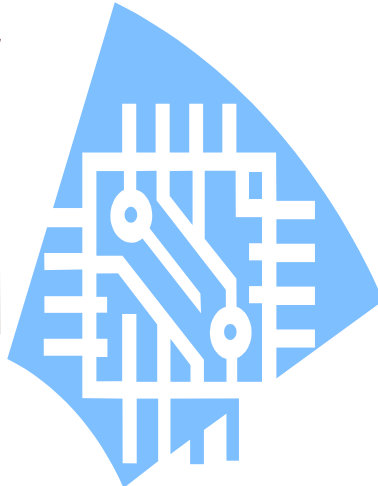# 2006 ANNUAL INDIA CONFERENCE
(IEEE INDICON 2006)

Organized by

India Council
Delhi Section

Program Schedule

September 15-17, 2006
India Habitat Centre, New Delhi

Welcome

Welcome to IEEE INDICON 2006!

IEEE India Council has been holding an Annual Conference and Exhibition (ACE) at different locations in India. From 2004, ACE is renamed as IEEE INDICON. IEEE Kharagpur Section organized IEEE INDICON 2004, and IEEE Madras Section organized the IEEE INDICON 2005, an International Conference and Exhibition under the aegis of IEEE India Council. IEEE INDICON 2006 is being organized by IEEE Delhi Section. The venue of the conference, being held on 15-16-17 September 2006, is India Habitat Center, Lodhi Road, New Delhi, the capital city of India.

As in the past, the Conference is providing a forum for scientists, educators, students and practicing engineers to meet and exchange ideas and explore new avenues of research, cooperation, and knowledge sharing. Apart from the presentation of contributed papers reviewed by a renowned panel of reviewers, INDICON 2006 also includes Workshops and Invited Talks by pioneers in various fields. This years' conference focuses on "Emerging Trends in ICT (Information and Communications Technology)

We are happy to share with you that our call for papers received an overwhelming response. We received around 300 extended abstracts, and are glad that over 130 technical papers are being presented in the conference. The technical program has been arranged in 18 sessions. These papers span a large variety of areas related to signal processing and applications, communications, information technology, cryptography, and networks.

The conference is preceded by workshops on several emerging topics. We are sure you will take full advantage of these workshops. We are sure that these workshops, and the technical sessions and invited talks that follow, will make the attending the conference an enriching experience for us all.

We are grateful to Mr. Rajeeva Ratna Shah, Member Secretary, Planning Commission, Government of India, who has kindly agreed to inaugurate the conference.

We wish to express our gratitude to our sponsors (Tata Consultancy Services and Xansa) whose generous contributions have made this conference possible.

 We gratefully acknowledge the great contribution of all the reviewers whose effort is instrumental for the success of any such conference. We take this opportunity to thank the student volunteers also.

Dr. Shankar Prakriya
For and on behalf of
Conference Committees

Message from the President of India
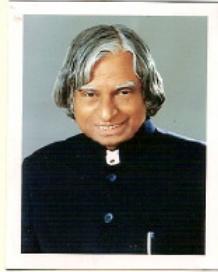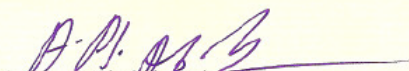
MESSAGE

I am happy to know that the IEEE INDICON 2006 is organising its Annual Conference and Exhibition (ACE) on the theme 'Emerging Trends in Information and Communications Technology (ICT) during September 15-17, 2006.

This Conference can provide a forum for participating scientists, educators, students and practicing engineers to exchange their views and explore new avenues of research and knowledge in the areas of Information and Communications Technology. Above all ICT has to connect people with knowledge as the media and has to impart the way and the habit of life.

On this occasion, I extend my greetings and felicitations to the participating delegates and wish the event all success.

