



IMaRC-2017 Conference Program

December 12, 2017 (Tuesday)

Time	Paper ID	Author(s). Title of Paper
09:00-10:30		Session TU1A: Novel Concepts in Transmission Lines (Room: Atelier 2)
09:00-09:30	140	Tadashi Kawai, Yuya Haoka and Akira Enokihara. Broadband Branch-Line Coupler Utilizing Coupled-Transmission Lines for 5G Applications
09:30-09:50	298	Dinesh Rano, Deepayan Banerjee and Mohammad Hashmi. A Miniaturized Three-Stage Dual-Frequency Matching Network
09:50-10:10	40	Abinash Kumar Singh and Mrinal Kanti Mandal. A Compact Ultra-Wideband Conductor-Backed CPW Crossover with Improved Isolation
10:10-10:30	33	Mukesh Kumar, Sk. Nurul Islam, Susanta Kumar Parui and Santanu Das. Miniaturization of Wideband Loose Coupled (10-dB) BLC Using Dual Transmission Lines
09:00-10:30		Session TU2A: Low-Noise Amplifier Progress and Applications (Room: Atelier 3)
09:00-09:30	219	Kenjiro Nishikawa, Masanobu Tsujii, Koshi Hamano, Kunihiro Kawai, Hiroshi Okazaki and Shoichi Narahashi. Impact of LNA performances on Mobile Base Station Receiver
09:30-09:50	253	Divya Kumar Garg, Vijay Kumar, M. Madhava Kumar, Yogesh Verma and Sandeep Chaturvedi. Low Noise Amplifier at Ka Band
09:50-10:10	104	Tuhin Paul, Harinath Mynam and Samriti Kumar Garg. X-Band Self Biased MMIC Amplifier using 250nm GaAs pHEMT process
10:10-10:30	27	Raghu Srinivas and Punithavathi Duraiswamy. High Gain and Low Noise Figure Single-to-Differential CMOS LNA for Ka-Band Communication System
09:00-10:30		Session TU3A: Circulators (Room: Atelier 4)
09:00-09:30	318	Harish Krishnaswamy, Aravind Nagulu, Negar Reiskarimian and Tolga Dinc. Integrated Non-Magnetic Non-Reciprocal Components based on Switch-Based Conductivity Modulation
09:30-09:50	277	Krunal Parikh, Ashish Jain and Keyur Trivedi. Ku Band High Power Low Loss Wide Band Waveguide Circulator for Space Applications
09:50-10:10	134	Sudesh Kumar Jain and Punam Pradeepkumar. Design of Broadband Waveguide Circulator at Ka-Band
10:10-10:30	70	Ambrish Ghadiya, Keyur Trivedi, Shilpi Soni and Pravina Bhatt. Wide Band Stripline Circulator at Ku Band For Space Applications
11:00-12:30		Session TU1B: Advanced Oscillators and Synthesizers (Room: Atelier 2)
11:00-11:30	316	Afshin Daryoush, Ulrich Rohde, Ajay Poddar, Tianchi Sun and Li Zhang. Forced Opto-electronic Oscillators using Self-ILPLL

11:30-11:50	306	Tianchi Sun, Li Zhang, Ajay Poddar, Afshin Daryoush and Ulrich Rohde. K-Band High Stability and Resolution Frequency Synthesizers using Forced Opto-Electronic Oscillators
11:50-12:10	244	Varaprasad Rayudu, Sarath R, Chandrashekar Mariyappa, Unnikrishnan P.M and Vinod Chippalkatti. PLL Based High Stability Temperature Compensated Crystal Oscillator
12:10-12:30	114	Srinaga Nikhil N and Ke Wu. A Novel Approach for modelling Oscillator Circuit with Antennas
11:00-12:30	Session TU2B: Transmitter and Receiver Techniques for Next Generation Mobile Communication Systems (Room: Atelier 3)	
11:00-11:30	67	Yasunori Suzuki, Kunihiro Kawai, Hiroshi Okazaki, Shoichi Narahashi, Takahiro Asai and Yukihiko Okumura. Requirements of millimeter-wave-band transmitter for Massive MIMO base station
