

2007 IEEE International Multitopic Conference

(INMIC 2007)

**Lahore, Pakistan
28-30 December 2007**



**IEEE Catalog Number: CFP07519-PRT
ISBN: 978-1-4244-1552-6**

TABLE OF CONTENTS

Organizing Committee	iii
Message from INMIC 2007 General Chair	v
Technical Referees	vi
On the Dimensional Estimate of Rounding-Errors of a typical Computing Process	1
<i>Nasir Daniyal, Raheel Noor, Bilal A Usmani, S Jamal H Zaidi, Dadabhoi Institute of Higher Education, Kalsoft Pvt Ltd</i>	
A Template Based Continuous Genetic Algorithm for Image Reconstruction	8
<i>Shahzad Ahmed Qureshi, Sikander M. Mirza, M.Arif, PIEAS</i>	
Speaker Verification Using Boosted Cepstral Features with Gaussian Distributions	14
<i>Ahmad Salman NUST (EME College) Rawalpindi, Pakistan</i>	
Internet Traffic Modeling for Pakistan Internet Exchange	19
<i>Mehreen Alam, FAST-NU, Islamabad</i>	
SCTP vs. TCP: Delay and Packet Loss	25
<i>Muhammad Khalil Afzal, Dr. Aman-Ullah Khan, Dr. Antonio Pescapè, Salvatore Loreto, Yousaf Bin Zikria CIIT Wah, Università di Napoli "Federico II" Naples (Italy) CIIT Islamabad</i>	
Performance Evaluation of DCCP, SCTP using mpeg4 over wireless networks	30
<i>Sumera Nosheen, Dr. Shahzad A. Malik, Yousaf Bin Zikria, Dr. Aman-Ullah Khan, Muhammad Khalil Afzal CIIT Islamabad, CIIT Wah</i>	
Throughput Enhancement in AODV through Direction Awareness	36
<i>Abdul Basit and S A Hussain, CIIT, Lahore</i>	
Comparison of speech response of normal hearing listener and cochlear implanted patient using model for chaotic system	42
<i>Taha Sajjad, Dr. Zubair Ahmed Khan University of Engineering & Technology, Lahore, Pakistan</i>	
Analysis of Urdu Syllables and Proposed Algorithm Structure for Determination of Speaker's Speaking Rate	51
<i>J.S. Mirza, Hannan bin Liaqat, S. A. Hayat, CIIT, Lahore</i>	
Measurement of Urdu Speaker's Speaking Speed in Ordinary Conversation	55
<i>J.S. Mirza, Hannan bin Liaqat, S. A. Hayat, CIIT, Lahore</i>	
Statistical Based Real-Time Selective Herbicide Weed Classifier	60
<i>Irshad Ahmad CIIT, Abbottabad</i>	
Effect of UV radiation on HTV-SiR insulator with moisture	64
<i>Muhammad Amin, Munir Ahmed UET, Taxila, Pakistan</i>	
Modified Nonintrusive Appliance Load Monitoring For Nonlinear Devices	69
<i>Mahmood Akbar, Dr. Zubair Ahmad Khan, UET, Lahore</i>	
Cryptanalysis and Security Enhancement of Two Password Authentication Schemes with Smart Cards	74
<i>Muhammad Khurram Khan, MIEEE, Mohammad Munir Hasan Department of Computer Science & Engineering, Bahria University, Karachi, Pakistan</i>	
An Accessible Formal Specification of the UML and OCL Meta-Model in Isabelle/HOL	78
<i>Mohammad Nauman, Masoom Alam, Tamleek Ali City University of Science and Information Technology, Peshawar, Pakistan</i>	
Spectral Solution for Detecting Isomorphic Graphs with Nondegenerate Eigenvalues	84
<i>Usman A Zahidi, Embedded Software Engineer, Denmark</i>	
Using Support Vector Machines for Numerical Prediction	88
<i>Shahid Hussain, College of Computer and Information Sciences PAF-Karachi Institute of Economics and Technology Korangi Creek, Karachi</i>	
Simulation & Optimization of a Dual Mode Four Cavity Elliptic Waveguide Filter	93
<i>Sohaib Akram, Dr Inam Elahi Rana Bismillah Electronics Wahdat Road Lahore</i>	
New Error Functions associated with Multimodulus Algorithm for Blind Channel Equalization	97
<i>Shahzad Amin Sheikh, Pingzhi Fan, Institute of Mobile Communications, Southwest Jiaotong University, China</i>	
Steganography in MMS	102
<i>Mohammad Shirali-Shahreza Computer Science Department Sharif University of Technology Tehran, Iran</i>	
Integration of Model-Checking Tools : from Discrete to Hybrid Models	106
<i>Waseem A Mufti, Dimitri C. Tcherukine, NUCEs-FAST Karachi</i>	
Semantic Preserving RTL Transformation for Control-Data Slicing in Virtual IPs	110
<i>Waseem Muhammad, SOC laboratory, ENST, Institute Eurecom Sophia/antipolis Cedex, France</i>	
Intelligent Reconfigurable Instruction Set Processor (IRISP) Design	116
<i>Aziz-Ur-Rehman, Dr. Aqeel A. Syed Quaid-i-Azam University Islamabad Pakistan</i>	

