

WPMC2021 / Program at a glance / Day 1

Opening Remarks

Room A: *Convention Hall West*

14 December 2021

Okayama 9:00 / UTC 0:00 / Copenhagen 1:00 / New Delhi 5:30

13 December 2021

New York 19:00 / Los Angeles 16:00

No.	Title	Speaker
1	Welcome Message from Okayama University	
2	Welcome Message from the General Chair	TOKUDA Hideyuki President, National Institute of Information and Communications Technology, Japan
3	Welcome Message from YRP R&D Promotion Committee	OHMORI Shingo Advisor, YRP R&D Promotion Committee President, YRP International Alliance Institute Co-Chair, WPMC Steering Board
4	Welcome Message on behalf of the WPMC Steering Board	HARADA Hiroshi Co-Chair, WPMC Steering Board Professor, Graduate School of Informatics, Kyoto University

Keynote Speaker 1

Room A: *Convention Hall West*

14 December 2021

Okayama 9:30 / UTC 0:30 / Copenhagen 1:30 / New Delhi 6:00

13 December 2021

New York 19:30 / Los Angeles 16:30

No.	Title	Invited Speaker
1		HARADA Hiroshi Professor, Graduate School of Informatics, Kyoto University

WPMC2021 / Program at a glance / Day 1

Technical Session 1: IoT and M2M Communications

Room A: *Convention Hall West*

14 December 2021

Okayama 11:20 / UTC 2:20 / Copenhagen 3:30 / New Delhi 7:50

13 December 2021

New York 21:20 / Los Angeles 18:20

No.	Paper number	Title	Speaker / Author
1	1570767800	A Flexible Frame Forwarding Scheme by Data Replication and Concatenation Functions Evaluated in the IoT Testbed Foundation for the Wireless Grid	Fumihide Kojima (National Institute of Information and Communications Technology, Japan)
2	1570759128	Wi-SUN FAN Multi-hop Network in Coexistence of IEEE 802.15.4 FSK and OFDM Transmission Schemes	Hidetomo Ochiai, Keiichi Mizutani and Hiroshi Harada (Kyoto University, Japan)
3	1570766790	A Receiver for IEEE 802.15.4-based High-speed Mobile IoT Communication Systems	Hidetomo Ochiai, Keiichi Mizutani and Hiroshi Harada (Kyoto University, Japan)
4	1570749353	Adjacent LoRa-based Network Analysis for Dense Application	David E Teves III and Alberto Bañacia (University of San Carlos, Philippines)

Technical Session 2: Advanced Networks

Room B: *Room 301*

14 December 2021

Okayama 11:20 / UTC 2:20 / Copenhagen 3:30 / New Delhi 7:50

13 December 2021

New York 21:20 / Los Angeles 18:20

No.	Paper number	Title	Speaker / Author
1	1570759728	Design of an Edge Computing Testbed to Simplify Experimental Setup	Hiroaki Yamanaka (National Institute of Information and Communications Technology, Japan); Yuuichi Teranishi (NICT & Osaka University, Japan); Eiji Kawai (National Institute of Information and Communications Technology & Nara Institute of Science and Technology, Japan); Hidehisa Nagano and Hiroaki Harai (National Institute of Information and Communications Technology, Japan)
2	1570760962	Privacy-Preserving Data Aggregation for Single Point of Failure in Smart Grid	Qingyu Yang (Xiangtan University, China)
3	1570763683	Privacy preserving consensus scheme for dishonest nodes in system	Jiaqi Zhao (Xiangtan University, China)
4	1570764417	Field Trials of Link Aggregation System based on Multipath TCP in Heterogeneous Mobile Network	Hikaru Kawasaki, Kazuo Ibuka and Fumihide Kojima (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)

WPMC2021 / Program at a glance / Day 1

Technical Session 3: Advanced Multiple Access

Room C: *Room302*

14 December 2021

Okayama 11:20 / UTC 2:20 / Copenhagen 3:30 / New Delhi 7:50

13 December 2021

New York 21:20 / Los Angeles 18:20

No.	Paper number	Title	Speaker / Author
1	1570764390	Effective Energy-Efficient Non-Cooperative Power Control in UDNs with Discontinuous Transmission	Lee Yujia and Yu Chen (Beijing University of Posts and Telecommunications, China); Hao Chen (Peng Cheng Laboratory, China)
2	1570763284	A Study of Parallel Interference Cancellation Combined with Successive Interference Cancellation for UL-NOMA Systems	Masafumi Moriyama (National Institute of Information and Communications Technology, Japan); Atsushi Kurosawa (National Institute of Information and Communications Technology); Takashi Matsuda (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)
3	1570750024	Cellular Structuring and Clustering for Distributed Antenna Systems	Sijie Xia, Chang Ge, Qiang Chen and Fumiyuki Adachi (Tohoku University, Japan)
4	1570748153	Adaptive Resource Allocation Based on Factor Graphs in Non-Orthogonal Multiple Access	Taichi Yamagami, Satoshi Denno and Yafei Hou (Okayama University, Japan)

