

Technical Program of APMET2010

Opening Remark

November 19, 2010 (Friday), 09:20–09:30

Session 1 (Chair: *Hiroshi Maeda*)

November 19, 2010 (Friday), 09:30–11:30

- 09:30–10:00 Design of UWB-GPR Antenna and Waveform Calibration
Masahiko Nishimoto and Kousuke Tomura (Kumamoto University, Japan)
- 10:00–10:30 Numerical Analysis of Scattered Wave by Dielectric Cylinder Using Constrained Interpolation Profile Method
..... *Hiroshi Maeda (Fukuoka Institute of Technology, Japan)*
- 10:30–11:00 Research Activities on EMC in Korea and Development of EM Wave Absorbers
..... *Dong Il Kim and Dong Soo Choi (Korea Maritime University, Korea)*
- 11:00–11:30 Design Considerations of Insulated, Twisted, or Shielded Multiconductor Transmission Lines
..... *Dae Woong Woo, Gyu Young Cho, Him Chan Yun (Pohang University of Science and Technology, Korea), Tae Woo Kim (LS Cable, Korea), and Wee Sang Park (Pohang University of Science and Technology, Korea)*

Session 2 (Chair: *Ya-Qiu Jin*)

November 19, 2010 (Friday), 13:00–15:00

- 13:00–13:30 An Approach to the Inverse Scattering Problem for a Dielectric Cylinder Using the T-Matrix and the Singular Value Decomposition
..... *Kenichi Ishida (Kyushu Sangyo University, Japan)*
- 13:30–14:00 Circularly Polarized Microstrip Patch Antennas Using Artificial Ground Structure with Rectangular Unit Cells
..... *Takeshi Fukusako, Teruhisa Nakamura, and Ryota Nobe (Kumamoto University, Japan)*
- 14:00–14:30 X-Band 4-bit Radant Lens Phase Shifter
... *Cheol Min Seong and Dong Chul Park (Chungnam National University, Korea)*
- 14:30–15:00 Reflection and Diffraction by Surfaces with Translation Invariance
.. *Junichi Nakayama and Yasuhiko Tamura (Kyoto Institute of Technology, Japan)*

Session 3 (Chair: *Mitsuo Taguchi*)

November 19, 2010 (Friday), 15:30–17:30

- 15:30–16:00 Dipole Moment Approach Alternative to Wire Grid Modeling for EM Scattering Problems
..... *Sungtek Kahng, Geonho Jang, Seong-ryong Yoo and, Boram Lee (University of Incheon, Korea)*

- 16:00–16:30 Wideband and Dual-Band Stacked Square Microstrip Antennas with Shorting Plates and Slits **Takafumi Fujimoto** (*Nagasaki University, Japan*)
- 16:30–17:00 Numerical Examination of EM Wave Shadowing by Human Bodies
..... **Mitsuhiro Yokota** (*University of Miyazaki, Japan*)
- 17:00–17:30 Multigrid Optimization Method Applied to Reconstruction of Complex Relative Permittivity of a Lossy Dielectric Cylinder
..... **Mitsuru Tanaka** (*Oita University, Japan*)

Evening Session (Forum Banquet)
November 19, 2010 (Friday), 17:40–20:00

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

November 20, 2010 (Saturday), 09:30–11:30

- 09:30–10:00 Coordinate Transformation Formulation of Two-Dimensional Electromagnetic Scattering from Imperfectly Periodic Surface-Relief Gratings
..... **Koki Watanabe** (*Fukuoka Institute of Technology, Japan*)
- 10:00–10:30 Mode-Matching Method for Radiation from Slotted Conducting Sphere
Hyo Joon Eom and **Jang Soo Ock** (*Korea Advanced Institute of Science and Technology, Korea*)
- 10:30–11:00 Ultra Low Profile Inverted L Antenna for 2.45 GHz RFID Reader Mode-Matching Formulation for Scattering from Multiple Slant Strips
..... **Mitsuo Taguchi** and **Tetsuya Yamashita** (*Nagasaki University, Japan*)
- 11:00–11:30 Scattering from Cratered Lunar Surface/Subsurface and Applications to SAR Image and Radar Range Echoes **Ya-Qiu Jin** (*Fudan University, China*)

Session 5 (Chair: *Wee Sang Park*)

November 20, 2010 (Saturday), 13:00–15:00

- 13:00–13:30 Research on RF MEMS Technology at Jadavpur University: An Overview ...
..... **Bhaskar Gupta** (*Jadavpur University, India*)
- 13:30–14:00 A Novel Harmonic Oscillators Utilizing Resonant Harmonic Field of Ring Resonator
..... **Takayuki Tanaka**, **Kengo Kawasaki**, and **Masayoshi Aikawa** (*Saga University, Japan*)
- 14:00–14:30 Coupled-Mode Analysis for Chiral Fiber Gratings
... **Li Yang**, **Lin-Lin Xue**, **Jue Su**, and **Jing-Ren Qian** (*University of Science and Technology of China, China*)

14:30–15:00 Analysis of Scattering from a Finite Array of Circular Rods using a Model of Layered Cylindrical Arrays
..... **Kiyotoshi Yasumoto** (*Kyushu University, Fukuoka, Japan*) and **Vakhtang Jandieri** (*Kyungpook National University, Korea*)

Session 6 (Chair: Kazunori Uchida)

November 20, 2010 (Saturday), 15:30–17:30

15:30–16:00 Legendre Pseudospectral Electromagnetic Analysis Methods for Plasmonics Research **Hung-chun Chang**, **Chih-Yu Wang**, **Shih-Yung Chung**, **Bang-Yan Lin** (*National Taiwan University, Taiwan*), **Chun-Hao Teng** (*National Chiao Tung University, Taiwan*), and **Chung-Ping Chen** (*National Taiwan University, Taiwan*)

16:00–16:30 Antenna Directivity and Clutter Reduction for Back Scattering from Target over Rough Surface
Kazunori Uchida, **Junichi Honda**, **Shunsuke Nakashima** (*Fukuoka Institute of Technology, Japan*), and **Kwang-Yeol Yoon** (*Keimyung University, Korea*)

16:30–17:00 Radiation from a Dipole Source in Cylindrical Electromagnetic Bandgap Structure **Vakhtang Jandieri** (*Kyungpook National University, Korea*), **Kiyotoshi Yasumoto** (*Kyushu University, Japan*), and **Young-Ki Cho** (*Kyungpook National University, Korea*)

17:00–17:30 Improved Physical Theory of Diffraction Equivalent Edge Currents for Finite Edges **Wei-Jiang Zhao** (*Agency for Science Technology and Research, Singapore*), **Le-Wei Li** (*University of Electronic Science and Technology of China, China; National University of Singapore, Singapore*), **Er-Ping Li**, and **Xing-Chang Wei** (*Agency for Science Technology and Research, Singapore*)

Closing Remark

November 20, 2010 (Saturday), 17:30–17:40