



2007 Japan-Indo Workshop on Microwaves, Photonics, and Communication Systems



Room 910-1 and Room 914, W4 Building, 9F, Ito Campus of Kyushu University, Fukuoka, Japan

ADVANCE PROGRAM

Time **Day: July 6, 2007 (Friday)**

9:30- 9:50 Opening Ceremony (Room 914)

Room 914 Session A1: Communication Systems (Chairs: H. Furukawa and A. Alphone)

- 9:50-10:15 “An Adaptive Blind Filter Array Receiver for Delay Spread SISO Channels”
K. Kotera and H. Furukawa, *Kyushu University, Japan*
- 10:15-10:40 “A Weight Optimization Method under Constraint of the Maximum Power for an Antenna Element in SDM System”
D. Fujii, O. Muta, and Y. Akaiwa, *Kyushu University, Japan*
- 10:40-11:05 “Empirical Study on the Mobile Satellite Channel Characteristics in the Equatorial Region”
W. A. W. Z. Abidin, K. Fujisaki, and M. Tateiba, *Kyushu University, Japan*
- 11:05-11:30 “Electrical and Optical Techniques of Millimeter and Submillimeter Wave Signal Generation — A Comparative Review”
S. Kar, *Institute of Radio Physics and Electronics, University of Calcutta, India*
- 11:30-11:55 “Millimeter Wave Radio Over Fiber System for Emerging Broadband Technologies”
A. Alphones and L. C. Ong*, *Nanyang Technological University, Singapore*, **Institute for Infocomm Research, Singapore*
- 11:55-12:20 “Limitation of an MLSD Receiver for 10Gbp/s Lightwave Communication Links due to Fiber Nonlinearity”
S. Gupta, **R. Gangopadhyay**, and G. Prati*, *Indian Institute of Technology Kharagpur, India*, **Scuola Superiore, Sant’Anna, Pisa, Italy*

Room 910-1 Session B1: Antennas (Chairs: M. Taguchi and K. M. Luk)

- 9:50-10:15 “Two Element Phased Array Dipole Antenna on EBG Ground Plane”
M. Taguchi and S. Tanaka, *Nagasaki University, Japan*
- 10:15-10:40 “Element Failure Detection and Correction in Antenna Arrays”
B. Gupta, P. Mukherjee*, and S. Biswas**, *Jadavpur University, India*, **Institute of Engineering & Management, India*, ***University of Kalyani, India*
- 10:40-11:05 “A Study on the Excitation and the Input Impedance of an Antenna”
K. Yoshitomi, *Kyushu University, Japan*
- 11:05-11:30 “Characteristics of a Metamaterial Peano Antenna”
W. S. Park, *Pohang University of Science and Technology, Korea*
- 11:30-11:55 “Small and Low Profile Print Antennas Using Meander and Peano Lines”
T. Fukusako, *Kumamoto University, Japan*
- 11:55-12:20 “Development of Wideband Magneto-Electric Dipole”
K. M. Luk and L. Siu, *City University of Hong Kong, Hong Kong, China*

Lunch (12:20-13:30)

Room 914 Session A2: Microwave Circuits (Chairs: H. J. Eom and K. Li)

- 13:30-13:55 “Development of UWB Bandpass Filters Using Broadside-Coupled Structures”
K. Li, *National Institute of Information and Communications Technology, Japan*
- 13:55-14:20 “A Vector Network Analyzer Based on Six-Port Technology with an Ultimate Calibration Method”
T. Yakabe, H. Kondo*, and F. Xiao, *University of Electro-Communications, Japan*, **Chuo Electronics Co., LTD, Japan*
- 14:20-14:45 “Mode-Matching Technique for Slotted Coaxial Cables”
H. J. Eom, *Korea Advanced Institute of Science and Technology, Korea*
- 14:45-15:10 “Development of a Single-Chip RF Front-End LSI for Wireless LAN with Transmission Line Based Matching Circuits”
R.K. Pokharel, A. Imada, H. Kanaya, and K. Yoshida, *Kyushu University, Japan*
- 15:10-15:35 “Perturbation Analysis of Dielectric Grating Antenna with LHM Substrate”
Y. Pan and S. Xu, *University of Science and Technology of China, China*

