2nd TJMW Student Workshop Program at a Glance

Date: December 7 (Tue), 2021 Online

Thailand time	Japan time		Speaker	Chair
9:00 - 9:10	11:00 - 11:10	Opening Remarks	Danai Torrungrueng (KMUTNB) Kensuke Okubo (Okayama Pref. Univ.)	
9:10 - 9:40	11:10 - 11:40	Tutorial 1	Sarawuth Chaimool (Khon Kaen Univ.) A Phase Gradient MetaReflector for 5G and 6G Wireless Communications	Danai Torrungrueng (KMUTNB)
9:40 - 10:10	11:40 - 12:10	Tutorial 2	Atsushi Shirane (Tokyo Tech) Basics of Ka-band Wireless Transceiver for Non-Terrestrial Networks	Kensuke Okubo (Okayama Pref. Univ.)
10:10 - 10:20	12:10 - 12:20	(Break)		
10:20 - 11:20	12:20 - 13:20	Student Session 1A	10 min. x 6 presentations Antennas and Rectifiers I	Kittisak Phaebua (KMUTNB)
11:20 - 12:20	13:20 - 14:20	Student Session 1B	10 min. x 6 presentations Antennas and Rectifiers II	Masataka Ohira (Saitama Univ.)
12:20 - 13:00	14:20 - 15:00	(Lunch Break)		
13:00 - 14:00	15:00 - 16:00	Student Session 2A	10 min. x 6 presentations Active Antena and Metasurfaces	Denchai Worasawate (KU)
14:00 - 14:50	16:00 - 16:50	Student Session 2B	10 min. x 5 presentations Transformers and Propagation	Tamio Kawaguchi (Toshiba)
14:50 - 15:00	16:50 - 17:00	(Break)		
15:00 - 15:50	17:00 - 17:50	Student Session 3A	10 min. x 5 presentations Microwave Technology	Supakit Kawdungta (RMUTL)
15:50 - 16:40	17:50 - 18:40	Student Session 3B	10 min. x 5 presentations Sensor and Active Circuits	Kosuke Katayama (National Inst. of Tech.,Tokuyama)
16:40 - 16:55	18:40 - 18:55	(Break)	Award Selection	
16:55 - 17:05	18:55 - 19:05	Award Ceremony	Award winners	Supakit Kawdungta (RMUTL) Kyoya Takano (Tokyo Univ. of Science)
17:05 - 17:15	19:05 - 19:15	Closing Remarks	Titipong Lertwiriyaprapa (KMUTNB) Tadashi Kawai (Univ. of Hyogo)	

2nd TJMW Student Workshop, Student Session Program

Student Session 1A: Antennas and Rectifiers I — **Chair: Kittisak Phaebua (KMUTNB)**

Thailand Time	Japan Time	No.	Presentation Title	Authors
10:20 - 10:30	12:20 - 12:30	1A-1	Switched Beam Antenna in Elevation Plane for Internet of Things Applications	Alongkorn Lang, Ekkapap Aynoi (Rajamangala Tech. Univ., Thailand), Chuwong Phongcharoenpanich (King Mongkut Inst., Thailand), and Supakit Kawdungta (Rajamangala Tech. Univ., Thailand)
10:30 - 10:40	12:30 - 12:40	1A-2	High impedance twisted small loop antenna	Yuki Takeda, Naoki Sakai, and Kenji Itoh (Kanazawa institute of Technology, Japan)
10:40 - 10:50	12:40 - 12:50	1A-3	A Study on Simple Control of Phased Array Antenna for Wireless Power Transfer at 28 GHz	Hiroyuki Kamada, Naoki Shinohara (Kyoto Univ., Japan), Naoki Hasegawa, Yuta Nakamoto, Takashi Hirakawa, Yoshichika Ohta (Softbank Corp., Japan), and Bo Yang (Kyoto Univ., Japan)
10:50 - 11:00	12:50 - 13:00	1A-4	Broadband Substrate Integrated Waveguide (SIW) Antenna with Proximity Coupling Feed	Mia Maria Ulfah (Chulalongkorn University, Thailand), and Achmad Munir (Institut Teknologi Bandung, Thailand)
11:00 - 11:10	13:00 - 13:10	1A-5	A 920MHz band rectenna with the impedance transformed small loop antenna	Yuki Muramoto, Naoki Sakai, and Kenji Itoh(Kanazawa Institute of technology, Japan)
11:10 - 11:20	13:10 - 13:20	1A-6	2.4GHz band rectenna with a crescent shaped small loop antenna	Tsubasa Yonemura, Naoki Sakai, and Kenji Itoh (Kanazawa Institute of Technology, Japan)

Student Session 1B: Antennas and Rectifiers II — **Chair: Masataka Ohira (Saitama Univ.)**

