



IEEE Nagoya Chapter

Midland Student Express 2012 Spring

Event of the students, by the students, for the students

1. General Information

Date: 27 April, 2012

Venue: Nagoya Ekimae Office for Innovation Hub

Meieki 4-4-38, Nakamura-ku, Nagoya 450-0002, Japan

Sponsors: IEEE AP-S Nagoya Chapter

IEEE MTT-S Nagoya Chapter

Technical Co-Sponsors: IEEE Nagoya Section, Deneikai of Nagoya Institute of Technology



2. Committee

| | | |
|----------------|------------------|------------------------------------|
| General Chairs | Takashi Ohira | Toyohashi University of Technology |
| | Nobuyoshi Kikuma | Nagoya Institute of Technology |
| Secretaries | Akimasa Hirata | Nagoya Institute of Technology |
| | Keisuke Noguchi | Kanazawa Institute of Technology |
| | Akio Wakejima | Nagoya Institute of Technology |

3. Technical Program

Session Chair: Yuichi Miyaji, Toyohashi University of Technology

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|-------------|---|--|
| 10:10-10:15 | Opening address by T.Ohira, Toyohashi University of Technology | |
| 10:15-10:30 | S1-1 | Maximum Gain Simulation Study on Small Size 5-Element ESPAR Antenna <i>Yasuaki Oda, Toyohashi University of Technology</i> |
| 10:30-10:45 | S1-2 | Millimeter-Wave Microstrip-Line-Fed Wideband Aperture Antenna in Multi-Layer Substrate <i>Hiroki Hori, Nagoya Institute of Technology</i> |
| 10:45-11:00 | S1-3 | Proposal Signal Processing Method to Remove Impact of Direct Wave in Secure Key Agreement System Using ESPAR Antenna <i>Tadafumi Yoshida, Toyohashi University of Technology</i> |
| 11:00-11:15 | S1-4 | Grating-Lobe Suppression of Slot Antenna Fed by Meander-line Waveguide <i>Ryo Saito, Nagoya Institute of Technology</i> |
| 11:15-11:30 | S1-5 | Diversity Effect of the Adaptive Antenna Using Bling Algorithm <i>Sindhuja Patchaikani, Shizuoka University</i> |
| 11:30-11:45 | S1-6 | Wideband Design of Three-Patch Microstrip-to-Waveguide Transition on Single-Layer Substrate in Millimeter-Wave Band <i>Keisuke Murase, Nagoya Institute of Technology</i> |
| 11:45-12:45 | Lunch | |

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| 12:45-13:00 | S2-1 | A Consideration of Arrayed Transmitting Coils in Wireless Power Transfer with Magnetically Coupled Resonance <i>Keishi Miwa, Nagoya Institute of Technology</i> |
| 13:00-13:15 | S2-2 | Evaluation of Transmission Efficiency by Using Q Factor for Magnetic Resonance Wireless Power Transfer with Asymmetric Coupling Resonators with Different Size <i>Akiro Shimada, Toyohashi University of Technology</i> |
| 13:15-13:30 | S2-3 | A Consideration of Spiral Antennas for Coupled-Resonant Wireless Power Transfer <i>Kanako Komatsu, Nagoya Institute of Technology</i> |
| 13:30-13:45 | S2-4 | Multihop Power Transfer Method to Multiple Receivers using Magnetic Resonance <i>Yuki Ito, Toyohashi University of Technology</i> |
| 13:45-14:00 | S2-5 | A Consideration of Matching Circuit for Coupled-Resonant Wireless Power Transfer <i>Taiki Shinhashi, Nagoya Institute of Technology</i> |
| 14:00-14:15 | | Break |
| 14:15-14:30 | S3-1 | Analytical Expressions of Discretization Error for Finite Difference Time Domain Method <i>Kazutaka Ishida, Gifu University</i> |
| 14:30-14:45 | S3-2 | Q-Factor Analysis and Experiments on Transmission Line Feedback FET Oscillators <i>Sonshu Sakihara, Toyohashi University of Technology</i> |
| 14:45-15:00 | S3-3 | Design of a Frequency Multiplier Using a Schottky-Barrier Diode in a Terahertz Region <i>Masahiko Mori, Nagoya Institute of Technology</i> |
| 15:00-15:15 | S3-4 | High Efficiency Rectifier in Electric Power Feed System to Running Automobiles through Tires <i>Takamitsu Sugiura, Toyohashi University of Technology</i> |
| 15:15-15:30 | S3-5 | Doppler Terahertz-Wave Generator Using a Tilted Wave Front of a Laser Beam with an Optical Diffraction Grating <i>Megumi Tsuchiya, Nagoya Institute of Technology</i> |
| 15:30-15:45 | | Break |
| 15:45-16:00 | S4-1 | Analysis of Temperature Elevation in Older Individuals for Far-Field Exposures <i>Tomoki Nomura, Nagoya Institute of Technology</i> |
| 16:00-16:15 | S4-2 | Communication Capacity of a Satellite with Ku-, Ka-Band and Millimeter-Wave Frequencies During Rain Attenuation <i>Naresh Tripathi, Meijo University</i> |
| 16:15-16:30 | S4-3 | A Consideration of Influence of Angular Spread of Multipath Waves in MIMO Communication Systems <i>Yohei Sekiya, Nagoya Institute of Technology</i> |
| 16:30-16:45 | S4-4 | Performance Analysis of MMSE Partially Adaptive Array for Small-Sized Mobile Terminals <i>Masashi Okuno, Nagoya Institute of Technology</i> |
| 16:45-17:00 | S4-5 | Performance Improvement of Position Estimation of Scatters in MIMO Radar <i>Tatsuya Hayashi, Nagoya Institute of Technology</i> |
| 17:00-17:05 | Closing address by N.Kikuma, Nagoya Institute of Technology | |
| 17:30 | Banquet | |