Technical Session 4: Advanced Cellular Communications

Room A: *Convention Hall West*

14 December 2021

Okayama 14:00 / UTC 5:00 / Copenhagen 6:00 / New York 0:00 / New Delhi 10:30

13 December 2021

Los Angeles 21:00

No.	Paper number	Title	Speaker / Author
1	1570759684	Automatic Convergence Detection for In-Band Full-Duplex System with Digital Self-Interference Cancellation Using Adaptive Filter	Wei-Shun Liao and Ou Zhao (National Institute of Information and Communications Technology (NICT), Japan); Keren Li (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan); Fumihide Kojima (National Institute of Information and Communications Technology, Japan); Hiroshi Harada (National Institute of Information & Communications Technology (NICT), Japan)
2	1570767345	Peak Sample Detection based PAPR Reduction Algorithm in Optical-OFDM for VLC Systems	Ganesh Miriyala (National Institute of Technology - Warangal, India); Venkata Mani Vakamulla (National Institute of Technology Warangal, India)
3	1570756249	Comparison of MBSFN, SC-PTM and Unicast for Mission Critical Communication	Juan Vargas (IMT Atlantique & Enensys Technologies, France); Cédric Thienot (Enensys Technologies, France); Xavier Lagrange (IMT Atlantique & IRISA, Université Bretagne Loire, France)
4	1570767190	A Multi-Criteria Handover Scheme for Distributed Antenna System Based High-Speed Rail Wireless Communications	Siling Wang and Li Zhang (University of Leeds, United Kingdom (Great Britain))

WPMC2021 / Program at a glance / Day 1

Technical Session 5: Advanced System Configurations

Room B: **Room 301**

14 December 2021

Okayama 14:00 / UTC 5:00 / Copenhagen 6:00 / New York 0:00 / New Delhi 10:30

13 December 2021

Los Angeles 21:00

No.	Paper number	Title	Speaker / Author
1	1570764139	Extensions for Wireless Technology Emulation to Wire-based Network Testbed	Toshiyuki Miyachi (National Institute of Information and Communications Technology, Japan); Kunio Akashi (The University of Tokyo, Japan); Tomoya Inoue, Yota Ishida, Ryosuke Miura, Shinsuke Miwa, Fumihide Kojima and Hiroaki Harai (National Institute of Information and Communications Technology, Japan)
2	1570767599	Coverage Probability and Channel Capacity Analysis of Wireless Multi-Connectivity Ad Hoc Networks	Hongrui Nie (Beijing University of Posts and Telecommunications, China)
3	1570761100	Dependency-Aware Flexible Computation Offloading and Task Scheduling for Multi-access Edge Computing Networks	Yang Sun, Huixin Li, Tingting Wei, Yanhua Zhang, Zhuwei Wang, Wenjun Wu and Chao Fang (Beijing University of Technology, China)
4	1570767483	Developing a New Simulation and Visualization Platform for Researching Aspects of Mobile Network Performance	Catarina Amaro (Instituto Superior Técnico (IST), Portugal); Thaína C. Saraiva (CELFINET, Consultoria em Telecomunicacoes, Lda.); David Duarte (Instituto de Telecomunicacoes and CELFINET, Consultoria em Telecomunicacoes, Lda., Portugal); Pedro Vieira (Instituto de Telecomunicações and ISEL, Portugal); Maria Paula Queluz (Instituto Superior Técnico, Portugal); António J. Rodrigues (IT / Instituto Superior Técnico, Portugal)

