



Editor-in-Chief: Scanning the Issue

Dear members and readers,

The current December issue of the *Microwave Review* journal (Vol. 27, No. 2) contains seven research papers. These papers present ongoing research and developments achieved by researchers in different areas and countries in this time of coronavirus pandemic.

Wireless fidelity (Wi-Fi) is a protocol of wireless communication systems. In the past decade, this protocol has found application in numerous wireless communication devices. The first paper titled ***Study of a Miniaturized Cylindrical Shaped Antenna Resonating at 6.5 GHz Frequency for 6 GHz Band Wi-Fi Routers*** aims to propose a compact antenna for Wi-Fi applications in wireless routers. The paper is written by Md. Ershadul Haque, Tanvir Hossain, Sami Ul Hoque, and Salah Uddin from Bangladesh, and Manoranjan Paul from Australia.

A leaky-wave antenna is a traveling wave antenna, which can perform narrow beam scanning with frequency without any complicated and costly feed network as typically used in a phased array antenna. The second paper is titled ***Microstrip Leaky-Wave Antenna Using Two Non-Identical Stubs for Enhanced Scan Angle with Enhanced and Consistent Gain*** and written by authors from India: Birendra Kumar and Jayanta Ghosh. The novelty of the proposed design lies in symmetrical scanning with optimum design of stubs to result in wide impedance bandwidth resulting in wide-angle scanning and introducing more number of stubs per unit cell length to provide higher and consistent gain.

The microwave imaging methods and systems exploit the electromagnetic waves scattering to attain information on a spatial region being discovered. Microwave-imaging systems are the most important factor of non-invasive and non-destructive techniques for examining structures and bodies. In the third paper titled ***Miniaturized UWB Triangular Microstrip Antenna Using Fractal Approach for Microwave Imaging Applications*** an original compact and efficient ultra-wide band (UWB) triangular microstrip antenna is made by applying Sierpinski triangle carpet to the patch of an initial UWB triangular antenna having stair shaped partial ground plane. The triangular fractalization is applied as the simplest solution to offer better miniaturization ratio while keeping the overall antenna performances in term of bandwidth, radiation and especially gain, unlike other techniques which can alter the antenna performance and require the use of performance improvement techniques. The authors are Zhor Z. Bendahmane, Souheyla S. Ferouani, Choukria C. Sayah and Djamila D. Ziani from Algeria.

Printed antennas are very suitable and effective for design requirements, especially because of their low profile and wide bandwidth. In recent years, reconfigurable patch antennas are widely used in modern wireless communication systems due to the interest to cover a lot of standards such as GSM, LTE, ISM, Wi-Fi and WLAN. The main purpose of the fourth paper titled ***Frequency Reconfigurable Pentagon Patch Antenna Using PIN Diode for Wireless Applications*** is to present a new design of a frequency reconfigurable pentagon patch antenna for wireless communications. The authors, Souheyla Ferouani and Wassila Moulessehoul from Algeria, designed omnidirectional microstrip patch antenna with reconfigurable pattern and polarization. BAR63-02V PIN diodes are used in ground plane for switching between different operation modes.

By definition, super wideband antenna (SWB) is the type of antenna in which the bandwidth ratio of the upper and the lower cut-off frequencies is greater than or equal to 10:1. Unlike UWB, SWB antenna is not known to have a predetermined frequency range by any organizing body, as such. It can also be noted that there is no such limit for other existing wideband antennas. In the fifth paper titled ***Rectangular Slot Super Wideband Antennas with Band Notch Characteristic Fed by CPW and Microstrip Line*** a coplanar waveguide (CPW) fed SWB antennas are proposed and investigated. It consists of a rectangular slot etched in a square-shaped patch which is blended on all its vertices for bandwidth enhancement. The paper is written by Sachin Agrawal and Akshat Gururani from India.

The sixth paper ***A Novel Improved Stable Power Supply Model Intended to Industrial Appliances Based on the Magnetic Flux Leakage Transformer*** investigated an improved three-phase Magnetic Flux Leakage Transformer (MFLT) comprising a magnetic circuit of the core-type, intended for supplying electrical energy to the power circuits of microwave ovens. It is widely used to stabilize the electric current in the supply of electrotechnical equipment, in particular for the case of the high voltage power supply. The authors are H. Outzguinrimt, M. Lahame, M. Chrayagne, R. Oumghar, and B. Bahani are from Morocco.

The last seventh paper titled ***Estimation of Specific Absorption Rate Levels in a Typical Fruit Specimen and Observations on their Variations According to Different Electromagnetic Standards*** is written by Ardhendu Kundu, Bhaskar Gupta, and Amirul I. Mallick from India. Estimation of specific absorption rate (SAR) levels in a typical bunch of Sapodilla fruits is presented. The work includes dielectric properties characterization of the fruit specimen and the modelling of a typical fruit bunch according to their dielectric properties for the simulation-based investigations in order to gauge the Specific Absorption Rate levels based on the exposure standards.

Report of the fifteenth edition of TELSIXS conference, under the name, *International Conference on Advanced Technologies, Systems and Services in Telecommunications* is given by Dr. Biljana Stošić and Assoc. Prof. Zoran Stanković on behalf of the Organizing Committee; Prof. Dr. Nebojša Dončov on behalf of the Technical Program Committee, and Conference General Chair, Prof. Dr. Bratislav Milovanović. The Conference was held at the Faculty of Electronic Engineering, University of Niš, Serbia from October 20 to 22, 2021.

Prof. Zlatica Marinković, chair of the IEEE MTT-S Chapter of Serbia and Montenegro, gives a report about chapter activities in 2021.

All involved people in this journal: Editor-in-Chief, Associate Editor and reviewers contribute as volunteers. Selection of submitted papers for publication in journal is a very hard work. There may be a phase of high load where reviewers cannot find time to work on papers, and because of that a processing time make take several months even a year.

I would like to acknowledge the reviewers for their efforts and time that they gave to the assessment of submitted manuscripts, which enabled the authors to disseminate their work at the highest possible quality. Without the dedication of reviewers, it would be impossible to manage an efficient peer review process!

I wish you a merry Christmas and a very happy and prosperous New Year!

Happy 2022!

Dr. Biljana Stošić

University of Niš, Faculty of Electronic Engineering

Aleksandra Medvedeva 14

18000 Niš

SERBIA

E-mails: biljana.stosic@elfak.ni.ac.rs; b.stosicc@gmail.com