Room 910-1 Session B2: Electromagnetic Theory – I (Chairs: Y. K. Cho and M. Yokota)

- 13:30-13:55 “Extended Aperture-Body Resonance concept”
Y. K. Cho, *Kyungpook National University, Korea*
- 13:55-14:20 “Scattering by a Periodic Array of Dielectric Cylinders with Arbitrary Shape”
M. Yokota, *Miyazaki University, Japan*
- 14:20-14:45 “Modal Analysis of Plasmonic Waveguides”
H. C. Yeh, C. H. Peng, B. Y. Lin, and **H. C. Chang**, *National Taiwan University, Taiwan*
- 14:45-15:10 “Scattering Cross-Sections of Conducting Cylinder in Random Media”
Z. Q. Meng and M. Tateiba*, *Fukuoka University, Japan*, **Kyushu University, Japan*
- 15:10-15:35 “GPR Data Processing for Discrimination of Anti-Personnel Landmines under Rough Ground Surface”
M. Nishimoto, *Kumamoto University, Japan*

Coffee Break (15:35-15:55)

Room 914 Session A3: Photonics (Chairs: E. K. Sharma and K. Watanabe)

- 15:55-16:20 “Role of Inverse Loss Saturation in Nonlinear Mirror Mode-Locking”
P. K. Datta, S. Mukhopadhyay, and R. Gangopadhyay, *Indian Institute of Technology Kharagpur, India*
- 16:20-16:45 “Er-LiNbO₃ Waveguide: Simplified Gain Calculations for DWDM Application”
A. Kapoor, G. Jain, and **E. K. Sharma**, *University of Delhi, South Campus, India*
- 16:45-17:10 “Field Enhancement by Nano-Cylinders under Plasmon Resonance”
L. W. Li and H. Y. She, *National University of Singapore, Singapore*
- 17:10-17:35 “A Novel Method to Determine the Optical Scattering Properties of a Liquid through a Fiber-Optic Probe in Conjunction with a Reflector”
M. R. Shenoy, S. K. Pandit, Prerana, and B. P. Pal, *Indian Institute of Technology Delhi, India*
- 17:35-18:00 “Pseudo-Periodic Fourier Transform and Its Applications to Electromagnetic Problems in Imperfectly Periodic Structures”
K. Watanabe, *Fukuoka Institute of Technology, Japan*

Room 910-1 Session B3: Electromagnetic Theory – II (Chairs: N. Morita and V. V. Yachin)

- 15:55-16:20 “The FDTD/Radiation-Mode Combined Method for Calculating Radiation from MIC Elements Using Pulse Wave Excitation”
N. Morita, *Chiba Institute of Technology, Japan*
- 16:20-16:45 “Modal Analysis of Integrated Optical Waveguides: Recent Developments”
S. Barai* and **A. Sharma**, *Indian Institute of Technology Delhi, India*, **KLA Tencor Software India Pvt. Ltd., India*
- 16:45-17:10 “Solution of Maxwell's Equations on Waveguides by FETD”
K. Taira and S. Fujino*, *University of the Ryukyus, Japan*, **Kyushu University, Japan*
- 17:10-17:35 “Iterative Reconstruction Method for Microwave Imaging of Lossy Dielectric Cylinders”
M. Tanaka and **A. Kusunoki**, *Oita University, Japan*
- 17:35-18:00 “Long-Wave Approximation for Plane Wave Scattering from Double Periodic Ferromagnetic Layer”
V. V. Yachin, T. L. Zinenko*, and K. Yasumoto**, *Institute of Radio Astronomy, National Academy of Sciences of Ukraine, Ukraine*, **Usikov's Institute for Radiophysics and Electronics, National Academy of Sciences of Ukraine, Ukraine*, ***Kyushu University, Japan*