

Monday 01/05/2023	Tuesday 02/05/2023	Wednesday 03/05/2023	Thursday 04/05/2023
08:00 – 09:00 Registration	08:30 – 09:10 Invited Talk	08:30 – 09:10 Invited Talk	08:30 – 09:10 Invited Talk
09:00 – 09:30 Opening Ceremony	Design and Characterization of 28 THz Rectenna for Infrared Energy Harvesting <u>Atif Shamim</u>	From Engineering Electromagnetics to Electromagnetic Engineering: Teaching/Training Next Generations <u>Levent Sevgi</u>	Emerging Technologies for Steering Narrow Antenna Beams in Modern Radio Systems <u>Karu P. Esselle</u>
Coffee Break 09:30 – 10:00			
10:00 – 12:00 Invited Talks	09:10 – 10:10	09:10 – 10:10	09:10 – 10:10
The road towards 6G <u>Mérouane Debbah</u>	Wireless Sensor Networks and Communication (3)	Antenna Design & Modeling (3)	Antenna Arrays & Applications (3)
Reflective Intelligent Surfaces and Metasurface Antennas <u>Stefano Maci</u>			
Compact and Low-Power Terahertz Instruments for Space Applications <u>Goutam Chattopadhyay</u>	Coffee Break 10:10 – 10:30	Coffee Break 10:10 – 10:30	Coffee Break 10:10 – 10:30
	10:30 – 11:50	10:30 – 12:10	10:30 – 11:50
EMC & RF Interference (4)	LUNCH 11:50 – 13:30	RF & Microwave Measurements (5)	Radio Astronomy (4)
LUNCH 12:00 – 13:30			
13:30 – 15:10	13:30 – 14:30	13:30 – 14:30	13:30 – 14:30
Technology for Humanitarian Actions (5)	Wireless Communication (3)	Remote Sensing I (3)	Numerical Methods (3)
	14:30 – 15:30	14:30 – 15:30	Coffee Break 14:30 – 15:00
Coffee Break 15:10 – 15:30	RF & Microwave Devices (3)	Remote Sensing II (3)	Awards Ceremony 15:00 – 15:30
	Coffee Break 15:30 – 15:50	Coffee Break 15:30 – 15:50	Closing Ceremony
15:30 – 16:30	15:50 – 17:30	15:50 – 17:10	
Ham Radio Session & Demonstration	Bioelectromagnetics (5)	Metasurfaces & Applications (4)	
		GALA DINNER : 19:00 – 23:00	

Monday 01/05/2023	
08:00 – 09:00 Registration	
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09:30 – 10:00 Coffee Break	
10:00 – 12:00 Invited Talks	
1 - The road towards 6G : Merouane Debbah 2 - Reflective Intelligent Surfaces and Metasurface Antennas : Stefano Maci 3 - Compact and Low-Power Terahertz Instruments for Space Applications : Goutam Chattopadhyay	
12:00 – 13:30 LUNCH	
13:30 – 15:10 Technology for Humanitarian Actions (Chair: Prof. Vikass Monebhurrun)	
1 - IEEE Antennas and Propagation Society Humanitarian Activities and Their Societal Impacts : Jawad Y. Siddiqui , Ajay Poddar 2 - IEEE SIGHT Germany Section: Evolution of Humanitarian Projects toward Global Sustainability Needs : Birk Hattenhorst 3 - Development of IoT Based Virtual Laboratory System : Susanta Ray 4 - Engage Orphans via Technology : Noshervan Shoaib 5 - Radio Amateur GEO Satellite Communication for Emergency Communication and Education : Jean Marc Momplé	
Coffee Break 15:10 – 15:30	
15:30 – 16:30 Ham Radio Session & Demonstration	
Advantage of Winlink Global Radio email infrastructure and APRS positioning tool from Mauritian coastal perspective : Miroslav Skoric	

Tuesday 02/05/2023

08:30 – 09:10 Invited Talk

Design and Characterization of 28 THz Rectenna for Infrared Energy Harvesting : Atif Shamim

9:10 – 10:10 Wireless Sensor Networks and Communication (Chair: Prof. Atif Shamim)

1 - A 3-D Printed Conformal Rectenna With Series Topology Using Fused Filament Fabrication Method : Tristan Fougeroux, Alexandre Douyère, Nour Mohammad Murad, Laurent Chane Kuang Sang, Jean-Lou Dubard (student paper)

2 - Wireless energy harvesting performance of 2.45 GHz rectennas array inside wall : Julie Sibille, Pierre-Olivier Lucas de Peslouan, Tristan Fougeroux, Alexandre Douyère, Denis Genon-Catalot and Jean-Pierre Chabriat (student paper)

