

Monday 13 November 2017

Poster Session 1

Room 1	Room 2	Room 3	Room 4
Antennas and Propagation Best Paper	Antennas and Propagation Best Student Paper	Array Antennas 1	Advanced Materials 2
A Low-cost Vector Network Analyzer: Design and Realization J Verhaevert, P Van Torre, <i>Ghent University, Belgium</i>	A low-loss reconfigurable Frequency Selective Surface based antenna for Direct Antenna Modulation S Henthorn, K Ford, T O'Farrell, <i>The University of Sheffield, United Kingdom</i>	Ka-band SIW-fed slot array antenna H Sarbandi Farahani, B Rezaee, R Sadeghzadeh, <i>K. N. Toosi University of Technology, Islamic Republic Of Iran</i>	3D Printed Periodic Structures in a Horn Antenna for Side-lobe Reduction using DMLS D Shamvedi, P O'Leary, <i>Waterford Institute of Technology, Ireland</i> , C Danilenkoff, S Karam, R Raghavendra, <i>SEAM Research Centre, Ireland/Waterford Institute of Technology, Ireland</i>
Portable and low cost channel sounding platform for VHF / UHF IoT propagation research E Ball, <i>The University of Sheffield, United Kingdom</i>	Specific absorption rate and efficiency of a wideband wearable monopole antenna near the human body P Rayner, W Whittow, <i>Loughborough University, United Kingdom</i>	SatCom on-the-move Antenna With Mechanically Switchable Circular Polarization M Ferrando-Rocher, J I Herranz-Herruzo, A Valero-Nogueira, B Bernardo-Clemente, <i>Universitat Politècnica de València, Spain</i>	Vanadium Dioxide Switches for Bandwidth Reconfigurable Antenna D Anagnostou, <i>Heriot Watt University, United Kingdom</i> , David Torres, N Sepulveda, <i>Michigan State University, USA</i>
Metal lens for focusing orbital angular momentum radio mode T Drysdale, <i>The Open University, United Kingdom</i> , B Allen, <i>The University of Oxford, United Kingdom</i>	Radiation efficiency analysis of balanced-impedance hexaferrite substrate for antenna miniaturisation O James, G Hilton, M Beach, <i>University of Bristol, United Kingdom</i>	Comparative Study on the Diversity Performance between Different Microstrip Antenna Arrays A Radhi, R Nilavalan, H Al-Raweshidy, N AbAziz, <i>Brunel University, United Kingdom</i>	A 2.4 GHz to 27 MHz non-Linear RFID Topology in Flexible Electronics G Gentile, <i>NXP Semiconductors Germany GmbH, Germany</i>
Reliable EM-Driven Size Reduction of Antennas Using Feasible Region Boundary Search D Johannesson, <i>Reykjavik University, Iceland</i> , S Koziel, <i>Reykjavik University, Iceland/Gdansk University of Technology, Poland</i>	Ka-band Vivaldi Antenna with Novel Core Element for High-Gain H Hoang, K Yang, M John, P McEvoy, M J Ammann, <i>Dublin Institute of Technology, Ireland</i>	Beam Steering Antenna Arrays for 28-GHz Applications M Nassar, <i>Port Said University, Egypt/ Sinai University, Egypt</i> , H Soliman, S Abuelenin, <i>Port Said University, Egypt</i> , A Ghoniem, <i>Ismailia University, Egypt</i>	Analytical formulation for the capacitance of 3D square split ring resonators A Vallecchi, C Stevens, E Shamonina, <i>The University of Oxford, United Kingdom</i>
Concepts for a low-cost Radar Target Simulator A Diewald, <i>IFARUS, Luxembourg</i>	Studying of coupled periodic and aperiodic planar antenna arrays with mutual coupling H Bilel, A Taoufik, <i>El Manar University, Tunisia</i>	Compact and Planar Slot Antenna Array for X-band Applications S Alkaraki, Y Gao, <i>Queen Mary University of London, United Kingdom</i>	Equivalent circuit analysis for 3d metamaterials with fringing field correction factor T Whittaker, W Whittow, J Vardaxoglou, <i>Loughborough University, United Kingdom</i>
Laboratory testing of a SVD-based approach to recover the nonredundant bi-polar NF data from the positioning error affected ones	An inkjet-printed MMW frequency-reconfigurable antenna on a flexible PET substrate for 5G wireless systems S Fizzah Jilani, A	Dual-Band Compact-Size Antenna Array for Angle of Arrival Estimation M A G Al-Sadoon, F Abdussalam, R Abd-Alhameed, S M R Jones, I	High gain flat antennas for Ka band SATCOM A Chen, X Liu, <i>Beihang University, China</i>

