



Editor-in-Chief: Scanning the Issue

Dear members and readers,

The current issue of the *Microwave Review* journal (Vol. 26, No. 1, July 2020) contains four research papers. These papers present ongoing research and developments achieved by researchers in different areas and countries.

The objective of the first paper titled *Energy Balance of Three-Phase High Voltage Power Supply for Microwave Generators* has been to study the energy balance of new three phase power supply for one magnetron per phase. The developed single-phase system allows a comparative study of electrical operation for magnetron power supply. The energetic operation of the new three phase power supply is successfully verified. The obtained curves for the different powers of each phase showed that each magnetron can operate with the full power. These results lead to the prototype realization of this new three-phase transformer with shunt. The paper is written by Abderrahim A. Belhaiba, Naama N. Elghazal, and Boubaker B. Bahani from Morocco.

Distributed amplifiers are one of the key components that are employed in electronic warfare, radar, high-data-rate fiber-optic communication, and broadband instrumentation systems. *Gain Improvement of the Cascaded Single Stage Distributed Amplifier* is the title of the second paper written by authors from Algeria: Fayçal Amrani and Mohamed Trabelsi. In this paper, a high gain cascaded single stage distributed amplifier (CSSDA) design method based on the Chebyshev polynomial approximation of the amplifier transducer gain is proposed. The advantage of the proposed amplifier is the gain improvement of 12 dB compared to that of the CSSDA using the simplified unilateral model of the field effect transistor or the cascode circuit. By the use of the proposed method a stable gain is obtained from DC to the cut-off frequency of the circuit. In addition, a more compact circuit is obtained, by eliminating four components, compared with the CSSDA.

In this age of cellular communication, the most widely used radiator is microstrip antenna because of its various advantageous features. The following paper titled *A Modified Ring Shaped Slot Radiator for Triple-Band Wireless Applications* provides design and analysis of a modified ring shaped slot printed antenna. The antenna structure supports three different frequency bands, with the assistance of a circular slot and an elliptical ring slot. This simple antenna structure operates over three frequency ranges, i.e. 2.48-3.2 GHz, 4.58-5.12 GHz and 6.68-7.34 GHz. The remarkable feature of the antenna is that it utilizes only a simple rectangular metal strip to achieve impedance matching for the slots loaded patch without any external matching circuitry. Far-field pattern of proposed radiator confirms that it acts like a monopole radiator. Radiation efficiency is greater than 90% at all three resonant frequencies. All these features make it suitable for various applications in S (2-4 GHz) and C (4-8 GHz) frequency bands. The authors are Som Pal Gangwar, Kapil Gangwar, and Arun Kumar from India.

In the fourth paper titled *Massive MIMO: Energy Efficient Solution for Increasing Coverage and Capacity* the energy efficiency of 32T32R massive MIMO product has been compared with the conventional 2T2R evolved node B (eNB). This paper has explained the advantages of massive MIMO eNB in terms of uplink coverage, downlink capacity, and power consumption. Initial field trial and hardware design analysis indicates that 32T32R massive MIMO will reduce the power consumption per bit by half. The paper is written by Brijesh Shah, Gaurav Dalwadi, Deepak Gupta, Hardip Shah, and Nikhil Kothari from India.

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.

I am very grateful for the contribution all valued anonymous reviewers have made to *Microwave Review* journal by providing their reviews in 2020. I would like to show my appreciation for the time and effort that they give to the assessment of submitted manuscripts.

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