Real-Time Vehicle Tracking and V2V Traffic Information Sharing Using IoT : Anshu Prakash Murdan, Diresh Soomirtee and Vishwamitra Oree

10:10 – 10:30 Coffee Break

10:30 – 11:50 EMC & RF Interference (Chair: Dr. Richard Findlay)

1 - Communication Options for Mobile Connectivity at the SKA Project Construction Camp : Riaan Wolhuter and Carel van der Merwe

2 - Cage-In-Cage Method of Determining Performance Characteristics of EMI Gaskets as a Function of Frequency and Dependence on degree of Deformation : Krzysztof Sieczkarek, Bartłomiej Nagorny, Adam Mackowiak, Michał Rokossowski, Tomasz Warzynski and Radosław Szczepanski

3 - The Impact of GSM towers in Radio Astronomy : Isaac Sihlangu and Nadeem Oozeer (student paper)

4 - An RFI simulation framework for the DSA-2000 : Vinand Prayag and Gregory Hellbourg

11:50 – 13:30 LUNCH

13:30 – 14:30 Wireless Communication (Chair: Prof. Alexandre Douyère)

1 - Sensing-Spectrum Utilization Tradeoff for Cognitive Radio Sensors : Pankaj Verma

2 - A Novel Approach to Design NML-based Programmable Input Rotating Majority Gate : Vineet Jaiswal and Trailokya Nath Sasamal

3 - Automatic Modulation Classification using amalgam CNN-LSTM : Nidhi Chakravarty, Mohit Dua and Shelza Dua

14:30 – 15:30 RF & Microwave Devices (Chair: Prof. Tinus Stander)

1 - A 0.5-6 GHz GaN HEMT LNA for EW Applications : Hendrik Pretorius and Tinus Stander (student paper)

2 - Two Wilkinson-Power-Combiners designed with Transmission Lines and Lumped Elements in 22 nm FD-SOI CMOS : Xin Xu, Jens Wagner and Frank Ellinger (student paper)

3 - Ultra-Low Phase Noise, Digital Transceiver for High Range Resolution Pulse Agile Radar : Nirbhay Kumar Singh, Vikas Kumar and T.Venkatamuni

15:30 – 15:50 Coffee Break

15:50 – 17:30 Bioelectromagnetics (Chair: Dr. Divitha Seetharamdoo)

1 - Demonstrating RF exposure compliance in the body using SAR modelling methods : Richard Findlay

2 - Numerical investigation of the system validation set-up adopted for specific absorption rate measurement : Yiwen Zhang and Vikass Monebhurrun

3 - Examining the accuracy of RF exclusion zones for rooftop base station antenna arrays : Richard Findlay

4 - An Approach for Evaluation of the Long-term EMF Monitoring : Nikola Djuric, Tamara Skoric, Dragan Kljajic, Vidak Otasevic and Snezana Djuric

5 - Evaluating the relationship between Quality Assurance and Exposure Level for Head and Abdomen Computed Tomography Procedures in a selected Kenyan Hospital : Gedion K.Kibet, Elijah Mwangi and Michael M.Mangala

