Editorial

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Biographical notes: Srikanta Patnaik is presently the Director of Interscience Institute of Management and Technology, Bhubaneswar, Orissa, India. He has graduated in Electronics and Telecommunication Engineering in 1989 and post graduated in Electronics Systems and Communication in 1993 and received his PhD in Engineering in the year 1999 from Jadavpur University, Calcutta, India. He has published more than 60 technical papers in the national/international journals and magazines of repute. He has served as Programme Committee members in many International Conferences and also convened a few seminars, Training Programmes, Workshops sponsored by various agencies. He has acted as Principal Investigator of projects sponsored by All India Council for Technical Education and University Grants Commission. His name has been placed in the MARQUIS Who's Who in the World for the 2004. He has been nominated as the International Educator of the Year 2005, by International Biographical Centre, Great Britain.

N.P. Mahalik is presently working as a Visiting Professor in the Department of Mechatronics, Gwangju Institute of Science and Technology, Korea. He completed his BSc Engg and an ME in the year 1989 and 1993, respectively from UCE, Burla in India. He has been awarded with PhD from De Montfort University UK in the year 1998, for his research contribution in the field of distributed control systems. He published several research papers, books, papers in the field of Mechatronics, Process Control and Automation. He has completed many projects sponsored by various sponsoring agencies. He is the recipient of the Brain Korea 2004 fellowship.

We are happy to announce that we are bringing out the first issue of *International Journal of Information and Communication Technology (IJICT)*. *IJICT* is a refereed journal in the field of Information and Communication Technology (ICT), providing an international forum for professionals, engineers and researchers. *IJICT* reports the new paradigms in this emerging field of technology and envisions the future developments in

the frontier areas. The journal addresses issues for the vertical and horizontal applications in this area.

The maim thrust of the journal is to recognise the tremendous growth in the core field and application areas of ICT. Further, to provide a forum for the exchange ideas on the emerging areas and to bring together technologists, application developers, researchers from industries, academic institutions and R&D laboratories.

IJICT provides a forum to help professionals, academics, researchers and policy makers, working in the field of ICT, to disseminate information and to learn from each other's work.

IJICT is a referred international journal publishing original and review papers and case studies. Special Issues devoted to important topics in the areas of ICT will also be published periodically. Topics suitable for *IJICT* include but are not limited to:

- Information theory and coding
- Information security
- IT and network security
- Internet and web based systems and products
- Data mining and data warehousing
- Computer network planning and design
- Computer network administration
- Sensor/ad hoc networks
- Human-computer intelligent interaction
- Computational linguistics
- Distributed and cooperative media
- Interactive communication media and contents
- Social interaction
- Mobile communication
- Signal representation and processing
- Digital speech and image processing
- Virtual reality
- Aids for the disabled
- Artificial intelligence
- Re-engineering
- ICT infrastructure standards and security
- ICT Act and cyber law
- Microprocessor interfacing and hardware design
- Computer control of industrial processes

- ERP/CRM/SCM
- Networking-enterprise applications
- Rural applications of IT
- E-governance
- Biomedical applications.

It is now more or less clear that, the field of ICT is very vast and cannot be bounded by a small boundary. To begin with, we have included six short listed papers from the International Conference on Information technology held in Bhubaneswar, India in December 2005. These papers covers various aspects of ICT as follows.

In the first paper, Singh and Raut has presented an Algorithm for computing theory prime implicates in first order logic. In this paper, they have introduced an algorithm based on consensus method to compute the set of prime implicates of a quantifier free first order formula. Here the notion of prime implicates is extended to theory prime implicates in the first order case. They have provided with an algorithm to compute the theory prime implicates of a Knowledge base X with respect to another knowledge base Y where both X and Y are assumed to be unquantified first order formulas.

In the second paper, Bhattacherjee et al. have presented Software testing: a graph theoretic approach. They have developed a novel approach for designing of test cases using control flow criteria for path coverage, which is one of the popular approaches to Software testing.

In the third paper, Patel et al. have presented Mobile agent location management in global networks. In this paper, they have presented a hierarchical model for location management of mobile agents in global networks. They have implemented their model on the Platform for Mobile Agent Distribution and Execution (PMADE) system, to evaluate the performance and also presented their result.

In the fourth paper, Mohapatra et al. have presented A parallel algorithm for dynamic slicing of distributed java programs in non-DSM systems. They have proposed a parallel algorithm for dynamic slicing of distributed Java programs in non-DSM systems. Their algorithm can run parallely on a network of computers, so that each node in the network contributes to the dynamic slice by computing its local portion of the global slice in a fully distributed fashion.

In this paper, 'Measuring user's role to assess organisation preparedness in a systems acquisition life cycle: a cognitive framework', Misra et al. discussed issues related to user involvement and identifies measures of organisation's preparedness in IT acquisition life cycle through a framework through SEM. It discusses two organisations to support the framework.

In this paper, 'A hardware accelerator for controlling access to multiple-unit resources in safety/time-critical systems', Marchand and Sinha presented the design for a hardware-accelerator to execute the PCP functionality for controlling access to multiple-unit resources and illustrate that the proposed implementation.