F D'Agostino, F Ferrara, C Gennarelli, R Guerriero, M Migliozi, <i>University of Salerno, Italy</i>	Alomainy, <i>Queen Mary university of London, United Kingdom</i>	M Danjuma, <i>University of Bradford, United Kingdom</i> , I Elfergani, J Rodriguez, <i>Instituto de Telecomunicações – Aveiro, Portugal</i>	
Multiband hybrid loop-notch antennas B Collins, <i>QMUL/BSC Associates Ltd, United Kingdom</i>	Validation of a volume integral equation method for indoor propagation modelling I Kavanagh, C Brennan, <i>Dublin City University, Ireland</i>		Properties Of Antennas Made With Sprayed Selective Silver Metallization A Jammes, M Petisme, K Staelens
			A Reconfigurable Capacitive Impedance Surface for 1.5T Magnetic Resonance Imaging Applications I M Issa, L Ford, M Rama, James Wild, <i>The University of Sheffield, United Kingdom</i>
			Fully 3D printed GPS Antenna using a Low-cost Open-source 3D Printer A Elibiary, S Yun Jun, W Oakey, B Sanz, <i>University of Kent, United Kingdom</i>
Poster Session 2			
Room 1	Room 2	Room 3	Room 4
Biomedical Applications and Wearable Antennas	Communication and Sensing	Antennas and RF Circuits	Propagation 1
Miniature On Skin Passive UHF RFID Antenna Sticker V Makarovaite, A Hillier, S J Holder, C W Gourlay, J Batchelor, <i>University of Kent, United Kingdom</i>	Tilt and tamper sensing UHF RFID security tag A Ziai, <i>University of Kent, United Kingdom</i> , J Batchelor, <i>The University of Sheffield, United Kingdom</i>	Improved Dipole Antenna Equivalent Circuit A S Sokpor, A-C Tarot, A Kabalan, A Sharaiha, <i>IETR, France</i>	Implementation of a quasioptical system for free-space measurements: applications to radio astronomy O Garcia-Perez, F Tercero, S Lopez-Ruiz, B Vaquero, J Manuel Serna, <i>Spanish National Geographic Institute (IGN), Spain</i>
Design and characterization of a three material anatomical bone phantom for implanted antenna applications S Symeonidis, C Panagamuwa, W Whittow, <i>Loughborough University, United Kingdom</i>	Antenna Characterisation and Channel Effects on Digital Systems M Almoteriy, M Sobhy, J Batchelor, <i>University of Kent, United Kingdom</i>	Antennas that Support Multi-Mode Excitation C Min, N Howland, N Potts, <i>Printech Circuit Laboratories, United Kingdom</i>	HF urban noise level in variable channels of 3-24 kHz: a preliminary experimental approach P Bechet, S Miclaus, <i>Land Forces Academy, Romania</i> , A Bechet, <i>Technical University of Cluj-Napoca, Romania</i>
Application of the MOM-GEC Method to Modulate the Interaction Phenomena between Human Head Model and a Dipole Antenna inside a	Operating Principle of an LTE Handset Antenna with Multiple Closely-Located Radiators K Rasilainen, A Lehtovuori, V Viikari,	MATLAB-based Multi-objective Optimization of Broadband Circularly Polarized Antennas D Warmowska, M Marek, Z Raida, <i>Brno University</i>	Testing of Low-Power Wide-Area Technologies in Controlled Propagation Environments I Rodriguez, M Lauridsen, P Mogensen, <i>Aalborg</i>

