2014 International Workshop on Antenna Technology: Small Antennas, Novel EM Structures and Materials, and Applications

(iWAT 2014)

Sydney, Australia
4-6 March 2014

IEEE Catalog Number: CFP14ATS-POD
ISBN: 978-1-4799-8113-7

Program

Registration Open

Opening Ceremony

Keynotes

Smart Antennas for Safeguarding Australia
Alexander Zelinsky (Chief Defence Scientist & Director DSTO, Australia)

Recent Research on Antennas for Wireless in Australia
Trevor S. Bird (Antengenuity & CSIRO, Australia)

Metamaterial Antennas:From Physics To Designs
Zhi Ning Chen (National University of Singapore & Institute for Infocomm Research, Singapore)

Coffee Break

Invited 1: Dual Polarized and Small Antennas

Non-Foster Augmentations of Electrically Small Antennas: Practical Design Considerations and Results
Richard W. Ziolkowski (University of Arizona, USA)
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Applications of Circularly Polarized Crossed Dipole Antennas
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Przemyslaw Gorski (Wroclaw University of Technology, Poland), Arkadiusz Byndas (Wroclaw University of Technology, Poland), Pawel Kabacik (Wroclaw University of Technology, Poland) and Mariusz Hofman (Wroclaw University of Technology, Poland)
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A Spectrally Efficient Chipless RFID Tag Based on Split-wheel Resonator
Md. Shakil Bhuiyan (Monash University, Australia) and Nemai Karmakar (MONASH University, Australia)
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Interactive 1.1: Wearable Antennas/BAN

A Printed Dual Band Antenna with a Ground Plane and Electromagnetically-Coupled Feed for Wireless Body Area Networks
Syed Muzahir Abbas (Macquarie University, Australia), Yogesh Ranga (CSIRO, ICT Centre, Australia) and Karu Esselle (Macquarie University, Australia)
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Shengjian Jammy Chen (The University of Adelaide, Australia), Thomas Kaufmann (The University of Adelaide, Australia) and Christophe Fumeaux (The University of Adelaide & School of Electrical and Electronic Engineering, Australia)
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Movement based time division multiplexing for near real time feedback body area network applications
Haider Sabti (Griffith University, Australia) and David V Thiel (Griffith University, Australia)
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Dual mode Switch parasitic antenna for On/Off body communication channels
Mohammad Vatankhah Varnoosfaderani (Griffith University & Center for Wireless Monitoring and Application, Griffith University, Australia), David V Thiel (Griffith University, Australia), Junwei Lu (Griffith University, Australia) and Manimaran Kanesan (Griffith Univesrity, Australia)
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Design of a All-fabric Higher Order Mode Circular Patch Antenna for Wireless Body Area Network Application
Jinpil Tak (Hanyang University, Korea) and Jaehoon Choi (Hanyang University, Korea)
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Wideband Body-Centric Channels Depending on Bandwidths in Various Environments
Miyuki Hirose (Tokyo Denki University, Japan) and Takehiko Kobayashi (Tokyo Denki University, Japan)
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Woo Cheol Choi (Yonsei University, Korea), Ki Joon Kim (Yonsei University, Korea), Young Joong Yoon (Yonsei University, Korea) and Jeung Uk Ha (LG Electronics, Korea)
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Field Tests of a 76GHz Automotive Radar with the Dielectric Lens and SAGE Algorithm
Yoshihiko Kuwahara (Shizuoka University, Japan), Shunsuke Sudo (Shizuoka University, Japan) and Hiroyuki Kamo (Honda Elesys Co., Ltd, Japan)
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Bifocal Wide Angle Lens With Optimized Construction Algorithm for 60GHz
Heiko Gulan (Karlsruhe Institute of Technology, Germany), Sören Marahrens (Karlsruhe Institute of Technology, Germany), Christian Rusch (Karlsruhe Institute of Technology, Germany), Benjamin Goettel (Karlsruhe Institute of Technology, Germany) and Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany)
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Miniaturized Integrated Butler Matrix for 180 GHz Chip-to-Chip Communication
Michael Jenning (Dresden University of Technology, Germany) and Dirk Plettemeier (Dresden University of Technology, Germany)
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Design and Measurement of W-band Offset Stepped Parabolic Reflector Antennas for Airport Surface Foreign Object Debris Detection Radar Systems
Shunichi Futatsumori (Electronic Navigation Research Institute, Japan), Kazuyuki Morioka (Electronic Navigation Research Institute, Japan), Akiko Kohmura (Electronic Navigation Research Institute, Japan) and Naruto Yonemoto (Electronic Navigation Research Institute, Japan)
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Yi Yang (The University of New South Wales, Australia), Eric Chan (CSIRO, Australia) and Rodica Ramer (University of New South Wales, Australia)
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Bandpass Filters Based on Coupled Split Ring Resonators for Surface Waves on Planar Goubau Lines

