

From the Editor's Desk

It has been our endeavor, as one can see from the recent issues, to invite guest editors from various disciplines in order to blend in interest in interdisciplinary research across science and engineering. I must add that the effort put by Professor Vinoy has resulted in this issue highlighting contributions in key areas of electrical engineering and on behalf of the editorial committee I express my sincere and heartfelt thanks. As we near completion of the year 2010, I am happy to inform the readers that we have lined up the topics for the forthcoming issues in the year 2011 already and the guest editors are putting in their best effort to bring them on time. The next issue to be guest edited by Professors Raghu Murtugudde and Debhasis Sengupta is devoted to climate change, challenges and opportunities for India. Our main aim would be to continue to bring reviews on topics of current interest and we do hope that the readers will continue to be impressed.

T. N. Guru Row

Editor

ssctng@sscu.iisc.ernet.in

Editorial

Research and training activities in electrical sciences started in this institute at its inception. Power and energy, wireless communication, computer science, and integrated circuits and systems are some of the areas of active research in this institute and elsewhere. In this issue we bring together a compilation of articles in each of these areas.

Power engineering research has been the mainstay for Electrical Engineers. In the first article, Prof VT Ranganathan reviews research in IISc on AC, DC motor drives in the context of latest developments in this area. These motors and their controls are the prime technology that literally turns many of the industrial processes. One of the major collaborative research projects recently executed in IISc, led by Prof Anurag Kumar, was on developing an ad hoc wireless sensor network for intrusion detection. The second paper in this compilation reports the research work carried out during this activity and shares some of the results from a large number of investigators involved, primarily from Electrical Sciences. In the third article, on the contemporary issue of carbon economics, a team led by Prof Y Narahari proposes a game theoretic approach for designing mechanisms for carbon credit allocation. The last article by Dr AK Singh showcases the developments made in the area of antenna technology for building newer generation of radar systems for the defense forces in India. I hope this collection would be interesting to our readers from various disciplines, and pave the way for furthering cross fertilization and interdisciplinary research.

K. J. Vinoy

Guest Editor

kjvinoy@ece.iisc.ernet.in