Cavity at 1.8GHz H Messaoudi, T Aguil, M Aidi, SYSCOM ENIT, Tunisia	Aalto University, Finland	of Technology, The Czech Republic	University, Denmark, K Arvidsson, J Kvarnstrand, M Andersson, Bluetest AB, Sweden
Design of A Miniaturized Bone Implantable Antenna For A Wireless Implant Monitoring Device R Prakash Khokle, K Esselle, M Heimlich, D Bokor, Macquarie University, Australia	Recognising People Using Smart Phone Antennas A Fuzzy Biometric S Heyes, R Edwards, Loughborough University, United Kingdom	Combined Energy Harvester Integrated into Car Seat M Kokolia, J Lacik, Z Raida, Brno Univerisity of Technology, The Czech Republic	High Dynamic Range Frequency Converters for HF and VHF Propagation Measurements S Feeney, SMF Designs Ltd, United Kingdom
Effect of small wearable device antenna location on its impedance, bandwidth potential and radiation efficiency J Chen, M Berg, H Amin, A Pärssinen, University of Oulu, Finland	A passive UHF RFID pH sensor A Hillier, V Makarovaite, J Batchelor, S J Holder, C W Gourlay, University of Kent, United Kingdom	A CAD-Oriented Technique to Design an Optimum Load Impedance with Multi-Coupler Network for Class-F Power Amplifier M Buhari, R Abd-Alhameed, N A Abduljabbar, I M Danjuma, University of Bradford, United Kingdom	Channel Characterisation for Wearable LoRaWAN Monitors P Catherwood, S McComb, J McLaughlin, Ulster University, Belfast, United Kingdom, M Little, RFproximity, United Kingdom
Robustness of 7T-MRI Flexible Array Coil Behaviour A Melis, S Casu, A Fanti, G Mazzarella, University of Cagliari, Italy, C Puddu, INFN-Genova, Italy, N Djuric, University of Novi Sad, Serbia, F Maggiorelli, A Retico, G Tiberi, 5INFN-PI, Italy	Printed Yagi-Helix antennas Wasim Alshrafi, Cosme Culotta-Lopez, Dirk Heberling, RWTH Aachen University, Germany, Amar Al-Bassam, RWTH Aachen, Germany	Engineered group delay transmission lines based on novel negative group delay networks T Thatapudi, P Gardner, A Feresidis, University of Birmingham, United Kingdom	Artificial Neural Network Model Characterization for Path Loss Predictions in the VHF Band S Popoola, Covenant University, Nigeria, M Salman, S Bakinde, University of Ilorin, Nigeria, O Ogunmodimu, Manchester Metropolitan University, United Kingdom
	Evaluation of Carbon-Fiber-Reinforced Plastics for Automotive Radar Applications P Hoerner, University of Applied Sciences Esslingen, Germany, N Koch, Audi AG, Germany	An Investigation on Frequency Selective Antenna Interface Based on Optimization Approach H Amin, University of Oulu, Finland	An Empirical Study of Link Quality Assessment in Wireless Sensor Networks applicable to Transmission Power Control Protocols J Hughes, Smart Component Technologies Ltd, United Kingdom/University of Huddersfield, United Kingdom, P Lazaridis, University of Huddersfield, United Kingdom
	Electromagnetic modeling of an RFID sensor: Application to the management of the emptying of vehicles of the cars parks of State F Mejri, SYSCOM ENIT, Tunisia	Antenna Array Synthesis Using Taguchi Algorithm for Microwave Breast Cancer Detection E Ghayoula, El Manar University, Tunisia	Millimetre-wave propagation in urban clutter for 5G systems R Rudd, Plum Consulting LLP, United Kingdom, M Nekovee, University of Sussex, United Kingdom