Technical Session 6: Antenna and Propagations

Room C: **Room302**

14 December 2021

Okayama 14:00 / UTC 5:00 / Copenhagen 6:00 / New York 0:00 / New Delhi 10:30

13 December 2021

Los Angeles 21:00

No.	Paper number	Title	Speaker / Author
1	1570761778	Analysis of 920 MHz Band Received Power Fluctuation in a Factory Environment	Hirokazu Sawada, Hikaru Kawasaki, Azril Haniz and Kazuo Ibuka (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan); Fumihide Kojima (National Institute of Information and Communications Technology, Japan); Kotaro Ikeda, Kensuke Matsui and Takuto Kurose (YAZAKI Corporation, Japan); Yasuyuki Yanagi (Yazaki Energy System Corporation, Japan); Tadahide Kunitachi (YAZAKI Corporation, Japan)
2	1570767385	Indoor Local 5G Measurements Employing Automatic Guided Vehicle	Issei Makino and Nobuhiko Miki (Kagawa University, Japan); Junji Terai (STNet, Incorporated, Japan)
3	1570767474	Evaluating 5G Coverage in 3D Scenarios under Configurable Antenna Beam Patterns	Francisco Jesus (Instituto Superior de Engenharia de Lisboa, Portugal); Marco Sousa (Instituto de Telecomunicações and Celfinet, Portugal); Filipe Freitas (Instituto Superior de Engenharia de Lisboa, Portugal); Pedro Vieira (Instituto de Telecomunicações and ISEL, Portugal); Maria Paula Queluz (Instituto Superior Técnico, Portugal); António J. Rodrigues (IT / Instituto Superior Técnico, Portugal)
4	1570759042	Outdoor to Indoor Path Loss Measurement at 1.8 GHz, 3.5 GHz, 6.5 GHz, and 26 GHz Commercial Frequency Bands	Muhammad Usman Sheikh and Lauri Mela (Aalto University, Finland); Norshahida Saba (Aalto University & SnT Lab, Finland); Kalle Ruttik and Riku Jäntti (Aalto University, Finland)

WPMC2021 / Program at a glance / Day 1

Keynote Speaker 2

Room A: *Convention Hall West*

14 December 2021

Okayama 16:00 / UTC 7:00 / Copenhagen 8:00 / New York 2:00 / New Delhi 6:00

13 December 2021

Los Angeles 23:00

No.	Title	Invited Speaker
1	Air MaaS (Mobility as a Service) and 3D Cellular Operation for Flying Vehicles as a Major Service of Beyond 5G	KOHNO Ryuji IEEE Life Fellow and IEICE Fellow Professor Emeritus, Yokohama National University Vice-President, YRP International Alliance Institute

WPMC2021 / Program at a glance / Day 2

Special Session 1:

Radar technology for advanced recognition of moving objects to enhance passenger security

Room A: *Convention Hall West*

15 December 2021

Okayama 8:30 / Copenhagen 0:30 / New Delhi 5:00

14 December 2021

UTC 23:30 / New York 18:30 / Los Angeles 15:30

Session Chair: HOSAKO Iwao

National Institute of Information and Communications Technology, Japan

No.	Title	Invited Speaker
1	Image Processing Using a Selected Window Function for Synthetic Aperture Processing in Millimeter Wave Imaging	ABE Masahide Ishinomaki Senshu University
2	A Two-stage Walkthrough Screening of Persons with Concealed Threat Objects using a Millimeterwave Radar and an Imager	DOBASHI Hironori Toshiba Infrastructure Systems and Solutions Corporation
3	AI-based system using a W-band hybrid imaging radar for identifying suspicious objects in a public walking environment	KATSUYAMA Yutaka Global Information and Telecommunication Institute Waseda University
4	Dual-Mode Sensing by Hybrid Imaging System to Detect Weapons for Security Inspections	YONEMOTO Naruto Electronic Navigation Research Institute, MPAT
5	Complex Power Measurement of Millimeter-Wave Signal through Dielectric Lens by Correlation Receiving Method for Security Inspections	MURATA Hiroshi Mie University

