



## IEEE Nagoya Chapter

# Midland Student Express 2011 Spring

### 1. General Information

Date: 27 April, 2011

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

Co-Sponsor: IEICE Tokai



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
Masahiro Hanazawa	Toyota Central R&D Labs., Inc.

### 3. Technical Program

Session Chairs: Yuichi Miyaji and Naoki Sakai, Toyohashi University of Technology

Time		
10:10-10:12		<b>Opening address by Prof. Ohira, Toyohashi University of Technology</b>
10:12-10:30	S1-1	<b>Experimental Demonstration of Frequency Conversion from DC to Terahertz waves Using a Transmission Line on an Optically Excited GaAs Substrate</b> <i>Tomoki Yamashita, Nagoya Institute of Technology</i>
10:30-10:48	S1-2	<b>Fundamental Investigation of Phase Noise Evaluation of Oscillator and Active Q</b> <i>Yuki Nakajima, Gifu University</i>
10:48-11:06	S1-3	<b>Application of EBG Structure to 3.5-GHz Antenna for Power Absorption Reduction in Human Head</b> <i>Ryo Ikeuchi, Nagoya Institute of Technology</i>
11:06-11:24	S1-4	<b>Transmission Characteristics of Metamaterial Transmission Line with Extended Constitutive Relationships</b> <i>Yoshihiro Kawasaki, Gifu University</i>
11:24-11:42	S1-5	<b>Toward a Construction of Testbed Using ESPAR Antenna and USRP for Ad-Hoc Network</b> <i>Akito Kimijima, Toyohashi University of Technology</i>
11:42-12:00	S1-6	<b>Antenna Design Criteria to Enhance Privacy for Wireless Secret Key Schemes</b> <i>Naoki Sakai, Toyohashi University of Technology</i>
12:00-13:00	Lunch	
13:00-13:18	S2-1	<b>An Adaptive Physical Carrier Sense in Directional MAC Protocols</b> <i>Yuichi Miyaji, Toyohashi University of Technology</i>
13:18-13:36	S2-2	<b>Improvement of Design Freedom of Radiation Patterns by Using Narrow Printed Patterns of Microstrip Comb-Line Antennas in Millimeter-Wave Band</b> <i>Daiki Kawase, Nagoya Institute of Technology</i>
13:36-13:54	S2-3	<b>Trial Manufacturing and Experiments of the Adaptive Antenna Using the Rear Defogger - Broadband Characteristics and Degradation by Resistivity of Wire -</b> <i>Noorsaliza Abdullah, Shizuoka University</i>
13:54-14:12	S2-4	<b>Development of Primary Radiators to Obtain the Required Radiation Patterns of One-Dimensional Lens Antennas</b> <i>Hiroto Nishiwaki, Nagoya Institute of Technology</i>
14:12-14:30	S2-5	<b>MMSE Adaptive Array Using Multi-beams for OFDM Transmission</b> <i>Shouhei Sasaki, Nagoya Institute of Technology</i>
14:20-14:30	Break	
14:30-14:48	S3-1	<b>A Phase Synthesis Experiment of DTTB Signals Using 2-element Optically Controlled Array</b> <i>Daiki Takeuchi, Meijo University</i>
14:48-15:06	S3-2	<b>Performance Improvement of DOA Estimation Using Spatial Smoothing Processing</b> <i>Kiyotoshi Sekine, Nagoya Institute of Technology</i>
15:06-15:24	S3-3	<b>Radio Source Localization Using DOA-Matrix Method</b> <i>Takahiro Hirano, Nagoya Institute of Technology</i>
15:24-15:42	S3-4	<b>Azimuthal Characteristics of Ku-Band Satellite Availability During Rain Using State-Transition Matrix</b> <i>Naresh Tripathi, Meijo University</i>

15:42-16:00	S3-5	<b>DOA Estimation Based on Propagator Method</b> <i>Kazuto Sugimoto, Nagoya Institute of Technology</i>
16:00-16:10		Break
16:10-16:28	S4-1	<b>DOA Estimation Using Subspace Tracking Methods</b> <i>Yosuke Kajimura, Nagoya Institute of Technology</i>
16:28-16:46	S4-2	<b>Absorbing Characteristics of Millimeter-wave into the Artificial Magnetic Conductors</b> <i>Katsuyuki Tachikawa, Nagoya Institute of Technology</i>
16:46-17:04	S4-3	<b>Numerical Evaluation of Induced Field in Human for Wireless Power Transfer System</b> <i>Tsuchida Shogo, Nagoya Institute of Technology</i>
17:04-17:22	S4-4	<b>Shield Effect on Wireless Power Transfer Using Coupled Resonance</b> <i>Junya Kaneda, Nagoya Institute of Technology</i>
17:22-17:25		<b>Closing address by Prof. Kikuma, Nagoya Institute of Technology</b>
18:00		Banquet