

Selected Topics in Communication Networks and Distributed Systems

edited by **Sudip Misra** (*Indian Institute of Technology, Kharagpur, India*), **Subhas Chandra Misra** (*Indian Institute of Technology, Kanpur, India*) & **Isaac Woungang** (*Ryerson University, Canada*)

Communication networks and distributed system technologies are undergoing rapid advancements. The last few years have experienced a steep growth in research on different aspects in these areas. Even though these areas hold great promise for our future, there are several challenges that need to be addressed. This review volume discusses important issues in selected emerging and matured topics in communication networks and distributed systems. It will be a valuable reference for students, instructors, researchers, engineers and strategists in this field.

Contents: Mobility in Wireless Communication Networks (*R Skehill et al.*); The Multimedia broadcast/Multicast Service of the Universal Mobile Telecommunications System (*A Alexiou et al.*); WIMAX/802.16 Broadband Wireless Networks (*M Barbeau et al.*); The System Framework and Its Application in a Mobile RFID Service Network (*N Park et al.*); Using Neural Networks in Wireless Man QoS Architectures (*M Ramachandra*); Using a Statistical Learning Model and SVM for Location Management in WLANs (*A Sisodia et al.*); Transmission Power Control for Mobile Ad Hoc Networks (*B Alawieh et al.*); Collision Avoidance Aware MAC Protocols for Multi-hop Ad Hoc Networks: Challenges, Solutions and Open Issues (*B Alawieh et al.*); A Cross Layer DOA Routing Protocol for Mobile Ad Hoc Networks (*C Mala et al.*); Pervasive Service Discovery Protocol for Power Optimization in an Ad Hoc Network (*C Mala et al.*); Area Coverage Problems in Wireless Sensor Networks (*B Wang et al.*); Cognitive Networks (*M Peralta et al.*); Routing and Traffic Management (*E-S M El-Alfy*); Network Management: A Tutorial and Survey (*H Xu & D-B Xiao*); The Principles of Network Monitoring (*M Brockmeyer & J Shamsi*); Network Information Flow and Its Wireless Applications (*J-Q Huang & T Gobana*); A Theoretical Model for Grid, Cluster and Internet Computing (*M Burgin & M L Smith*); Dataflow Computations on Enterprise Grids (*C Jin & R Buyya*); Grid-Based Computing Platform for Large-Scale Online Applications (*K L E Law & Y C A Yu*); Adaptive Multimedia Transmission Over the Internet (*C Bouras & A Gkamas*); Analyzing Bandwidth Usage in a Distributed Processing Environment (*D Guster et al.*); Intrusion Detection in Networks and Applications (*K K Gupta et al.*); Security in Mobile Ad Hoc Networks (*V Balakrishnan et al.*); Identity Management in Mobile Communication Systems (*S Holtmanns et al.*); Proactive Models for Mitigating Internet Denial-of-Service/Distributed Denial-of-Service Attacks (*H R Nagesh & K C Sekaran*).

Readership: Undergraduates, graduates, instructors, researchers, engineers and strategists in the field of communication networks and distributed systems.

808pp

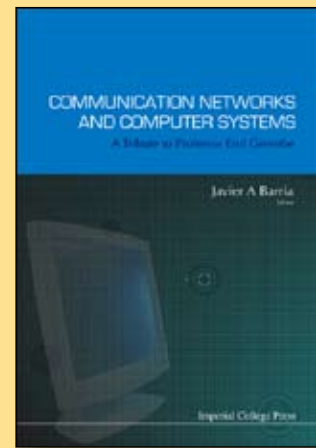
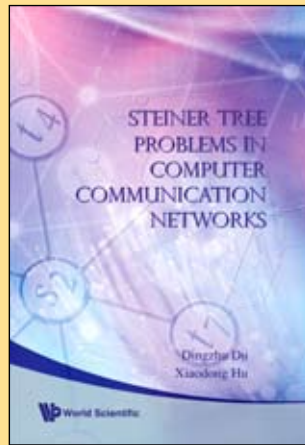
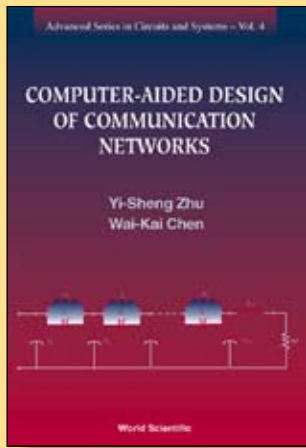
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COMMUNICATION NETWORKS AND COMPUTER SYSTEMS: A Tribute to Professor Erol Gelenbe

edited by **Javier A Barria** (*Imperial College London, UK*)

Communication networks and computer systems research is entering a new phase in which many of the established models and techniques of the last twenty years are being challenged. The research community is continuing to free itself from past intellectual constraints so that it may fully exploit the convergence of computing and communications. Evaluating the performance of emerging communications and computer systems constitutes a huge challenge. Thus, current research provides a set of heterogeneous tools and techniques embracing the uncertainties of time and space varying environments when the requests for diverse services are made in real time, and with very different quality of service expectations. These novel techniques will lead to fast and economic service deployment and effective dynamic resource management, and hence to new business strategies and infrastructures that will facilitate the emergence of future services and applications. This volume contains contributions and presentations made by leading international researchers at a workshop which was held in April 2004 to honour Professor Erol Gelenbe on the occasion of his inaugural lecture as the Dennis Gabor Chair at Imperial College London.

Readership: Postgraduate and graduate students in computing and electrical & electronic engineering; computer and communication systems engineers.

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