

EDITORIAL

This issue is the 26th Volume of the Biannual CVR Journal of Science and Technology. The editorial team is very happy to bring out this Volume very much in time. The journal is being published since 2011, regularly without any break, even during corona pandemic time, overcoming many hurdles. For the last 6 months, the editorial team is working tirelessly, to complete the task on time. Thanks are due to the authors, reviewers and all others involved in this work.

We are taking care to see that standard practices are followed in the publication of the Journal. Blind review is done, and a number of iterations are done till the reviewers are fully satisfied with the standard of the research paper. Senior faculty of English language Department, take care of the language issues. Template verification and typographical errors are checked before the articles go for publishing. Hope the researchers appreciate this effort. Many research articles published in the journal are being referred by other researchers across the globe, as indicated by DOI, Crossref data.

This Volume covers research articles in the following disciplines:

CIVIL-3, ECE- 5, EEE-4, EIE-1, IT-1, CSE-2, ET-2, MECH-3

In this issue, one paper on Implementation of 5G New Radio (NR) Secondary Synchronization on FPGAs is presented. The proposed design, for funding physical cell Identity is verified and executed on Xylinx ZYNQFPGA board. The authors mentioned that logic utilization is reduced, and low power dissipation is observed. Another paper on Area-Delay-Power Efficient VLSI Architecture 2D FIR Filter using Modified Multipliers and Adders is also published. According to authors, by this design, power consumption is reduced by 44% and delay by 20%. Authors used Modified Carry Look Ahead (MCLA) address and pipelining methods, to achieve such impressive results.

In another paper, a prototype Artificial Mechanical Ventilator device based on IoT, at low cost for patients, is proposed by authors. During the covid pandemic time, there was worldwide shortage of ventilators. This device is designed such that it is easily accepted by patients. The focus in this model is to minimize components and increase efficiency of the ventilator and the patients feel comfortable while using. For detection and classification of Brain Tumors in MRI images, a paper is presented in which, tumors are segmented using EPFCM and classified using ML-ELM. The authors conclude that EPCMA+ML+ELM yields better results in contrast to DL Classifiers and ELM. The identified quantitative measures of exact tumor regions help physicians and radiologists in effective treatment. Another paper on IR Sensor based Smart Parking System is also published. Some articles published have potential to be taken up by incubation units and start-ups to bring them into commercial production.

Students are being encouraged to publish research papers based on the project work done by them. P.G. students spend almost one year on the project work. So, this should result in significant work suitable for publication in a journal. Project supervisors guiding the students must give research orientation for the work of the students. Selected research papers of U.G. students are also published in this volume. It is heartening to see that U.G. students are also showing enthusiasm for publishing papers. Hope this trend will continue.

Thanks are due to **HOD, H & S**, and the staff of English Department for reviewing the papers. I am also thankful to **Dr. S. Venkateshwarlu, Dr. P. Uma Maheshwera Reddy Assoc. Editors and Mr. Ch. Gangadhar, DTP Operator** in the Office of Dean Research, for the preparation of research papers in Camera - Ready form.

For further clarity on waveforms, graphs, circuit diagrams and figures, readers are requested to browse the soft copy of the journal, available on the college website, www.cvr.ac.in wherein a link is provided. Authors can also submit their papers through our online open journal system (OJS) www.ojs.cvr.ac.in or www.cvr.ac.in/ojs

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Editor