

International Conference on Advanced Infocomm Technology 2011

(ICAIT 2011)

IET Conference Publications 585

**Wuhan, China
11-14 July 2011**

ISBN: 978-1-62276-035-0

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2011) by the Institution of Engineering and Technology
All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact the Institution of Engineering and Technology
at the address below.

Institution of Engineering and Technology
P. O. Box 96
Stevenage, Hertfordshire
U.K. SG1 2SD

Phone: 01-441-438-767-328-328
Fax: 01-441-438-767-328-375

www.theiet.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Novel L-band Multiwavelength Raman Fiber Laser Based on Three-Stage Mixed-Cascaded Phosphor-Silicate Raman Process.....	1
<i>Zhengqian Luo, Jinzhang Wang, Guoxiong Cai, Zhiping Cai, Chenchun Ye, Huiying Xu</i>	
Research on Strain Sensing Based on Passively Mode-locked Fiber Laser Using Saturable Absorber	5
<i>Liang Zhang, Ping Lu, Li Chen, Ming Tian, Deming Liu</i>	
Bandwidth Analysis of Channelized Tunable Optical Dispersion Compensator Based on Liquid Crystal on Silicon.....	7
<i>Quan You, Sheng Cui, Zhujun Wan, Xiaoying Liu, Li Li, Deming Liu</i>	
Chromatic Dispersion Monitor Method for Signals with High Duty Cycles	9
<i>Li Li, Sheng Cui, Tiensi Hu, Simin Sun, Jun Li, Quan You, Deming Liu</i>	
Survivability Schemes in Metro Interconnected Ring Networks.....	12
<i>Yongmin Qi, Jia He, Ziyang Wang, Qiliang Li</i>	
Highly Sensitive In-band OSNR Monitors Based on Phase-Matched Four-Wave Mixing.....	16
<i>Sheng Cui, Simin Sun, Li Li, Jun Li, Quan You, Deming Liu</i>	
Performance Optimization of Passive Mode-Locked Fiber Ring Laser.....	19
<i>Nanxi Li, Jin Xue, Kan Wu, J. H. Wong, S. Aditya, P. P. Shum</i>	
A Hybrid Image Compression Technique Based on DWT and DCT Transforms	24
<i>S. Benchikh, M. Corinthios</i>	
A Novel Discrete Cosine Transform Algorithm for Optimized Hardware Implementation in Audio Decoding.....	32
<i>Junfeng Zhu, Dapeng Sun, Heng Yang</i>	
HF-PMIPv6: An Enhanced Fast Handovers for Network-based Mobility Management.....	36
<i>Meng-Hsuan Lin, Whai-En Chen, Chao-Hsi Huang</i>	
Simulation of a VLC System with 1 Mb/s NRZ-OOK Data with Dimming Signal	43
<i>Hyung-Joon Jang, Joon-Ho Choi, Eun Byeol Cho, Chung Ghiu Lee</i>	
Compensation of the Frequency Fluctuations of Light Sources in Distributed Brillouin Sensor	46
<i>Xiaosheng Xiao, Jinghui Yang, Changxi Yang</i>	
Laser-induced Patterned Deposition of Silver Nanoparticles on Glass.....	49
<i>Zhonghuan Zhang, Xiaosheng Xiao, Changxi Yang</i>	
In-band Impairment Measurement Via Varied-SOP Polarization-resolved Optical Spectrum Analysis.....	52
<i>Gang He, D. Gariepy, Hongxin Chen, N. Cyr, G. W. Schinn</i>	
A Second-order Approximation Coupling Model of Fused Biconical Tapered Fiber Coupler	60
<i>Chao Liu, Li Pei, Song Gao, Ze-Xin Kang, Jiang Sun, Jun-Fang Yan</i>	
Frequency-octupling Millimeter-wave Generation Based on Optical Two-step Self-heterodyne Technique	64
<i>Song Gao, Li Pei, Tigang Ning, Jing Li, Chunhui Qi, Chao Liu, Junfang Yan</i>	
Optically Tuning of Chromatic Dispersion Compensators	68
<i>Xuewen Shu</i>	
Online Measurement Solubility of CO₂ in Water Based on Membrane Covered Optical Sensor.....	71
<i>Yong-An Zhang, He-Ru Xue</i>	
Tackling Mutual Coupling in Antenna Arrays for Wireless Communications	75
<i>Hon Tat Hui</i>	
Design of Achromatic Terahertz Quarter Wave Plate by Simulated Annealing Algorithm	80
<i>Guobin Ren, Pengcheng Zhang</i>	
A Presentation Deadline-based Cross-layer Design for IPTV Services Over Wireless Networks.....	83
<i>Mingfu Li, Yu-Shuo Chang</i>	
Design of Wireless Sensor Node for Drought Monitoring in Vineyards	88
<i>Feng Ye, Weimin Qi</i>	
Low-density Parity-check Codes Used for Polarization Mode Dispersion Mitigation in 40-Gb/s Optical Fiber System.....	92
<i>Lixia Xi, Haoran Chen, Minliang Li, Dahai Han, Xiaoguang Zhang</i>	
Regeneration of DQPSK Signals Using Semiconductor Optical Amplifier-based Phase Regenerator	95
<i>Guang Chen, Lixia Xi, Yongxin Ma, Lingyu Sun, Xiaoguang Zhang</i>	
Highly Sensitive Liquid-Level Sensor Based on Weak Uniform Fiber Bragg Grating with Narrow-Bandwidth	99
<i>Yi Dai, Qizhen Sun, Jianghai Wo, Xiaolei Li, Manliang Zhang, Deming Liu</i>	

Longitudinal Modes Tunable Fiber Laser and Spectra Analysis	102
<i>Jiejun Zhang, Qizhen Sun, Jianghai Wo, Deming Liu</i>	
Local Adaptive Sampling for an Energy Harvesting CO₂ Sensor	106
<i>Junfang Yan, Li Pei, Mengjiao Wang, Chao Liu, Song Gao</i>	
Optical Fiber Sensors Based on Photonics Crystal Fiber Loop Mirrors.....	110
<i>Chun-Liu Zhao, Wenwen Qian, Huaping Gong, Xinyong Dong</i>	
Wavelength-tunable Optical Parametric Regenerator	117
<i>Mingyi Gao, J. Kurumida, S. Namiki</i>	
Optoelectronic Down Conversion: A Novel Approach for Optical Beat Note Stabilisation Up to the THz Domain	120
<i>A. Rolland, G. Loas, L. Frein, M. Vallet, M. Brunel, M. Alouini</i>	
Particle Swarm Optimization Applied to Designing LDPC Codes for Wireless Communications.....	123
<i>Chia-Lu Ho</i>	
A New Power Control Algorithm Based on Game Theory in Cognitive Radio System.....	128
<i>Jianguo Fu, Songsong Xiong, Weiping Liu, Liang Yang, Xuchang Ding, Yongqing Liao</i>	
Author Index	