Ali K. Horestani (The University of Adelaide, Australia), Withawat Withayachumnankul (The University of Adelaide, Australia), Abdallah Chahadih (Lille University, France), Abbas Ghaddar (Lille University, Australia), Mokhtar Zehar (Lille University, France), Derek Abbott (University of Adelaide, Australia), Tahsin Akalin (Université de Lille 1, France) and Christophe Fumeaux (The University of Adelaide & School of Electrical and Electronic Engineering, Australia)

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Interactive 1.3: Reconfigurable & Switchable Antennas

Utilization of Tunable Components for 4G Frequency Reconfigurable Mobile Terminal Antenna

Aykut Cihangir (University of Nice Sophia Antipolis, France), Fabien Ferrero (CREMANT, Université Nice-Sophia Antipolis & CREMANT CNRS, France), Cyril Luxey (University Nice Sophia-Antipolis, France), Gilles Jacquemod (University of Nice, France), Alexandre Reinhardt (CEA-LETI, France), Laurent Dussopt (CEA, LETI, Minatec, France), Nicolas Lorphelin (DELFMEMS, France), Christophe Pavageau (DELFMEMS, France) and Patrice Brachat (Orange Labs & France Telecom, France)

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A Polarization Reconfigurable Antenna for Dual-Band Operation

Peiyuan Qin (CSIRO Computational Informatics, Australia), Y Jay Guo (CSIRO, Australia) and Can Ding (CSIRO Computational Informatics & Xidian University, Australia)

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The Design of Reconfigurable Antenna Arrays Using the Method of Vector Space Projections

Ruchi Chaturvedi (LNMIIT, Jaipur, India) and Raghuvir Tomar (LNMIIT, Jaipur, India)

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Compact Pattern Reconfigurable LTE Antenna

Jerzy Kowalewski (Karlsruhe Institute of Technology, Germany), Tobias Mahler (Karlsruhe Institute of Technology (KIT), Germany), Christoph Heine (Karlsruhe Institute of Technology, Germany) and Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany)

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Beam Scannable Microstrip Patch Antenna

Farooq Sultan (King fahd University of Petroleum and Minerals, Saudi Arabia) and Sharif Iqbal Miru Sheikh (King Fahd University of Petroleum & Minerals (KFUPM), Saudi Arabia)

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Correlation Coefficient Control For A Frequency Reconfigurable Dual-Band Compact MIMO Antenna Destined For LTE

Alexandru Tatomirescu (Aalborg University, Denmark), Emil Buskgaard (Aalborg University, Denmark) and Gert Pedersen (Aalborg University, Denmark)

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Shen Wang (Yokohama National University, Japan) and Hiroyuki Arai (Yokohama National University, Japan)

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Planar Four-Port Quadri-Polarization Slot Antenna for Millimeter Wave Application

Yu-Jen Chi (National Chiao Tung University, Taiwan) and Fu-Chiarng Chen (National Chiao Tung University, Taiwan)

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Analysis of Sparsely Sampled Phased Array Antenna for Advanced Doppler Radar

Farah Nadia Mohd Isa (International Islamic University Malaysia, Malaysia) and Paul Brennan (University College London, United Kingdom)

