

LAPC 2013 Programme

Sunday 10th November

- Registration 18:00 – 19:30
- Informal Welcome Drinks Reception 18:30

Monday 11th November

- Registration 8:00 - 17:00
- Conference opening 9:00 - 9:10

INVITED SESSION 1 Session Chair: Prof. Steven Gao 9:10 - 11:00

Space Antennas

Analysis, Design and Prototyping of Reflectarray Antennas for Space Applications

Professor José Encinar, Technical University of Madrid, Spain

Space Antennas Challenges and Proposed Ways Forward: An ESA Perspective

Dr Cyril Mangenot, ESA-ESTEC, Netherlands

Current Status and Future Trends in Satellite Telecommunications Antennas

Dr Simon Stirland, EADS Astrium, UK

Shortlisted Best Student and Best Non-student paper presentations

REFRESHMENTS AND POSTER SESSIONS 1 11:00 - 12:30

LUNCH 12:30 - 14:00

INVITED SESSION 2 Session Chair: Prof. Cyril Luxey 14:00 - 15:45

Radio Propagation, Antenna Modeling and Wireless Systems

Modelling RF Losses in Touchscreens

Robin Granger, Roke Manor Research Ltd, UK

Studies on E-band Antennas and Propagation

Professor Antti Räisänen, Aalto University, Finland

Mitigating External Sources of Passive Intermodulation

Thomas Bell, Anritsu, USA

Prediction of MIMO Performance for Small Cells

Professor Jie Zhang, Sheffield University, UK

REFRESHMENTS AND POSTER SESSION 2 15:45 - 17:15

DRINKS RECEPTION, PRE-BANQUET TALK, BANQUET & AWARDS 19:00

- Pre-banquet talk by Dr Cyril Mangenot 19:40
"Large Reflector Antennas: the creativity of the engineering community"
- Dinner 20:00
- Best Paper and IET Best Student Paper awards 21:30
- The James Roderick James Lifetime Achievement Award 21:40

LAPC 2013 Programme

Tuesday 12th November

INVITED SESSION 3 Session Chair: Dr. Luigi Boccia 9:00 – 10:45

Emerging Technologies in Antennas

Photoconductive THz Antennas

Professor Yi Huang, Liverpool University, UK

Non-Uniform Metasurfaces for Antennas

Professor Stefano Maci, University of Siena, Italy

The Exciting World of Future Electromagnetic Communication

Professor Raj Mittra, Pennsylvania State University, USA

Compact Wide-band Baluns for Active Electronically Scanned Array Antennas

Jon Pinto, BAE Systems, UK

REFRESHMENTS AND POSTER SESSION 3 10:45 – 12:30

LUNCH 12:30 – 14:00

INVITED SESSION 4 Session Chair: Prof. Dr.-Ing. Dirk Heberling 14:00 – 15:20

Latest Developments in Antenna Measurements and Simulations

Behaviour of Orthogonal Wave Functions and the Correction of Antenna Measurements Taken in Non-Anechoic Environments

Dr Stuart Gregson, Nearfield Systems Inc., USA

Non-invasive Measurement of Electrically Small Ultra-Wideband and Smart Antennas

Dr Tian Loh, National Physics Laboratory, UK

Asymptotic and Full Wave Simulation Models for Compensated Compact Range Design and Analysis

Javier Rodriguez Miranda, Astrium GmbH, Germany

REFRESHMENTS AND POSTER SESSION 4 15:20 – 16:50

CONFERENCE CLOSE 16:50

Wednesday 13th November

Day long free EM Simulation workshops:

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|---|--|--|-------------|
| • | CST and Rohde & Schwarz
"Measurement meets Simulation" | Electronic & Electrical Engineering Building | W1.29 |
| • | IMST EMPIRE XCcel
"LTCC for Highly Integrated Antenna Front Ends" | Electronic & Electrical Engineering Building | W1.28 |
| • | ANSYS HFSS | Burleigh Court Hotel | Devent Room |

