Biography:



Prof Tian Hong Loh is a Principal Research Scientist at the UK National Physical Laboratory (NPL). He leads work at NPL on a wide range of applied electromagnetic metrology research areas to support the telecommunications industry. He has edited one book, hold seven patents, authored and co-authored over 200 refereed publications.

He is currently President of the International Union of Radio Science (URSI) UK Board, Chair of the European Association on Antennas and Propagation (EurAAP) Measurement Working Group, visiting professor at Surrey University, UK, work-package leader on dissemination of an European Association of National

Metrology Institutes (EURAMET) European Partnership on Metrology (EPM) project on 'Metrology for Emerging Wireless Standards', member of IEEE Antennas and Propagation Society (AP-S) New Technology Directions Committee, IEEE AP-S Standards Committee, IEEE Technical Committee on Antenna Measurements and the Institution of Engineering and Technology (IET), and senior member of the Institute of Electrical and Electronics Engineers (IEEE). He is an Associate Editor of IEEE Journal of Electromagnetics RF and Microwaves in Medicine and Biology (J-ERM), IET Microwaves, Antennas & Propagation (MAP) Journal, IET Communications (COMM) Journal, URSI radio science bulletin (RSB).

He was the project coordinator of an European Association of National Metrology Institutes (EURAMET) European Metrology Programme for Innovation and Research (EMPIR) project on 'Metrology for 5G Communications', and is the project coordinator of an EURAMET EMPIR project on 'Metrology for RF exposure from massive MIMO 5G base station: Impact on 5G network deployment'. Also, he served as the Technical Programme Committee (TPC) chair of 18th European Conference on Antennas and Propagation (EuCAP 2024) and 2017 IEEE International Workshop on Electromagnetics (iWEM 2017), TPC member of many prestige international conferences, Guest Editor of IET MAP special issue on 'Metrology for 5G Technologies', and as technical reviewer for several international journals and new book proposals on these subjects.

He has over 25 years of research experience in areas of antennas, electromagnetics, RF/microwave, wireless communications and radio propagation. His current research interests include 5G and 6G communications, over-the-air testing, millimetre-wave & sub-THz channel characterisations, reconfigurable intelligent surfaces, metamaterials, multiple-input-multiple-output (MIMO), massive MIMO, smart antennas, small antennas, electromagnetic field exposure, bodycentric communications, wireless sensor network (WSN), electromagnetic compatibility (EMC), and computational electromagnetics.