michael Philpott, Practice Leader, OVUM, UK

This presentation will explore the smart home opportunities, latest market trends and major barriers that still exist for greater consumer adoption.

13:30 - 14:30

FO2: Networks

Chair: Kimio Oguchi (Seikei University, Japan)

13:30 Migration to Broadband and Ubiquitous Environments by Using Fiber-optic Technologies in Access/Home Areas
Kimio Oguchi (Seikei University, Japan)
pp. 1-5

13:50 Slovenian FTTH Deployments Before and After the Economic Crisis
Bostjan Batagelj (University of Ljubljana & Faculty of Electrical Engineering, Slovenia)
pp. 6-10

14:10 A Cost Effective Topology in Fiber to the Home Point to Point Networks Based on Single Wavelength Bi-Directional Multiplex
Edvin Skaljo (BH Telecom Sarajevo, Bosnia and Herzegovina); Mujo Hodzic (BH Telecom, Bosnia and Herzegovina); Aljo Mujčić (University of Tuzla, Bosnia and Herzegovina)
pp. 11-16

14:30 - 15:00

BREAK: Coffee 1

15:00 - 15:30

INVITED TALK 2: Bi - birectional WDM - Based Free Space Optical Communication

Profesor Liaw, National Taiwan University of Science and Technology, Taiwan

In this talk, the impairment of free - space optical communication due to various environmental factors along the transmission path including the oblique incidence through the building window glasses, thermally induced non - uniform air index, and the rainfall on the FSO performance are investigated and analyzed.

15:30 - 17:00

FO4: Advanced fiber optics technics

Chair: Bostjan Batagelj (University of Ljubljana & Faculty of Electrical Engineering, Slovenia)

15:30 Experimental Investigation of SAC/PDM-based OCDMA Scheme with FBG-based Lasers Over Wireless Transmission Channel

Yao-Tang Chang (Kao Yuan University, Taiwan); Hsu-Chih Cheng and Bo-Rong Huang (National Formosa University, Taiwan); Chih-Lun Shao (Kao Yuan University Kaohsiung, Taiwan)
pp. 17-21

15:45 RGB LEDs Visible Light Communications Based on Equalized Receiver with Broadband Optical Filters

Hsi-Hsir Chou, Shien-Kuei Peter Liaw, Chiang Teng, Jhih-Shan Jiang, Cheng-Yu Tsai, Chun-Jui Wu and Ming-Jen Chien (National Taiwan University of Science and Technology, Taiwan)
pp. 22-25

16:00 Frequency-Response Measurements of an Injection-Locked Fabry-Pérot Laser Diode in a Colorless WDM-PON

Vesna Erzen and Mitja Mikulič (University of Ljubljana, Slovenia); Bostjan Batagelj (University of Ljubljana & Faculty of Electrical Engineering, Slovenia)
pp. 26-30

16:15 A Simple Design Approach of a Micro-Lens Array for Fiber Optic Applications

Yen-Ru Huang (ASIAA, Taiwan); Liang-Tang Chen (NTUST, Taiwan); Gerd Keiser (Boston University & PhotonicsComm Solutions, USA)
pp. 31-33

16:30 Spectral Analysis of Bragg Gratings Written in Fluid-Infiltrated Photonic Crystal Fibers

George S. Kliros (Hellenic Air-Force Academy, Greece)
pp. 34-39

16:45 Tunable Multichannel Optical Network

Sergey B. Biryuchinskiy (Vigitek, Inc. & OPTICA4D, USA); Sergey Churayev (GTNanoTech, Russia); Konstantin Melnikov (Laser & Information Technologies Co, Ltd., Belarus); Victor Garkavy (VIGITEK Inc., USA)

pp. 40-44

17:00 - 17:30

INVITED TALK 3: Fiber and Integrated Optic Elements Based on Microsphere Resonators and Meandering Waveguides

Professor Ali Serpengüzel, Koc University. Turkey

The microspheres, with their high quality factor morphology dependent resonances (MDRs), are ideal optical resonators for three dimensional photonic lightwave circuits. In optical lightwave communication areas, such as fiber and integrated optics, the microsphere leads itself to various photonic lightwave circuit element applications such as channel dropping filters tunable filters, optical modulators, and dynamic tuners. So far we have realized these applications using silicon spheres coupled with optical fiber half couplers manufactured from single mode optical fibers.

17:30 - 18:20

FO5: Network Mechanisms and Student Session

Chairs: Shien-Kuei Peter Liaw (National Taiwan University of Science and Technology, Taiwan), Petr Munster (Brno University of Technology, Czech Republic)

17:30 Alleviating the High Propagation Delays in FiWi Networks: A Prediction-based DBA Scheme for 10G-EPON-WiMAX Systems

Malamati Louta and Panagiotis Sarigiannidis (University of Western Macedonia, Greece); Ioannis Moscholios (University of Peloponnese, Greece); Georgios Papadimitriou (Aristotle University, Greece); Anthony Boucouvalas (University of Peloponnese, Greece); Dimitrios Kleftouris (Technological Educational Institution of Thessaloniki, Greece)

pp. 45-50

17:45 On Security in Gigabit Passive Optical Networks

Tomas Horvath, Lukas Malina and Petr Munster (Brno University of Technology, Czech Republic)

pp. 51-55

18:00 Gain Profile Analysis in Fibre Optical Parametric Amplifiers Using SBS Technique

Rajan Miglani (Lovely Professional University, India); Jagjit Singh (DAVIET, India); Gurjot Singh Gaba (Lovely Professional University, India)

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