

EDITORIAL

The fascination and wonder of science has enabled mankind to amass wealth of knowledge and information. The unquenchable thirst for scientific knowledge has seen leaps and bounds from evolution to revolution, from revolution to technology, and from technology to information technology, Biotechnology and Bio-Informatics.

During each period of revolution there has been a quantum upsurge of new concepts, amazing insights, and thrust that have astonishingly changed our thinking pattern and life style.

Over the centuries, researchers have basically carried out two types of research: One is fundamental research and the other is applied research. Both are complementary to each other. Nevertheless, today there seems to be a total paradigm shift from fundamental research to applied research. This should in no way undermine the importance of basic research, since it supplies fundamental knowledge for all applied research.

"Basic research is exceedingly difficult, if not impossible to plan or direct. But the results of basic research can have far reaching effects in the lives of all mankind." The process of search for scientific truth and innovations silently continues to take place across the world, and is being recorded.

Mapana has taken a small step through this inaugural issue, to offer a place for researchers, teachers and students to share their findings, insights and scientific interests with the rest of the intellectual community. Since scientific articles can be of diverse nature the articles in this issue are classified into different sections.

The first section carries a research article, The effects of magnetic field and non-uniform basic temperature gradient on the onset of Rayleigh-Benard convection in a fluid with suspended particles, by Dr. Pranesh who is a faculty member in the Department of Mathematics Christ College. Having carried out an indepth research study in this area for almost a decade, he deals in detail the influence of various parameters on the onset of convection. The author considers six different non-uniform temperature profiles and discusses their comparative influence on onset. The second article, the study on the Polarographic behaviour of Cyclopentanone Oxime, by Ms. Charmaine Jerome, of Mount Carmel College, Bangalore, elucidates the polarographic study on one of the organic compounds. Polarography has contributed more to the understanding of the process involved in the electrolysis of organic compounds than any other method. The author's work is yet another example for the same.

In the second section on research account, there are three papers. AIDS being one of the most dreaded diseases in the world, the scientific community is honestly concerned to find a solution to this problem. HIV Spread : Some Statistical Result, by Dr.T.Srivenkataramana and C.Nagaraja Rao of Bangalore University, discusses the spread mechanism of the silent killer, and analyses the probability of infection from the statistical point of view. It is interesting to note that mode wise projection of HIV and AIDS cases is useful for predicting the path and intervention separately. The authors propose a method to evaluate HIV infection in heterosexual transmission, using classical approach and a few key parameters of the spread mechanism. Dr.Karuna and Dr.Payal give a brief account of histological patterns of lung cancer in the patient population presenting to St.John's Medical College Hospital, Bangalore, in the article, Lung Cancer - Prevalence and patterns.

Market Integration - Conceptual and Application issues by Dr.N.S.Viswanath principal, M.P. Birla Institute of Management Associate, Bharatiya Vidya Bhavan, and Dr.S.R.Narappanavar, Karnatak University, Dharwar gives a scientific approach to correlation coefficients of prices and the degree of market integration. Although the paper is a bit technical, it's approach is highly pragmatic. Citing arecanut markets as an example, it unfolds the presence of subsystems within the existing marketing system.

The section on research project carries a report on Enzyme Profile of Aquatic Hyphomycetes Isolated from the Streams of Kodagu District of Karnataka, by Dr.Soosamma of Mount Carmel College, Bangalore. She reports that among the micro organisms, aquatic hyphomycetes are the most active in degrading leaf tissue in a stream, transforming the leaf litter into a more palatable food for the detritivores. It is quite interesting to note that the non-sporulating Sps. showed a nine fold increase in pectinase production compared to Acremonium Sps.

Analog Versus Digital Design : When and Where to make the cut, by Sayandeep Nag, Business Development Officer, Bennis Technologies, Bangalore, appears in the section on review articles. He clearly portrays when to convert the signal from analog the main to the digital domain. The author squarely answers the question of When and Where to use analog signal conditioning strategies as opposed to digital techniques. Incidentally the author investigates the advantages of analog versus digital filter designs.

Mr.Manoj Tharian, Director, MicroGenesis TechSoft, Bangalore presents an overview on RUP, in the article on Rational Unified Process - Best practice for software development team. He articulates the process involved in RUP, into cycles working on a new generation of the product. In part-I he presents one of the development cycles in four consecutive phases : Inception phase, Elaboration phase, Construction phase, Transition phase. The section on general articles

carries Radio Astronomy - an Introduction, by Dr.Prabhu T. a senior scientist at Raman Institute, Bangalore. He gives a brief sketch on Radio Astronomy and its future. The article could be of great interest to the student and teaching fraternity, to look beyond the stars at a clear sky in the night and observe many interesting phenomena in the field of astronomy.

E-Learning by Thomas Tharakan, Christ College, Bangalore, examines the meaning and implications of e-learning. His article aims at assisting individuals and organisations in implementing e-learning. Hopefully e-learning would be a tool towards advanced level of learning. Mr.P.U.Antoney voices his concern for the environment through his article, Acid Rain - an Invisible Threat.

Every issue of MJS will carry a profile on a research institution and a few scientists. In this issue we have highlighted Indian Institute of Astrophysics, Bangalore and its contribution to the world of science. In the individual's profile section you will find the profile of Dr.Parthasarathy, a Senior Scientist at Indian Institute of Astrophysics, Bangalore. An interview with him reveals the tremendous amount of research that he has carried out for almost two decades.

The editorial board offers you the first issue of MJS. Indeed it is a simple but solid beginning of a science journal by Christ College, keeping in mind the Mission and the Vision statement of our institution. We are aware there are certain limitations in this first issue due to various factors some of which are beyond our control. However, with your constant support, constructive criticism, creative ideas and contributions in the form of articles, MJS will march towards the path of excellence and become a more effective scientific journal.

I am deeply indebted to the Christ College Management and the Co-ordinator who have assigned me this great job of being the Executive Editor. I acknowledge the support and encouragement the editorial board has received from different scientists, scholars and the teaching fraternity. All the contributors in this issue have a share in shaping the dream of Christ College - to bring out a science journal - into a tangible reality. I am grateful to all of them. The journal would not have taken this concrete form but for the meticulous and neat work of T&P TYPRINT, Bangalore. Hope you will have an enriching reading through Mapana.

E. Jerome Xavier
Executive Editor