11:30-11:50	170	Praveen Jaraut and Meenakshi Rawat. 3D Generalized coefficient supported model for Concurrent Dual-band Digital Predistortion of Envelope Tracking Power Amplifier
11:50-12:10	162	Nishant Kumar and Karun Rawat. Efficiency Enhancement in Delta-Sigma Modulator based Transmitter using Level Transformation
12:10-12:30	39	Milind Shah and Sanjeev Gupta. Baseband I/Q regeneration Method for Direct Conversion Receiver to nullify effect of Second Order Intermodulation Distortion
11:00-12:30	Session TU3B: Microwave/Millimeter-wave/THz Systems (Room: Atelier 4)	
11:00-11:30	319	Aimin Song, Gregory Auton, Arun Kumar Singh, Jiawei Zhang, Xijian Zhang and Ernie Hill. Graphene-based nano-rectifiers
11:30-11:50	289	B V Naik and Satya Kesh Dubey. Gold Coated Cobalt Nanoparticles as SAR controlling agent for Hyperthermia Applications
11:50-12:10	161	Girish Chandra Tripathi and Meenakshi Rawat. A Low-Cost Test Bench for the Characterization of Microwave Devices Using Modulated Envelope Signal
12:10-12:30	43	Nidhi Singh, Ch. V. N. Rao and Jolly Dhar. Active Radar Calibrator Electronics for RISAT-1
13:30-15:00	Session TU1C: Special/Focused Session: A (TBD) (Room: Atelier 2)	
15:30-17:00	Session TU1D: Antenna Arrays and DGS Structures (Room: Atelier 2)	
15:30-16:00	157	Ramesh Pokharel. Degree of Freedom of Selecting Coupling Coefficient and Quality Factor in Near-Field Wireless Power Transfer: A Case Study of Using DGS Structures
16:00-16:20	300	Yash Vasavada and Jeffrey Reed. Amplitude and Phase Calibration of Antenna Arrays
16:20-16:40	296	Jijenth M, Kundan Kumar Suman, V S Gangwar, A K Singh and S P Singh. A Novel Technique based on Modified Genetic Algorithm for the Synthesis of Thinned Planar Antenna Array with Low Peak Side Lobe Level over Desired Scan Volume
16:40-17:00	287	Allen Vivean Miranda, Ashwin P and V S Gangwar. An Efficient Synthesis of Unequally Spaced Antenna Array with Electronic Scan Capability Utilizing Particle Swarm Optimization

Session TU2D: Novel Concepts in Filters (Room: Atelier 3)		
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15:30-16:00	198	Dmitry Kholodnyak. The State of the Art of Electronically Tunable Compact Bandpass Filters Design
16:00-16:20	205	Javeria S Shanoor, Shubhankar Mishra, Ankit Kumar, Rajeswari P and Meena D. High frequency RF signal filtering using photonic technology for radar applications
16:20-16:40	150	Tarun Kumar Das and Sayan Chatterjee. Harmonic Suppression in an In-line Chebyshev Bandpass Filter by Asymmetrical Perturbations
16:40-17:00	127	Rahul Kumar Jaiswal, Nidhi Pandit and Nagendra Prasad Pathak. A Novel Transition Device and Multiple Band-pass Filter using ring resonator Based on Spoof Surface Plasmon Polaritons at Microwave Frequency
17:00-17:20	119	Vikas Gupta, Tushar Gajjar, Kasif Pathan, Yauvan Dave and Nishant Shukla. An efficient realization of canonical filter using lesser number of physical cross couplings
Session TU3D: Reconfigurable Antennas and Sensors (Room: Atelier 4)		
15:30-15:50	35	Dinesh Kumar, Neelam Rup Prakash and Sukhwinder Singh. Sensors for Electromagnetic Pulse Measurement