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Coffee Break

Invited 2: New Materials and Composites for Antenna Applications

Welcome Reception - Sponsored by LEAP Australia

Registration Open

Invited 3: Arrays, MIMO, Beamforming and Indoor Propagation

Coffee Break

Invited 4: Reconfigurable Antennas

A Closely Spaced Switched Beam Antenna
Hiroyuki Arai (Yokohama National University, Japan)
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Mohammed Jainul Abedin (CSIRO & CSIRO Computational Informatics, Australia), Stuart G Hay (CSIRO ICT Centre, Australia) and Iain B. Collings (CSIRO, Australia)
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Implantable Compact Antennas for Wireless Bio-Telemetry: A Comparative Study
Shahidul Islam (Macquarie University, Australia), Karu Esselle (Macquarie University, Australia), David Bull (BCS Innovations, Australia) and Paul Pilowsky (Macquarie University, Australia)
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Unidirectional Antenna with Planar Reflector for Heart Failure Detection Systems
Sasan Ahdi Rezaeieh (The University of Queensland, Australia), Ummee Ahmed (The University of Queensland, Australia) and Amin M Abbosh (The University of Queensland, Australia)
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Polarization Diversity on Microwave Tomography
Latifah Mohamed (Universiti Malaysia Perlis, Malaysia) and Yoshihiko Kuwahara (Shizuoka University, Japan)
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Broadband Zigzag Corrugated Taper Slot Antenna for Heart Failure Detection Systems
Sasan Ahdi Rezaeieh (The University of Queensland, Australia) and Amin M Abbosh (The University of Queensland, Australia)
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Low profile Ultra-wideband Directional Antenna Operating in Low Microwave Band for Brain Stroke Diagnostic System
Ahmed Mobashsher (Staff House Road, St Lucia & The University of Queensland, Australia) and Amin M Abbosh (The University of Queensland, Australia)
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A Wideband Differential Directional Antenna for Head Implants
Terence S.P. See (Institute for Infocomm Research, Singapore), Wei Liu (Institute for Infocomm Research, Singapore), Xianming Qing (Institute for Infocomm Research, Singapore) and Zhi Ning Chen (National University of Singapore & Institute for Infocomm Research, Singapore)
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Phase-compensated metasurface for conformal sectoral beam antennas
Dylan Germain (Université Paris Sud, France), Divitha Seetharamdoo (IFSTTAR, LEOST & Univ Lille Nord de France, France), Shah Nawaz Burokur (Institut d'Electronique Fondamentale - Université Paris-Sud, France) and André de Lustrac (Institut d'Electronique Fondamentale - Université Paris-Sud, France)
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Phase-gradient metasurfaces for beam steerable antennas
Amirhossein Ghasemi (Université Paris Ouest La Défense, France), Shah Nawaz Burokur (Institut d'Electronique Fondamentale - Université Paris-Sud, France), Abdallah Dhouibi (Institut d'Electronique Fondamentale - Université Paris Sud, France) and André de Lustrac (Institut d'Electronique Fondamentale - Université Paris-Sud, France)
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Design of Finite FSS-backed Reflectarray by Using BDP-CG Method
Keisuke Konno (Tohoku University, Japan), Qiang Chen (Tohoku University, Japan), Suguru Kameda (Tohoku University, Japan) and Noriharu Suematsu (Tohoku University, Japan)
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Carpet cloak with photonic crystal shield
Shenyun Wang (Nanjing University of Information Science & Technology, P.R. China)
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Design of Dual-band Frequency Selective Surface with Miniaturized Elements
Amir Ebrahimi (University of Adelaide, Australia), Withawat Withayachumnankul (The University of Adelaide, Australia), Said Al-Sarawi (The University of Adelaide & Director of Centre for Biomedical Engineering, Australia) and Derek Abbott (University of Adelaide, Australia)
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Design of Polarization-Dependent Reflectarray for Terahertz Waves
Tiaoming Niu (University of Adelaide, Australia), Withawat Withayachumnankul (The University of Adelaide, Australia), Derek Abbott (University of Adelaide, Australia) and Christophe Fumeaux (The University of Adelaide & School of Electrical and Electronic Engineering, Australia)
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Screen printed frequency selective surfaces for room isolation in buildings
Aliya A. Dewani (Griffith University, Australia), Manimaran Kanesan (Griffith Univesrity, Australia), David V Thiel (Griffith University, Australia), Steven O'Keefe (Griffith University, Australia) and Mohammad Vatankhah Varnoosfaderani (Griffith University & Center for Wireless Monitoring and Application, Griffith University, Australia)
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3D Frequency Selective Surfaces with Wideband Response
Saidatul Azemi (RMIT University, Australia), Kamran Ghorbani (RMIT University, Australia) and Wayne Rowe (RMIT University, Australia)
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Anisotropic cloaking of a metallic cylinder
Ladislau Matekovits (Politecnico di Torino, Italy), Yogesh Ranga (CSIRO, ICT Centre, Australia), Trevor S. Bird (Antengenuity & CSIRO, Australia), Karu Esselle (Macquarie University, Australia) and Mario Orefice (Politecnico di Torino, Italy)
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Electromagnetic Band Gap Materials Enhance Radar Cross section of Trihedral Corner Reflectors with Circular Polarization Under Rain Conditions
Demyana Saleeb (Kafr Elshiek University, Egypt), Ahmed Saad Elkorany (menouf, menoufia, Egypt), Said Elhalafawy (Menouf, Menoufia, Egypt) and Arafa Nasef (Faculty of Engineering, Kafr Elshiekh University, Egypt)

