OFSET 2000	Advance Program

Monday, December 4, 09:30~12:50 AM, Room A

09:30	Opening Ceremony
10:00	Coffee Break
10:20	Kevnote Lectures

Keynote Lectures

10:20	Construction and Evolution of China Optical Fiber Transport Networks Leping Wei China Academy of Telecommunications Research, China
10:50	The Research Progress of Optical Communications Technologies in China Mao Qian Wuhan Research Institute of Posts and Telecommunications, China
11:20	Recent Progress of Integrated Optics Hiroshi Nishihara Osaka University, Japan
11:50	Microwave and Optical Wave Interactions (tentative) Masayuki Izutsu Communications Research Laboratory, Japan
12:20	Optical Fiber Systems and Networks (tentative) Tadayoshi Kitayama Mitsubishi Electric Corporation, Japan
12:50	Lunch

Optical Fibers (1)

14:00	Coupled Mode Theory and Its Application to Fiber Gratings (invited) Jingren Qian University of Science and Technology of China, China
14:25	All-Fiber White-Light VISAR and Velocity Tests (invited) Hu Li, Ye Kunzheng, and Jia Bo University of Electronic Science and Technology of China, China
14:50	Analysis of All-Optical Wavelength Converters and Their Cascadability Atsuo Tachibana and Masayuki Matsumoto Osaka University, Japan
15:05	Efficient Improved Fourier-Expansion Methods for Dielectric Lamellar Gratings in Conical Diffraction Minoru Komatsu (1), Jiro Yamakita (1), Keiji Matsumoto (2), and Masamitsu Asai (3) (1) Okayama Prefectural University, Japan (2) Osaka-Sangyo University, Japan (3) Kinki University, Japan
15:20	Chirp Elimination Using a Linearly Chirped Fiber Grating Xiaoguang Zhang, Zhongyuan Yu, and Ning Lin Beijing University of Posts and Telecommunications, China
15:35	Coffee Break

Optical Fibers (2)

15:55	Development of Stainless-Steel Tube Secondary Coating Fiber with Long Excess Length Li Su-ming and Du Bo-lin Heng Tong Group, China
16:10	A Novel Devising Method of Comb-like Dispersion Profiled Fiber (CDPF) Compressor with the Considerations of Waveform and Duration Zhang Fan, Wu Jian, and Lin Jintong Beijing University of Posts & Telecommunications, China
16:25	Refractive-Index Changes in Optical Fibers Induced by Local Heat Treatments Katsumi Morishita Osaka Electro-Communication University, Japan
16:40	Power Equalization Scheme of Reconfigurable OADM Ring Networks in the All Optical Test Networks Laifu Fang, Jianquan Wang, Mianfeng Lin, Huilian Li, and Wanyi Gu Beijing University of Posts & Telecommunications, China
16:55	Improvement of Amplitede and Phase Margins in Optical RZ Receiver Using Nonlinearity in Normal Dispersion Fiber: Effect on the Gordon-Haus Timing Jitter Maoki Suzuki, Hiroyuki Toda, Anhui Liang, and Akira Hasegawa Osaka University, Japan
17:10	A High-Resolution Wavelength Demodulation System Used for FBG Sensor Dong Xinyong, Guan Bai'ou, Kai Guiyun, Liu Zhiguo, and Dong Xiaoyi Nankai University, China

Monday, December 4, 14:00~15:35 PM, Room B

Computational Electromagnetics

14:00	Research Trends in Computational Electromagnetics (invited) Hiroyoshi Ikuno Kumamoto University, Japan
14:25	Design and Modeling of Photonic Crystal Waveguides (invited) Masanori Koshiba Hokkaido University, Japan
14:50	Evaluation of Iterative Solution Methods in Using 3D Volume Integral Equation Yasuo Takahashi, Kazuo Tanaka, and Masahiro Tanaka Gifu University, Japan
15:05	Numerical Simulations of Simplified Near-Field Optical Microscope by 3D Volume Integral Equation Method Kazuo Tanaka, Mengyun Yan, and Masahiro Tanaka Gifu University, Japan
15:20	Guided Mode Analysis of Two-Dimensional Photonic Crystal Optical Waveguides Yoshihiro Naka and Hiroyoshi Ikuno Kumamoto University, Japan
15:35	Coffee Break