WPMC2021 / Program at a glance / Day 2

Technical Session 7: HAPS and NTN Systems

Room A: *Convention Hall West*

15 December 2021

Okayama 11:00 / UTC 2:00 / Copenhagen 3:00 / New Delhi 7:30

14 December 2021

New York 21:00 / Los Angeles 18:00

No.	Paper number	Title	Speaker / Author
1	1570749358	Study on Full Digital Beamforming for HAPS Backhaul System with Base Station On-board Using 38 GHz Band Frequency	Mikihiro Ouchi and Tomohiro Kimura (Panasonic Corporation, Japan); Yusuke Chinda (Panasonic System Networks R&D Lab., Japan)
2	1570749859	A Study on Spectrum Sharing for the User and Feeder Links of Command and Telemetry Communications for UAVs Using a High Altitude Relay System -Toward Area Expansion by a HAPS-based Non-Terrestrial Network -	Ryu Miura, Takashi Matsuda and Fumie Ono (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan); Jun Suzuki and Tetsumi Takamori (SKY Perfect JSAT Corporation, Japan)
3	1570759964	A study on Satellite-Terrestrial Cooperation System as a Part of Research and Development of Ka-band Satellite Communication Control for Various Use Cases	Mariko Sekiguchi, Amane Miura, Yuma Abe and Eihisa Morikawa (National Institute of Information and Communications Technology, Japan); Naoko Yoshimura (National Institute of Information and Communications Technology, Japan); Takashi Takahashi and Toshihiro Kubooka (National Institute of Information and Communications Technology, Japan); Tetsuharu Fuse (National Institute of Information and Communications Technology & University of Electro-Communications, Japan); Hiroyuki Tsuji and Morio Toyoshima (National Institute of Information and Communications Technology, Japan)
4	1570749930	Prototype Evaluation of the 38GHz-band Lens Antenna for High Altitude Platform Station (HAPS) Ground Station System	Takuya Okura, Hiroyuki Tsuji, Ryu Miura, Tomoshige Kan, Takashi Matsuda and Morio Toyoshima (National Institute of Information and Communications Technology, Japan); Jun Suzuki (SKY Perfect JSAT Corporation, Japan); Yoshihisa Kishiyama (NTT DOCOMO, INC., Japan)

Technical Session 8: Advanced Wireless Applications I

Room B: *Room 301*

15 December 2021

Okayama 11:00 / UTC 2:00 / Copenhagen 3:00 / New Delhi 7:30

14 December 2021

New York 21:00 / Los Angeles 18:00

No.	Paper number	Title	Speaker / Author
1	1570764353	Status Monitoring and Diagnostics using Sensing Data in Flexible Factory	Satoko Itaya, Akihiro Amagai, Taketoshi Nakajima, Fumiko Ohori and Toru Osuga (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)
2	1570764344	Performance Evaluation of Wireless Switching for Indoor AGV	Fumiko Ohori, Satoko Itaya, Taketoshi Nakajima and Akihiro Amagai (National Institute of Information and Communications Technology, Japan); Jun Hasegawa (NICT, Japan); Toru Osuga (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)
3	1570764345	Wireless Capacity Calculation Method for Manufacturing Tools	Toru Osuga, Taketoshi Nakajima and Satoko Itaya (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)
4	1570749345	A Novel MIMO Signal Detection Method Using Hamiltonian Monte Carlo Approach	Kazushi Matsumura, J. Hagiwara, Toshihiko Nishimura, Takeo Ohgane, Yasutaka Ogawa and Takanori Sato (Hokkaido University, Japan)

WPMC2021 / Program at a glance / Day 2

Technical Session 9: Advanced Wireless Applications II

Room C: **Room302**

15 December 2021

Okayama 11:00 / UTC 2:00 / Copenhagen 3:00 / New Delhi 7:30

14 December 2021

New York 21:00 / Los Angeles 18:00

No.	Paper number	Title	Speaker / Author
1	1570760015	An Image Stabilization Technique for Long-durational Outdoor Footages Obtained by Visual IoT Systems	Yuki Murakami (National Institute of Information and Communications Technology, Japan); Ken T. Murata (National Institute of Information and Communications Technology & NICT, Japan); Kazutaka Kikuta (National Institute of Information and Communications Technology, Japan); Michiharu Niimi (Kyushu Institute of Technology, Japan); Tomohiro Kawanabe (National Institute of Information and Communications Technology, Japan); Takamichi Mizuhara and Toshiki Aoki (Clealink Technology Co., Ltd., Japan); Kazunori Yamamoto and Tsutomu Nagatsuma (National Institute of Information and Communications Technology, Japan); Kazuki Kobayashi (Shinshu University, Japan); Keiichiro Fukazawa (Kyoto University, Japan); Praphan Pavarangkoon (King Mongkut's Institute of Technology Ladkrabang, Thailand)
2	1570764309	Techniques in Pan-Tilt-Zoom Operation of IP Network Camera for Visual IoT	Yuki Murakami (National Institute of Information and Communications Technology, Japan); Ken T. Murata (National Institute of Information and Communications Technology & NICT, Japan); Ryoza Yamazaki and Kazutaka Kikuta (National Institute of Information and Communications Technology, Japan); Yoshihide Kagatani (GEO Solutions Inc., Japan); Toshiki Aoki and Takamichi Mizuhara (Clealink Technology Co., Ltd., Japan); Kazunori Yamamoto, Tomohiro Kawanabe, Tsutomu Nagatsuma and Junji Tokairin (National Institute of Information and Communications Technology, Japan); Michiharu Niimi (Kyushu Institute of Technology, Japan); Kazuki Kobayashi (Shinshu University, Japan); Keiichiro Fukazawa (Kyoto University, Japan)
3	1570756454	Radio Sensor Development for Location Estimation Using Radio Big Data of ARIB STD-T103/119-compliant Wireless Communication Systems	Masayuki Ishizaki, Kiyoshi Yamamoto and Masahiro Asano (Hitachi Kokusai Electric Inc., Japan); Keiichi Mizutani and Hiroshi Harada (Kyoto University, Japan)
4	1570745487	Narrow angle range radiation control scheme for reflected wave reduction in wirelessly powered structural health monitoring	Masaaki Fujii (MinebeaMitsumi Inc., Japan)