(A.P.J. Abdul Kalam)

New Delhi
June 21, 2006

Message from Chairperson, IEEE India Council

◆IEEE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

IEEE INDIA COUNCIL

Rajendra K. Asthana
Chairman

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It gives me a great pleasure to write about INDICON 2006 being held at New Delhi. India Council's annual activity / conference popularly known as "Annual Convention & Exhibition" (ACE) was being jointly organized by India Council and one of the Sections In India. For the last 3 years ACE has been transformed into an International Conference. The first such a Conference was organized at IIT, Kharagpur in 2004, followed by 2nd one at Chennai in 2005. This is going to be the third such Conference and is being jointly organized by IEEE India Council and IEEE Delhi Section at India Habitat Center, Lodhi Road, New Delhi from 15th to 17th September 2006. The theme of the Conference is "Emerging Trends in ICT (Information and Communications Technology).

The Conference will provide a forum for scientist and Engineers from India to meet together and exchange ideas to explore new areas for improvement. The Conference will have both contributed as well as invited papers by pioneers in the field. In addition the Conference will provide a forum for first 3 winners of M. V. Chauhan Student Paper contest organized for IEEE Student Members in India to present their papers in person to all participants of the Conference. I am sure the deliberations will benefit all.

I appreciate the efforts & hard work put in by the Program & Organising Committee to make the event successful.

I wish the Conference a grand success.

Dated: August 31, 2006

R. K. Asthana

Message from Chairperson, IEEE Delhi Section

IEEE

IEEE DELHI SECTION

Mr. Prakash V. Ekande Chairman
55B, Pkt A, Sukhdev Vihar New Delhi 1100 25
9868390266 (M) 26315865®

e-mail : ieeedelhi@ieee.org   *URL* : http://www.ewh.ieee.org/r10/delhi

28th August 2006.

Dear Friends,

I am highly delighted for IEEE INDICON 2006 being held at Delhi and for which pivotal role is given to Mr. Daman Dev Sood, the Convener & Joint Secretary IEEE Delhi Section. At the same time, all dedicated efforts are being rendered by the Organizing Committee and Technical Program Committee to make it successful & meaningful event. I extend my hearty compliments to all members in Organizing Committee & Technical Program Committee and wish this program a grand success. I sincerely thank IEEE India Council EXECOM for considering Delhi Section to organize IEEE INDICON 2006.

On my personal behalf & Delhi Section EXECOM, I express our gratitude to All Patron Members, Sponsors, Invited Guest Speakers, Authors of Papers and all who have given valuable support to this conference.

IEEE gives prime importance to professional & technical activities and nurturing the development of leadership, volunteerism and growth in professional career of each individual member and student members in particular. This is a golden opportunity for all of us for not only coming together but also for sharing the experiences, thoughts and dreams for bringing new and developed life in future to come. We are standing on the solders of all great human beings who had contributed to good cause of development of science and technology for betterment of life on our planet and here we are now to contribute so that in future we will be also acknowledged for contributions that will last for ever and bring prosperity to the society.

I take this opportunity to congratulate all award winners of the MV Chauhan paper contest from the student community. We are grateful to Hon'ble President of India Dr. A.P.J. Abdul Kalam for his kind encouragement to IEEE Professional & Technical activities.

I also appeal all members to continue with their professional excellence and IEEE membership.

My best wishes are with you. May God bless you.

PRAKASH V.EKANDE
CHAIRMAN IEEE DELHI SECTION

Conference Committees

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Dr. Mini Thomas, Secretary Delhi Section and Jamia Milia Islamia

Conference Convener:
Daman Dev Sood, SM IEEE and Global Business Continuity Manager, Xansa

Technical Program

09:00	**Registration commences**
09:00-09:55	**Guitar Performance: Sanjay Dutt**
09:55-10:00	**Saraswati Vandana: Sanjay Dutt**
10:00-13:00	**Workshop I – IT Security: Mr. Sameer Datt, CEO, Foundation of Futuristic Technologies**
	Workshop II – RFID: Mr. B. Sreekrishna, Director, Gemini Communications
(11:00-11:30	Tea)
13:00-14:00	Lunch
14:00-15:30	**Workshop III – Network Modeling: Dr. S. Dharmaraja, IIT Delhi**
	Workshop IV – Support Vector Machines and Kernel Optimization for Machine Learning: Dr. Jayadeva and Prof. S. Chandra, IIT Delhi
15:30-16:00	Tea
16:00-17:00	**Inauguration: Mr. Rajeeva Ratna Shah, Member Secretary, Planning Commission, Govt. of India**
17:00-17:30	High Tea