***Advance registration required for Workshop attendance. Please visit exhibitor booths for further information.**

LAPC 2013 Papers Listed by Session and Room

#	Paper Title	Authors
A1	Differentially-fed Microstrip Patch Antenna for Omni-directional GPS Applications	Xiu Long Bao; Max James Ammann
A2	Tunable Antennas Using MEMS Switches for LTE Mobile Terminals	Aykut Cihangir; Fabien Ferrero; Cyril Luxey; Gilles Jacquemod; Emmanuel Larique; Renaud Robin; Patrice Brachat
A3	Improved Performance of 2.45 GHz Implanted Patch Antenna for Wireless Communication	Saeed M Alamri; Richard Langley; Ahmed AlAmoudi
A4	Outdoor Coverage & Capacity Estimation in Small Cells with a 3D Ray Tracing Model	Leonidas Ivrisimtzis; Zaid Al-Daher; Akram Hammoudeh
A5	Antipodal Vivaldi Antenna for Hyperthermia Treatment	Maged Aldhaeebi; Mohammed Alzabidi; Ibrahim Elshafiey; Zeeshan Siddiqui
A6	Experimental Verification of a Dual Band CP Patch Antenna Using a Biased YIG Compound	Anastasia Kampitaki; Theodore Zervos; Fotis Lazarakis; Antonis A Alexandridis; Kostas Dangakis; Eirini Varouti; Dimosthenis Stamopoulos; George Fikioris; J (Yiannis) Vardaxoglou
A7	Piezoelectric Reconfigurable Antenna	Khalid Aljonubi; Richard Langley; Ian Reaney; Ahmed AlAmoudi
A8	Phased Array Antenna for Avalanche FMCW Radar	Mandana Ardeshtir Tanha; Paul Brennan; Matthew Ash
B1	Experimental Proofs on an Effective Near-Field to Far-Field Transformation Technique with Spherical Spiral Scan Suitable for Long Antennas	Francesco D'Agostino; Flaminio Ferrara; Claudio Gennarelli; Rocco Guerriero; Massimo Migliozi
B2	Sidelobe Manipulation Using Butler Matrix for 60 GHz Physical Layer Secure Wireless Communication	Yuan Ding; Vincent Fusco
B3	Design Improvements of Electrically Large Antennas Using the Inverse Source Method	Lars Jacob Foged; Lucia Scialacqua; Francesco Saccardi; Javier Leonardo Araque Quijano; Giuseppe Vecchi; Paul Duxbury
B4	Channel Characterization for Indoor Communication Systems Employing Reconfigurable Antennas	Hassan El sallabi; Mohamed M. Abdallah; Khalid A. Qaraqe
B5	High Order FDFD Computation of All Waveguide Modes Using a Single Grid	Alessandro Fanti; Marco Simone; Giuseppe Mazzarella
B6	Low-Cost Single-Layer Broadband Reflectarray for Satellite Communications	Kai Zhang; Steven Gao; Jianzhou Li; Yangyu Fan; Gao Wei; Jiadong Xu
B7	Parameters Extraction of Three-Dimensional Structures for Graded Textile Cloaking Materials	Berit Greinke; Massimo Candotti; Akram Alomainy; Clive Parini

B8	Near Optimum Array Geometries for Indoor MIMO Systems in a Highly Correlated Environment	Anthony Grennan
C1	A Yagi-Uda Antenna Made of High-Permittivity Ceramic Material	Jan Hesselbarth; Miguel Angel Bueno Diez; Daniel Geier
C2	Broadband Dual-Frequency Dual-Polarization Dielectric Loaded Antenna (DLA) for WiMAX and WLAN Application	Zhijiao Chen; Clive Parini
C3	Miniaturization of Satellite Navigation System Navigation Equipment Antenna Modules	Sergey Boyko; Alexander Sergeyevich Kukharenko; Yury Yaskin
C4	A Practical Approach of VLC Architecture for Smart City	Shahid Ayub; Mahsa Honary; Sharadha Kariyawasam; Honary Bahram
C5	Microwave Imaging of a Realistic Cancerous Phantom Using an Ultra-wideband Antenna Transceiver System	Haoyu Zhang; Tughrul Arslan; Brian Flynn
C6	Design of Reconfigurable Radiation Pattern Dipole Antenna with Director and Reflector Elements for Telecommunication Systems	Imen Ben Trad; Jean-marie Floch; Hatem Rmili; M'hamed Drissi UEB; F. Choubani
C7	Effect of Uniaxial Compression in the Transmittance of a Novel Terahertz Sensor for Structural Health Monitoring	Carlos Duque; Marco Ribeiro
C8	A Passive RFID Implant for Soft Tissue Trauma Monitoring	Jonathan Michael Rigelsford; Christopher Davenport
C9	Half Mode Substrate Integrated Waveguide Without Via	Lindo A O; Anju Mathews; Andrew J Farrall, Mr; Aanandan K; Paul Robert Young
D1	Antenna Array Elements for Ka-band Satellite Communication on the Move	Qi Luo; Steven Gao; Luigi Boccia; Emilio Arnieri; G. Amendola; Tobias Chaloun; Wolfgang Menzel; Volker Ziegler
D2	Repeatability of Embroidered Patch Antennas	Shiyu Zhang; Alford Chauraya; William Whittow; Rob Seager; Tessa M Acti; Tilak Dias; J (Yiannis) Vardaxoglou
D3	Comparison of Two Matching Networks for a LTE2600 Handset Antenna	Thade Hadamik; Robert Martens; Dirk Manteuffel
D4	Design and Operation Influences Regarding Rise and Fall Time of a Photoconductive Microwave Switch	Emma K. Kowalczuk; Chinthana J Panagamuwa; Rob Seager
D5	Modelling of Dynamic On-Body Waist-Foot Channel At 2.45 GHz	Anastasios Paraskevopoulos; J (Yiannis) Vardaxoglou; Antonis A Alexandridis; Fotis Lazarakis
D6	Impedance Modeling for a Unit Cell of the Square Loop Frequency Selective Surface At 2.4 GHz	Mahfuzah Shukor; Mohamad Zoinol Abidin Bin Abd Aziz; Badrul Hisham Ahmad; Mohamad Kadim Haji Suaidi; Fauzi Mohd Johar; Mohd Azlishah Othman; Mohd Fareq Abd Malek; Muhammad Solihin Zulkefli
D7	Study of the Directivity of a Half-Loop Antenna Coupled with Magnetic Metamaterial Cells	Esthelladi Ramanandraibe; Mohamed Latrach; Wafa Abdouni; Ala Sharaiha