Technical Session 10: Advanced Mobility

Room A: **Convention Hall West**

15 December 2021

Okayama 13:40 / UTC 4:40 / Copenhagen 5:40 / New Delhi 10:10

14 December 2021

New York 23:40 / Los Angeles 20:40

No.	Paper number	Title	Speaker / Author
1	1570764245	Channel Modeling for UAV-Aided LEO Satellite Communication	Lingling Hu (Chongqing University of Posts and Telecommunications, China)
2	1570764360	Secure Communication in UAV-Enabled Mobile Relay Systems	Zhengqiang Wang, Yang Liu, Hao Zhang, Yongjun Xu, Xiaoyu Wan and Zifu Fan (Chongqing University of Posts and Telecommunications, China)
3	1570749796	Development of Adaptive Inter-Network Handover Scheme for Flights of UAVs over People beyond Visual Line of Sight	Masahiro Asano, Tatsuya Abe and Manabu Nakamura (Hitachi Kokusai Electric Inc., Japan)
4	1570757851	Measurement based performance evaluation of drone self-localization using AoA of cellular signals	Mehari Meles, Akash Rajasekaran, Kalle Ruttik, Reino Virrankoski and Riku Jäntti (Aalto University, Finland)

WPMC2021 / Program at a glance / Day 2

Technical Session 11: Technologies for New Society

Room B: **Room 301**

15 December 2021

Okayama 13:40 / UTC 4:40 / Copenhagen 5:40 / New Delhi 10:10

14 December 2021

New York 23:40/ Los Angeles 20:40

No.	Paper number	Title	Speaker / Author
1	1570758266	Experimental Study of Dynamic Data Traffic Control for the Cooperating System of Smart Personal Mobility and Indoor Intelligent Infrastructure	Sijie Xia, Chang Ge, Qiang Chen and Fumiyuki Adachi (Tohoku University, Japan)
2	1570764283	Neural Network Architecture for LLR Computation in 5G Systems and Related Business Aspects	Satya Kumar Vankayala (Samsung R&D Institute Bangalore, India); Swaraj Kumar (Samsung R&D Institute, India); Konchady Gautam Shenoy (Indian Institute of Science (IISC), India); Thirumulanathan D (Indian Institute of Technology, Kanpur, India); Seungil Yoon (Samsung Electronics, Korea (South)); Issac Kommineni (Samsung R&D Institute India-Bangalore, India)
3	1570767048	Radio Map Estimation Using a Generative Adversarial Network and Related Business Aspects	Satya Kumar Vankayala (Samsung R&D Institute Bangalore, India); Swaraj Kumar (Samsung R&D Institute, India); Ishaan Roy (BITS Pilani Goa Campus, India); Thirumulanathan D (Indian Institute of Technology, Kanpur, India); Seungil Yoon (Samsung Electronics, Korea (South)); Samuel Kanakaraj (Samsung R&D Institute, India)
4	1570767524	Internet of Things: Shaping Healthcare during COVID-19 Pandemic	Ana Koren (FER, Croatia); Ramjee Prasad (Aarhus University, Denmark)