15:50-16:10	204	Rajesh Kumar Singh, Ananjan Basu and Shibam Kishen Koul. Two-Port Reconfigurable Passive Radiator with Switchable Pattern for Active Antenna Application
16:10-16:30	113	Sandeep Singh, Prakrati Azad, Mohd. Akhtar and Kamal Kar. Design of Nanostructured Graphene Based RF Complementary Split Ring Resonator Gas Sensor for Detection of Nitrogen Dioxide
16:30-16:50	65	Pratik Mevada, Arun Sharma, Sanjeev Kulshrestha, Soumyabrata Chakrabarty, Milind Mahajan and Rajeev Jyoti. Frequency Agile Monolithic Inset Fed Microstrip Patch Antenna Based on Barium Strontium Titanate (Ba _x Sr _{1-x} TiO ₃) Ferroelectric Substrate
16:50-17:10	13	Jayendra Kumar, Banani Basu, Fazal Talukdar and Arnab Nandi. Graphene Based Multiband Frequency Reconfigurable antenna
Session TUP1: Poster Session: A (Room: Atelier 1)		
17:15-18:15	315	Khaled Alhassoon, Yaaqoub Malallah, Chinmay Kolwalkar, Anurag Sarnaik, Dr. Nalin Kumar, David Tudor and Afshin Daryoush. Extraction of 3D Additive Processes for Magnetically Tuned Frequency Selective Surfaces
17:15-18:15	294	Prince Jain, Archana Thourwal, Soumadri Samanta, Neha Sardana, Neena Gupta, Sanjeev Kumar and Arun K Singh. T-Shaped Resonator for X-band Applications
17:15-18:15	236	Praveen Kumar Ambati, Vikrant Singh, Shilpi Soni and Vd Parekh. Accurate Prediction, Validation of Ambient Microwave Breakdown Threshold in High Power Microwave Filters and Novel Design Techniques to Establish Sufficient Margins
17:15-18:15	193	Nilesh Tiwari, Surya Singh and M Jaleel Akhtar. Quad Band Metamaterial Inspired Planar Sensor for Dispersive Material Testing
17:15-18:15	156	Abhishek Kumar Jha, Daniel Havelka, Ondrej Krivosudský and Michal Cifra. TRL Calibrated Coplanar Microwave Sensor for Characterization of Biomolecules

17:15-18:15	100	Tarakeswar Shaw and Debasis Mitra. Electromagnetic Metamaterial Based Sensor Design for Chemical Discrimination
17:15-18:15	85	Prolay Verma, Puja Srivastava, Dinesh K Singh and Apurba N Bhattacharya. Low Error Ku-band 5-bit Digital Attenuator MMIC
December 13, 2017 (Wednesday)		
09:00-10:30	Session WE1A: Development in MMIC Power Amplifiers (Room: Atelier 2)	
09:00-09:30	62	Huei Wang, Yu-Ting Chou, Jung-Lin Lin and Yuan-Hung Hsiao. A 38-GHz High-Efficiency and Low-Quiescent-Power Power Amplifier for Phased Array Applications in 65-nm CMOS Process
09:30-09:50	255	Pranav Prakash Singh, Puja Srivastava, Sumit Srivastava, Prolay Verma and Dinesh K Singh. 0.5W Ku Band SSPA with Gain and Phase control for beam forming network
09:50-10:10	142	Yogita Sharma, Ramesh Doshi, Puja Srivastava, Amit Bhatt, Dinesh Kumar Singh, Bijeev N V, Vasantray Jani and Naveen Bhushan Sharma. Extended C Band 32 Watt SSPA for Communication Satellite Payload
10:10-10:30	120	Sanjika Devi R V and Dhanesh G Kurup. Sparse Identification of Memory Effects and Nonlinear Dynamics for Developing Parsimonious Behavioral Models of RF Power Amplifiers
09:00-10:30	Session WE2A: Advanced Frequency Multipliers (Room: Atelier 3)	
09:00-09:20	207	Saurabh Pegwal, Mahesh P. Abegaonkar and Shibam K. Koul. Broadband Frequency Doubler/Multiplier
09:20-09:40	129	Utkarsh Unnikrishna and Amarपाल Khanna. Ultra-Broadband Uniplanar Passive X2 Multipliers covering the Ku to W band using Slotline and CPS based Balun topologies