Wednesday 03/05/2023
08:30 – 09:10 Invited Talk
From Engineering Electromagnetics to Electromagnetics Engineering: Teaching/Training Next Generations : Levent Sevgi
9:10 – 10:10 Antenna Design & Modeling (Chair: Prof. Levent Sevgi)
1 - Fully-Printed Wearable Chipless RFID Tags Based on Doubleslit Split-Ring Resonators : Ruiqi Wang , Zubair Akhter and Atif Shamim (student paper)
2 - Investigation on Bowtie Antennas Operating at Very Low Frequencies for Ground Penetrating Radar : Philip Arthur, Shilpa Cicy Saji and Marlene Harter
3 - Numerical analysis of the benchmark biconical antenna proposed for the development of the computational standard IEEE P2816 : Vikass Monebhurrin and Ramakrishna Janaswamy
10:10 – 10:30 Coffee Break
10:30 – 11:30 RF & Microwave Measurements (Chair: Prof. Nawaz Burokur)
1 - Full X-band permittivity characterisation with a TE01 transmission / reflection system : L. J. du Toit , D. G. Klink, P. O. Leye and C. Kasmi
2 - Complex permittivity characterization through differential waveguide group delay measurement : Tinus Stander
3 - Nonlinear Measurements of Electrochromic WO3/LiNbO3/NiO at Microwave Frequencies : Majid Noroozian, Senad Bulja , Dmitry Kozlov, Rose Kopf, Mark Cappuzzo, Al Tate and Robert Cahill
4 - Singlets and Doublets of Dielectric Slanted Ridge Resonators in Rectangular Waveguide : Tinus Stander
5 - RF over fiber backplane for phased array antennas : Sanjeet Raj and S. Sureshkumar
11:30 – 13:30 LUNCH
13:30 – 14:30 Remote Sensing I (Chair: Prof. José Encinar)
1 - Gain Equalized Reflectarray Antenna for High Throughput Satellites : Daniel Martinez-de-Rioja and Jose A. Encinar
2 - Preliminary Assessment of a Reflectarray Antenna for High-Resolution Radiometers on board Satellites : Daniel Martinez-de-Rioja and Manuel Arrebola
3 - Design-Space Exploration for Remote-Sensing (Part I): A Methodical System-Level Approach : Bilal Hammoud , Lukas Steiner and Norbert Wehn
14:30 – 15:30 Remote Sensing II (Chair: Prof. José Encinar)
1 - Design-Space Exploration for Remote-Sensing (Part II): Microwave Radar Imaging from UAVs for Oil Spill Monitoring : Bilal Hammoud, Lukas Steiner and Norbert Wehn
2 - A Framework for Simulating Water Vapour Radiometers : Reuben Neate and Tinus Stander (student paper)
3 - Application of Remote Sensing in Determining Particulate Matter Pollution : Moses N. Njeru , Elijah Mwangi, Ian Kaniu and Michael Gatari
15:30 – 15:50 Coffee Break
15:50 – 17:10 Metasurfaces & Applications (Chair: Prof. Stefano Maci)
1 - 3D reflective curved beam metasurface for road environment : Narimane Awada Mislmani and Divitha Seetharamdoo (student paper)
2 - Metasurfaces for Communication Systems: Application to antennas : Badreddine Ratni and Shah Nawaz Burokur
3 - Pancharatnam-Berry Coding Metasurfaces with OAM Vortex Wave Generation for Broadband RCS Reduction : Andrey I. Semenikhin, Diana V. Semenikhina and Yury V. Yukhanov
4 - Polarization Agile Active Metasurface for 5G-NR Applications : Shahlan Ahmad, Adnan Nadeem and Nosherwan Shoaib
19:00 - 23:00 Gala Dinner

Thursday 04/05/2023
08:30 – 09:10 Invited Talk
Emerging Technologies for Steering Narrow Antenna Beams in Modern Radio Systems : Karu P. Esselle
9:10 – 10:10 Antenna Arrays & Applications (Chair: Prof. Karu P. Esselle)
1 - Synthesis of an isotropic reactance structure from several incident and reflected waves: Yukhanov Yu. V. and <u>Privalova T. Yu.</u> 2 - Pattern Optimization of Beam-Reconfigurable Antenna Fed by Varactor-based Phase Shifters : <u>Yuan Yuan</u> , Shengjian Jammy Chen and Christophe Fumeaux (student paper) 3 - Progress on Iterative Methods for Efficient Antenna Array Analysis : <u>Keshav Sewraj</u> , André S. Conradie and Matthys M. Botha
10:10 – 10:30 Coffee Break
10:30 – 11:50 Radio Astronomy (Chair: Dr. Goutam Chattopadhyay)
1 - The brightest (and faintest) sources in the radio sky : <u>Sarah White</u> 2 - Beam holography of OVRO-LWA antennas using the OVRO 40-m telescope : <u>Vinand Prayag</u> , Jonas Flygare, James Lamb and Gregg Hallinan 3 - A Wideband Ultra-Low Noise Room Temperature LNA for Radio astronomy Applications : <u>Gaurav Parikh</u> and Anil Raut 4 - Development of a L-Band -Four-Element Interferometer at the Mauritius Radio Astronomy Observatory : <u>A.K. Forson</u> , P. Akumu, N. Heeralall-Issur, A. A. Deshpande, P. Wilkinson, K. Golap, Y. Surnam and E. Varenus (student paper)
11:50 – 13:30 LUNCH
13:30 – 14:30 Numerical Methods (Chair: Dr. Shailendra Oree)
1- Characteristic Mode Analysis of Metallic Automobile Logo Geometry : Naveen Kumar, <u>Divitha Seetharamdoo</u> and Mohsen Koohestani 2 - Characteristic Mode Analysis of Fashion Brands Conductive Logos as Potential Radiators : <u>Naveen Kumar</u> , Mohsen Koohestani and Rajesh Khanna 3 - Efficient Time-Domain Analysis of Complicated RF Circuits with the Use of Higher Interpolation Orders : <u>Josef Dobes</u>
14:30 – 15:00 Coffee Break
15:00 -15:25 Awards Ceremony
15:25 - 15:30 Closing Ceremony