

# 2007 Taiwan-Japan Joint Technical Meeting on Antennas and Propagation

March 8-9, 2007  
Yuan Ze University,  
Taoyuan, Taiwan R.O.C.

Sponsored by

- Technical Group on Antennas and Propagation, IEICE  
Communication Society, Japan

Technical Co-Sponsored by

- IEEE Taipei Section, Taiwan R.O.C.
- International Union of Radio Science (URSI) Taipei  
Chapter
- IEEE AP-S Japan Chapter

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**Thursday, March 8**

## **Keynote Speech I**

1. 09:00~09:50

[Invited Talk] Microwave Antennas for Medical Applications (Oral presentation without manuscript)

*Koichi Ito (Chiba Univ., IEEE AP-S Distinguished Lecturer)*

## **Session AP-1A**

1. 10:00~10:20

Evaluation on Performances of Wristband Type RFID Antenna using a Biological Tissue-Equivalent Solid Phantom

*Daisuke Ochi, Masaharu Takahashi, Kazuyuki Saito, Koichi Ito (Chiba Univ., Japan), Aya Ohmae, Kouichi Uesaka (Hitachi., Japan)*

2. 10:20~10:40

Bandwidth Enhancements for the Slot Antenna

*Su-Wei Chang (Academia Sinica, Taiwan), Chien-Jen Wang (National Univ. of Tainan, Taiwan)*

3. 10:40~11:00

Impedance-Bandwidth Improvement of MSA by Incorporating Matching Stubs

*Yasuhiro Nishioka, Takashi Yanagi, Masataka Ohtsuka, Sigeru Makino (Mitsubishi Electric, Japan)*

4. 11:00~11:20

A Double-Sided Printed Double-T-Shaped Dipole Antenna for UWB Communications

*Shun-Yun Lin, Shu-Ani Yeh, Wen-Shuang Chen, Yuan-Tung Cheng, Jin-Sen Chen (Cheng Shiu Univ., Taiwan)*

5. 11:20~11:40

A Study on Miniaturization of 2GHz Band Antenna for Handset utilizing Magnetic Materials by Topology Optimization

*Akira Matsuzaki, Hisashi Morishita (National Defense Academy, Japan), Tsuyoshi Nomura, Kazuo Sato (Toyota central R&D Labs., Japan)*

## **Session AP-1B**

1. 13:00~13:20

A Transmission and Receiving System using an One-chip Microcomputer for Short Range Communication

*Shuhei Sonoda, Hiroyuki Arai (Yokohama National Univ., Japan.)*

2. 13:20~13:40

Study on a Modified U-Slot Patch Antenna for Multi-Band Operation and Antenna Efficiency Improvement

*Hsing-Yi Chen, Shu-Hsuan Chen (Yuan Ze Univ., Taiwan)*

3. 13:40~14:00

Adaptive Impedance Matching System using FPGA Processor of Efficient Control Algorithm

*Hirokazu Oba, Minseok Kim, Ryotaro Tamaki, Hiroyuki Arai (Yokohama National Univ., Japan)*

4. 14:00~14:20

Perforated Dielectric Resonator Antenna

*Tze-Hsuan Chang, Jean-Fu Kiang (National Taiwan Univ., Taiwan)*

## **Session AP-1C**

1. 14:40~15:00

Printed Monopole Antenna for WiMAX Application

*Wen-Shan Chen, Yu-Chen Chang (Southern Taiwan Univ. of Tech., Taiwan)*

2. 15:00~15:20

Effects of DNG Material on Characteristics of Dipole Antenna

*Motohiro Takagi, Toshikazu Hori, Mitoshi Fujimoto (Univ. of Fukui, Japan)*

3. 15:20~15:40

Printed EMC PIFA for WLAN Operation in the Mobile Device

*Chih-Hua Chang, Kin-Lu Wong, Yuan-Chih Lin (National Sun Yat-Sen Univ., Taiwan)*

4. 15:40~16:00

Analysis and Measurement of Electric Fields Irradiated from a RJ45 Connector for Ethernet Transmission

*Hsing-Yi Chen, Shu-Wei Shiu (Yuan Ze Univ., Taiwan)*

## **Keynote Speech II & Banquet**

1. 17:30~

[Invited Talk] UWB Antenna Developments and Applications for Antenna Test Ranges

*Dua-Chyrh Chang (Yuan Ze Univ., Taiwan), Ji-Chyun Liu (Ching Yun Univ., Taiwan), Bing-Hao Zeng (Yuan Ze Univ.), Zong-Ying Tsai (Da Yeh Univ., Taiwan)*

