

Best Paper Award Finalist

Title : **Evaluation of Element Reduction Effect in Terahertz Synthetic Aperture Imaging Using Compressed Sensing**

Authors : Hikaru Ishizuka / Keizo Cho / Hiroaki Nakabayashi and Koji Suizu (Chiba Institute of Technology, Japan)

Title : **Interference-Free Human-Aware Beamforming for Microwave Wireless Power Transfer**

Authors : Mao Sekine /Shunto Arai / Kentaro Murata and Naoki Honma (Iwate University, Japan)

Title : **Physics-Informed Neural Network Formulation for Electromagnetic Beam Propagation**

Authors : Kazuhiro Fujita (Saitama Institute of Technology, Japan)

Title : **Beam-Steerable Antenna Pair Fed by a Varactor-Based Frequency-Swappable Diplexer**

Authors : Yuan Yuan (The University of Adelaide, Australia) / Shengjian Jammy Chen (Flinders University, Australia & The University of Adelaide, Australia) / Christophe Fumeaux (University of Queensland, Australia)

Title : **RePH: RIS-Inspired Electronic Phantom**

Authors : Kentaro Murata / Naoki Honma and Shinya Miyajima (Iwate University, Japan)

Title : **A Low-Profile Shared-Aperture Antenna Array with Self-Descattering and Self-Decoupling Capabilities**

Authors : Yi He (University of Technology Sydney (UTS), Australia & University of Technology Sydney, Australia) / Shaodong Wang (Xidian University, China) / Gengming Wei and Can Ding (University of Technology Sydney (UTS), Australia) / Y. Jay Guo (University of Technology Sydney, Australia)

Title : **Experimental Study of Surface Velocity Sensing in an Open-Channel Flume Using Millimeter-Wave FMCW Radar**

Authors : Takumi Matsuda and Hiroyoshi Yamada (Niigata University, Japan) / Hiroyasu Yasuda (Niigata University & Department of Civil and Environmental Engineering, Japan)

Title : **Study on Improving Target Detection Accuracy of Sensing Using Mobile Communication Systems**

Authors : Kazuma Tomimoto (Softbank Corp., Japan) / Ryo Yamaguchi (SOFTBANK Corp., Japan) / Toshiki Hozen and Shumpei Tabuchi (Softbank Corp., Japan)

Title : **Coconut Quality Inspection Using Natural Resonant Frequencies and Random Forest Classification**

Authors : Tanawat Tantisorapharak (Khon Kaen University, Thailand) / Thunyawat Limpiti (Walailak University, Thailand) / C. Kittiyapunya (KMUTL, Thailand) / Chulalak Talubnak (Chandrasem Rajabhat University, Thailand)

Title : **Design of a Folded Reflectarray Antenna with High Aperture Efficiency and Low Sidelobes**

Authors : Makoto Sano (Yokohama National University, Japan)

Title : **Evaluation of Blockage Probability of Direct Wave by Human Bodies in Indoor Hotspot Environment**

Authors : Kosuke Ishii and Tetsuro Imai (Tokyo Denki University, Japan) / Toshiki Hozen and Kazuma Tomimoto (Softbank Corp., Japan) / Ryo Yamaguchi (SOFTBANK Corp., Japan) / Tomonori Ikeda (Softbank Corp., Japan)

Best Paper Award Finalist

Title : **An Electrically Small Unidirectional Underwater Antenna Using a Huygens Source**
Authors : Takashi Kawamura (Sony Corporation, Japan)

Title : **Experimental Evaluation of Beamforming with Broad Nulls for Microwave Power Transfer**
Authors : Zhengdong Lin / Yu Kagaya / Akira Ebihara / Daisuke Kobuchi / Hiroyuki Morikawa and Yoshiaki Narusue (The University of Tokyo, Japan)

Title : **Near-Field Reflector-Assisted Indoor Dual-Beam MIMO Capacity Analysis at Sub-THz Bands**
Authors : Minghe Mao and Minseok Kim (Niigata University, Japan)

Title : **Independent Control of Dual-Polarized Beams in Reflectarray Antenna with Low Cross-Polarization Design**
Authors : Yosuke Maruno (Kumamoto University, Japan) / Makoto Sano (Yokohama National University, Japan)
Takeshi Fukusako and Ryuji Kuse (Kumamoto University, Japan)
Kazuma Tomimoto / Toshiki Hozen and Tomonori Ikeda (Softbank Corp., Japan) / Ryo Yamaguchi (SOFTBANK Corp., Japan)

Title : **A Fast DBF Array Antenna Calibration by Multi-Frequency Multi-Beam REV Method**
Authors : Nakazawa Tomoki / Koki Furuuchi / Welday Gerezgiher Berhe / Tomoyuki Furuichi / Satoshi Tsukamoto and Noriharu Suematsu (Tohoku University, Japan)

Title : **Double-Folded SIW Cavity-Backed Self-Isolated Four-Port Filtering MIMO Antenna**
Authors : Xin Zhou and Kam-weng Tam (University of Macau, Macao) / Gang Zhang (Nanjing Normal University, China)
Qiwei Chen and Junxiao Liu (Macao Wujing Technology Co Ltd, Macao) / Hou-Pan Sio (Macao Science Center, Macao)

Title : **Photonic-Integrated InGaAs/SiC UTC-PD-Fed Microstrip Stub Array Antenna for 300-GHz Fan-Beam Generation**
Authors : Ming Che / Yoshiki Kamiura / Ryo Doi and Kazutoshi Kato (Kyushu University, Japan)

Title : **Inverse-Designed Holographic Surfaces for Multi-Focus Spatial Beamforming with Flexible Focal Region and Polarization Control**
Authors : Jihwan Lee (Pohang University of Science and Technology (POSTECH), Korea (South))
Sirous Bahrami (Pohang University of Science and Technology, Korea (South))
Wonbin Hong (Pohang University of Science and Technology (POSTECH), Korea (South))

Title : **Accuracy Enhanced TDOA-Based Ablation Zone Imaging for Microwave Breast Cancer Treatment**
Authors : Satoru Nishimura and Shouhei Kidera (University of Electro-Communications, Japan)

Title : **High-Resolution Imaging for Millimeter-Wave Automotive Radar with Doppler Velocity Decomposition and Synthetic Aperture Process**
Authors : Keidai Ishioka (The University of Electro-Communications, Japan) / Shouhei Kidera (University of Electro-Communications, Japan)

Title : **Programmable Metasurfaces for Computational DoA Estimation: Experimental Validation**
Authors : Okan Yurduseven / María García Fernández and Guillermo Alvarez Narciandi (Queen's University Belfast, United Kingdom (Great Britain))
Mohsen Khalily (University of Surrey & 5G Innovation Centre, Institute for Communication Systems (ICS), United Kingdom (Great Britain))
Amir Masoud Molaei (Queen's University Belfast, United Kingdom (Great Britain))

Title : **Hybrid RIS Aided Wireless Communications**
Authors : Nhan Nguyen and Markku Juntti (University of Oulu, Finland)