EDITORIAL

It is with delight that we bring out Volume-12 of the Biannual Journal of our college, CVR Journal of Science and Technology. This Volume is brought out in colour similar to the previous one. We thank the Management for the same. The figures and graphs in colour will enable the researchers and readers to have more clarity.

We are very happy to share with our readers that our CVR College of Engineering is ranked among the TOP 5 institutions, in the State of Telangana, as per the NIRF MHRD rankings. It is ranked in the 101-150 band of rankings by the NIRF. For a college which is about 16 years old, it is a remarkable achievement. This made the management of the college to launch Mission 100, to be among the top 100 institutions in the country. Research activity plays an important role in this aspect. Hope the Journal and the contributors will help in improving the ranking of the institution. We are also happy to share with the readers that the college is Accredited by NAAC with 'A' grade. Affiliation for all courses and all seats in all branches for UG programmes is also obtained from JNTUH for the academic year 2017-18. It is expected that the contributors will further enhance the reputation of the college through this Journal.

We have received good number of research papers for review, from our own faculty and from outside our institution also. A rigorous filtration process is done, anti plagiarism check by software, and review by experts are done. Finally research papers were selected for publication in the present volume.

For convenience of the readers, the research articles are grouped branch wise and the name of the branch is indicated in the contents page.

The breakup of the papers among various branches is:

Civil
$$-4$$
, EEE -2 , Mech -3 , ECE -5 , CSE -3 , IT -2 , EIE -1 , H & S-1.

The management is supporting the research and Ph.D Programmes by liberally sanctioning study leave for the faculty of this college. Faculty members working for Ph.D and on research projects are expected to contribute for the journal. Management is also encouraging the authors of research papers with incentives, based on merit. Some of the research articles accepted for publication in the forth coming Volume 13 are listed in Page No.127.

I am thankful to all the members of the Editorial Board for their help in reviewing and short listing the research papers for inclusion in the current Volume of the journal. I wish to thank **Dr.S.Venkateshwarlu**, **HOD EEE and Associate Editor**, for the effort he has made in bring out this Volume. Thanks are due to **HOD**, **H & S**, **Dr. E. Narasimhacharyulu** and the staff of English Department for reviewing the papers to see that grammatical and typographical errors are corrected. I am also thankful to **Smt. A. Sreedevi**, DTP Operator in the Office of Dean Research for the effort put in the preparation of the 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 and is available in color.