Tuesday 14 November 2017

Poster Session 3

Room 1	Room 2	Room 3	Room 4
Antenna Measurements and Antenna Measurements	Millimetre and Sub-millimetre Antennas	Array Antennas 2	Advanced Materials 2
PCB-Side Matching Networks for Coaxial Connectors A Diewald, S Müller, <i>IFARUS, Luxembourg</i>	Study of mm-Wave Microstrip Patch Array on Curved Substrate Z Ahmed, K Yang, P McEvoy, M J Ammann, <i>Dublin Institute of Technology, Ireland</i>	A Cost-Effective Technique for Concurrent IQ stream Capture for Prototyping Phased Arrays A Vasileiadis, E Ball, <i>The University of Sheffield, United Kingdom</i>	The ultrathin reconfigurable meta-surface X Liu, A Chen, <i>Beihang University, China</i>
Examination of the Effect of Common CATR Quiet Zone Specifications on Antenna Pattern Measurement Uncertainties S Gregson, <i>NSI-MI, USA</i> , C Parini, <i>QMUL, United Kingdom</i>	Millimetre wave reflectarray antenna unit cell measurements G Ahmad, T Brown, C Underwood, <i>University of Surrey, United Kingdom</i> , T Loh, <i>National Physical Laboratory (NPL), United Kingdom</i>	Single shot DoA estimation for large-array base station systems in multi-user environments T Bressner, U Johannsen, B Smolders, <i>Eindhoven University of Technology, The Netherlands</i>	High Gain Circularly Polarized Meta-Surface Antenna A Chen, X Liu, <i>Beihang University, China</i>
Wideband Measurement of Liquid Dielectric Properties from 1 to 18 GHz Using Coaxial Probe Cylindrical Cavity Junction: Effects of Milk Concentration and Protein content on microwave dielectric properties H Krraoui, F Mejri, T Aguilii, <i>SYSCOM ENIT, Tunisia</i>	A New THz Corrugated-Ground Antenna D Kampouridou, A Feresidis, <i>University of Birmingham, United Kingdom</i>	Radiation pattern shaping for broadcasting collinear antenna array using Invasive Weed Optimization E Tziris, J Cosmas, <i>Brunel University, United Kingdom</i> , P Lazaridis, I Glover, <i>University of Huddersfield, United Kingdom</i> , Z Zaharis, <i>Aristotle University of Thessaloniki, Greece</i>	Optimisation of the Q Factor of a Complementary Frequency Selective Surface C-K Lee, S Bukhari, J Vardaxoglou, W Whittow, <i>Loughborough University, United Kingdom</i>
Nonredundant Spiral NFFT Transformation for a Long Antenna Mounted with an Offset with respect to the Scan Sphere F D'Agostino, F Ferrara, C Gennarelli, R Guerriero, M Migliozi, <i>University of Salerno, Italy</i>	Towards Millimetre-wave Antenna Design for Future Mobile Broadband Networks M Rabbani, J Churm, A Feresidis, <i>University of Birmingham, United Kingdom</i>	Dual-Element Antenna System for Hexa-band Smartphone MIMO Applications S Alja'afreh, <i>Mutah University, Jordan</i> , Y Huang, <i>Liverpool University, United Kingdom</i> , Q Xu, L Xing, <i>Nanjing University of Aeronautics and Astronautics, China</i> , O Saraereh, <i>Hashemite University, Jordan</i>	Comparative study of "Phoenix" reflectarray phase-shifting cells T Makdissy, <i>Antonine University, Lebanon</i> , R Gillard, <i>INSA of Rennes, France</i>
Cost/Performance Trade-Off of Domain Segmentation for EM-Driven Surrogate-Assisted Multi-Objective Antenna Design A Bekasiewicz, S Koziel, <i>Reykjavik University, Iceland/Gdansk University of Technology, Poland</i>	Superdirective meta-arrays at telecommunication wavelengths A Vallecchi, C Stevens, E Shamonina, <i>The University of Oxford, United Kingdom</i>	Image Transmission using OSTBC-encoded 16-QAM over MIMO Time-Selective Fading Channels M Lodro, S Greedy, A Vukovic, C Smart, D W P Thomas, <i>The University of Nottingham, United Kingdom</i>	Artificially anisotropic cylinder to convert omnidirectional linear polarization into circular polarization E Kaivanto, E Salonen, M Berg, <i>University of Oulu, Finland</i>

