



## IEEE Nagoya Chapter

### Midland Student Express 2018 Autumn

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

#### 1. General Information

Date: 16 November, 2018  
 Venue: Fukui University  
 Bunkyo Campus, Academy Hall  
 3-9-1 Bunkyo, Fukui-shi, Fukui  
 Sponsors: IEEE AP-S Nagoya Chapter  
 IEEE MTT-S Nagoya Chapter  
 Technical Co-Sponsors: IEEE Nagoya Section  
 IEICE Hokuriku



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(IEEE Nagoya Section)



#### 2. Committee

|                 |                    |                     |
|-----------------|--------------------|---------------------|
| General Chairs: | Yoshihiko Kuwahara | Shizuoka University |
|                 | Toshikazu Sekine   | Gifu University     |
| Secretaries:    | Yoshitaka Goto     | Kanazawa University |
|                 | Shintaro Hisataka  | Gifu University     |

#### 3. Technical Program

|                  |   |   |
|------------------|---|---|
| 10:00-10:05      | <b>Opening address by Prof. Sekine, IEEE MTT-S Nagoya Chapter Chair</b>   |   |
| <b>Session 1</b> | Chair: Tsuboi Sota (Kanazawa Institute of Technology)<br>Co-chair: Atsuya Hirono (Kanazawa Institute of Technology) |   |
| 10:05-10:20      | S1-1  | <b>Multiple Objects Position Estimation Method using Hyperbola, Ellipse and Circle</b><br><i>Takuya Iwata, Fukui University</i> |
| 10:20-10:35      | S1-2  | <b>Specific Area Communication System using Virtual Linear Array</b><br><i>Ayano Mikunide, Fukui University</i>                 |
| 10:35-10:50      | S1-3  | <b>Wide Angle Interference Suppression using TDL Array Antenna</b><br><i>Kazuki Nishide, Fukui University</i>                   |
| 10:50-11:00      | Short Break   |   |
| <b>Session 2</b> | Chair: Ayano Mikunide (Fukui University)<br>Co-chair: Yuhei Oguri (Toyama Prefectural University)                   |   |
| 11:00-11:15      | S2-1  | <b>Study on antennas in the proximity of human body</b><br><i>Sota Tsuboi, Kanazawa Institute of Technology</i>                 |
| 11:15-11:30      | S2-2  | <b>The 2.4 GHz High Power planar bridge rectifier with diode array</b><br><i>Justin Han, Kanazawa Institute of Technology</i>   |

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| 11:30-11:45   | S2-3  | <b>2.4GHz band High Power Rectenna with the Inductive Folded Dipole Antenna</b><br><i>Atsuya Hirono, Kanazawa Institute of Technology</i>                           |
| 11:45-12:45   | Lunch   |   |
| <b>Session 3</b>  | Chair: <i>Ryoya Furukura (Toyama University)</i><br>Co-chair: <i>Reiji Nishigaki (Nagoya Institute of Technology)</i>                       |   |
| 12:45-13:00   | S3-1  | <b>A simple evaluation method of residual aberration frequency characteristics in reflect array antenna</b><br><i>Aoi Kotoura, Kanazawa Institute of Technology</i> |
| 13:00-13:15   | S3-2  | <b>Comparison Topologies of Resonant Tank from Class-C Wireless Power Transfer</b><br><i>Irawan Sukma, Kanazawa University</i>                                      |
| 13:15-13:30   | S3-3  | <b>Basic study of UHF antennas for Kanazawa-Sat<sup>3</sup> microsatellite</b><br><i>Kohei Kawagoshi, Kanazawa University</i>                                       |
| 13:30-13:45   | S3-4  | <b>Development of a Climber Location Information Sharing System</b><br><i>Yuhei Oguri, Toyama Prefectural University</i>  |
| 13:45-13:55   | Short Break   |   |
| <b>Session 4</b>  | Chair: <i>Takuya Iwata (Fukui University)</i><br>Co-chair: <i>Ikki Tanaka (Shizuoka University)</i>   |   |
| 13:55-14:10   | S4-1  | <b>An Implementation of 4×4 Correlation Matrix of Base Station MIMO Antenna Using Bessel Function</b><br><i>Ryoya Furukura, Toyama University</i>                   |
| 14:10-14:25   | S4-2  | <b>A Simple Model for Analyzing the Channel Capacity of MIMO Antenna Mounted on a Vehicle Roof</b><br><i>Takahiro Fuchino, Toyama University</i>                    |
| 14:25-14:40   | S4-3  | <b>Elevational Directivity Control of a Monopole Antenna By Means of the Radius of a Ground Plane</b><br><i>Nana Narukawa, Toyama University</i>                    |
| 14:40-14:55   | S4-4  | <b>Improvement of receiving power by folded dipole antenna for 5.8 GHz wireless power transfer</b><br><i>Reiji Nishigaki, Nagoya Institute of Technology</i>        |
| 14:55-15:05   | Short break   |   |
| <b>Session 5</b>  | Chair: <i>Kohei Kawagoshi (Kanazawa University)</i><br>Co-chair: <i>Kazuki Nishide (Fukui University)</i>                                   |   |
| 15:05-15:20   | S5-1  | <b>Theoretical Lower Bound of Power Loss in the Switching Device Working for Class-E Inverters</b><br><i>Satoshi Koyama, Toyohashi University of Technology</i>     |
| 15:20-15:35   | S5-2  | <b>Evaluation of Transparent Monopole</b><br><i>Ikki Tanaka, Shizuoka University</i>  |
| 15:35-15:50   | S5-3  | <b>Measurement of Complex Permittivity of Breast Tissue</b><br><i>Akira Nozaki, Shizuoka University</i>   |
| 15:50-16:05   | S5-4  | <b>Debye Parameter Extraction of Breast Tissue and Proposal of Novel Tumor Marker</b><br><i>Yuhji Nakada, Shizuoka University</i>                                   |
| <b>Special Session</b> (Chair: <i>Prof. Noguchi, Kanazawa Institute of Technology</i> )<br>電子情報通信学会北陸支部共催 特別講演会 |   |   |
| 16:15-16:55   | <b>金沢大学衛星の開発 八木谷 聡 教授 (金沢大学)</b><br><b>Development of Kanazawa University Microsatellite by Prof. Satoshi Yagitani, Kanazawa University</b> |   |
| 16:55-17:00   | <b>Closing address by Prof. Kuwahara, , IEEE AP-S Nagoya Chapter Chair</b>  |   |
| 17:20-  | Banquet   |   |