A Low-Profile Single-Layer UWB Polarization Stable FSS for Electromagnetic Shielding Applications
Irfan Sohail (Macquarie University, Australia), Yogesh Ranga (CSIRO, ICT Centre, Australia), Ladislau Matekovits (Politecnico di Torino, Italy), Karu Esselle (Macquarie University, Australia) and Stuart G Hay (CSIRO ICT Centre, Australia)
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Interactive 2.3: Multi-Band Antennas

Circularly Polarized High Gain Multiband Antenna for Non-Linear Junction Detector System
Kim In-hwan (Korea Maritime and Ocean University, Korea) and Kyeong-sik Min (Korea Maritime and Ocean University, Korea)
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Dual-Band VHF/UHF Smartphone Antenna for Mobile Digital Television
Andrew R Weily (CSIRO Computational Informatics, Australia), Ken Smart (CSIRO Computational Informatics, Australia) and Trevor S. Bird (Antengenuity & CSIRO, Australia)
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Dual Band Microstrip Patch Antenna for WiMAX and WLAN Applications
Muhammad Haroon Tariq (National University of Sciences and Technology (NUST), Islamabad, Pakistan)

Dual-band MIMO antenna using double-T structure for WLAN applications
Wen Zhao (The University of Hong Kong, Hong Kong), Li Liu (The University of Hong Kong, Hong Kong), William S. W. Cheung (The University of Hong Kong, Hong Kong) and Yunfei Cao (The University of Hong Kong, Hong Kong)
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Interactive 2.4: Wireless Systems