<p>Antenna Design Explorer: A GUI Software Tool for Efficient Antenna Design Optimization M Akinsolu, OArabi, B Liu, <i>Wrexham Glyndwr University, United Kingdom</i>, F Abdussalam, R Abd-Alhameed, <i>University of Bradford, United Kingdom</i>, N Ali, Khalifa University, UAE, G Ibrahim, <i>SUE, Iraq</i>, T A Rashid, <i>UKH, Iraq</i></p>	<p>Characterisation of a Quasi-Optical Transmissometer for Precise Measurement of a Sub-THz Multenna A Sarker Andy, P Alizadeh, M Munoz Torrico, T Kreouzis, R Donnan, C Parini, R Dubrovka, <i>Queen Mary University of London, United Kingdom</i>, O Sushko, <i>Igor Sikorsky Kyiv Polytechnic Institute, Ukraine</i></p>	<p>Novel broadband gap waveguide slot array antenna H Sarbandi Farahani, R Sadeghzadeh, <i>K. N. Toosi University of Technology, Islamic Republic Of Iran</i></p>	<p>Demonstrating a low temperature organic dense dielectric patch antenna R Espley-Jones, <i>Leonardo MW Ltd, United Kingdom/University College London, United Kingdom</i>, J Langley, JDalley, <i>Leonardo MW Ltd, United Kingdom</i>, K Tong, <i>University College London, United Kingdom</i></p>
<p>Fractal modeling in finite and infinite scales using MoM-GECmethod based on a new iterative approach C Larbi Aguil, M Hajji, T Aguil, <i>University of Elmanar, Tunisia</i></p>	<p>Role of surface waves in the reflection properties of a millimetre wave reflectarray unit cell G Ahmad, T Brown, C Underwood, <i>University of Surrey, United Kingdom</i>, T Loh, <i>National Physical Laboratory (NPL), United Kingdom</i></p>		<p>Metasurface synthesis using susceptibility tensors and holographic technique M Cerveny, L Ford, A Tennant, <i>University of Sheffield, United Kingdom</i></p>
<p>Parametric Analysis and Bandwidth Optimisation of Hybrid Linear-exponential Tapered Slot Vivaldi Antennas I Ukaegbu, K Gamage, <i>Lancaster University, United Kingdom</i></p>	<p>LTCC-based millimetre-wave microstrip grid array antennas Y Zhang, <i>Nanyang Technological University, Singapore</i></p>		<p>Analysis and Design of Metasurface Antennas E Martini, G Minatti, F Caminita, <i>Wave Up, Italy</i>, Stefano Maci, <i>University of Siena, Italy</i></p>
	<p>Design of Ultra Wideband Vivaldi Nanoantenna for Solar EnergyCollection H Rmili, <i>King Abdulaziz University, Saudi Arabia</i>, W Amara, <i>El Manar University, Tunisia</i></p>		<p>Design of a new miniature band pass filter topology working in the microwave band F Mejri, <i>ENIT, Tunisia</i></p>
Poster Session 4			
Room 1	Room 2	Room 3	Room 4
Biomedical Applications and Electrically Small Antennas	Propagation 2	Multiband and Wideband Antennas	Reconfigurable Antennas
<p>Assembly Conformal Antenna Array for Wearable Microwave Breast Imaging Application F Wang, <i>University of Edingburgh, United Kingdom</i></p>	<p>Modelling of propagation loss for single trees using simulated coppice at microwave frequencies A Adegoke, D Siddle, <i>Lagos State Polytechnic, Nigeria</i></p>	<p>A Printed Monopole UWB Antenna Design with Single and Dual Band-Suppression Characteristics I Elfergani, J Rodriguez, Ar Sadiq Hussaini, <i>Instituto de Telecomunicações, Portugal</i>, P Lopes, <i>Universidade de Aveiro, Portugal</i>, Raed Abd-Alhameed, <i>University of Bradford, United Kingdom</i></p>	<p>Design of a Novel Pattern Reconfigurable Array Antenna with Beam Scanning Characteristic Y Ding, N Zhang, <i>Institute of China Electronic Technology Group Corporation, China</i></p>
Microwave Apparatus for	A Wideband Circularly	High Aperture Efficient	Reconfigurable Antenna

