

Technical Program of APMET2014

Venue: Fukuoka Institute of Technology, Fukuoka (FIT), Japan

Organized by: IEEE Antennas and Propagation Society (AP-S), Fukuoka Chapter
Co-Organized by: IEICE, Kyushu Section
Supported by: IEEE, Japan Council
Cooperation: Department of Information and Communication Engineering, FIT

Opening Remark

October 31, 2014 (Friday), 09:00–09:10
Multipurpose Hall (4F in Building “ α ”)

Session 1 (Chair: *Young-Ki Cho*)

October 31, 2014 (Friday), 09:10–12:00
Multipurpose Hall (4F in Building “ α ”)

- 09:10–09:40 Evolution-Strategy Optimized Dual-Band Antenna for UHF-band RFID/IoE Applications **Sungtek Kahng**, *Jinsu Jeon, M. Kamran Khattak, Hyeonsu Kim, Kyeongnam Jang (Incheon National University, Korea), W.-H. Park (CISCO Systems Korea Ltd., Korea)*
- 09:40–10:10 An Iterative Approach to Two-Dimensional Profile Inversion of a Lossy Dielectric Object **Mitsuru Tanaka** (*Oita University, Japan*)
- 10:10–10:40 Design and Interpretative Study of Expanding S11 and 3-dB Axial Ratio Characteristics of Circularly Polarized Patch Antenna Using Artificial Ground Structure **Takeshi Fukusako** and *Sotaro Maruyama (Kumamoto University, Japan)*
- Short Break (10:40–11:00) —————
- 11:00–11:30 Coupled-Mode Analysis of Contra-Directional Coupling between Two Asymmetric Photonic Crystal Waveguides **Vakhtang Jandieri** (*Free University of Tbilisi, Georgia*), *Kiyotoshi Yasumoto (Fukuoka Institute of Technology, Japan)*, and *Jaromir Pistora (VSB-Technical University of Ostrava, Czech Republic)*
- 11:30–12:00 800MHz/2GHz Up/Down Link Miniaturized Slot Antenna with Multi-Band Impedance Matching Circuit **Haruichi Kanaya** (*Kyushu University, Japan*)

Session 2 (Chair: *Mitsuru Tanaka*)

October 31, 2014 (Friday), 13:10–16:00
Multipurpose Hall (4F in Building “ α ”)

- 13:10–13:40 Development of Broadband and Multiband Dielectric Resonator Antennas *Sayantana Dhar* and **Bhaskar Gupta** (*Jadavpur University, India*)
- 13:40–14:10 Fermat Principle in Terms of Dijkstra Algorithm **Kazunori Uchida** (*Fukuoka Institute of Technology, Japan*)

————— Short Break (14:10–14:30) —————

- 14:30–15:00 Comparative Studies on Effects of Reflectors for Circular Spiral Antennas ...
. **Joshua L.-W. Li** (*Monash University, Malaysia/Australia, and University of Electronic Science and Technology of China, China*), *Vineetha Kalavally, Iftekhar Hossain (Monash University, Malaysia/Australia), and Long Wang (University of Electronic Science and Technology of China, China)*
- 15:00–15:30 Microwave Photonics Techniques Employed in a Cube-Satellite Earth Station
..... **Seiji Fukushima** (*Kagoshima University, Japan*)
- 15:30–16:00 Functional Antennas Composed of Unbalanced Fed Ultra Low Profile Inverted L Antenna **Mitsuo Taguchi** (*Nagasaki University, Japan*)

Session 3 (Chair: *Vakhtang Jandieri*)

October 31, 2014 (Friday), 16:20–17:50
Multipurpose Hall (4F in Building “ α ”)

- 16:20–16:50 Radar Signal Processing for Target Identification Using Ground Penetration Radars **Masahiko Nishimoto** (*Kumamoto University, Japan*)
- 16:50–17:20 Research on Graphene-Based Periodic Structures
..... **Ruey-Bing Hwang** (*National Chiao Tung University, Taiwan*)
- 17:20–17:50 Effects of the Permittivity and Permeability of a Coating Layer on Waveguide Long-Slot Antenna **Seong-Ook Park and Byung Kwan Kim** (*Korea Advanced Institute of Science and Technology, Korea*)

Evening Session (Buffet Dinner)

October 31, 2014 (Friday), 18:15–20:00
OASIS Room (1F in Building “B”)

Session 4 (Chair: *Bhaskar Gupta*)

November 1, 2014 (Saturday), 09:10–12:00
Multipurpose Hall (4F in Building “ α ”)

- 09:10–09:40 Pattern Synthesis of Conformal Array Antenna Using Improved Genetic Algorithm **Cheol Min Seong and Dong Chul Park** (*Chungnam National University, Korea*)
- 09:40–10:10 Differential Rectenna Arrays
..... **Eisuke Nishiyama and Ichihiko Toyoda** (*Saga University, Japan*)
- 10:10–10:40 Wideband Omnidirectional Circularly Polarized Patch Antenna
..... **Yongmei Pan** (*South China University of Technology, China*)

———— Short Break (10:40–11:00) —————

- 11:00–11:30 Determination of Generalized Scattering Matrix of Antenna from Characteristic Modes
 *Yoon Goo Kim and Sangwook Nam (Seoul National University, Korea)*
- 11:30–12:00 Transmission Resonances through the Small Aperture for Near-Field Microwave Imaging Probes
Hyeok-Woo Son and Young-Ki Cho (Kyungpook National University, Korea)

(13:00–14:00 IEEE AP-S Fukuoka Chapter Special Talk
 Lecturer: Prof. Tapan K. Sarkar (Syracuse University)
 Title: An Overview of Ultrawideband Antennas
 Place: Seminar Room (2F in FIT Hall))

Session 5 (Chair: *Joshua Le-Wei Li*)

November 1, 2014 (Saturday), 14:20–17:10
 Seminar Room (2F in FIT Hall)

- 14:20–14:50 Surface Plasmon Polariton Modes on Dielectric/Metal/Dielectric Structures Involving Uniaxially Anisotropic Material
Hsuan-Hao Liu and Hung-chun Chang (National Taiwan University, Taiwan)
- 14:50–15:20 Advanced Planar Antenna Integrated with Microwave Circuits for RF Signal Processing Applications
*Ichihiko Toyoda and Eisuke Nishiyama (Saga University, Japan)*
- Short Break (15:20–15:40) ————
- 15:40–16:10 Two-Dimensional Scattering of a Plane Wave from a Grating Containing Dielectric Photonic Crystal
*Mitsuhiro Yokota (University of Miyazaki, Japan)*
- 16:10–16:40 Antenna Design for LF-FRID Reader
 .. *Chuwong Phongcharoenpanich (King Mongkut's Institute of Technology Ladkrabang, Thailand)*

Closing Remark

November 1, 2014 (Saturday), 16:40–16:50
 Seminar Room (2F in FIT Hall)