09:30-10:15	**Invited Talk I – Mr. Anthony Lobo, Tata Consultancy Services 'Professional Ethics and Managing Risks to Reputation'**
10:15-11:00	**Invited Talk II – Mr. G V Singh, VP and Head IT Infrastructure (Delivery and Operations), Xansa 'Aligning Technology with Business'**
11:00-11:30	Tea
11:30-13:00	**Technical Sessions 1-3**
13:00-14:00	Lunch
14:00-15:30	**Technical Sessions 4-6**
15:30-16:00	Tea
16:00-17:30	**Technical Sessions 7-9**

09:30-11:00	**MV Chauhan student paper contest**
11:00-11:30	Tea
11:30-13:00	**Technical Sessions 10-12**
13:00-14:00	Lunch
14:00-15:30	**Technical Sessions 13-15**
15:30-16:00	Tea
16:00-17:30	**Technical Sessions 16-18**
17:30:18:00	**Closing ceremony**

Technical Program Sessions

Session 1   Signal Processing

Characterization of Discrete-Time Fractional Brownian Motion
Anubha Gupta[1], S. D. Joshi[2]
[1]Netaji Subhas Institute of Technology, Delhi
[2]Indian Institute of Technology, Delhi

Generation Mechanism for Cyclostationary and Self-Similar Processes
Sanjay Nalbalwar[1], S. D. Joshi[2], R. K.. Patney[2]
[1]Dr. B. A. Technological University, Lonere, Maharashtra
[2]Indian Institute of Technology, Delhi

Perfect Reconstruction in Non-Biorthonormal Filter Banks using Vector Space Approach
Sanjay Nalbalwar[1], S. D. Joshi[2], R. K. Patney[2]
[1]Dr. B. A. Technological University, Lonere, Maharashtra
[2, 3]Indian Institute of Technology, Delhi

Non Stationary Signal Classification Using Fuzzy C- Means   Clustering
Birendra Biswal[1], P.K. Dash[2], B. K.. Panigrahi[3]
[1]Silicon Institute of Technology, Bhubaneswar
[2]College of Engineering, Bhubaneswar
[3]Indian Institute of Technology, Delhi

A Novel Least Mean Squares Algorithm for Tracking a Discrete-Time fBm Process
Anubha Gupta[1], S. D. Joshi[2]
[1]Netaji Subhas Institute of Technology, Delhi
[2]Indian Institute of Technology, Delhi

Chaos in Digital Filters
Prem Bhushan Mital[1], Umesh Kumar[2], R. S. Prasad[1]
[1] Vishveshwarya Institute of Engineering & Tech Gautam Budha Nagar
[2]Indian Institute of Technology, Delhi

Constrained Autoregressive Model for Burg Method
Nishit Jain, K. Sunil Reddy, S. Dandapat
Indian Institute of Technology, Guwahati.

Session 2   Networks I

Distributed Diagnosis in Dynamic Fault Environment for Not Completely Connected Network
P. M. Khilar, Sudipta Mahapatra
Indian Institute of Technology, Kharagpur

A Novel Approach to GFP Frame Delineation
Atul Gupta[1], D. Chadha[2]
[1]Agilent Technologies, Gurgoan
[2]Indian Institute of Technology, New Delhi, Department of Electrical Engineering

Policy Based Real-Time Queue Management for Heavy Traffic
S. Rajeev[1], K. V. Sreenaath[2]
[1]PSG College of Technology
[2]Motorola India Pvt. Ltd, Bangalore