Technical Session 12: Next Generation Telepresence Systems

Room C: **Room302**

15 December 2021

Okayama 13:40 / UTC 4:40 / Copenhagen 5:40 / New Delhi 10:10

14 December 2021

New York 23:40/ Los Angeles 20:40

No.	Paper number	Title	Speaker / Author
1	1570769054	DMR Optimization Based on Individual Weight Function for 5G Networks and Beyond	Abdulraheeb Alhammad (Faculty of Engineering, Multimedia University, Malaysia); Mustafa Ergen (Istanbul Technical University, Turkey); Ibraheem Shayea (Istanbul Technical University (ITU), Turkey); Lida Kouhalvandi (Istanbul Technical University, Turkey)
2	1570764365	Analysis of Open RAN Performance Indicators Related to Holographic Telepresence Communications	Atanas Georgiev Vlahov (Technical University of Sofia & Research and Development and Innovation Consortium, Bulgaria); Vladimir K. Poulkov (Technical University of Sofia, Bulgaria); Albena Mihovska (Aarhus University, Denmark)
3	1570764407	Implementation Requirements and System Architecture for Mixed Reality Telepresence Application Scenario	Krasimir Tonchev, Ivaylo Bozhilov, Radostina Petkova, Vladimir K. Poulkov and Agata Manolova (Technical University of Sofia, Bulgaria); Peter Lindgren (Aarhus University, Denmark)
4	1570768243	Characterization of Indoor Small Cells Propagation	Rooderson Andrade (Instituto de Telecomunicações and Universidade da Beira Interior, Portugal); Rui R. Paulo (Instituto de Telecomunicações, Portugal); Salomão Francisco (Instituto de Telecomunicações and Universidade da Beira Interior, Portugal); Emanuel Bordalo Teixeira (Universidade da Beira Interior & Instituto de Telecomunicações, Portugal); Fernando J. Velez (University of Beira Interior & Instituto de Telecomunicações, Portugal)

WPMC2021 / Program at a glance / Day 2

Special Session 2: International Standards of Wireless Body Area Networks

Room A: *Convention Hall West*

15 December 2021

Okayama 15:40 / UTC 6:40/ Copenhagen 7:40 / New York 1:40 / New Delhi 12:10

14 December 2021

Los Angeles 22:40

Session Chair: KOHNO Ryuji

Professor Emeritus, Yokohama National University

Vice-President, YRP International Alliance Institute

No.	Title	Invited Speaker
1	Overview of current ongoing standardization on dependable WBAN standard in IEEE802.15.6a	Marco Hernandez Vice-chair of TG15.6a
2	Introduction to ETSI SmartBAN and its utilization in Medical IoT	Matti Hamalainen Professor, CWC, University of Oulu, Finland
3	Channel modeling of usecases in human and vehicle bodies and Feasible solutions for interference with other radios in physical layer	KOBAYASHI Takumi Yokohama National University, Japan
4	Feasible solutions for coexistence with other radios using MAC bridge and Time Sensitive Network	Minsoo Kim YRP International Alliance Institute, Japan

WPMC2021 / Program at a glance / Day 3

Technical Session 13: Visible Light Communications

Room A: *Convention Hall West*

16 December 2021

Okayama 9:00 / UTC 0:00 / Copenhagen 1:00 / New Delhi 5:30

15 December 2021

New York 19:00 / Los Angeles 16:00

No.	Paper number	Title	Speaker / Author
1	1570748954	Recognition of 2D LEDs array pattern for underwater image sensor communication by R-CNN	Takao Sawa (Japan Agency for the Marine-Earth Science and Technology & Institute for Marine-Earth Exploration and Engineering, Japan); Yusuke Kozawa (Ibaraki University, Japan); Shinpei Goto (Tokyo University of Marine Science and Technology, Japan); Tomoaki Takeuchi (Japan Atomic Energy Agency, Japan); Taro Shibagaki (Ikegami Tsushinki Co., Ltd., Japan)
2	1570749634	Chlorophyll concentration-based CSK constellation point design for underwater SLIPT with priority on communication performance	Hiromasa Habuchi, Takuma Kogo and Yusuke Kozawa (Ibaraki University, Japan)
3	1570749840	Theoretical analysis of selective variable rate multi-pulse pulse position modulation for visible light communications	Tatsuhiko Iwase, Yusuke Kozawa and Hiromasa Habuchi (Ibaraki University, Japan)
4	1570749841	Theoretical analysis of received optical intensity of underwater image sensor based visible light communications using RGB-LEDs	Kazune Yokoo and Yusuke Kozawa (Ibaraki University, Japan); Takao Sawa (Japan Agency for the Marine-Earth Science and Technology & Institute for Marine-Earth Exploration and Engineering, Japan)
5	1570759813	Visual Secret Sharing Based RGB Parallel Transmission System	Ryohei Hazu, Yusuke Kozawa and Hiromasa Habuchi (Ibaraki University, Japan)