09:40-10:00	112	Bijit Biswas and Arun Kumar Gande. A Power Efficient Ka-Band MMIC Active Frequency Doubler with Output Amplifier
10:00-10:20	48	Hairui Lui, Colin Viegas, Jeff Powell, Hosh Sanghera, Andrew Whimster, Manju Henry and Byron Alderman. Single And Power-Combined 180 GHz Frequency Doubler Using Schottky Diode Technology
09:00-10:30	Session WE3A: Packaging Techniques (Room: Atelier 4)	
09:00-09:30	280	Kamal Samanta. 3D/Multilayer Heterogeneous Integration and Packaging for Next Generation Applications in Millimeter-Wave and Beyond
09:30-09:50	164	Sandeep Chaturvedi, S.L. Badnikar and Anant A. Naik. Ultra Wideband Receiver Protection Limiter Using 0.13 μ m pHEMT Technology
09:50-10:10	54	Neha Hakla, Saptarshi Ghosh and Kumar Vaibhav Srivastava. A Broadband Circuit Analog Absorber using Resistively Loaded Square Loops
10:10-10:30	36	Shraman Gupta, Abdel Razik Sebak and Vijaya Kumar Devabhaktuni. Optimum Launch-Taper Matching Technique for mm-wave Applications
11:00-12:30	Session WE1B: Instrumentation and Measurements in Transmission Lines (Room: Atelier 2)	
11:00-11:30	241	Goutam Chattopadhyay. Terahertz Instruments for CubeSats
11:30-11:50	272	Amit Upadhyay, Raghuram Pr and Thomas Varughese. Short Range cloud reflectivity measurement using X-Band Primary Surveillance Radar

11:50-12:10	130	N Kumutha, K Hariharan, B Manimegalai and N Amutha. Dual band single layered meta-surface cloak
12:10-12:30	92	Shreekant Patel, Rahul Jaiswal, Raj Singh and Anitha V.P. Design and Development of Mode Launcher for TM ₀₁ Mode in Circular Waveguide in S-Band
11:00-12:30	Session WE2B: Novel Radar Techniques and Packaging Techniques (Room: Atelier 3)	
11:00-11:30	317	Yogesh Verma. Design Challenges of Realizing An Active Radar Seeker at Ka-Band
11:30-11:50	293	Manjit Kaur, Neena Gupta and Arun Kumar Singh. Performance Analysis of Multilayer Graphene Nanoribbon Based Interconnects
11:50-12:10	148	T.S. Binilroy, Rohit T Kurian and J Girija. DDS based low phase noise LFM Generator for Multi Object Tracking Radar
12:10-12:30	103	Maulik Bhavsar, Prakhar Kumar, Ishan Chaturvedi, Puja Srivastava, Dinesh Kumar Singh and Apurba Bhattacharya. LTCC Based Multi chip Modules at C-band and Ka-band for Satellite payloads
11:00-12:30	Session WE3B: Novel Designs of Power Dividers/Couplers (Room: Atelier 4)	
11:00-11:20	286	Abhinav Jain. Design and Development of coaxial line based 2kW, 10-30dB variable dual directional coupler
11:20-11:40	269	Amar Nath Yadav and Ratnajit Bhattacharjee. Balanced-to-Unbalanced In-Phase Power Divider
11:40-12:00	143	Soumava Mukherjee. Design of Four-way Substrate Integrated Coaxial Line (SICL) Power Divider for K Band Applications
12:00-12:20	37	Shraman Gupta, Abdel Razik Sebak and Vijaya Kumar Devabhaktuni. Design of Ridge Gap Waveguide Power Divider for Reduced-sidelobe 60 GHz Applications
13:30-15:00	Session WE1C: Special/Focused Session: B (TBD) (Room: Atelier 2)	
15:30-17:10	Session WE1D: Filters for Microwave Applications (Room: Atelier 2)	
15:30-15:50	192	Vineet Dad and Sanjeev Gupta. Novel High Q Coaxial Resonator Filter for Millimeter Wave Application