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Mitsutaka Hikita (Kogakuin University, Japan) and Tateo Sato (Kogakuin University, Japan)
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RFID Reader Pad using Free Access Transmission Line for Arbitrary Oriented Tag Antennas
Takuya Okura (Yokohama National University, Japan) and Hiroyuki Arai (Yokohama National University, Japan)
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EVM and BER Evaluation of C band New Airport Surface Communication Systems
Kazuyuki Morioka (Electronic Navigation Research Institute, Japan), Naoki Kanada (Electronic Navigation Research Institute, Japan), Shunichi Futatsumori (Electronic Navigation Research Institute, Japan), Junichi Honda (Electronic Navigation Research Institute, Japan), Akiko Kohmura (Electronic Navigation Research Institute, Japan), Naruto Yonemoto (Electronic Navigation Research Institute, Japan), Yasuto Sumiya (Electronic Navigation Research Institute, Japan) and David Asano (Shinshu University, Japan)
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Evaluation by Scale Model Experiments for Aeronautical MIMO Systems
Naoki Kanada (Electronic Navigation Research Institute, Japan), Kazuyuki Morioka (Electronic Navigation Research Institute, Japan), Yasuto Sumiya (Electronic Navigation Research Institute, Japan), Naruto Yonemoto (Electronic Navigation Research Institute, Japan), Makoto Shioji (Electronic Navigation Research Institute, Japan), Akiko Kohmura (Electronic Navigation Research Institute, Japan) and Shunichi Futatsumori (Electronic Navigation Research Institute, Japan)
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An assessment of simulation methodologies for the analysis of near-field radiation zones related to human exposure
Hugo G. Espinosa (Griffith University, Australia), David V Thiel (Griffith University, Australia) and Chris Brindley (Corearth Australia Pty Ltd, Australia)
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Antenna Placement on a Large Mining Vehicle
Thomas Kaufmann (The University of Adelaide, Australia), Urban Maeder (SAFEmine AG, Switzerland) and Christophe Fumeaux (The University of Adelaide & School of Electrical and Electronic Engineering, Australia)
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Effect of Antenna Bandwidth and Placement on the Robustness to User Interaction
Emil Buskgaard (Aalborg University, Denmark), Alexandru Tatomirescu (Aalborg University, Denmark), Samantha Caporal Del Barrio (Aalborg University, Denmark), Ondřej Franek (Aalborg University & APNet Section, Denmark) and Gert Pedersen (Aalborg University, Denmark)
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Coffee Break

Invited 5: Metamaterials and EBGs

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Hisamatsu Nakano (Hosei University, Japan), Kenta Yoshida (Hosei University, Japan) and Junji Yamauchi (College of Engineering, Japan)
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Radiation by a Dipole Antenna on the Axis of a Semi-Spheroidal Cavity Partially Filled with DNG metamaterial
Piergiorgio L.E. Uslenghi (University of Illinois at Chicago, USA), Danilo Erricolo (University of Illinois at Chicago, USA) and Tadahiro Negishi (University of Illinois at Chicago, USA)
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Three Kinds of Microwave Metamaterial Lenses
Tie Jun Cui (Southeast University, P.R. China) and Wenxuan Tang (Southeast University, P.R. China)
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Metamaterial Arrays and Applications: FSS, EBG & AMC structures
J (Yiannis) Vardaxoglou (Loughborough University, United Kingdom)
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Effective Techniques for Extending the Directivity-Bandwidth of Resonant Cavity Antennas
Raheel Hashmi (Macquarie University, Australia), Basit Ali Zeb (Macquarie University, Australia) and Karu Esselle (Macquarie University, Australia)
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Tunable, switchable, and one-way electromagnetic wave absorbers based on metamaterial structures
Yijun Feng (Nanjing University, P.R. China), Bo Zhu (Nanjing University, P.R. China), Junming Zhao (Nanjing University, P.R. China), Hao Yuan (Nanjing University, P.R. China), Liang Sun (Nanjing University, P.R. China) and Tian Jiang (Nanjing University, P.R. China)
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Conference Banquet - (Harbour Ballroom, King Street, Wharf 2)

Registration Open

Invited 6: Millimeter-wave, THz and Optical Antennas

Dielectric Resonator Nano-Antennas: A Pathway to Efficient Optical Antennas
Christophe Fumeaux (The University of Adelaide & School of Electrical and Electronic Engineering, Australia), Longfang Zou (Imperial Colleege, United Kingdom) and Withawat Withayachumnankul (The University of Adelaide, Australia)
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Silicon Micromachined Terahertz Receiver Systems
Goutam Chattopadhyay (NASA-JPL, Caltech, USA)