Monday, December 4, 15:55~17:45 PM, Room B

Optical Devices (1)

15:55	Photoinduced Nonlinear Effect in Semiconductive Waveguide (invited) Shi-Ping Zhou and Deming Xu Shanghai University, China
16:20	Application of Singular and Hypersingular Integral Equations in Electromagnetics and Microwave Electronics Problem (invited) G.I. Zaginaylov, Yu.V. Gandel, and V.A. Scsherbin Kharkov National University, Ukraine
16:45	Theory on Optical Isolator-Modulator in Yig Film Waveguide S.K.Dana, T.Ueda and M.Tsutsumi Kyoto Institute of Technology, Japan
17:00	Radiated Second-Harmonic Wave in Nonlinear Waveguide Coupler with Two Gratings Shinichi Takaishi and Mitsuhiro Yokota Miyazaki University, Japan
17:15	Short Cavity Er/Yb Fiber Bragg Grating Laser in 1550nm Waveband Ying Zhang, Li Ding, De-jun Feng, Gui-yun Kai, Shu-zhong Yuan, and Xiao-yi Dong Nankai University, China
17:30	Tunable Narrow Line-Width Pulses Generated from a Laser Diode Using a Fiber Bragg Grating Zhao Chunliu, Ma Ning, Yuan Shuzhong, Ding Lei, Liu Heliang, Lv Fuyun , Liu Zhiguo, and Dong Xiaoyi Nankai University, China

Tuesday, December 5, 08:45~10:25 AM, Room A

Random Media and Rough Surfaces

08:45	Analysis of Scattering Characteristics of Subsurface Radar Pulse by Buried Objects in Random Media using 3-Dimensional FDTD Method Koichi Takahashi and Yasumitsu Miyazaki Toyohashi University of Technology, Japan
09:00	Bistatic Cross-Sections of a Conducting Circular Cylinder Embedded in Random Media with Special Reference to Spatial Coherence Lengths of Scattered Waves Z. Q. Meng (1) and M. Tateiba (2) (1) Fukuoka University, Japan (2) Kyushu University, Japan
09:15	Random Media in Remote Sensing (invited) Mitsuo Tateiba Kyushu University , Japan
09:40	Singularities in the Modal Density of States of a Two-Component Disordered Waveguide System Akira Komiyama Osaka Electro-CommunicationUniversity, Japan
09:55	An Accurate Solution for Random Rough Surface Scattering at Low-Grazing Angle Kwang-yeol Yoon ⁽¹⁾ , Mitsuo Tateiba ⁽¹⁾ , and Kazunori Uchida ⁽²⁾ (1) Kyushu University, Japan (2) Fukuoka Institute of Technology, Japan
10:10	Extraction of Optical Clock Pulses from the Uneven Allocation Optical Pulses of Signal Yang En-ze, Dai Ju-feng, Yu Jin-long, Ma Xiao-hong, Wang-Lin and Liu Jian-fei Tianjin University, China
10:25	Coffee Break

Tuesday, December 5, 10:45~12:25 AM, Room A

Scattering and Diffraction (1)

10:45 Bistatic Scattering from Rough Sea Surface with a Ship Presence at LGA Incidence Using the GFBM/SAA Method (invited)

Ya-Qiu Jin and Zhongxin Li Fudan University, China

11:10 Plane Wave Diffraction by a Thin Material Strip: Solution by the Analytical-Numerical Approach

Eldar I.Veliev (1), Shoichi Koshikawa (2), and Kazuya Kobayashi (3)

- (1) Institute of Radiophysics and Electronics, National Academy of Sciences of Ukraine
- (2) Antenna Giken Co., Ltd., Japan
- (3) Chuo University, Japan

11:25 Analysis of Backscattering from Concave-Convex Targets in Random Media for H-Wave Incidence

H. El Ocla and M. Tateiba Kyushu University, Japan

11:40 Numerical Analysis of the Effective Constitutive Parameters of a Random Medium Containing Spherical Chiral Particles

