

**IET Colloquium on mmWave and Terahertz Engineering – 2 November 2023 -**

**Co-sponsored by University of Glasgow**

**Programme**

09:00–09:20 Registration and refreshments

09:20–09:30 Opening Remarks – Dr Jiafeng Zhou, University of Liverpool and

 IET Electromagnetics Technical Network

**Session 1** Chair Professor Chong Li, University of Glasgow

09:30–10:00 **Progress on ETSI Standardisation for THz Communications**

 \*Professor Sana Salous, University of Durham

10:00–10:30 **Devices, Packages and System for Future Communications**

 \*Professor Ho-Jin Song, Pohang University of Science and Technology

10:30–11:00 **THz-TDS for Spectroscopy**

 \*Dr Mira Naftaly, NPL

11:00–11:30 Tea/Coffee Break

**Session 2** Chair Dr Stephen Hanham, University of Birmingham, and IET RF & Microwave

 Technical Network

11:30–12:00 **Biomedical Imaging and Chem-Bio Spectroscopy in the MM-Wave-to-THz Region**

 \*Professor Elliott Brown, Professor Emeritus, Wright State University

12:00–12:20 **Recent Development of THz InP HEMTs at the University of Glasgow**

 Mr Huihua Cheng, University of Glasgow

12:20–12:40 **Packaging Resonant Tunneling Diodes for 6G Communication Systems**

 \*Professor Xiaodong Chen, Queen Mary University London

**Poster Session** Chair Dr Mahmoud Waigh, University of Glasgow

12:40–13:15 \*\*Poster presentations

13:15– 14:30 Lunch, poster showcase and lab tours

**Session 3** Chair Professor Qammer Abbasi, University of Glasgow

14:30–15:00 **Graphene for RF/microwave Applications**

 \*Professor Andrea Ferrari, University of Cambridge

15:00–15:20 **The Concept of Subsampling Time Modulated Array**

 Dr Sumin Joseph, University of Sheffield

15:20–15:40 **High-Precision 3D Printed Millimetre-Wave and Sub-Terahertz Waveguide**

 **Components**

 Dr Talal Skaik, University of Birmingham

15:40–16:00 **High Gain Single Beam and Multibeam E-Band Lens Antennas for Point-to-Point**

 **Communication Links**

 \*Professor William Whittow, University of Loughborough

16:00–16:10 Closing Remarks and Thanks

 Dr Stephen Hanham, University of Birmingham and IET RF & Microwave Technical Network

\* Invited Speakers \*\* See overleaf for poster titles and authors

**Poster Session**

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| **Enhancing Signal Transmission in Energy-Saving Glass through Tri-Bandpass Frequency Selective Surface Design**Zifeng Wan, University of Manchester |
| **Design of a Compact, Wideband and High-Gain Millimeter-Wave Beam-Scanning Antenna Array for Next-Generation Industrial Wireless Applications**Abdul Jabbar, University of Glasgow |
| **Spectroscopy of THz band and beyond for space exploration: IR and UV investigation of ethanolamine ice under astrophysical conditions**Professor Xiaodong Cheng, presenting on behalf of Dr Jin Zhang, Queen Mary University London  |
| **High-efficiency metasurface for polarisation conversion at mm-wave frequencies**Mingyan Zhong, University of Glasgow |
| **Millimetre Wave (mmWave) Reconfigurable Intelligent Surface (RIS) for increasing spectral efficiency of the channel to help realise the deployment of the next generation 6G technology**Mirza Shujaat Ali, University of Glasgow |
| **Integration of mmWave Radar and Video-Based Technology for Contactless Heart Rate Monitoring**Yaxian Guo, University of Liverpool  |