# 2014 1st Australian Microwave Symposium 

 (AMS 2014)Melbourne, Australia<br>26-27 June 2014

IEEE Catalog Number: CFP14AWF-POD ISBN:

## Table of Content

| Paper ID | Paper Title | Author | Affiliation | Page(s) |
| :---: | :---: | :---: | :---: | :---: |
| AMS-01 | $0.1-\mu \mathrm{m}$ GaAs PHEMT W-Band Low Noise Amplifier MMIC using Coplanar Waveguide Technology | Bessemoulin, A. <br> Mahon, S.J. <br> McCulloch, M.G. <br> Tarazi, J. | Macom <br> Macom <br> Macom <br> Macom | 1-2 |
| AMS-02 | Microwave photonic link characterization for phased array radar | Rai, J. K. <br> Mathur, M. <br> Sridhar, N. | Amity School of Engineering and Technology Bharat Electronics Bharat Electronics | 3-4 |
| AMS-03 | A Feasible Detection Technique for Chipless RFID Systems based on Likelihood | Divarathne, C. <br> Karmakar, N.C. | Monash University Monash University | 5-6 |
| AMS-04 | Thermal Modelling of Multifinger GaAs/GaN FETs using SPICE | Mahon, S.J. <br> Schwitter, B.K. <br> Parker, A.E. <br> Tarazi, J. | Macom <br> Macom <br> Macquarie University <br> Macquarie University/Macom | 7-8 |
| AMS-05 | State-Space Analysis of Left-Handed | Milford, G.N. | University of New South Wales, ADFA | 9-10 |
| AMS-06 | First- and Second-Order Meshless Radial Point Interpolation Methods in Electromagnetics | Fumeaux, C. <br> Kaufmann, T. <br> Shaterian, Z. | The University of Adelaide <br> The University of Adelaide <br> The University of Adelaide |  |
| AMS-07 | Compact Single-Layer In-Phase Power Divider Employing Microstrip to Slotline Transitions | Abbosh, A.M. Ahmed, U.T. | The University of Queensland The University of Queensland | 13-14 |
| AMS-08 | Reconfigurable Software Defined Radar for Medical Imaging | Abbosh, A.M. <br> Bialkowski, K.S. <br> Marimuthu, J. | The University of Queensland The University of Queensland The University of Queensland | 15-16 |
| AMS-09 | Assessing the Effects of Field Plates in an AlGaN/GaN-on-SiC HEMT Model Extraction | Mahon, S.J. <br> Schwitter, B.K. <br> Tarazi, J. <br> Parker, A.E. | Macom <br> Macom <br> Macom <br> Macquarie University | 17-18 |
| AMS-10 | Application of Metamaterial-Inspired Resonators in Compact Microwave Displacement Sensors | Abbott, D. <br> Fumeaux, C. <br> Horestani, A.K. <br> Shaterian, Z. | The University of Adelaide <br> The University of Adelaide <br> The University of Adelaide <br> The University of Adelaide | 19-20 |


| Paper ID | Paper Title | Author | Affiliation | Page(s) |
| :---: | :---: | :---: | :---: | :---: |
| AMS-11 | Development of an Experimental Weather Radar | Al-Ashwal, W.A. <br> Gray, D. <br> Viola, M. | University of Adelaide University of Adelaide University of Adelaide | 21-22 |
| AMS-12 | Microwave Imaging System to Provide Portable-low-powered Medical Facility for the Detection of Intracranial Hemorrhage | Abbosh, A.M. <br> Mobashsher, A.T. | The University of Queensland The University of Queensland | $23-24$ |
| AMS-13 | RF Modulator Design for a Low Level Pilot Sub-System | Redoute, J.-M. <br> Ahmed, S. <br> Eslampanah, R. <br> Faulkner, M. <br> Pourakbar, M. | Monash University <br> Victoria University <br> Victoria University <br> Victoria University <br> Victoria University | 25-26 |
| AMS-14 | Improved Filter Tuning in the Time Domain | Burger, S. <br> Hoeft, M. | Delta Gamma Consultant University of Kiel | 27-28 |
| AMS-15 | An SDR Duplex Filter in SOI Technology | Sjoland, H. <br> Tormanen, M. <br> Eslampanah, R. <br> Faulkner, M. <br> Pourakbar, M. | Lund University Lund University Victoria University Victoria University Victoria University | 29-30 |
| AMS-16 | An Active 38 GHz Differential Power Divider for Automotive Radar Systems in $65-\mathrm{nm}$ ranc | Duong, H.T. <br> Huynh, A.T. <br> Le, H.V. <br> Skafidas, E. | The University of Melbourne <br> The University of Melbourne <br> The University of Melbourne <br> The University of Melbourne | 31-32 |
| AMS-17 | Design of 120:1 Frequency Divider for a 12.6 GHz Phase-Locked Loop | Duong, H.T. <br> Huynh, A.T. <br> Le, H.V. <br> Skafidas, E. | The University of Melbourne <br> The University of Melbourne <br> The University of Melbourne <br> The University of Melbourne | 33-34 |
| AMS-18 | Effects of Antenna Characteristics on Performance of Microwave Based System Designed for Early Stage Congestive Heart Failure Detection | Ahdi Rezaeieh, S. <br> Abbosh, A.M. <br> Bialkowski, K.S. | The University of Queensland <br> The University of Queensland <br> The University of Queensland | 35-36 |
| AMS-19 | Linearity of a Ka Band SiGe Receiver | Hall, L.T. <br> Milner, L.E. <br> Parker, M.E. <br> Mahon, S.J. <br> McCulloch, M.G. | $\begin{aligned} & \text { DSTO } \\ & \text { DSTO } \\ & \text { DSTO } \\ & \text { Macom } \\ & \text { Macom } \end{aligned}$ | 37-38 |


| Paper ID | Paper Title | Author | Affiliation | Page(s) |
| :---: | :---: | :---: | :---: | :---: |
| AMS-20 | Proposal for a SIW Phase-Inverter | Eccleston, K.W. | University of Canterbury | 39-40 |
| AMS-21 | On the Usage of Diffraction effect for Chipless RFID Systems | Karmakar, N.C. <br> Zomorrodi, M. | Monash University Monash University | 41-42 |
| AMS-22 | An E-band Transceiver with 5GHz IF bandwidt | Dyadyuk, V. <br> Shen, M. <br> Stokes, L. | $\begin{aligned} & \text { CSIRO } \\ & \text { CSIRO } \\ & \text { CSIRO } \end{aligned}$ | 43-44 |
| AMS-23 | Target Imaging with Bistatic Doppler Radar T | Heading, E. Tran, H.-T. | $\begin{aligned} & \text { DSTO } \\ & \text { DSTO } \end{aligned}$ | 45-46 |
| AMS-24 | Receiver Systems for Square Kilometre Array S | Bowen, M.A. <br> Gough, R.G. <br> McKinnon, M.M. | CSIRO <br> CSIRO <br> CSIRO | 47-48 |
| AMS-25 | Accurate Simulation of the Frequency Response of Millimetre-Wave SiGe Amplifiers | Hall, L.T. <br> Milner, L.E. <br> Parker, M.E. | $\begin{aligned} & \text { DSTO } \\ & \text { DSTO } \\ & \text { DSTO } \end{aligned}$ | 49-50 |