Yukihisa Nanbu $^{(1)}$, Wei Ren $^{(2)}$, Tsuyoshi Matsuoka $^{(3)}$, Michiyo Hiramoto $^{(3)}$, and Mitsuo Tateiba $^{(3)}$

- (1) Sasebo National College of Technology, Japan
- (2) McMaster University, Canada
- (3) KyushuUniversity, Japan

11:55 Scattering of a Gaussian Beam by Spherical Objects

Haruo Sakurai (1), Makoto Ohki (2), Kuniyuki Motojima (2), and Shogo Kozaki (2)

- (1) Gunma College of Technology, Japan
- (2) Gunma University, Japan

12:10 Scattering of Light Wave from Photorefractive Slab

Mitsuhiro Yokota Miyazaki University, Japan

12:25 Lunch

Scattering and Diffraction (2)

13:45 Polarimetric Scattering of Non-Spherical Chiral Particles

Ya-Qiu Jin and Mei Chang Fudan University, China

14:00 Fabrication of Rare-Earth Elements Doped Fibers by MCVD Method (invited)

Liu Youxin (1), Yin Hongbing (2), Wu Shujian (2), Chen Shuling (2),

Li Siyu (2), Wang Yangliang (2), and Yao Ji (2)

- (1) Wuhan Research Institute of Posts & Telecom., China
- (2) Fiber Home Telecom. Tech. Co. Ltd., China

14:25 Analysis of Electromagnetic Scattering in Large Areas Using a Parallel FDTD Method

Glen Rodriguez and Yasumitsu Miyazaki Toyohashi University of Technology, Japan

14:40 Electromagnetic Scattering from a Dielectric Cylinder with Multiple Eccentric Cylindrical Inclusions

Hiroshi Toyama, Tomohiro Iwasaki, and Kiyotoshi Yasumoto Kyushu University, Japan

14:55 Scattering of a Gaussian Beam by a Multilayered Dielectric Cylinder with Metallic Cap

Takayuki Takagi (1), Haruo Sakurai (2), Makoto Ohki (1), and Shogo Kozaki (1)

- (1) Gunma University, Japan.
- (2) Gunma College of Technology, Japan

15:10 Asymptotic Analysis of Transient Electromagnetic Fields Scattered by Cylindrically Curved Conducting Surfaces

Keiji Goto (1) and Toyohiko Ishihara (2)

- (1) Signal School of the Japan Ground Self-Defense Force, Japan
- (2) National Defense Academy, Japan

15:25 Coffee Break

Optical Components (1)

15:45	Ultrafast Optical Time Divisioin Multiplexing Networks: Technologies	and
	Applications (invited)	

Jintong Lin

Beijing University of Posts & Telecom., China

16:10 Integrated Photonic Devices Using Quantum-Well Lasers and Waveguide Grating Components (invited)

Toshiaki Suhara

Osaka University, Japan

16:35 Carrier Confinement in InXGa1-XAs/GaAsP Strain-Compensated Single-Quantum-Well Lasers

W. Susaki $^{(1)},$ K. Kondo $^{(1)},$ H. Yaku $^{(1)},$ H. Asano $^{(2)},$ T. Fukunaga $^{(2)},$ and T. Hayakawa $^{(2)}$

- (1) Osaka Electro-Communication University, Japan
- (2) Fuji Photo Film Ltd, Japan

16:50 A Three-Branch Waveguide for Even Division of Optical Power on a New Design Concept

Yabu Tetsuro, Geshiro Masahiro, and Sawa Shinnosuke Osaka Prefecture University, Japan

17:05 Dynamic Characteristics of Yb-Sensitized Er-Doped Garnet Crystal Waveguide-Type Optical Amplifiers

R. Balasubramanian, Yasuhiro Fukuyama, and Yasumitsu Miyazaki Toyohashi University of Technology, Japan

17:20 Amplifying the Fabry-Perot Cavity Fiber Laser's Output with the Surplus Pump Energy

Ding Lei, Xu Yanjun, Yuan Shuzhong, Feng Dejun, Kai Guiyun, and Dong Xiaoyi Nankai University, China