15:50-16:10	188	Santhosh Kumar Ramagiri and Karthik Kannan. Ku-band High Power Harmonic Reject Filter
16:10-16:30	116	Nishant Shukla, Vikas Gupta, Tushar Gajjar and Kasif Pathan. A canonical predistorted filter based on TM mode dielectric resonator
16:30-16:50	14	Dilip Kumar Choudhary and Raghvendra Kumar Chaudhary. A Miniaturized Two Pole Metamaterial Bandpass Filter Using Ω -Shaped IDC for Cellular Application
16:50-17:10	260	Prashant Ranjan, Gaurav Upadhyay, Nand Kishore, V. S. Tripathi and Shivesh Tripathi. Triple Band Microwave Filter Using Stepped Impedance Line (SIL) and Stub Loaded Resonator with Five Transmission Zeroes
15:30-17:10	Session WE2D: Numerical Methods and Optimization (Room: Atelier 3)	
15:30-15:50	235	Evi Van Nechel, Francesco Ferranti, Yves Rolain and John Lataire. Efficient Design Optimization and Variability Analysis of Defective Ground Structure Filters Using Metamodels

15:50-16:10	169	Krushna Kanth V and Raghavan S. Complementary Frequency Selective Surface Array optimization using Equivalent circuit model
16:10-16:30	55	Ravishankar S, Mahesh Appajappa, Shushrutha K S and Cdr.Vijay Singh. A Hybrid Method of Analysis for Shaped Dielectric Lenses Compared with Measurement Results
16:30-16:50	267	Bhagirath Sahu, Soni Singh, Manoj Kumar Meshram and Surya Pal Singh. Simulation Study of Ultra-compact Microstrip UWB Bandpass Filter with Wide Stopband Using DGS Based Lowpass Filter
16:50-17:10	147	D Packiaraj and Debapriya Sen. Analysis and Design of Frequency Reconfigurable Stepped Impedance Resonator Band Pass Filter
15:30-17:00	Session WE3D: RF Transceivers and Components (Room: Atelier 4)	
15:30-16:00	263	Minoru Fujishima. 300-GHz-Band CMOS Transceiver
16:00-16:20	284	K N Bhadri Narayanan, Deleep R Nair and Amitava Dasgupta. Design and Fabrication of 1GHz Lateral TPoS MEMS Resonator for RF front end applications
16:20-16:40	254	Sandhya Chandravanshi and Mohm. Jaleel Akhtar. Design of Efficient Rectifier Circuit in the GSM band for Energy Harvesting Applications
16:40-17:00	133	Deepayan Banerjee, Antra Saxena and Mohammad Hashmi. A Novel Compact Tri-band Matching Network With Enhanced Frequency Ratios
17:00-18:00	Session WEP1: Poster Session: B (Room: Atelier 1)	
17:00-18:00	303	Amarjit Kumar and Nagendra Prasad Pathak. Compact Dual Band Varactor-tunable Unequal-length Branch-line Hybrid
17:00-18:00	240	Lalit Kumar, Vinay Shankar Pandey, Harish Parthasarathy and Vibhakar Shrimali. Hysteresis with non-linear and memory effect on nonuniform transmission line
17:00-18:00	234	Mukesh Kumar, Sk Nurul Islam and Gobinda Sen. Design of Dual-band Wilkinson Power Divider using CRLH Transmission Line based on CSRR
17:00-18:00	227	Vivan Prakash and Shailendra Singh. 220-270 GHz Waveguide to Microstrip Transition
17:00-18:00	187	Amit Kumar Singh, Mahesh P. Abegaonkar and Shibani K. Koul. Penta Band Polarization Insensitive Metamaterial Absorber for EMI/EMC Reduction and Defense Applications
17:00-18:00	9	Priyansha Kaurav, Shibani K. Koul and Ananjan Basu. Database Technique for Tumor Detection and Dielectric Profile Estimation Using Microwave