Thailand Time	Japan Time	No.	Presentation Title	Authors
11:20 - 11:30	13:20 - 13:30	1B-1	Design of a Wideband Circular Patch Antenna Surrounded by Circular Ring for sub-6 GHz 5 G Applications	Monypich PHALLA, Supada SRISUKHOT (RMUTI, Thailand), Chuwong PHONGCHAROENPANICH (KMITL, Thailand), and Suthasinee LAMULTREE (RMUTI, Thailand)
11:30 - 11:40	13:30 - 13:40	1B-2	Evaluation results of a low power rectenna as a dc power supply	Takumi Itoh, Yuki Muramoto, Naoki Sakai, and Kenji Itoh(Kanazawa institute of Technology, Japan)
11:40 - 11:50	13:40 - 13:50	1B-3	Diode-physical-limit-bandwidth Ultra-Wideband Rectifier without an External Matching Circuit	Babita Gyawali, Samundra K. Thapa, Adel Barakat, Kuniaki Yoshitomi, and Ramesh K. Pokharel (Kyushu Univ., Japan)
11:50 - 12:00	13:50 - 14:00	1B-4	A CPW fed MIMO Antenna for UWB Communications with Notch Band characteristics	Aale Muhammad (Chulalongkorn University, Thailand, Former: Grafton College of Engineering and Sciences, Pakistan), Faisal Umar, Saif-ur-Rehman, Usman Nasir, Hassan Khalid (Grafton College of Engineering and Sciences, Pakistan), and Athar Shehzad Fazal (Comsats University, Pakistan)
12:00 - 12:10	14:00 - 14:10	1B-5	Design and Analysis Results of a 1-GHz-Band Wideband Rectifier using a Multi-stage Type Matching Circuit	Shunya Asakura, Shuhei Yamanokuchi, Satoshi Yoshida, and Kenjiro Nishikawa (kagoshima Univ.,Japan)
12:10 - 12:20	14:10 - 14:20	1B-6	30 GHz band double voltage rectifier MMIC with the E-pHEMT gated anode diode	Naoya Kakutani, Fumiya Komatsu, Naoki Sakai, and Kenji Itoh (Kanazawa Institute of Technology, Japan)

Student Session 2A: Active Antena and Metasurfaces **Chair: Denchai Worasawate (KU)**

Thailand Time	Japan Time	No.	Presentation Title	Authors
13:00 - 13:10	15:00 - 15:10	2A-1	Far Field Patterns of 6GHz Interdigital and Multi-Via Metasurface Reflector	Taisei Urakami (NIT (KOSEN), Kagawa College, Japan), Tamami Maruyama (NIT (KOSEN), Hakodate College, Japan), Akira Ono, and Takahiro Shiozawa (NIT (KOSEN), Kagawa College, Japan)
13:10 - 13:20	15:10 - 15:20	2A-2	D-Band Perfect Anomalous Reflective Metasurfaces for 6G Wireless Communications	Kohei Omori, Kazuma Yonemura(Osaka University, Japan), Yuto Kato(National Institute of Advanced Industrial Science and Technology, Japan), Yosuke Nakata, and Atsushi Sanada(Osaka University, Japan)
13:20 - 13:30	15:20 - 15:30	2A-3	Small Active Antenna for a LoRa GPS Tracker Wristband	Veeraset Panasuwankul, Pakpum Somboon, and Panuwat Janpugdee (Chulalongkorn Univ., Thailand)
13:30 - 13:40	15:30 - 15:40	2A-4	A low-cost Fabry-Pérot Cavity Antenna Formed with Metasurface for 5G mmWave	Nuttaphat Prasertm, and Sarawuth Chaimool (Khon Kaen University, Thailand)
13:40 - 13:50	15:40 - 15:50	2A-5	An experimental verification of variable phase shifting characteristics of nonreciprocal CRLH-WG using folded rectangular waveguide	Ryuji Mori, Kensuke Okubo, Mitsuyoshi Kishihara, and Koichiro Sakaguchi (Okayama Pref. Umiv., Japan)
13:50 - 14:00	15:50 - 16:00	2A-6	Acoustic resonance modes in a metamaterial consisting of slit-array slabs embedded Helmholtz resonators	Shotaro Takagi, Takahiro Okamoto, Ryohei Ono, Koichiro Sakaguchi, Mitsuyoshi Kishihara, and Kensuke Okubo, (Okayama Pref. Univ., Japan)

Student Session 2B: Transformers and Propagation **Chair: Tamio Kawaguchi (Toshiba)**