18:00 Banquet

Optical Fibers (3)

08:45	Investigation on Integrated High Speed DFB Light Source and Narrow
	Bandwidth RCE Photodetector for WDM Fiber Communication Network
	Application (invited)

Wang Qiming (1), Li Cheng (1), Pan Zhong (1), and Luo Yi (2)

- (1) Institute of Semiconductors, Chinese Academy of Sciences, China
- (2) Tsinghua University, China

09:10 9 15 Star Coupler Design of Ti:LiNbO3 Optical Waveguide for Optical BFN in Steerable Multibeam Array Antenna

Weiwei Hu, Keizo Inagaki, Yoshihiko Mizuguchi and Takashi Ohira ATR Adaptive Communications Research Laboratories, Japan

09:25 A Novel Dispersion-Imbalanced Loop Mirror for Gain-Switched Laser **Diode Pulse Compression**

Liu Xianbing (2), Luo Jie (1), Ye Peida (1), and Zhao Zisen (2)

- (1) Beijing University of Posts and Telecommunications, China
- (2) Wuhan Research Institute of Posts and Telecommunications, China

09:40 **Characteristics of Optical Resonator Composed of the Alternating** Coupler Kiyoshi Kishioka and Tadashi Sakagami

Osaka Electro-Communication University, Japan

09:55 **Characteristics of Polarization Splitter Constructed from Two Optical Fibers** with a Circular Hollow Pit Outside a Core

Kazunori Kameda (1), Shinichi Furukawa (1), Takashi Hinata (2), and Toshio Hosono (2)

- (1) Sano International Information Junior College, Japan
- (2) Nihon University, Japan

10:10 Propagation Characteristics of Single-Polarization Optical Fiber with the **Cross Section of Arbitrary Shape**

Shinichi Furukawa (1), Masayuki Saitou (2), and Takashi Hinata (2)

- (1) Sano International Information Junior College, Japan
- (2) Nihon University, Japan

10:25 Coffee Break

Optical Components (2)

10:45 **Polarization Dependency of Twisted Fiber Couplers**

Tsutomu Yamaguchi Kinki University, Japan

11:00 Full-Vectorial Analysis of Optical Directional Coupler

Tokuo Miyamoto (1), Michiko Momoda (1), and Kiyotoshi Yasumoto (2)

- (1) Fukuoka University, Japan
- (2) Kyushu University, Japan

11:15 Coupled-Mode Analysis of Coupled Open Waveguides Using a Singular

Perturbation Technique (invited) Kiyotoshi Yasumoto and Koki Watanabe Kyushu University, Japan

11:40 Coupled Mode Equations for Generalized LP Modes Utilizing Variational Principle

Chen Dengpeng and Qian Jingren University of Science and Technology of China, China

11:55 Analysis of Diffracted Waves from a Uniaxial Chiral Layer with a Thin Metallic Grating

Masamitsu Asai (1), Jiro Yamakita (2), Hideaki Wakabayashi (2), and Junya Ishii (1)

- (1) Kinki University, Japan
- (2) Okayama Prefectural University, Japan
- 12:10 **Lunch**

Tuesday, December 5, 13:45~15:25 PM, Room B

Electromagnetic Compatibility and Propagation

13:45	VHF Broadband Interferometer and Imaging of Lightning Channel (invited) Zen-Ichiro Kawasaki Osaka University, Japan
14:10	Numerical Performance of Electromagnetic Inner Fields in Small Aperture Radial Line Slot Antennas by Finite-Difference Time-Domain Approach Tetsuya Yamamoto and Mitsuhiro Ono Yamagata University, Japan
14:25	High Frequency Analysis of EM Scattering by Automobile Models Hiroshi Shirai, Toshiteru Hayashi, and Kazuhito Okawa Chuo University, Japan
14:40	Reducing Q-Factors of Resonances of Power/Ground Planes in PCBs by Using Metallic Films with High Resistivity Zhi Liang Wang, Osami Wada, and Ryuji Koga Okayama University, Japan
14:55	Simplification of Human Head Models for Designs of Cellular Telephone Antennas Kaori Shimomura, Shigekazu Mori, Akimasa Hirata, and Toshiyuki Shiozawa Osaka University, Japan
15:10	Electromagnetic Field Characteristics of Compact Broadband Microstrip Patch-Parasitic Array Antenna Nawi Berahim and Yasumitsu Miyazaki Toyohashi University of Technology, Japan
15:25	Coffee Break

