
Editorial

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Biographical notes: Srikanta Patnaik is Chairman and Founder Director of Interscience Institute of Management and Technology, Bhubaneswar, India. Prior to his present assignment he was Chairman, Post Graduate Council and Professor and Head of Information and Communication Technology Department of F.M. University, Balasore, 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 many seminars, Training Programmes, Workshops sponsored by national and international agencies. He has acted as Principal Investigator of projects sponsored by All India Council for Technical Education and University Grants Commission. He is a visiting faculty of Machine Intelligence and Soft Computing to many international universities. 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 Visiting Professor in the Department of Industrial Technology, California State University, Fresno, USA. He completed his BSc Engg and MEng in the year 1989 and 993 respectively from UCE, Burla in India. He has been awarded with PhD Degree 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.

Welcome to Volume 1 Issue 3/4 of *International Journal of Information and Communication Technology*. This issue brings articles of IT applications into various domains.

The first paper of this issue entitled 'Framework for exercising I/O exception handling code' by Michael W. Bigrigg discussed an architecture which provides a means for developers to exercise exception handling code during the coding phase of development. In this paper Bigrigg presented the results of developing several SWEI prototypes for I/O systems: data intensive applications, wireless handheld applications, storage systems, and network applications.

The second paper by Phillip Fitch entitled 'A model of pulse signals above 100 MHz in the electromagnetic environment' describes a model of pulses generated by a multitude of varying sources, together with the environmental noise, both naturally generated and from human sources. The model is used in the evaluation of processing algorithms utilising traditional digital signal processing and Artificial Intelligence (AI) techniques.

The third paper entitled 'Maximising productivity by controlling influencing factors in commercial software development' by Sanjay Mohapatra elaborates on the technique for improvement of productivity of software project through vendor services management. The next paper entitled 'Traditional Business Intelligence vis-à-vis real-time Business Intelligence' by Jayanthi Ranjan discusses about the research and practices of Business Intelligence (BI) solutions for process centric applications. This paper also explains traditional and real-time business intelligence and their role in business firms.

The paper entitled 'Effect of congestion on the performance of IEEE 802.11 network' by A.K. Jain et al. presents the overview on IEEE 802.11 networks and issue of congestion in them. In the next paper entitled 'A framework to derive web page context from hyperlink structure', Naresh Chauhan and A.K. Sharma surveyed and analysed a dataset of about 100 web pages of different categories from Open Directory Project (ODP) and summarised that cohesive text surrounding the anchor in the form of full sentences and non-cohesive text present elsewhere in the in-link web pages provides rich semantic information about a target web page, which in turn can be considered as the context of the target web page.

In the paper entitled 'System state coverage through automatic test case generation', M. Sarma and R. Mall proposed a method to automatically generate system test cases to achieve coverage of system states based on Unified Modeling Language (UML) models constructed during a normal development process. In the next paper entitled 'Hybrid wavelet based LPC features for Hindi speech recognition' Aditya Sharma et al., presented hybrid features for speech recognition that uses linear prediction in combination with multi-resolution capabilities of wavelet transform.

In the paper entitled 'Performance analysis of call outage in CDMA communication network for soft handoff', Amit Dixit and S.C. Sharma, analysed the effect of margin of power by varying cell distance ratio and outage probability (P_{out}) by varying margin of power for soft handoff using SWP software. In the paper 'Location finding using computer vision based approach', Ashfaqur Rahman et al., proposed a method for finding the location of a moving robot in an arena using an image processing approach. The main idea is to find some reference objects in the arena from the images captured by a camera and find a mapping between the size of the object in the image and the physical distance of the object.

In the paper entitled 'A comprehensive solution to ATM network planning and bandwidth management using Genetic Algorithm' Susmi Routray et al., proposed a cost effective ATM physical network design using Passive Optical Network. In the paper entitled 'Periodicity estimation of Dynamic Textures', Khalid Zaman Bijon et al.,

presented a technique to compute periodicity of regular motion patterns of Dynamic Textures, which is based on co-occurrence matrix calculation.

In the paper entitled 'Data Fusion Framework: concurrent architecture for real-time processing' Stefano Laoreti et al., presented an operating framework that permits Data fusion during the elaboration flow at different levels of computation. In the next paper entitled 'Modified WEP key management for enhancing WLAN security', S. Chandramathi et al., proposed a modified protocol to enhance the security of WLAN systems by dynamically changing the WEP key based on the network traffic intensity and frequent updating based on the number of frames transmitted.

In the last but not the least Uday K. Chakraborty in his paper entitled 'Genetic programming model of solid oxide fuel cell stack: first results', presented a new, genetic programming approach to SOFC modelling.