Editor's Note

Special Publication on Engineering, Physics and Chemistry

Engineering is cardinal to research in any field of science. Most recent finding is that Nanoengineers are finding new ways to use graphene printing technology. A new research paper describes how they're treating printed graphene with lasers to create electronic circuits that repel water. That could lead to washable electronics and better biological sensors. In another paper teams Measure DNA Pore Translocation with Graphene Nanoribbons, Improve Device Fabrication. A study by researchers at Karolinska Institute, the University of Manchester and Chalmers University of Technology published in Chem shows that our immune system handles graphene oxide in a manner similar to pathogens, paving the way for safer biomedical applications of this two-dimensional material. Scientists in the US used a physical effect called Anderson Localisation to develop a better optical fibre for transmitting images. American and Russian physicists built a new type of holographic memory device that stores data in the form of magnetic "bits". The above examples clearly indicate how engineering is carefully made use of in all areas of sciences.

The 27th Swadeshi Science congress was organized with a view to offer a platform to discuss new developments in in the above areas and quite a large number of papers have been presented and discussed by a large audience. Out of which 20 papers were selected for publication in the Special Issue of IJSR. The papers present a typical cross section of research topics being pursued in different academic as well as research institutions in Kerala. The papers cover diverse fields like Plasma Physics, Nonlinear Optics, Science and Technology of Nano Science and Fibre Optics. The paper on flood mapping and damage assessment of Kazirang National Park, Assam by the group of Anandakrishnan is a typical case of Radar image applications for disaster management. As indicated by several papers, synthesis and characterization of low dimensional nonlinear optical materials is an active area being pursued by several institutions in Kerala. Paper on Fiber Optic sensor by Priyamvada *et al*. deals with an important application of fiber optic sensors to monitor concentration of solutions using plasmon resonance. We hope that the papers in this section will be useful to those who are interested in pursuing research in the field of Engineering, Physics and Chemistry.

The present analysis clearly emphasise the necessity for organizing more and more seminars, conferences, workshops and colloquia so that new discoveries could be further critically reviewed so that research could be broadened in an interdisciplinary manner.

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