Tuesday, December 5, 15:45~17:25 PM, Room B

Electromagnetic Compatibility and Scattering

15:45	Review on Seismo Electromagnetics (invited) Masashi Hayakawa University of Electro-Communications, Japan
16:10	Microwave Imaging of Cylindrical Dielectric Objects from Multifrequency Scattering Data Mitsuru Tanaka and Kuniomi Ogata Oita University, Japan
16:25	Borehole EM Measurement Simulation by FDTD Sixin Liu and Motoyuki Sato Tohoku University, Japan
16:40	Temperature Rises in the Human Head Exposed to EM Waves Emitted from a Dipole Antenna at Various Microwave Frequencies M. Morita, A. Hirata, and T. Shiozawa Osaka University, Japan
16:55	Scattering Analysis of X-ray Gaussian Beam by the Dielectric Cylinder Group Ryo Fukuo and Yasumitsu Miyazaki Toyohashi University of Technology, Japan
17:10	Sensitivity Enhancement of Long Period Fiber Grating Sensor for the Refractive Index Measurement Yunqi Liu (1), Kin Seng Chiang (2), Mei Nar Ng (2), Zhuanyun Guo (1), and Xiaoyi Dong (1) (1) Nankai University, China (2) City University of Hong Kong, China
18:00	Banquet

Optical Devices (2)

08:45	Electromagnetic Inverse Scattering of a Two-Dimensional Photonic Crystal Atsushi Kusunoki Oita University, Japan
09:00	Analytically Approximated Solution of the Transmission Properties on Photonic Crystal Waveguides Masato Ohtaka, Atsushi Miyagawa, Kazuki Wakabayashi, and Akihiro Hashimoto Fukui University, Japan
09:15	Application of Mode-Locked Laser Technologies in Soliton Communications (invited) Yang Xiang Lin, Wen Yang Jing, and Xu Ming Nanjing University of Posts and Telecommunication, China
09:40	Scattering of Electromagnetic Waves by Dielectric Gratings with Elliptically Layered Media Tsuneki Yamasaki, Takashi Hinata, and Toshio Hosono Nihon University, Japan
09:55	Optimization of High-Speed TDM and WDM Lines by Q-Map Method K. Shimoura, I. Yamashita, and S. Seikai Technical Research Center of the Kansai Electric Power Co., Inc., Japan
10:10	Imaginary-Distance Beam Propagation Method Based on Full-Vectorial Finite Element Scheme for Three-Dimensional Optical Waveguide Yasuhide Tsuji and Masanori Koshiba Hokkaido University, Japan
10:25	Joint Between a Photonic Crystal Optical Waveguide and a Dielectric Optical Waveguide A. Yata, Y. Naka, and H. Ikuno Kumamoto University, Japan
10:40	Coffee Break

Optical Devices (3)

11:00	Analysis of Dual Band Filters Consisting of Slot-Coupled Microstrip Resonators
	Mitsutoshi Murata, Toshiaki Kitamura, Masahiro Geshiro, Shinnosuke Sawa,
	and Takeyuki Tominaga
	Osaka Prefecture University, Japan

11:15 Analysis of a Rectangular Waveguide with Resistive Sheet by Visual Equivalent Circuit Method

Tsutomu Hashimoto $^{(1)},$ Osakis Ishida $^{(2)},$ and Yoji Isota $^{(2)}$

- (1) Tokyo University of Technology, Japan
- (2) Mitsubishi Electric Corporation, Japan

11:30 A Multiport Representation of the Step Junction of Two Circular Dielectric Waveguides: Application to a Stepwise Approximation of a Circular Conical Dielectric Waveguide