Sensorless Speed Dynamic Modeling of an Induction Motor with Input-Output Feedback Linearization Controller and Adaptive Nonlinear	122
<i>M. Jalalifar, A Farokhpayam, S. Sadeghi, S. M. Saghaeiannejad, Islamic Azad University, Fereydan Branch, Esfahan, University of Tehran</i>	
A new approach in Industrial automation application “ Embedded system design for Injection Molding Machine”	128
<i>Syed Faiz Ahmad, School of Electronics & Electrical Engineering Nanyang</i>	
Wireless controlled Laser tracking based hovering mine detector	133
<i>Mujtaba Hussain CIIT Lahore</i>	
Backstepping Control Approach for Closed Loop Feedback Control of Atomic Force Microscope	141
<i>Farrokh Payam, M. Jalalifar, Faculty of Electrical & Computer Engineering, University of Tehran, Tehran, Iran</i>	
An Adaptive Input-Output Feedback Linearization Controller for Doubly-Fed Induction Machine Drives	144
<i>Farrokh Payam, M. Jalalifar, Faculty of Electrical & Computer Engineering, University of Tehran, Tehran, Iran</i>	
On a Cut-Off Threshold Delay-Loss System with N Types of Traffic for Overload Protection.	149
<i>Shahzad Sarwar, O. Univ. Prof. Dr. Harmen R. van As, Khurram Aziz Institute of Broadband Communications (IBK) Vienna University of Technology Favoritenstrasse Vienna, Austria</i>	
Navigation Testbed for remote control hovercraft	155
<i>Mujtaba Hussain, Dr. M. Ashraf Chughtai, Zara Mujtaba, CIIT Lahore</i>	
Performance of non-exhaustive cyclic service systems with finite queues and nonzero switchover times	161
<i>Khurram Aziz, Harmen R. van As, Shahzad Sarwar Institute of Broadband Communications (IBK) Vienna University</i>	
Software Artifacts Recovery Using Abstract Regular Expressions	167
<i>Ghulam Rasool, Nadim Asif, Computer Science CIIT Lahore</i>	
Documenting Requirements Traceability Information for Small Projects.	173
<i>Arslan Ahmad, Muhammad Ahmad Ghazali, National University of Computer and Emerging Sciences (NUCES FAST), Lahore, Pakistan</i>	
Initialization of the Cartesian Ad hoc Routing Protocols (CARP)	178
<i>Imran Raza, Hassan Raza NUST (EME College) Rawalpindi, Pakistan</i>	
Using an Event Based Priority Queue for Reliable and Opportunistic Scheduling of Bulk Data Transfers in Grid Networks	182
<i>Kashif Munir, Somera Javed, Michael Welzl, Malik Muhammad Junaid, University of Innsbruck, Innsbruck, Austria</i>	
Influence of edge gradient on morphology of edge roughness using PMMA.	188
<i>Sohab Sarfraz, UK</i>	
Optimal Sampling for Signal Restoration by Wiener Filter.	194
<i>Shahzad Anwar, Dr Aqeel A Syed, Quaid-e-Azam University Islamabad</i>	
Reference Free Framework for Bio-Inspired Time Motion Detector	199
<i>Syed S.Naqvi, Naeem Z.Azeemi, S.A.Khan, CIIT Islamabad</i>	
Session Mobility of Multimedia Applications in Home Networks Using UPnP.	205
<i>Hamid Mukhtar, Djamel Belaïd, Guy Bernard, Institute National des Telecommunications (INT/GET), France</i>	
Efficient Algorithm for Designing Weighted Voting Games	211
<i>Haris Aziz, Mike Paterson, Dennis Leech, Computer Science Department, Economics Department, University of Warwick, Coventry, UK</i>	
Effectiveness of Hierarchical Heavy Hitter Identification for Intrusion Detection	217
<i>Saba Pervez Uppal, Asim Karim & Sara Tahir Butt, Dept. of Computer Science Lahore University of Management Science, Pakistan & School of Computer Science, Carnegie Mellon University, USA</i>	
ÆTHER: Dynamic and Self adaptive Middleware	222
<i>Farooq Muhammad, Fabrice Muller, Michel Auguin University of Nice Sophia-Antipolis, Cedex, France</i>	

Authors Index