Thailand Time	Japan Time	No.	Presentation Title	Authors
14:00 - 14:10	16:00 - 16:10	2B-1	Design of Miniaturized Impedance Transformers Using Quarter-Wave-Like Transformers Implemented by Asymmetric Compact Microstrip Resonant Cells	Sangwon Kittiwittayapong, Danai Torrungrueng, Titipong Lertwiriyaprapa, Kittisak Phaebua, and Thanatcha Satitchantrakul (King Mongkut's University of Technology North Bangkok, Thailand)
14:10 - 14:20	16:10 - 16:20	2B-2	Determination and visualization of the scattering points within 3D point cloud data from double-directional channel sounding results	Diallo Djiby Marema, and Jun-ichi Takada (Tokyo Institute of Technology, Japan)
14:20 - 14:30	16:20 - 16:30	2B-3	Comparison of Radar Range Resolution in the 30, 60, and 90 GHz Bands	Tomohiko Kaynaya, Shintaro Takada, Riku Yoshino, Kunihisa Jitsuno (Waseda Univ., Japan), Keizo Inagaki (National Institute of Information and Communications Technology, Japan), and Tetsuya Kawanishi (Waseda Univ., Japan)
14:30 - 14:40	16:30 - 16:40	2B-4	Wideband Impedance Matching Using QuarterWave-Like-Transformers Implemented by Asymmetric Compact Microstrip Resonant Cells	Sangwon Kittiwittayapong, Danai Toorunrueng, Kittisak Phaebua, Titipong Lertwiriyaprapa, Prayoot Akkaraekthalin, and Kitiphon Sukprecha (King Mongkut's University of Technology North Bangkok, Thailand)
14:40 - 14:50	16:40 - 16:50	2B-5	Experimental Study of In-Vehicle Secondary Radar to Detect a Pedestrian in NLOS	Satomi Masuda, Zhou Zhongqi, Maiko Kitamura, Mao Morishita (Waseda Univ., Japan), Keizo Inagaki, Atsushi Kanno (National Institute of Information and Comms. Tech., Japan), Kunihisa Jitsuno, and Tetsuya Kawanishi (Waseda Univ., Japan)

Student Session 3A: Microwave Technology **Chair: Supakit Kawdungta (RMUTL)**

Thailand Time	Japan Time	No.	Presentation Title	Authors
15:00 - 15:10	17:00 - 17:10	3A-1	Basis Study on High Spatial Resolution Microwave Heating for Hydrogels	Takero Toyonaga, Tomohiko Mitani, and Naoki Shinohara (Kyoto Univ., Japan)
15:10 - 15:20	17:10 - 17:20	3A-2	Modeling of Dynamic Radio Channel Shadowing due to Moving Car Using Knife-Edge Diffraction Model for Cyber-Physical Wireless Emulator	Siraphop Saisa-ard, Nopphon Keerativoranan (Tokyo Tech, Japan), Kentaro Saito (Tokyo Denki Univ., Japan), and Jun-ichi Takada (Tokyo Tech, Japan)
15:20 - 15:30	17:20 - 17:30	3A-3	Wireless-Power-Transferred Magic Worktable	Purichaya Wichaidit, Chalanthon Ainthachot (KMITL, Thailand), Arnon Sakonkanapong (KOSEN-KMITL, Thailand), and Chuwong Phongcharoenpanich (KMITL,Thailand)
15:30 - 15:40	17:30 - 17:40	3A-4	Modeling and experimental study of W-band millimeter-wave scattering from slightly rough surfaces	Riku Yoshino, Tomohiko Kanaya, Shintaro Takada, Jitsuno Kunihisa (Waseda Univ), Keizo Inagaki (NICT), and Tetsuya Kawanishi (Waseda Univ)
15:40 - 15:50	17:40 - 17:50	3A-5	A Study on 20-GHz Wideband Low-Phase-Noise LC VCO	Yohei Kayano, Kiyotaka Komoku, Takayuki Morishita, and Nobuyuki Itoh (Okayama Pref. Univ., Japan)

Student Session 3B: Sensor and Active Circuits **Chair: Kosuke Katayama (National Inst. of Tech.,Tokuyama)**

Thailand Time	Japan Time	No.	Presentation Title	Authors
15:50 - 16:00	17:50 - 18:00	3B-1	A Study on Wide Lock Range 28-GHz LC Injection-Locked Frequency Doubler	Naoki Kaneda, Takayuki Morishita, Kiyotaka Komoku, and Nobuyuki Itoh (Okayama Prefectural Univ., Japan)
16:00 - 16:10	18:00 - 18:10	3B-2	Non-Destructive Microwave Sensor Based on Triple-Rectangular Complementary Split Ring Resonator for Glucose Concentration Characterization	Pubet Sangmahamad (Chulalongkorn Univ, Thailand), Tanaporn Pechrkool (King Mongkut's University of Technology North Bangkok, Thailand), and Puttiporn Thiamsinsangwon (TGGS- KMUTNB, Thailand)
16:10 - 16:20	18:10 - 18:20	3B-3	MOSFET Gate Width Optimization for NF of 920-MHz Cascode LNA	Kazuya Miyazaki, Takayuki Morishita, Kiyotaka Komoku, and Nobuyuki Itoh (Okayama Prefectural University, Japan)
16:20 - 16:30	18:20 - 18:30	3B-4	A Study on Area-Saving of Triple-Band Concurrent Low-Noise Amplifier	Shinichiro Seguchi, Takayuki Morishita, Kiyotaka Komoku, and Nobuyuki Itoh (Okayama Prefectural University)
16:30 - 16:40	18:30 - 18:40	3B-5	A study on 24-GHz gain-boosted inductor-coupling cascode amplifier	Yuki Hayashi, Takayuki Morishita, Kiyotaka Komoku, Nobuyuki Itoh (Okayama Prefectural University, Japan)