#	Paper Title	Authors
A1	A Compact Dual-feed Water-based Diversity Antenna	Saqer S. Alja'afreh; Yi Huang; Lei Xing
A2	Planar Monopole Antenna with Archimedean Spiral Slot for WiFi/Bluetooth and LTE Applications	Wei Zhou; Tughrul Arslan
A3	A Bidirectional Planar Monopole Antenna Array for WiFi/Bluetooth and LTE Mobile Applications	Wei Zhou; Tughrul Arslan
A4	An Optimised Balanced Twin Arm Oblated Spherical Helical Antenna with a High Permittivity Core	Robert Michael Edwards; John Brister
A5	Ultra-Wideband Quasi-Yagi Circular Dipole Antenna for Wireless Applications	Ahmad El sayed Ahmad; Jean-marie Floch
A6	Dual Wide-Band Four-Unit MIMO Antenna System for 4G/LTE and WLAN Mobile Phone Applications	Foez Ahmed; Ronglin Li; Ying Feng
A7	Experimental Tests on a Near-Field to Far-Field Transformation Technique Using a Nonconventional Plane-Rectangular Scanning	Francesco D'Agostino; Ilaria De Colibus; Flaminio Ferrara; Claudio Gennarelli; Rocco Guerriero; Massimo Migliozi
A8	Heterogeneous Substrate Microstrip Antenna with Enhanced Bandwidth	Syed Sheheryar Bukhari; William Whittow
A9	Intelligent RF Wall Unit for in-Building WLAN Applications	Kenneth Lee Ford; Jonathan Michael Rigelsford; Ludek Subrt; Mardhiah Abdullah; Muhammad Rokman; Noor Sadruddin; Nor Abdul Muin
B2	Two-Pole Filtering Antenna for Body Centric Communications	David Wolansky; Vladimir Hebelka; Zbynek Raida
B3	A Flexible Loop Antenna for Total Knee Replacement Implants in the MedRadio Band	Rula Alrawashdeh; Yi Huang; Ping Cao
B4	An Analytical Closed-Form Solution for Electromagnetic Scattering From a Metallic Spheroid in Terms of Spheroidal Eigenvectors	Grigorios Zouros; Aristides Kotsis; John Roumeliotis
B5	Applying Statistical Antenna Approach in Jet Engine Electromagnetic Field Analysis	Aparna Krishna; Tamer Khattab; Aya Abdelaziz; Mohsen Guizani
B6	A Multi-Tone RF Energy Harvester in Body Sensor Area Network Context	Veronique Kuhn; Fabrice Seguin; Cyril Lahuec; Christian Person
B7	A Wideband Printed Inverted-F Antenna for M2M Applications in the Lower UHF Band	Abraham Loutridis; Matthias John; Max James Ammann; Giuseppe Ruvio
C1	UWB Near Field Detection of Egg Quantity in a Fridge:A Preliminary Study	Heng Ma; Tim Brown; Anthony T S Ho

