Editor-in-Chief: Scanning the Issue

Dear members and readers,

The July issue of the *Microwave Review* journal (Vol. 29, No. 1) includes the research results on diverse topics presented within the six research papers, of which authors come from different Universities and countries.

The first paper entitled ***A Balloon Shape Monopole Super Wideband MIMO Antenna for THz Applications*** is written by Sachin Agrawal, Prabhat Kumar Soni from the National Institute of Technology, Delhi India. It demonstrates improvement in the bandwidth of 186% from 2.1 THz to 60 THz or more based on tapering the feedline and radiator of designed the compact balloon-shaped monopole super wideband antenna for THz application. Moreover, the MIMO antenna is designed and analyzed by placing two identical antennas orthogonally.

The second paper titled ***High-Capacity Transmission with Dual Polarization M-QAM Levels Based on DWDM Technique for Wireless Networks*** focuses on the requirements of wireless networks backbone system with high bandwidth capacity and high data transmission (1600 Gbits/s over 16 channels with different frequencies) over long-haul optical fiber with digital signal processing (DSP) treatment in the receiving section. The paper is dedicated to the Dual Polarization-M-Quadrature Amplitude Modulation (DP-M-QAM) levels integrated with Dense Wavelength Division Multiplexing (DWDM). The paper is written by authors from Algeria: Fellag C. Abdennour, Borsali A. Riad, and Rouissat Mehdi.

The third paper written by Kiran N. Patil, Mownika T. Raj, Chethana K. A., Ajay K. Dwivedi, Nagesh K. Narayanaswamy, Vivek Singh from India is entitled ***Compact Ultra-Wideband Multilayer Patch Antenna with Defected Ground Plane for Ku Band Applications***. In this paper, an analysis of designed a novel compact UWB microstrip patch antenna with a defected ground plane for Ku band applications is carried out in terms of the number of circular rings formed at the upper patch and the width of the rectangular slot made on the lower patch to obtain the optimum antenna configuration for UWB applications. The ringing frequency concept is also discussed.

The main result of the fourth paper entitled ***Synthesis of an Antenna System with Frequency Scanning*** is a method for determining the required amplitude-phase distribution of the antenna system in a relatively short time (seconds). The developed algorithm synthesizes the optimal solutions for antenna arrays with the proposed objective function aimed at maintaining the width of the main lobe of the full antenna array after its rarefaction and minimizing the peak level of side lobes faster than other algorithms. The authors Islam J. Islamov, Murad M. Jahangirov, Namik M. Shukurov, Simnara R. Ahmadova are from Azerbaija.

Modern wireless communication uses the effective transmission mechanism known as Multiple Input Multiple Output- MIMO used for high-bandwidth communications to offer better data rates with avoidance of microwave or Radio Frequency (RF) system interference through the use of diversity. The fifth paper ***A Comparative Study on Efficient MIMO Antennas in Wireless Communication*** examines the contemporary antennas and MIMO system propagation. The pentagonal-shaped patch antenna with an I-shaped slot fed by a microstrip line is designed and achieves good radiation performance and high gain in simulation. The authors Hemalatha T, and Bappadittya Roy are from India.

The sixth paper ***RLC-equivalent Circuit based Stub Loaded 2x2 MIMO Antenna for Wireless Applications*** was written by authors: Atul Varshney, Vipul Sharma, and Anuj Kumar Sharma from India. In this paper, a low-cost simple compact edge fed rectangular parasitic loaded wideband 2X2 MIMO (multi input multi output) antenna using the reduced ground plane is designed, analyzed regarding MIMO resultant diversity parameters, fabricated, and tested. The antenna achieves high diversity gain and isolation coefficient for sub-6GHz mid-frequency (N-78) band and Wi-MAX application.

The report of the 58th International Scientific Conference on Information, Communication and Energy Systems and Technologies, which was held in Niš, Serbia, from June 29 to July 01, 2023, is included in this journal issue.

Prof. Zlatica Marinković announces the MTT-S student scholarships/fellowships for 2024.

Call for participation at the 31st Telecommunications forum-TELFOR is included at the end.

I would indicate that all persons involved in the preparation of this journal: the Editor-in-Chief, Associate Editor, and reviewers contribute as volunteers. Also, I would explain that the selection process of submitted papers for publication in a journal may last even several months due to the overburden of the reviewers.

I would like to acknowledge the dedication of the Reviewers, their efforts, and the time, which contribute to an efficient peer review process. Reviewers' assessment of the submitted manuscripts enables the authors to disseminate their work at the highest possible quality and improve the content of the Microwave review journal..

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