IEEE Nagoya Chapter

Midland Student Express 2019 Autumn

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

1. ***General Information***

Date: 6 December, 2019

Venue: Toyama University, Faculty of Engineering,
Faculty of Engineering Office,
2nd Floor, Meeting Hall,
Gofuku 3190, Toyama-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:	Toshikazu Sekine	Gifu University
	Mitoshi Fujimoto	University of Fukui
Secretaries:	Naoki Sakai	Kanazawa Institute of Technology
	Kazuhiro Honda	Toyama University

3. ***Technical Program***

9:30-9:35	**Opening address by Prof. Fujimoto, IEEE AP-S Nagoya Chapter Chair**	
Session 1	Chair: *Toshiki Tamura* (*Kanazawa Institute of Technology*) Co-chair: *Tomoya Kinameri* (*Kanazawa Institute of Technology*)	
9:35- 9:50	S1-1	**An Analysis of the Arriving Wave Characteristics for V2V Communication in an Urban Environment** *Katsumi Mukaiyama, Toyama University*
9:50-10:05	S1-2	**Channel Capacity Estimation of a 4×4 MIMO Antenna Considering the Receiving Signal Power Using Machine Learning** *Daiki Masuda, Toyama University*
10:05-10:20	S1-3	**High sensitive rectennas with metamaterial high impedance antennas** *Takuma Nishino, Kanazawa Institute of Technology*
10:20-10:35	S1-4	**2.4GHz band rectenna with a Crescent loop antenna** *Tsubasa Yonemura, Kanazawa Institute of Technology*
10:35-10:45	Short Break	
Session 2	Chair: *Takuma Nishino* (*Kanazawa Institute of Technology*) Co-chair: *Daiki Masuda* (*Toyama University*)	

10:45-11:00	S2-1	**A Study on a Small Antenna Mounted on Helmet** *Tomoya Kinameri, Kanazawa Institute of Technology*
11:00-11:15	S2-2	**Interference Suppression using Adaptive Array in R2V communications** *Shotaro Sasaki, University of Fukui*
11:15-11:30	S2-3	**Antenna Coupling Reduction for Polarization MIMO Gap-filler** *Kentaro Tanaka, University of Fukui*
11:30-11:45	S2-4	**Estimation of DOA and No. of waves using periodical stationarity in OFDM** *Tasuku Endo, University of Fukui*
11:45-12:45	Lunch	
Session 3	Chair: *Tasuku Endo* (*University of Fukui*) Co-chair: *Yuhei Oguri* (*Toyama Prefectural University*)	
12:45-13:00	S3-1	**Reflectarray antenna changing beam direction by polarization** *Mei Fukaya, Kanazawa Institute of Technology*
13:00-13:15	S3-2	**Feasible study of MACKEY type S miniaturized by using short circuit plate** *Toshiki Tamura, Kanazawa Institute of Technology*
13:15-13:30	S3-3	**Analysis of patch antenna with harmonic wave matching and DC block function for microwave WPT** *Shunya Ban, Nagoya Institute of Technology*
13:30-13:45	S3-4	**Basic Characteritics of folded dipole antenna with harmonic wave matching for microwave power receiving** *Takase Oshima, Nagoya Institute of Technology*
13:45-13:55	Short Break	
Session 4	Chair: *Junya Shintani* (*Toyohashi University of Technology*) Co-chair: *Yuto Mochizuki* (*Toyohashi University of Technology*)	
13:55-14:10	S4-1	**Analysis of DC Electric Field near Sq Current System by S-310-44 Sounding Rocket** *Toshiki Mori, Toyama Prefectural University*
14:10-14:25	S4-2	**Analysis of VLF Band Waves near the Sq Current System Observed by S-310-44 Sounding Rocket** *Ryuichiro Nakamura, Toyama Prefectural University*
14:25-14:40	S4-3	**Development of Mountain Cottage Network for Climber's Position Sharing System** *Yuhei Oguri, Toyama Prefectural University*
14:40-14:55	S4-4	**Filtering Antenna Using Non-penetrating Post SIW Resonator** *Tatsuya Morita, Toyohashi University of Technology*
14:55-15:10	S4-5	**Self-interference cancellation between transmitting and receiving antennas for in-band full-duplex wireless communication** *Yosuke Horie, Toyohashi University of Technology*
15:10-15:20	Short break	
Session 5	Chair: *Tatsuya Morita* (*Toyohashi University of Technology*) Co-chair: *Takase Oshima* (*Nagoya Institute of Technology*)	
15:20-15:35	S5-1	**Center-Fed Composite Right- and Left -Handed Capacitive Coupling Electrified Roadway for Acceleration Enhancement in Mini 4WD Drag Race Held at Pacifico Yokohama 2019** *Ryoya Honda, Toyohashi University of Technology*
15:35-15:50	S5-2	**Via-Wheel Power Transfer Structure Using Rotary Connectors** *Daigo Ito, Toyohashi University of Technology*

15:50-16:05	S5-3	**Suppression of Leakage Electromagnetic Field for Automatic Guided Vehicles Using Capacitive Coupling Wireless Power Transfer ~ Suppression of Leakage from Tx Electrode ~** *Junya Shintani, Toyohashi University of Technology*
16:05-16:20	S5-4	**Loss Factor Analysis of Electrified Roadway for Capacitive Wireless Power Transfer in Motion** *Yuto Mochizuki, Toyohashi University of Technology*
16:20-16:30	Short break	
Special Session (Chair: *Prof. Fujimoto*, *University of Fukui*)		
16:30-17:05	**日本海上に発生する UHF・TV ダクトとその予報** *深見 哲男 名誉教授（石川高等専門学校）* **Forecast of the UHF-TV Duct over the Japan Sea** *Emeritus Prof. Tetsuo Fukami, National Institute of Technology, Ishikawa College*	
17:05-17:10	**Closing address by Prof. Sekine, IEEE MTT-S Nagoya Chapter Chair**	
17:30-	Banquet	