C2	Design and Characterization of a Miniature Varactor Tuned Ferrite Rod Antenna for 4 to 24MHz	Tony McDonald
C3	Application of the Extended Kuroda Transform to the Mixed Lumped and Distributed Network Model for the Spherical Modes	James S. McLean; Robert Sutton; Heinrich Foltz
C4	Compact Meanderline Surface for Linear to Circular Polarisation Transform	Ivor L. Morrow; Paul Thomas
C5	Active Integrated Fiber-Coupled Receiving Antenna	Niels Neumann; Stephan Frach; Dirk Plettemeier
C6	A Printed Circularly Polarized Dual-Arm Monopole Antenna	Afshin Panahi; Xiu Long Bao; Giuseppe Ruvio; Max James Ammann
C7	Digitally Tunable Input Filter Unit for LTE Bands	Ivo Dufek; Michal Pokorný
D1	Broadband UHF Flexible Vivaldi Antenna	Anthony Presse; Jean-marie Floch; Anne-Claude Tarot; Christophe Camus
D2	A 60GHz, Linearly Polarised, 16dBi Coaxial Slot Array Antenna	Terry Quinlan; Stuart D Walker
D3	Characterization of Inkjet Patch Antenna on Different Ground Planes At Millimeter-Wave Frequencies	Vasilii Semkin; Cyril Luxey; Aimeric Bisognin; Mikko Kyrö; Antti V. Räisänen; Henri Happy; Fabien Ferrero; Julien Thielieux; Wei Wei
D4	Low Cost and Efficient Rectifier Design for Microwave Energy Harvesting	Aya Mabrouki; Mohamed Latrach; Esthelladi Ramanandraibe
D5	Dual Frequency Broadband Planar Monopole Antenna for LTE Applications	Boutheina Tlili; Lamia Tchoketch-Kebir
D6	High Gain Cavity Backed UWB Antenna with and Without Band Notch Feature	Dawar Awan; Shahid Bashir; William Whittow
D7	Equilateral Triangular Microstrip Patch Antenna with Spur Lines Embedded	Mohd Fareq Abd Malek; Mahfuzah Shukor; Mohamad Zoinol Abidin Bin Abd Aziz; Nornikman Hassan; Muhammad Solihin Zulkefli; Mohd Hafizuddin Mat; Badrul Hisham Ahmad; Mohd Fariz Haji Abd Malek; Mohd Azlishah Othman

#	Paper Title	Authors
A1	Single Element Two Port Planar Inverted-F Diversity Antenna for Wireless Applications	Hassan Tariq Chattha; Iqra Hameed; Muhammad Nasir; Yi Huang; Saqer S. Alja'afreh
A2	Broadband Differential Antenna for Full-wave RF Energy Scavenging System	Yi Ding; Tughrul Arslan
A3	Compact Planar Inverted-F Antenna for Mobile RF Energy Scavenging System	Yi Ding; Tughrul Arslan
A4	Energy Efficient Gully Pot Monitoring System Using RFID	Achimugu Atojoko; Raed A Abd-Alhameed
A5	Superdirective and Low Profile Metamaterial-Inspired Antenna	Dakhli Saber; Jean-marie Floch; Kourosh Mahdjoubi; Hatem Rmili; F. Choubani
A6	Multi-Objective Design Optimization of Planar Yagi Antenna Using Surrogate Models	Slawomir Koziel; Stanislav Ogurtsov
A7	Performance Comparison of Two Types of Low-profile Sinuous Antenna in Ultra Wideband Application	Mohammad Vahdani; Sara Salehhesari; Babak Manouchehrinia
B1	RFID Tags as Passive Enabling Technology	Osman Rakibet; John Batchelor; Steve Kelly
B2	Reconfigurable Small Antenna for Mobile Phone Using MEMS Tunable Capacitor	Prasadh Ramachandran; Petteri Annamaa; Roberto Gaddi; Cor Schepens; Paul Tornatta; Larry Morrell
B3	Parametric Study of UWB Antenna Loaded with Stacked Parasitic Patch and Reflector	Dawar Awan; Shahid Bashir; Nerijus Riauka
B4	Characterization of Coupling and Quantum Efficiencies in Solar Rectennas	Ahmed M. A. Sabaawi; Charalampos C. Tsimenidis; Bayan S Sharif
B5	Circular Truncated Patch Antennas for Energy Harvesting Applications	Lee Edwards; Ahmed M. A. Sabaawi; Charalampos C. Tsimenidis
B6	Design of Decoupling Network for Monopole Four Square Array Antenna for Multi-Beam Applications	Sana Salama; Klaus Solbach
B7	Transfer Function of a 13.56 MHz RFID Channel	Manfred Sampl; Michael Kapper; Erich Leitgeb
C1	Evaluation of Wideband LTE Antenna Configurations for Vehicle Applications	Benito Sanz-Izquierdo; Rus Leelaratne
C2	Embroidered Frequency Selective Surfaces on Textiles for Wearable Applications	Alford Chauraya; Rob Seager; William Whittow; Shiyu Zhang; J (Yiannis) Vardaxoglou
C3	Three Antenna Gain Determination Method in Compact Antenna Test Ranges	Hammam Shakhtour; Rasmus Cornelius; Dirk Heberling