Technical Session 14: Advanced LMCS

Room B: *Room 301*

16 December 2021

Okayama 9:00 / UTC 0:00 / Copenhagen 1:00 / New Delhi 5:30

15 December 2021

New York 19:00 / Los Angeles 16:00

No.	Paper number	Title	Speaker / Author
1	1570759705	A Simplified DPD Linearizer using Operation Point Estimation Pilot Signals for Mobile Terminal Application in TDD Wireless Systems	Atsushi Masubuchi (Ibaraki University, Japan); Masahiro Umehira (Nanzan University & Ibaraki University, Japan); Xiaoyan Wang and Shigeki Takeda (Ibaraki University, Japan)
2	1570764406	Performance Analysis of Wireless Steganography based on OFDM and DFT-s-OFDM Signals over Frequency-Selective Rayleigh Fading Channels	Yuto Hama, Hideki Ochiai and Junji Shikata (Yokohama National University, Japan)
3	1570758372	Performance Analysis of SC-FDE Considering Radiation Pattern in Millimeter-wave and Terahertz Broadband Communications	Yuto Oyamada, Shuhei Saito and Hirofumi Suganuma (Waseda University, Japan); Keita Kuriyama (NTT, Japan); Yu Ono, Hayato Fukuzono and Masafumi Yoshioka (NTT Corporation, Japan); Fumiaki Maehara (Waseda University, Japan)
4	1570767315	Physical Cell ID Detection Performance with Polarization Receiver Diversity for NR in 3GPP CDL Channel Models	Shun Yoneda, Daisuke Inoue and Mamoru Sawahashi (Tokyo City University, Japan); Satoshi Nagata (NTT DoCoMo, Inc., Japan)
5	1570746554	Hybrid Multiple Access Scheme Using NOMA and OMA Simultaneously Considering User Request	Fuga Tanaka, Hirofumi Suganuma and Fumiaki Maehara (Waseda University, Japan)

WPMC2021 / Program at a glance / Day 3

Technical Session 15: Spectrum Sharing/Coexistence

Room C: **Room302**

16 December 2021

Okayama 9:00 / UTC 0:00 / Copenhagen 1:00 / New Delhi 5:30

15 December 2021

New York 19:00 / Los Angeles 16:00

No.	Paper number	Title	Speaker / Author
1	1570748948	Deep Reinforcement Learning based Usage Aware Spectrum Access Scheme	Yuto Teraki and Xiaoyan Wang (Ibaraki University, Japan); Masahiro Umehira (Nanzan University & Ibaraki University, Japan); Yusheng Ji (National Institute of Informatics, Japan)
2	1570749736	Joint Spectrum Sensing of Wideband Frequency and Angular Spectrum based on Sub-Nyquist Sampling	Azril Haniz (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan); Fumihide Kojima (National Institute of Information and Communications Technology, Japan)
3	1570767374	Coexistence of a Low-power IEEE 802.11af Secondary User in TV White Space with Analog and Digital TV systems	Alberto Bañacia and Rosana Ferolin (University of San Carlos, Philippines); Hirokazu Sawada, Kentaro Ishizu and Kazuo Ibuka (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan); Fumihide Kojima (National Institute of Information and Communications Technology, Japan)
4	1570750123	Reinforcement learning-based Interference Coordination for Distributed MU-MIMO	Chang Ge, Sijie Xia, Qiang Chen and Fumiyuki Adachi (Tohoku University, Japan)
5	1570758369	Estimation of Memoryless Nonlinearity of Multiple Amplifiers with Low Complexity and High Stability Based on Orthonormal Systems and Quadrature	Kazuki Komatsu (National Institute of Information and Communications Technology, Japan); Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)

WPMC2021 / Program at a glance / Day 3

Technical Session 16: Future Piggy-back Networks

Room A: *Convention Hall West*

16 December 2021

Okayama 11:25 / UTC 2:25 / Copenhagen 3:25 / New Delhi 7:55

15 December 2021

New York 21:25 / Los Angeles 18:25

Session Chair: ITAYA Satoko

No.	Paper number	Title	Speaker / Author
1	1570760003	Piggy-back Network to enable Beyond5G Society supported by Autonomous Mobilities: Concept, Key technologies & Prototyping on a Service Robot Platform	Yozo Shoji, Kiyohide Nakauchi and Yoshito Watanabe (National Institute of Information and Communications Technology, Japan); So Hasegawa (National Institute of Information and Communications Technology & Tokyo University of Science, Japan); Mikio Hasegawa (Tokyo University of Science, Japan)
2	1570760245	Piggy-back Network to Enable Beyond5G Society Supported by Autonomous Mobilities: Transaction Record Management with DAG-based Distributed Ledger	Yoshito Watanabe (National Institute of Information and Communications Technology, Japan); So Hasegawa (National Institute of Information and Communications Technology & Tokyo University of Science, Japan); Mikio Hasegawa (Tokyo University of Science, Japan); Yozo Shoji (National Institute of Information and Communications Technology, Japan)
3	1570759702	Piggy-back Network to Enable Beyond 5G Society Supported by Autonomous Mobilities: Application of MAB Algorithm for Data Synchronization Between Distributed Collaborative Robots	So Hasegawa (National Institute of Information and Communications Technology & Tokyo University of Science, Japan); Yoshito Watanabe (National Institute of Information and Communications Technology, Japan); Mikio Hasegawa (Tokyo University of Science, Japan); Yozo Shoji (National Institute of Information and Communications Technology, Japan)
4	1570760354	Piggy-back Network to enable Beyond5G Society supported by Autonomous Mobilities: Evaluation of End-to-End Throughput on Optimized Piggy-back Networks	Kazuki Kuwata (Graduate School of Engineering, Tokyo University of Science, Japan); Yusuke Ito and Aohan Li (Tokyo University of Science, Japan); Yozo Shoji and Yoshito Watanabe (National Institute of Information and Communications Technology, Japan); So Hasegawa (National Institute of Information and Communications Technology & Tokyo University of Science, Japan); Mikio Hasegawa (Tokyo University of Science, Japan)

