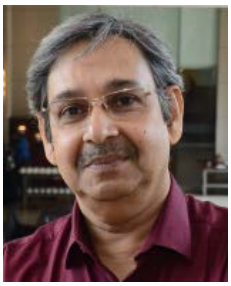
Uniformly Low Cross-Polar Design of Planar Antenna and Arrays: Advances in Engineering and New Insights

Prof. Debatosh GUHA

This talk will address a novel and versatile technique which is being explored over the last two decades ensuring enormous possibility of advancement in planar antenna and array technology. It, indeed, is Defected Ground Structure (DGS) which originated from the electromagnetic band gap concept and was confined to the printed circuits at its early phase. In 2005, DGS was first explored for antennas, with a special application to addressing the cross-polarization issues. It grew rapidly as a new and versatile technique. This presentation will address its fundamental principles, the physical insights, and chronological advancement leading to the state-of-the-art achievement in terms of uniform suppression of cross-polar fields.

Debatosh Guha is a Professor in Radio Physics and Electronics, University of Calcutta and Dean for the Faculty of Engineering and Technology. He is a Fellow of IEEE, Abdul Kalam Technology Innovation National Fellow, and also a fellow of all four National Academies for Sciences and Engineering in India. He has served *IEEE Transactions on Antennas and Propagation* and *IEEE Antennas and Wireless Propagation Letters* as an Associate Editor, and *IEEE Antennas and Propagation Magazine* as a Section Editor. He has been serving IEEE AP Society and URSI Commission-B in various capacities. At present, he is the Chair of IEEE AP-S MGA Committee and also a Distinguished Lecturer of IEEE AP Society. His research interests include low-profile antenna techniques. A couple of books on antenna engineering published by IEEE Press and Wiley are to his credit.



Schedule

- When: July 11, 2024, h. 11:00
- Where: *onsite* in **Room 2R**, Dipartimento di Ingegneria Civile, Ambientale e Meccanica, Via Mesiano 77, Trento and *online* at **https://zoomto.me/iSmOS**

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