Editorial Preface

Debashis Saha, Sasken Communication Technologies, India

Varadharajan Sridhar, Indian Institute of Management Calcutta, India

Welcome to the third issue of the year 2011. We are pleased to introduce a new type of paper in this issue. The idea behind this initiative is to invite academic/industry experts to write a short essay on the emerging technology, business and policy trends in the area of data communications and networking. We hope that this will provide our readers a look-ahead and synergistic view of this rapidly evolving field.

As social networks and associated services offered by companies, such as Facebook and Twitter, continue to grow, these services are not just used for friendly chats but also more and more for B2B and B2C commerce. The ever-increasing growth of smartphones and tablets has enabled anytime anywhere access to these services. Mobile Adhoc Networks are becoming efficient for peer-to-peer file sharing and other related communication requirements. Recent statistics show that real-time entertainment traffic including video streaming continues its journey of Internet dominance followed by web traffic. In this issue, we have interesting research articles that address the above topics.

In the first paper, Curran, O'Hara, and O'Brien present the integration of Twitter – a micro-blogging service that allows users to follow each other and to 'tweet' a message with a strict 140 character limit – into businesses. The most effective use for Twitter in recent times has been for breaking news. That apart, Twitter, according to the authors has huge latent potential to support business growth opportu-

nities as Twitter plans to move forward and evolve quickly with its services, while ensuring personal, business, and third party developer's interests. The authors highlight Twitter as a new communication channel to reach customers and examine other possible uses for Twitter in a business context.

In the second paper, Raghunathan and Murugesan present an innovative mechanism of cache management of dynamic web content. The method propagates the web query results across the horizontal and vertical cache clusters. The authors claim that, by efficient coordination and combination of caching among multiple web servers, their technique achieves cache consistency. Simulation results indicate improved query processing time over existing algorithms.

The last paper by Venkateswaran, Kundu, Shaw, Orea, and Nandi addresses the yet not fully solved problem of efficient routing in bandwidth constrained Mobile Adhoc Networks (MANETs). They propose a fuzzy logic based mobility metric and algorithm for efficient cluster formation in MANETs. The method enables the formation of a structured topology of clusters that reduces routing overhead and increases the efficiency of sealing packages to transport data between commnication nodes. The simulation results indicate that the algorithm performs better than existing MANET clustering algorithms in reducing cluster head changes and hence promotes efficient cluster reorganization and improved MANET performance.

In the last paper , Beltrán, Gutiérrez, and Melús discuss the problems users experience while accessing current generation networks and prescribe possible solutions. The article is written in a personified case study format and indicates how in future, the competing access providers implement dynamic pricing mechanisms, policy-based management, and autonomic communications to provide short-term and spot contracts to users.

Debashis Saha
Varadharajan Sridhar
Editors-in-Chief
IJBDCN

Debashis Saha is a professor with the MIS Group, Indian Institute of Management (IIM)-Calcutta. Previously, he was with CSE Department at Jadavpur University (Kolkata, India). He received his BE (Hons) degree from Jadavpur University (Kolkata, India), and the MTech and PhD degrees from the Indian Institute of Technology (Kharagpur) all in electronics and telecommunication engineering. His research interests include pervasive communication and computing, network operations, management and security, wireless networking and mobile computing, ICT for development, and network economics. He has supervised thirteen doctoral theses, published about 230 research papers in various conferences and journals, and directed four funded research projects on networking. He has co-authored several book chapters, a monograph, and five books including Networking Infrastructure for Pervasive Computing: Enabling Technologies and Systems (Norwell, MA: Kluwer, 2002) and Location Management and Routing in Mobile Wireless Networks (Boston, MA: Artech House, 2003). Dr. Saha is the recipient of the prestigious career award for Young Teachers from AICTE, Government of India, and is a SERC Visiting Fellow with the Department of Science and Technology (DST), Government of India. He is a Fellow of West Bengal Academy of Science and Technology (WAST), Senior Life Member of Computer Society of India, Senior Member of IEEE, member of ACM, member of AIS, and member of the International Federation of Information Processing Working Group's 6.8 and 6.10. He was the founding Chair of Calcutta Chapter of IEEE Communications Society.

Varadharajan Sridhar is a Research Fellow at Sasken Communication Technologies (Bangalore, India). He received his BE from the University of Madras (India), Post Graduate Diploma in industrial engineering from the National Institute for Training in Industrial Engineering (Mumbai, India), and PhD in MIS from the University of Iowa (USA). He had taught at Ohio University and American University in the US; at the Management Development Institute (India) and Indian Institute of Management (Lucknow, India). He was a visiting Professor at the University of Auckland, New Zealand and at Aalto University, Finland. Dr. Sridhar's primary research interests are in the area of telecommunication management and policy and global software development. He has published many research articles, business cases, and chapters in edited books in his area of research. Dr. Sridhar is a member of various committees relating to telecommunications and IT set up by the Indian government. He was the recipient of the Nokia Visiting Fellowship awarded by the Nokia Research Foundation. He is on the editorial board of the Journal of Global Information Management and is a member of ACM and AIS.