Pirapaharan Kandasamy and Nobuo Okamoto Kinki University, Japan

11:45 The Diffraction of Gaussian Beam Wave from the Fourier Grating

Makoto Ohki (1), Haruo Sakurai (2), Kuniyuki Motojima1(1), and Shogo Kozaki (1)

- (1) Gunma University, Japan
- (2) Gunma College of Technology, Japan

12:00 Validity of the Periodic Boundary Condition in the Analysis of Single-Pass Electron Beam Devices

S. Hirosaka, A. Hirata, and T. Shiozawa Osaka University, Japan

12:15 Method of Correlation Function for Analyzing Cross-Sensitivity of Strain and Temperature in Fiber Grating Sensors

Weigang Zhang, Xiaoyi Dong, Dejun Feng, Zhiguo Liu, and Qida Zhao Nankai University, China

12:30 A Channel Selective Add/Drop Multiplexer with Tunable Fiber Bragg Grating Dejun Feng, Weigang Zhang, Zixiong Qin, Guiyun Kai, Zhiguo Liu, and Xiaoyi Dong Nankai University, China

12:45 Lunch

14:00~17:00 Technical Tour

Time Domain Analysis and Guided Waves

08:45	Reduction of Mode-Coupling and Single-Mode Excitation in Multimode Fibers by Use of Ultra-Short Optical Pulses Yuichi Suzuki, Shinya Sato, and Masaaki Imai Muroran Institute of Technology, Japan
09:00	All-Optical Switching and Coupling of Femtosecond Pulses in a Nonlinear Fused-Tapered Fiber Coupler Kazutoshi Andoh (1), Masaaki Imai (1), and Jun Nakai (2) (1) Muroran Institute of Technology, Japan (2) Presently, Toshiba Corporation, Japan
09:15	Time-Domain Green's Function for Microstrip Structures (invited) Y. Xu, M. Y. Xia, and C. H. Chan Wireless Communications Research Center, City University of Hong Kong, China
09:40	Space-Time Impulse Responses of Electromagnetic Backscatterings of Beam Waves for Sensing Yasumitsu Miyazaki Toyohashi University of Technology, Japan
09:55	Leakage Loss Reduction of Conductor Backed Coplanar Waveguide Backed with Dielectric Sheets Masashi Hotta, Kentaro Kisaka, Tomoyuki Inoue, and Mitsuo Hano Yamaguchi University, Japan
10:10	Growth Characteristics of a Cherenkov Laser Filled with Inhomogeneous Background Plasma Tipyada Thumvongskul and Toshiyuki Shiozawa Osaka University, Japan
10:25	Time Domain Inverse Scattering of Two Conducting Cylinders Buried in a Homogeneous Half-Space Takato Kudou and Yuji Todaka Oita University, Japan
10:40	Coffee Break

14:00~17:00

Technical Tour

Optical Components (3)

Research on Bidirectional OADMs(BADMs) Based on AWGs (invited) Deming Wu, Henghua Deng, and Anshi Xu Peking University, China
Optical Pulse Generation and Demultiplexing with Improved Extinction Ratio and Duty Cycle Using Single Electroabsorption Modulator (invited) Jian Wu, Fan Zhang, Peng Zuo, Jintong Lin and Peida Ye Beijing University of Posts & Telecom., China
Fabrication and Characterization of Er-Thermally-Diffused Ti:LiNbO3 Waveguide Lasers M. Fujimura, K. Matsuda, T. Kodama, and H. Nishihara Osaka University, Japan
Development of Method for Surface Measurement Using Photorefractive Media Takashi Kuroiwa, Tsuneki Yamasaki, Mitsuhito Matsubara Nihon University, Japan
Computer-Generated Holograms for Recording Chirped Fiber Grating Corrugations Chen Heming, Hu Haiying, Shi Weihua ,and Jia Xiaobin Nanjing University of Posts and Telecommunications, China
Photoconductive Si1-xGex Detector Fabricated on SiON/SiO2/Si Zhuang Wanru (1), Huang Yongzhen (1), Zheng Youdou (2), Zhu Shunming (2), Liu Xiabing (2), and Han Ping (2) (1) Institute of Semiconductors, Chinese Academy of Sciences, China (2) Nanjing University, China
Lunch