

Monday 01/05/2023	Tuesday 02/05/2023	Wednesday 03/05/2023	Thursday 04/05/2023
08:00 – 09:00 Registration	09:00 – 09:40 Invited Talk	09:00 – 09:40 Invited Talk	09:00 – 09:40 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	09:40 – 10:40	09:40 – 10:40	09:40 – 10:40
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 10:40 – 11:00	Coffee Break 10:40 – 11:00	Coffee Break 10:40 – 11:00
LUNCH 12:00 – 13:30	11:00 – 12:20	11:00 – 12:40	11:00 – 12:20
13:30 – 15:10	EMC & RF Interference (4)	RF & Microwave Measurements (5)	Radio Astronomy (4)
Technology for Humanitarian Actions (5)	LUNCH 12:20 – 13:30	LUNCH 12:40 – 13:30	LUNCH 12:20 – 13:30
	13:30 – 14:30	13:30 – 14:30	13:30 – 14:30
	Wireless Communication (3)	Remote Sensing I (3)	Numerical Methods (3)
Coffee Break 15:10 – 15:30	14:30 – 15:30	14:30 – 15:30	Coffee Break 14:30 – 15:00
15:30 – 16:30	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	Coffee Break 15:30 – 15:50	Closing Ceremony
15:50 – 17:30	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
09:00 – 09:30 Opening Ceremony
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 Monebhurrn)
1 - IEEE Antennas and Propagation Society Humanitarian Activities and Their Societal Impacts : Jawad Y. Siddiqui 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 : Nosherwan 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

09:00 – 09:40 Invited Talk

Design and Characterization of 28 THz Rectenna for Infrared Energy Harvesting : [Atif Shamim](#)

9:40 – 10:40 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)
- 3 - Real-Time Vehicle Tracking and V2V Traffic Information Sharing Using IoT : Anshu Murdan, Diresh Prakash Soomirtee and [Vishwamitra Oree](#)

10:40 – 11:00 Coffee Break

11:00 – 12:20 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](#), Bartlomiej Nagorny, Adam Mackowiak, Michal Rokossowski, Tomasz Warzynski and Radoslaw 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

12:20 – 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 Monebhurrin](#)
- 3 - Examining the accuracy of RF exclusion zones for rooftop base station antenna arrays : [Richard Findlay](#)
- 4 - 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
- 5 - An Approach for Evaluation of the Long-term EMF Monitoring : [Nikola Djuric](#), Tamara Skoric, Dragan Kljajic, Vidak Otasevic and Snezana Djuric

Wednesday 03/05/2023

09:00 – 09:40 Invited Talk

From Engineering Electromagnetics to Electromagnetics Engineering: Teaching/Training Next Generations : [Levent Sevgi](#)

9:40 – 10:40 Antenna Design & Modeling (Chair: Prof. Levent Sevgi)

- 1 - Fully-Printed Wearable Chipless RFID Tags Based on Doubleslit Split-Ring Resonators : [Ruigi 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 Monebhurrun](#) and Ramakrishna Janaswamy

10:40 – 11:00 Coffee Break

11:00 – 12:40 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 Norooziarab, [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

12:40 – 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 Seetharamdo (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 [Noshewan Shoaib](#)

19:00 - 23:00 Gala Dinner

Thursday 04/05/2023

09:00 – 09:40 Invited Talk

Emerging Technologies for Steering Narrow Antenna Beams in Modern Radio Systems : Karu P. Esselle

9:40 – 10:40 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 Privalova T. Yu.
- 2 - Pattern Optimization of Beam-Reconfigurable Antenna Fed by Varactor-based Phase Shifters : Yuan Yuan, Shengjian Jammy Chen and Christophe Fumeaux (student paper)
- 3 - Progress on Iterative Methods for Efficient Antenna Array Analysis : Keshav Sewraj, André S. Conradie and Matthys M. Botha

10:40 – 11:00 Coffee Break

11:00 – 12:20 Radio Astronomy (Chair: Dr. Goutam Chattopadhyay)

- 1 - The brightest (and faintest) sources in the radio sky : Sarah White
- 2 - Beam holography of OVRO-LWA antennas using the OVRO 40-m telescope : Vinand Prayag, Jonas Flygare, James Lamb and Gregg Hallinan
- 3 - A Wideband Ultra-Low Noise Room Temperature LNA for Radio astronomy Applications : Gaurav Parikh and Anil Raut
- 4 - Development of a L-Band -Four-Element Interferometer at the Mauritius Radio Astronomy Observatory : A.K. Forson, P. Akumu, N. Heeralall-Issur, A. A. Deshpande, P. Wilkinson, K. Golap, S. Yashwantsing and E. Varenus (student paper)

12:20 – 13:30 LUNCH

13:30 – 14:30 Numerical Methods (Chair: Dr. Shailendra Oree)

- 1- Characteristic Mode Analysis of Metallic Automobile Logo Geometry : Naveen Kumar, Divitha Seetharamdo and Mohsen Koohestani
- 2 - Characteristic Mode Analysis of Fashion Brands Conductive Logos as Potential Radiators : Naveen Kumar, Mohsen Koohestani and Rajesh Khanna
- 3 - Efficient Time-Domain Analysis of Complicated RF Circuits with the Use of Higher Interpolation Orders : Josef Dobes

14:30 – 15:00 Coffee Break

15:00 -15:25 Awards Ceremony

15:25 - 15:30 Closing Ceremony