



IEEE Nagoya Chapter

Midland Student Express 2021 Autumn

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

1. General Information

Date: 18 December, 2021

Venue: Toyama Prefectural University, Faculty of Engineering,
2nd Floor, Meeting Hall,
Kurokawa 5180, Imizul-shi, Toyama.

Sponsors: IEEE MTT-S Nagoya Chapter
IEEE AP-S Nagoya Chapter

Technical Co-Sponsors: IEEE Nagoya Section
IEICE Hokuriku



2. Committee

General Chairs:	Akimasa Hirata	Nagoya Institute of Technology
	Keisuke Noguchi	Kanazawa Institute of Technology
Secretaries:	Jose Gomez-Tames	Nagoya Institute of Technology
	Keigo Ishisaka	Toyama Prefectural University

3. Technical Program

13:00-13:05	Opening address by Prof. Keisuke Noguchi, IEEE AP-S Nagoya Chapter Chair	
Session 1	Chair: <i>Yuto Sekino, (Toyama University)</i> Co-chair: <i>Kohei Arisawa, (Toyama Prefectural University)</i>	
13:05 - 13:20	S1-1	Electrically Small Spherical Helix Antennas <i>Mina Nishie, Kanazawa Institute of Technology</i>
13:20 - 13:35	S1-2	Radiation Characteristics of Electro Magnetic Resonance Antennas <i>Koichi Hirabayashi, Kanazawa Institute of Technology</i>
13:35 - 13:50	S1-3	Dual-band Antennas Using a Modified Conical Antenna and a Parasitic Helical Element <i>Shinpei Fusazaki, Kanazawa Institute of Technology</i>
13:50 - 14:05	S1-4	A High-impedance Antenna for Sub-mm Wave Power Transmission Systems <i>Koki Yamashiro, Kanazawa Institute of Technology</i>
14:05 - 14:20	S1-5	Development of antenna on grating for 920 MHz band radio wave <i>Shotaro Sakaue, Toyama Prefectural University</i>
14:20 - 14:30	Short Break	

Session 2	Chair: <i>Miyuki Matsuyama, (Toyama Prefectural University)</i> Co-chair: <i>Mina Nishie, (Kanazawa Institute of Technology)</i>	
14:30 - 14:45	S2-1	Prototype of a Polarized Beam-Steering MIMO Antenna with a Circular Phased Array <i>Yuto Sekino, Toyama University</i>
14:45 - 15:00	S2-2	A Study of Single-Layer Reflectarray Antennas that Change the Beam Direction Depending on the Polarization <i>Shota Takino, Kanazawa Institute of Technology</i>
15:00 - 15:15	S2-3	Study of a shaped-beam reflectarray antenna with optimization at 3 frequencies <i>Sanshiro Shigemitsu, Kanazawa Institute of Technology</i>
15:15 - 15:30	S2-4	Feasible study of Miniaturization for MACKEY type H <i>Kota Hakamata, Kanazawa Institute of Technology</i>
15:30 - 15:45	S2-5	Proposal of an Unbalanced MACKEY and Study of Robustness Improvement <i>Keisuke Miyashita, Kanazawa Institute of Technology</i>
15:45 - 16:00	Short Break	
Session 3	Chair: <i>Kota Hakamata, (Kanazawa Institute of Technology)</i> Co-chair: <i>Shotaro Sakaue, (Toyama Prefectural University)</i>	
16:00 - 16:15	S3-1	Consideration of a Compact MACKEY O Type with a Single-Side Short Circuit Structure <i>Keito Yokoe, Kanazawa Institute of Technology</i>
16:15 - 16:30	S3-2	Composite Right- and Left-Handed Plane Structure for Capacitive-Coupling Two-Dimensional Wireless Power Transfer <i>Seiya Nagase, Toyohashi University of Technology</i>
16:30 - 16:45	S3-3	Automatic Tuning Assist Circuit Using Electronically Controlled Zero Voltage Switching Variable Reactor <i>Yuki Usui, Toyohashi University of Technology</i>
16:45 - 17:00	S3-4	Development of climber's position detection system using software defined radio technology <i>Kohei Arisawa, Toyama Prefectural University</i>
17:00 - 17:15	S3-5	Electric field observation project during MSTID occurrence by S-520-32 sounding rocket <i>Miyuki Matsuyama, Toyama Prefectural University</i>
17:15 - 17:20	Closing address by Prof. Masafumi Fujii, IEEE MTT-S Nagoya Chapter Vice Chair	