Millimeter Wave Wireless Networks with Diversity against Localized Rain
Makoto Ando (Tokyo Institute of Technology, Japan), Jiro Hirokawa (Tokyo Institute of Technology, Japan), Takuichi Hirano (Tokyo Institute of Technology, Japan), Hung V. Le (Tokyo Institute of Technology, Japan), Toru Taniguchi (Japan Radio Co., Ltd., Japan), Riichiro Nagareda (KDDI R&D Laboratories Inc., Japan) and Akira Yamaguchi (KDDI R&D Laboratories Inc., Japan)
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Design of Inhomogeneous Dielectric Flat Lens with 2×2 TacLamPLUS Microstrip Array Feeder
Mustafa K. Taher Al-Nuaimi (State Key Laboratory of Millimeter Waves, Southeast University, P.R. China), Hong Wei (Southeast University, P.R. China) and Wen-Xun Zhang (Southeast University, P.R. China)
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A New Class of Printed Leaky Wave Antennas
Yahia Antar (Royal Military College of Canada, Canada)

Measurement Setups for Millimeter-Wave Antennas at 60/140/270 GHz Bands
Xianming Qing (Institute for Infocomm Research, Singapore) and Zhi Ning Chen (National University of Singapore & Institute for Infocomm Research, Singapore)
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Coffee Break

Invited 7: Wearable Antennas and Biomedical Applications

New Challenges in the Design of Electromagnetic Communication Systems
Raj Mittra (Penn State University, USA)
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Dual-mode Wearable Antenna for On-/off-body Wireless Communications
Chia-Hsien Lin (Fujitsu Kyushu Network Technologies Limted, Japan) and Koichi Ito (Chiba University, Japan)
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Low-Profile Antennas for On-Body Surface Communications
Jaehoon Choi (Hanyang University, Korea), Jinpil Tak (Hanyang University, Korea) and Kyeol Kwon (Hanyang University, Korea)
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Microwave-Based System Using Directional Wideband Antennas for Head Imaging
Amin M Abbosh (The University of Queensland, Australia)
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Towards Analytic Path Loss Models in On-Body Wireless Communications
Dirk Manteuffel (University of Kiel, Germany)
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Indoor Positioning using Novel Multi-loop HF RFID Reader Antennas
Ananda Sanagavarapu Mohan (University of Technology Sydney (UTS), Australia) and Mohd Yazed Ahmad (University of Malaya & Faculty of Engineering, University of Malaya, Malaysia)

Lunch

Interactive 3.1: Wideband and UWB Antennas

Compact UWB Power Divider with Unequal Distribution Ratio
Feng Wei (Xidian University & National Laboratory of Science and Technology on Antennas and Microwaves, P.R. China), Xiao Wei Shi (Xidian University, P.R. China), Peiyuan Qin (CSIRO Computational Informatics, Australia) and Y Jay Guo (CSIRO, Australia)
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Near-Field Characteristics of a Wideband Travelling-Wave Antenna Based on a Tapered Half-Mode Substrate-Integrated Waveguide
Nghia Nguyen-Trong (University of Adelaide, Australia), Thomas Kaufmann (The University of Adelaide, Australia) and Christophe Fumeaux (The University of Adelaide & School of Electrical and Electronic Engineering, Australia)
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Miniaturization of the half ring monopole antenna using self complementary method for UWB application

Mohammad Mahfuz Hussain (North South University, Bangladesh), Atiqur Rahman (North South University, Bangladesh) and Christina Gomes (North South University, Bangladesh)

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A Broadband Cage Antenna Optimized by Genetic Algorithm

Jingya Deng (Institute of China Electronic System Engineering Corporation, P.R. China), Xiaojun Chen (Institute of China Electronic System Engineering Corporation, P.R. China), Rui Yu (Institute of China Electronic System Engineering Corporation, P.R. China) and Xiang Wen (Institute of China Electronic System Engineering Corporation, P.R. China)

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Wideband Feed Systems for Radio Astronomy

John Kot (BAE Systems Australia Ltd, Australia), Christophe Granet (BAE Systems Australia Ltd, Australia), Ian Davis (BAE Systems Australia Ltd, Australia) and Greg Pope (BAE Systems Australia Ltd, Australia)

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Frequency-Domain Synthesis of Ultra-Wide Band Antennas with a Flat Response