C4	Circularly Polarized Equilateral Triangle Patch Antenna for UHF RFID Reader Applications	Chow-Yen-Desmond Sim; Yi-Wen Hsu
C5	Optimization of Rectangular Ridge Waveguides Using PSO	Alessandro Fanti; Marco Simone; Giuseppe Mazzarella
C6	Evaluation of Antenna Suitability for the Use in Radiomyography	Vit Sipal; Patrick McEvoy; Jacinta E. Browne; Max James Ammann
C7	Generation of Orbital Angular Momentum (OAM) Radio Beams with Phased Patch Array	Qiang Bai; Alan Tennant; Ben Allen; Masood Ur Rehman
C8	Evaluation of a Human Body Phantom for Wearable Antenna Measurements At the 5.8GHz Band	Aris Tsois; William Whittow; Antonis A Alexandridis; J (Yiannis) Vardaxoglou
C9	Design of a Long-range Rectangular Coil Antenna for RFID Access Control System	Chenxue Xu; Yuxiang Yan; Xiaoming Liu
D1	Performance Comparison of MR-FDPF and Ray Launching in an Indoor Office Scenario	Xiaoming Tu; Hanye Hu; Zhihua Lai; Jean-Marie Gorce; Jie Zhang
D2	Study of Printing Errors in Digitally Fabricated FSS	Badredin Turki; Edward Parker; Mohamad Ziai; John Batchelor; Veronica Sanchez-Romaguera; Stephen Yeates
D3	An Integrated Narrowband-Wideband Antenna	Mostafa Aly; Yi Wang
D4	A Dual-Polarisation Modelling Method for Simulation-Based Propagation Models	Jialai Weng; Zhihua Lai; Jie Zhang
D5	Low-profile Slot Antenna Integrated with a Thin Polymer Non-Metallic Battery	Michael Woods; John Batchelor
D6	Meandered Dipole Yagi-Uda Antenna with Parabolic Reflectors for Global Positioning System (GPS) Applications	Mohd Fareq Abd Malek; Mohamad Zoinol Abidin Bin Abd Aziz; Nornikman Hassan; Badrul Hisham Ahmad; Mohd Fariz Haji Abd Malek; Mohd Hafizuddin Mat; Muhammad Solihin Zulkefli