## Friday, March 9

### Session AP-2A

1. 09:00~09:20

MUSIC-based DOA Estimation by Using Different Steering Vectors

*Qiaowei Yuan (Intelligent Cosmos Research Institute, Japan), Qiang Chen, Kunio Sawaya (Tohoku Univ., Japan)*

2. 09:20~09:40

A Method for Real-time Active Imaging using Broadband ACP Response

*Hiroyasu Sato, Kunio Sawaya (Tohoku Univ., Japan)*

3. 09:40~10:00

Approximation of Largest Eigenvalue Distribution of Noncentral Wishart Matrices for Analysis of MIMO Rician Channels

*Tetsuki Taniguchi, Shen Sha, Yoshio Karasawa (Univ. of Electro-Comm., Japan), Makoto Tsuruta (Toshiba., Japan)*

4. 10:00~10:20

Channel Capacity Improvement of Indoor MIMO System by Using Directional Antennas

*Masahiro Chuta, Mitoshi Fujimoto, Toshikazu Hori (Univ. of Fukui, Japan)*

### Session AP-2B

1. 10:40~11:00

Fading Characteristics for Fixed Terminal in Indoor Environment

*Yoshichika Ohta, Teruya Fujii (Softbank Telecom, Japan)*

2. 11:00~11:20

Channel Model for Mobile Terminals in Static Indoor Conditions

*Teruya Fujii, Hideki Omote, Yoshichika Ohta (Softbank Telecom, Japan)*

3. 11:20~11:40

Estimation of Fading Characteristics Based on Received Signals at Multiple Different Locations

*Hisato Iwai, Keisuke Inoue, Toshihiro Tango, Hideichi Sasaoka (Doshisha Univ., Japan)*

### Session AP-2C

1. 13:00~13:20

Feed Circuit for Quasi TEM Wave Excitation in Oversized Dielectric-Coated Rectangular Waveguide

*Miroslav Samardzija, Jiro Hirokawa, Makoto Ando (Tokyo Inst. of Tech., Japan)*

2. 13:20~13:40

Phase Perturbation Control of Periodic Structure in Left-handed Waveguide Slot Array Antenna

*Takaoki Ikeda, Kunio Sakakibara, Nobuyoshi Kikuma, Hiroshi Hirayama (Nagoya Inst. of Tech., Japan)*

3. 13:40~14:00

New Boundary Treatments for Reducing Undesired Reflection from Matched DNG Slab in RC-FDTD Method

*Takuji Arima, Toru Uno (Tokyo Univ. of Agriculture and Tech., Japan)*

4. 14:00~14:20

Study of Return Loss for a Test Board with Bonding Wires by FDTD Method

*Hsing-Yi Chen, Chieh-Pin Su (Yuan Ze Univ., Taiwan)*

## **Session AP-2D**

1. 14:40~15:00

SAR Distributions in Abdomen of a Pregnant Woman During MR Imaging

*Kazyuki Saito, Satoru Kikuchi, Masaharu Takahashi, Koichi Ito (Chiba Univ., Japan), Hiroo Ikehira (National Institute of Radiological Sciences, Japan)*

2. 15:00~15:20

Near-Field to Far-Field Transformation for an Outdoor RCS Range

*Yoshio Inasawa, Shinji Kuroda, Kenichi Kakizaki, Hitoshi Nishikawa, Naofumi Yoneda, Shigeru Makino (Mitsubishi Electric, Japan)*

3. 15:20~15:40

Application of the Locality Principle in the Method of Moments for Induced Currents or Fields in Electrically Large Scattering Problems

*Tetsu Shijo, Masayuki Oishi, Yoichi Katakai, Nobutaka Omaki, Koji Yukimasa, Luis Rodriguez, Makoto Ando (Tokyo Inst. of Tech., Japan)*

4. 15:40~16:00

Novel Interpretation of the Radiation Pattern of the Parabolic Reflector Antenna by the Modified Edge Representation Line Integrals and Equivalence with the Physical Optics

*Luis Rodriguez, Yoichi Katakai, Masayuki Oishi, Nobutaka Omaki, Koji Yukimasa, Tetsu Shijo, Makoto Ando (Tokyo Inst. of Tech., Japan)*

## **Keynote Speech III**

1. 16:20~17:10

[Invited Talk] TBD

*Lo-Chuan Lee*