Daniela Deacu (Constanta Maritime University, Romania), Razvan D. Tamas (Constanta Maritime University, Romania), Teodor Petrescu (Politehnica University of Bucharest, Romania) and Teodor Petrut (Grenoble INP, France)

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Time Domain Analysis of A Miniature Tapered-Slot UWB Antenna

Manmohan Sharma (Queen Mary University of London, United Kingdom), Clive Parini (QMUL, United Kingdom) and Akram Alomainy (Queen Mary, University of London, United Kingdom)

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Broadband Printed Dipole Antenna with T-Shape Loadings

Can Wang (Huaqiao University, P.R. China) and Yuehe Ge (Huaqiao University, P.R. China)

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Bandwidth and Gain Enhancement of a Printed Wide Slot Antenna

Md. Samsuzzaman (Universiti Kebangsaan Malaysia, Malaysia), Mohammad Tariqul Islam (Institute of Space Science (ANGKASA) & Universiti Kebangsaan Malaysia, Malaysia) and M. Habib Ullah (International Islamic University Malaysia, Malaysia)

Design of Broad Circularly Polarized Square Slot Antenna With a CPW-Fed

Wen Jiang (Xidian University, P.R. China), Shu Gong (National Laboratory of Antennas and Microwave Technology, P.R. China), Guang Fu (Xidian University, P.R. China), Yan-ping Li (Xidian University, P.R. China) and Lin Yang (Xidian University, P.R. China)

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A Miniaturized, Ultra-Wideband, Circularly Polarized Spiral Antenna

Ting-Yen Shih (University of Wisconsin-Madison, USA) and Nader Behdad (University of Wisconsin, USA)

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Design of a UWB Printed G-shaped Monopole Antenna using Characteristic Modes

Farhad Gozasht (University of Technology, Sydney & Sahand University of Technology, Austria), Ananda Sanagavarapu Mohan (University of Technology Sydney (UTS), Australia) and Kevin Po (UTS, Australia)

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Interactive 3.2: Metmaterial-Inspired & Miniaturized Antennas

RCS Reduction of Microstrip Antenna by Complementary Split-ring Resonators Structure

Yongtao Jia (National Laboratory of Science and Technology on Antenna and Microwaves, Xidian University, P.R. China), Ying Liu (Xidian University, P.R. China) and Shuxi Gong (Xidian University, P.R. China)

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Interactive 3.3: Modelling and Simulation

Locating Low Frequency Coherent Sources by the Inverse Problem
Kei Hirota (Shizuoka University, Japan), Yoshihiko Kuwahara (Shizuoka University, Japan), Makoto Tanaka (Denso Corporation, Japan), Takanori Uno (Denso Corporation, Japan) and Koji Ichikawa (Denso Corporation, Japan)
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Diffraction Loss and Phase Modulation of Terrestrial Radio-Link by Wind Turbine
Thomas Fickenscher (Helmut Schmidt University, Germany) and Muhammad Bilal Raza (Helmut Schmidt University, Germany)
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Anisotropic Uniaxial Crystal as a Substrate in Spherical Microstrip Antenna with Annular-Circular Patch and Air Gap Layer
Somayeh Komeylian, Miss (Islamic Azad University, Iran), Saeed Komeylian (Sharif University, Iran) and Farrokh Hojjat-Kashani (Iran university of science and Technology, Iran)
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A Three-Order Equal-Ripple Band-Pass Filtering Antenna Design Using Capacitive-Gap Coupled Asymmetrical-CPW Resonator
Chao-Shun Yang (National Chiao-Tung University, Taiwan), Ping-Hsu Chen (National Chiao Tung University Taiwan, Taiwan), Jeng Hau Lu (National Chiao Tung University, Taiwan) and Jou (National Chiao Tung University, Taiwan)
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Coffee Break

Debate: Debate - The Future of Metamaterial Antennas

Debate chaired by Raj Mittra (Pennsylvania State University) with:
- Zhining Chen (National University of Singapore)
- Rick Ziolkowski (The University of Arizona)
- J. (Yiannis) Vardaxoglou (Loughborough University)
- John L. Volakis (The Ohio State University)

Closing Ceremony