<p>Testing Breast Integrity based on Huygens Principle: Clinical Validation on 16 subjects L Sani, M Paoli, G Raspa, A Vispa, <i>Spinoff of Università di Perugia, Italy</i>, N Ghavami, <i>London South Bank University, United Kingdom</i>, G Tiberi, <i>Imago7 Foundation, Italy</i>, A Saracini, S Ercolani, E Vannini, M Duranti, <i>Perugia Hospital, Italy</i></p>	<p>Polarised Cross-Slot Antenna with an L-Shaped Feed-Line M Aly, Y Wang, <i>The University of Greenwich, United Kingdom</i></p>	<p>Corrugated Plate Antenna at X- band S Alkaraki, Y Gao, <i>Queen Mary University of London, United Kingdom</i></p>	<p>Design for Portable Applications H Tariq Chattha, M Hanif, A Sharif</p>
<p>Multistatic Holographic Imaging for Breast Cancer Detection I Asghar, A A Khan, <i>Comsats Institute of Information Technology, Pakistan</i>, A K Brown, <i>The University of Manchester, United Kingdom</i></p>	<p>Data Processing Techniques for Satellite Propagation Measurements B Adjei-Frimpong, L Csurgai-Horváth, <i>Budapest University of Technology and Economics, Hungary</i></p>	<p>Optimization of log-periodic dipole antenna with LTE band 0ion K Mistry, P Lazaridis, I Glover, <i>University of Huddersfield, United Kingdom</i>, Z Zaharis, T Xenos, <i>Aristotle University of Thessaloniki, Greece</i></p>	<p>Multi-directional switched beam antenna at 2.45 GHz for WSN application A Ramachandran, S Morris, N Timmons, J Morrison, <i>Letterkenny Institute of Technology, Ireland</i>, R Raj, <i>Government college Mananthavady, India</i></p>
<p>Use of directional UWB antenna for lung tumour detection D Awan, <i>University of Technology, Pakistan</i>, S Bashir, <i>University of Engineering and Technology, Pakistan</i></p>	<p>High-accuracy Gaussian process modelling of missile RCS with cost-based preferential training data selection J Jacobs, W du Plessis, <i>University of Pretoria, South Africa</i></p>	<p>Size Reduction of Multi-Band Antennas Using Feature-Based Optimization S Koziel, A Bekasiewicz, <i>Reykjavik University, Iceland/Gdansk University of Technology, Poland</i></p>	<p>Mainbeam Steerable Patch Antennas with Anisotropic Dielectric Realisable By Using Transmission Line Models and Its Evidence W Kuhirun, P Boonek, <i>Kasetsart University, Thailand</i>, W Silabut, <i>Rajamangala University of Technology Isan, Thailand</i></p>
<p>Miniaturization of a broadband monopole antenna using low loss magneto-dielectric materials in VHF band A Kabalan, A-C Tarot, A Sharaiha, <i>Institut d'Electronique et de Télécommunications de Rennes (IETR), France</i></p>	<p>A Feasibility Study on the Extension of the Point Scatterer Formulation to Include Wind Induced Dynamics N Leonor, M Sánchez, <i>Universidade de Vigo, Spain</i>, R Caldeirinha, T Fernandes, S Rebelo, <i>Polytechnic Institute of Leiria, Portugal/University of South Wales, United Kingdom</i></p>	<p>A Compact Multiband Antenna for Mobile Handset Using Characteristic Modes Optimization H Jaafar, S Collardey, A Sharaiha, <i>IETR-Université de Rennes, France</i></p>	<p>Reconfigurable Wideband Antenna Array for Hybrid Wireless Communication Systems and IoT Applications A Mansour, B Mokhtar, M Rizk, N Shehata, <i>Alexandria University, Egypt</i></p>
<p>Topology Considerations for Compact UWB Antenna Design S Koziel, M ul Haq, <i>Reykjavik University, Iceland</i></p>	<p>A channel model for the propagation of X-band radio waves through the solar corona A Stocker, D Siddle, M Warrington, <i>University of Leicester, United Kingdom</i>, G Mariotti, D Silvestri, A Zeqai, P Tortora, <i>University of Bologna, Italy</i>, A Argyriou,</p>	<p>Characterisation of Flexible, Thermal Transfer Printed UWB Antenna Under Static Bending M Kgwadi, <i>University of Glasgow, United Kingdom</i>, T Drysdale, <i>The Open University, United Kingdom</i></p>	<p>Design of Mechanically Reconfigurable Meander Antenna Using the Galinstan Liquid Metal J M Floch, <i>IETR - INSA of Rennes, France</i>, I B Trad, <i>IETR, France</i></p>

	<i>University of Thessaly, Greece, J De Vicente, R Abello, M Mercolino, ESA, Germany</i>		
Distributive reactive nearfield parasitic element based compact CPW fed antenna for nearfield sensor applications S Raman, <i>Bharathiar University, India</i> , A Ramachandran, S Morris, N Timmons, J Morrison, <i>Letterkenny Institute of Technology, Ireland</i>	Effect of climate change on communication link as derived from long term rain rate measurement in Nigeria A Adekunle, F Semire, O Adegbola, <i>Ladoke Akintola University of Technology, Nigeria</i>	Defected Ground Monopole Antenna Loaded with CRLH for UWB Application M Iashab, <i>Larbi Ben M'hidi University, Algeria</i> , L Djouablia, M Belattar, A Bouyedda, <i>20 Aout 55 University, Algeria</i> , C Zebiri, <i>Ferhat Abbas University, Algeria</i> , F Benabdelaziz, <i>Constantine University, Algeria</i> , R Abd-Alhameed, <i>Bradford University, United Kingdom</i>	