#	Paper Title	Authors
A1	DC-Contact RF-MEMS Cantilever Switch on a PCB Substrate for Monolithic Integration with Microstrip Phased Array Antennas	Christian James Aguilar Armenta; Stuart Porter; Iain Will; Andy Marvin
A2	Development of a CUDA Implementation of the 3D Huygens Boundary Condition	Hanan Almeer; Fumie Costen; Jean-Pierre B' renger
A3	A Single Antenna Based Microwave System for Breast Cancer Detection: Experimental Results	Haoyu Zhang; Tughrul Arslan; Brian Flynn
A4	Wavelet De-Noising Based Microwave Imaging for Brain Cancer Detection	Haoyu Zhang; Tughrul Arslan; Brian Flynn
A5	Experimental Investigation of Efficient Ultra Wideband Localisation Techniques in the Indoor Environment	Richa Bharadwaj; Akram Alomainy; Clive Parini
A6	A GPS/Wi-Fi Dual-Band Arc-Shaped Slot Patch Antenna for UAV Application	Jianling Chen; Jun Hong Wang; Kenneth Tong; Allann Armaghany
A7	Plausibility of Incoherent Detection for Radiometric Monitoring of Insulation Integrity in HV Substations	José Maurício Ramos de Souza Neto; Euler Tavares Macedo; J. S. Rocha Neto; Maria Vieira; Ian A Glover; Martin Judd; Robert Caddell Atkinson; John Soraghan
A8	Directional Modulation Transmitter Synthesis Using Particle Swarm Optimization	Yuan Ding; Vincent Fusco
B1	Isolation Enhancement in a Dual Port Antenna	Donya Jasteh; Peter Gardner; Peter S Hall
B2	Oblique Incidence Analysis of a Salisbury Screen Employing a Non-Foster Matching Technique	Kenneth Lee Ford
B3	Rotated Half-Mode Substrate Integrated Waveguide	Andrew J Farrall, Mr; Paul Robert Young
B4	Assessment of Accuracy and Runtime Trade-offs in Unstructured TLM Meshes for Electromagnetic Simulations	Lamia M Khashan; Ana Vukovic; Phillip Sewell; Trevor Benson
B5	Hybrid Antenna Efficiency Measurements in Fixed-Geometry Wheeler Caps by Wideband Q-Factor Estimation	Constantine G. Kakoyiannis
B6	Robustness of the Behavior of Microstrip Lines Loaded with Disordered Complementary Split Ring Resonators	Alassane Sidibe; Frederique Gadot; Benoit Belier; Guillaume Bordier; Adnan Ghribi; Andrea Tartari; Davide Cammilleri; Michel Piat; Joseph Martino; François Pajot
B7	A Compact and Efficient Multi-mode Antenna for Parallel Transmission of 7T Magnetic Resonance Imaging	Bobo Hu
B8	Dielectric Resonator Antenna Design for UWB Applications	Fauzi Elmegri; Chan Hwang See; Raed A Abd-Alhameed; Chemseddine Zebiri; Peter S Excell

C1	Enhancing Radiation Response of Ultrawideband Monopoles Using Surrogate-Based Optimization	Slawomir Koziel; Stanislav Ogurtsov
C2	Multi-Point Response Correction for Cost-Efficient Antenna and Microwave Design Optimization	Slawomir Koziel; Stanislav Ogurtsov
C3	Electrically Tunable Mode Decomposition Network for 2-port MIMO Antennas	Aleksander Krewski; Werner L. Schroeder
C4	Design and Fabrication of Meander Line Antenna on Glass Substrate	Saad Mufti; Gavin Williams; Alan Tennant; Luke Seed
C5	A Low-profile Switched-Beam Dual-Band Capacitively Coupled Square Loop Antenna	Arpan Pal; Amit Mehta; Hisamatsu Nakano
C6	Phased Array Antenna Suitable for a Relay-aided WiMAX Network	Ioannis Petropoulos; Konstantinos Voudouris; Raed A Abd-Alhameed; Stephen M R Jones
C7	Exact and Numerical Solutions for the Radiation From Slotted Cylinder Embedded in Cylindrical Capped Corner Reflector	Hassan Ali Ragheb; Essam Eldin Mohamed Hassan
C8	Low Correlation Multiple Antenna System for Mobile Phone Applications Using Novel Decoupling Slots in Ground Plane	Omar A Saraerah; Chinthana J Panagamuwa; J (Yiannis) Vardaxoglou
D1	Secure Communications Based on Directly Modulated Antenna Arrays Combined with Multi-Path	HongZhe Shi; Alan Tennant
D2	Study and Design of an Integrated GPS and Cellular Antenna	James Doherty; Imran Shoaib; Xiaodong Chen; Clive Parini
D3	MVDR Beamforming Applied to a Time-Modulated Reflector-Array	Yang Wang; Alan Tennant
D4	A Compact Multi-band Slot-ring Microstrip Patch Antenna for Wireless Applications	Masood Ur Rehman; Ben Allen
D5	Fast Prototyping of Antenna and FSS Structures	Hubregt J. Visser; Ad Reniers
D6	Efficient Rectangular Spiral Coil Simulation Based on Partial Element Equivalent Circuit Method Using Quasistationary Approximation	Manfred Westreicher; Lukas W Mayer; Ralph Prestros; Christoph F Mecklenbräuer
D7	A Slot-loaded Reduced-size CPW-fed Aperture Antenna for UWB Applications	Mahsa Zolfaghari; Nicholas Riley; Meftah Mahdawi; Jie Shen
D8	Periodic Comb Reflection Frequency Selective Surface for Interference Reduction	Christopher Davenport; Jonathan Michael Rigelsford; Jie Zhang; Hasim Altan
D9	A Miniature Wideband Antenna for Wearable Systems	Manmohan Sharma; Clive Parini