

Technical Program of APMET2012

Opening Remark

October 26, 2012 (Friday), 09:10–09:20

Session 1 (Chair: *Hyo Joon Eom*)

October 26, 2012 (Friday), 09:20–11:50

09:20–09:55 Resonance and Stopband Characteristics in Cylindrical Electromagnetic Bandgap Structures .. **Vakhtang Jandieri** (*Kyungpook National University, Korea*) and *Kiyotoshi Yasumoto* (*Fukuoka Institute of Technology, Japan*)

09:55–10:30 Transformation Electromagnetics Applied to Waves in Stratified Multilayers: Discontinuity and Convergence Studies **Joshua Le-Wei Li** (*University of Electronic Science and Technology of China, China*), *Ting Fei*, and *Zhong-Cheng Li* (*National University of Singapore, Singapore*)

————— Short Break (10:30–10:40) —————

10:40–11:15 Capacitive Feed Structures for Low-Profile Small Antennas **Takeshi Fukusako**, *Yoshiya Saito*, and *Hiroyuki Maema* (*Kumamoto University, Japan*)

11:15–11:50 Enhancement of Wireless Power Transfer Efficiency Using Higher Order Spherical Modes *Yoon Goo Kim* and **Sangwook Nam** (*Seoul National University, Korea*)

Session 2 (Chair: *Dong Chul Park*)

October 26, 2012 (Friday), 13:00–15:30

13:00–13:35 A Novel Low-Profile Wideband Printed Antenna **Kwai-Man Luk** and *Mingjian Li* (*City University of Hong Kong, China*)

13:35–14:10 Signal Processing of GPR Data for Separation of a Target Response and Ground Clutter **Masahiko Nishimoto** and *Daisuke Yoshida* (*Kumamoto University, Japan*)

————— Short Break (14:10–14:20) —————

14:20–14:55 The IDR-Based IPNMs for the computation of Electromagnetic Wave Multiple Scattering **Norimasa Nakashima** (*Fukuoka Institute of Technology, Japan*), *Seiji Fujino* (*Kyushu University, Japan*), and *Mitsuo Tateiba* (*Ariake National College of Technology, Japan*)

14:55–15:30 Electromagnetic Resonant Transmission through Transmission Cavities in Thick Conducting Screens **Young Ki Cho** (*Kyungpook National University, Korea*) and *Ji Hwan Ko* (*Kumoh National Institute of Technology, Korea*)

Session 3 (Chair: *Takeshi Fukusako*)

October 26, 2012 (Friday), 15:55–17:40

- 15:55–16:30 Introduction of a Split Particle Swarm Optimization and its Application to Reconstruction of a Dielectric Circular Cylinder
..... **Kenichi Ishida** (*Kyushu Sangyo University, Japan*)
- 16:30–17:05 Polarization Agile Microstrip Array Antenna
.... **Eisuke Nishiyama**, *Yu Ushijima, Hossain Md. Azad, Tomoya Ohnishi, Ichihiko Toyoda, Masayoshi Aikawa* (*Saga University, Japan*)
- 17:05–17:40 Scattering by Buried Objects: the Cylindrical Wave Approach
Fabrizio Frezza (*“Sapienza” University, Italy*), *Lara Pajewski, Cristina Ponti, and Giuseppe Schettini* (*“Roma Tre” University, Italy*)

Evening Session (Forum Banquet)

October 26, 2012 (Friday), 18:00–20:30

Session 4 (Chair: *Hung-chun Chang*)

October 27, 2012 (Saturday), 09:20–11:50

- 09:20–09:55 Design of a 2D Leaky-Wave Inspired Low-Profile Antenna with High Directivity
..... **Sungtek Kahng**, *Kyungseok Kahng, Dajeong Eom, Boram Lee, Se-gyoon Mok* (*University of Incheon, Korea*), and *Jeongho Ju* (*ETRI, Korea*)
- 09:55–10:30 Estimation of Field Distributions in Complicated Propagation Environments Based on 1-Ray and 2-Ray Models
..... **Kazunori Uchida**, *Masafumi Takematsu, Jun-Hyuck Lee, Keisuke Shigetomi* (*Fukuoka Institute of Technology, Japan*), and *Junichi Honda* (*Electronic Navigation Research Center, Japan*)

———— Short Break (10:30–10:40) —————

- 10:40–11:15 An Inverse Scattering Method without Information of Primary Source Distribution for Reconstruction of a Stratified Slab
. **Takashi Takenaka** and *Toshifumi Moriyama* (*Nagasaki University, Japan*)
- 11:15–11:50 Revisit of the Discrete Complex Image Method - A 20-Year Journey
Daqing Liu, Peng Zhao, and Chi Hou Chan (*City University of Hong Kong, China*)

Session 5 (Chair: *Vakhtang Jandieri*)

October 27, 2012 (Saturday), 13:00–14:45

- 13:00–13:35 A Grating-Based Plasmon Index Sensor with High Resolution
Yoichi Okuno, *Taikei Suyama* (*Kumamoto University, Japan*), and *Xun Xu* (*Kyushu Sangyo University, Japan*)

13:35–14:10 Dual-Fed Small Repeater Antenna with High Isolation
... *Cheol Min Seong and Dong Chul Park (Chungnam National University, Korea)*

14:10–14:45 Electromagnetic Scattering by Periodic Circular Cylinder Array with Displacements
..... *Koki Watanabe (Fukuoka Institute of Technology, Japan)*

Session 6 (Chair: *Norimasa Nakashima*)

October 27, 2012 (Saturday), 15:10–16:55

15:10–15:45 Finite-Element Leaky-Mode Analysis for Anisotropic Planar Waveguides with Arbitrary Optic-Axis Orientation .. *Hsuan-Hao Liu and Hung-chun Chang (National Taiwan University, Taiwan)*

15:45–16:20 Modes in GTEM Cell
..... *Hyo Joon Eom (Korea Advanced Institute of Science and Technology, Korea)*

16:20–16:55 Numerical Examination on Propagation Loss Properties in Case Human Bodies Exist Between Transmitter and Receiver
..... *Mitsuhiro Yokota (University of Miyazaki, Japan)*

Closing Remark

October 27, 2012 (Saturday), 16:55–17:00

Poster Session

October 26–27, 2012 (09:20–17:40)

P-1 Corrugation-Based Mode Filters for Oversized Waveguides
..... *Silvio Ceccuzzi (“Roma Tre” University, Italy and Euratom-ENEA Association for fusion, C.R. Frascati, Italy), Francesco Mirizzi (Euratom-ENEA Association for fusion, C.R. Frascati, Italy), Lara Pajewski, Giuseppe Schettini (“Roma Tre” University, Italy) and Angelo Antonio Tuccillo (Euratom-ENEA Association for fusion, C.R. Frascati, Italy)*

P-2 Experimental Study on X-shaped Photonic Crystal Waveguide in 2D Triangular Lattice for Wavelength Division Multiplexing System
..... *Hiroshi Maeda, Hiroyuki Terashima, Yongmei Zhang, and Takuya Shinohara (Fukuoka Institute of Technology, Japan)*

P-3 Floquet-Mode Analysis of Pillar-Type Photonic Crystal Waveguide Using Spectral-Domain Approach
..... *Yoshimasa Nakatake and Koki Watanabe (Fukuoka Institute of Technology, Japan)*

The corresponding authors of the posters are specified by their name badges. The participants can discuss the questions with the corresponding authors at any time during APMET 2012.