Editor's Column

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> It is not true that people stop pursuing dreams because they grow old, they grow old because they stop pursuing dreams.
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> *Gabriel García Márquez*

Editorial Letter
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AT the end of 2023, unfortunately, one of our invaluable members, Prof. Aleksandar Pajkanovic, had to pursue a path separate from the one we blazed together during the passed years. Prof. Pajakanovic served as a Managing Editor of the "Electronics"journal for many years and contributed to its quality and development in many different ways. However, as it sometimes happens in life, other priorities, challenges and opportunities come up and interfere during the journey. Hereby, I would like to thank Aleksandar for all the hard work he invested in the journal and our cooperation, hoping that he may come back even stronger and more motivated. I wish him success and all best in his future endeavors.

In December issue, we bring you four new papers that cover diverse topics related to electronics systems.

The first paper, entitled "Intelligent Optimization of CMOS Operational Amplifier using 3D Ant Colony Optimization," authored by S. Barra, presents the use of an artificial intelligence (AI) tool based on Ant Colony Optimization (ACO) for designing an operational amplifier (OPAMP) circuit. The author proposed a new meta-heuristic method to automate analog circuit design. The method uses ACO and Cadence Spectre as dimensioning and implementation platform, respectively. The presented results demonstrate its effectiveness in sizing basic and more complex analog circuits.

In the paper entitled "A Singly Curved Conformal Phased Array with Integrated Particles-Based CRLH Phase Shifters," by M. Ayaz and I. Ullah, the authors proposed a four unit cell micron-sized magnetic particles embedded composite right/left-handed (CRLH) transmission line meta-material phase shifter. A prototype of the phase shifter is designed, fabricated and tested for phase shifter applications. The phase response obtained by measurements shows close agreement with the simulation results. Additionally, for the performance analysis of proposed phase shifter, a 1x4 conformal curved-shaped phased array operating at 5.8 GHz is fed with the four unit cell cascaded phase shifter in CST full-wave simulator. The conformal phased array with the proposed integrated phase shifters was simulated for broadside pattern correction and main beam scanning at 20 degree on curved-shaped surface with different bend angles. The radiation pattern results obtained with the proposed integrated phase shifters are in close agreement with those obtained with direct excitation of the array.

Regarding the third paper, "Ethereum Smart Home for Denial of Service and Single Point of Failure," authored by B. I. Syahputra, D. Marlena, D. F. Priambodo, and Arizal, the authors presented a research aimed at implementing an ethereum-based smart home Smart Contract by modifying the device components, dashboard, and consensus used in a work of other authors. The consensus modification was performed by using Proof of Authority (PoA) aiming to improve block verification performance on the system. The Denial of Service (DoS) attacks and Single Point of Failure (SpoF) vulnerability were performed to evaluate the proposed system. The evaluation was performed with TCP Flood Attack, with request packets of 81,519 packets on port 8545 and ICMP Floods by sending 11,481,703 PING packets. The attack caused some application services running on the Ethereum Node 3 to stop, but did not stop the *geth* application. As for the Single Point of Failure (SPoF) vulnerability, the Ethereum network is still running and there were no obstacles in the mining process or block verification.

The final paper, "Testing the Advanced Single Phase Asymmetric Cascaded Multilevel Inverter Topology using Renewable Energy Source," by M. C. Dey, S. Akther, P. Talukder, A. Begum, Md M. Rashid, deals with developing a model of single phase asymmetrical cascaded multilevel inverter (MLI) which couples' renewable energy sources (RES) to the electrical or electronic loads of the AC powered transport system applications (e.g., locomotives, vehicles, etc.). The proposed topology is asymmetric and produces 31-levels output which consists of 12 IGBT switches and 4 isolated dc voltage supplies controlled using Pulse Width Modulation (PWM) technique. It has been thoroughly analyzed throughout the paper to demonstrate its superiority over alternative MLI topologies. The comparative analysis shows that the chosen existing topology is better performed than others. According to the theoretical analysis conducted, the maximum efficiency obtained is 92.91% along with THD of 4.44% and TSV of 60 Vdc. The accuracy of the proposed topology is verified through simulating the entire model in MATLAB-Simulink software.

As always, I thank the authors for their contribution to this issue of the journal and send great appreciation to all the reviewers who participated in the editorial process by providing valuable comments in timely manner to the editors and authors.