Technical Session 17: Advanced Hardware Implementatons

Room B: *Room 301*

16 December 2021

Okayama 11:25 / UTC 2:25 / Copenhagen 3:25 / New Delhi 7:55

15 December 2021

New York 21:25 / Los Angeles 18:25

No.	Paper number	Title	Speaker / Author
1	1570766307	Framework for User-Centered Access to Electric Charging Facilities via Energy-Trading Blockchain	Ankit R Patel (University of Minho, Portugal); Gargi Trivedi (Pandit Deendayal Petroleum University, India); Dhaval R Vyas (Pandit Deendayal Energy University, India); Adriana-simona Mihaita (University of Technology in Sydney, Australia); Padmanaban Sanjeevikumar (Aalborg University, Denmark)
2	1570767548	On the Analog Self-interference Cancellation for In-band Full-duplex Radio with Compensation for Inherent Frequency Response	Takeshi Matsumura (National Institute of Information and Communications Technology (NICT) & Kyoto University, Japan)
3	1570763405	Design and Performance Analysis of Four Plates Capacitive Coupler for Electric Vehicle On-Road Wireless Charging	S Kodeeswaran (SASTRA Deemed University & Thanjavur, India); Nandhini Gayathri N (Sastru University, Thajavur, India); A Kannabhiran (SASTRA Deemed University, India); Sanjeevikumar Padmanaban (Aarhus University, India)
4	1570764947	Bearing Fault Detection For Water Pumping System Using Artificial Neural Network	Nabanita Dutta (VIT Vellore, Katpadi & Vellore Institute of Technology, India); Palanisamy K (VIT University, India); Sanjeevikumar Padmanaban (Aarhus University, India); Umashankar Subramaniam (Prince Sultan University, Saudi Arabia)

WPMC2021 / Program at a glance / Day 3

Award Ceremony

Room A: *Convention Hall West*

16 December 2021

Okayama 14:00 / UTC 5:00 / Copenhagen 6:00 / New York 0:00 / New Delhi 10:30

15 December 2021

Los Angeles 21:00

No.	Title	Presenter / Speaker
1	General Paper Award	KADOWAKI Naoto Vice President, National Institute of Information and Communications Technology, Japan
2	International Student Paper Award	OHMORI Shingo Advisor, YRP R&D Promotion Committee President, YRP International Alliance Institute Co-Chair, WPMC Steering Board
3	IEEE VTS Tokyo/Japan Chapter Student Paper Award	YAMAO Yasushi Chair, IEEE VTS Tokyo/Japan Chapter Professor Emeritus, University of Electro-Communications
4	Summary of WPMC2021 Award	KOJIMA Fumihide TPC Co-Chair, WPMC2021 National Institute of Information and Communications Technology, Japan

Closing

Room A: *Convention Hall West*

16 December 2021

Okayama 14:40 / UTC 5:40 / Copenhagen 6:40 / New York 0:40 / New Delhi 11:10

15 December 2021

Los Angeles 21:40

No.	Title	Speaker
1	Summary of WPMC2021	KOYAMA Yasuhiro General Secretary, WPMC2021 National Institute of Information and Communications Technology, Japan
2	Introduction of the Next Symposium, WPMC2022 in Denmark	Anders Frederiksen Professor, Aarhus University, Denmark
3	Closing Message on behalf of the WPMC Steering Board	Ramjee Prasad Co-Chair, WPMC Steering Board Professor, Aarhus University, Denmark FELLOW IEEE, IET, IETE, WWRP
4	Closing Remarks	KADOWAKI Naoto Vice President, National Institute of Information and Communications Technology, Japan