Performability Analysis of a Fault Tolerant Sectorized Cellular Network
Sanjiv Tokekar, Neetesh Purohit
Institute of Engineering and Technology, Devi Ahilya University, Indore

GMPLS Control Plane Enhancements for Minimizing VC Differential Delay in Data over SDH Networks
Sameer Manikfan
UTStarcom Inc. India R&D Centre, Gurgaon

An Algorithm for Contention Resolution in Label Switched Networks
Anshu Singh, Vinod Chandra
Indian Institute of Technology Delhi

Multimedia Supported Earliest Due Date Scheduler for IEEE 802.16d OFDMA Networks
R. Perumalraja, S. Radha
SSN College of Engineering, Chennai

Wavelength Routed Shared Buffer based Feed-Forward Architectures for Optical Packet Switching
Rajat Kumar Singh, Rajiv Srivastava, Vipin Mangal, Yatindra Nath Singh
Indian Institute of Technology, Kanpur

A Modified Photonic Switch Architecture based on Fiber Loop Memory
Rajiv Srivastava, Vipin Mangal, Rajat Kumar Singh, Yatindra Nath Singh
Indian Institute of Technology, Kanpur

Modified Smith Predictor for Network Congestion Control
P. Baburaj, S. Majhi
Indian Institute of Technology, Guwahati

Session 3   Communications I

High Gain and Efficient Patch Antenna on Micromachined GaAs EBGs with Increased Bandwidth
Dipto Dey, R. S. Kshetrimayum
Indian Institute of Technology, Guwahati

Performance Limitations of an Optical Heterodyne CPFSK Transmission System Affected by Polarization Mode Dispersion in a Single Mode Fiber
M. S. Islam[1] S. P. Majumder[2]
[1]Institute of Information and Communication Technology, University of Engineering and Technology, Dhaka, Bangladesh
[2]Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Impact of SPM on Dispersion Compensated DPSK Transmission Link under Tight Optical Filtering
Sumanta Gupta[1], R. Gangopadhyay[1], G. Prati[2]
[1]Indian Institute of Technology, Kharagpur
[2]Consorzio Nazionale Interuniversitario per leTelecomunicazioni (CNIT) Photonic Networks National Laboratory,Pisa, Italy, and also with Scuola Superiore Sant'Anna University, Pisa, Italy

Design and Optimization of Broadband Micromachined Antenna
Sumy Jose, K. J. Vinoy
Indian Institute of Science, Bangalore

Circular Patch Antenna with Quarter Wave Transformer Feed for Wireless Communication
Manoj Singh, Ananjan Basu, S. K. Koul
Indian Institute of Technology, Delhi

Design of Aperture Coupled Fed Micro-strip Patch Antenna for Wireless Communication
Manoj Singh, Ananjan Basu, S. K. Koul
Indian Institute of Technology, Delhi

Numerical Computation of the Modes of Electromagnetic Wave Propagation in a Non-Homogeneous Rectangular Waveguide
Vaish Artiy, H. Parthasarathy
Netaji Subhash Institute of Technology, New Delhi

Impact of Polarization Mode Dispersion on CPFSK Transmission Systems using MZI based Direct Detection Receiver
M. S. Islam, S. P. Majumder
[1]Institute of Information and Communication Technology, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
[2]Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

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Session 4   Applied Signal Processing I

State Estimation of a Nonlinear System by Neural Extended Kalman Filter
K. Rajgopal, N. Pappa
Madras Institute of Technology, Anna University, Chennai

Simultaneous State and Fault Parameter Estimation for a Continuous Stirred Tank Reactor using Fuzzy Kalman Filter
K. Janarthanan, J. Prakash
Madras Institute of Technology, Anna University, Chennai

Bias Estimation of Multiple Radars by Quasi-recursive Filtering
Kiran Chittela, Tanushree Garai, Siddhartha Mukhopadhyay
Indian Institute of Technology, Kharagpur

ANFIS Modeling of Nonlinear System Based on Subtractive Clustering and Vfold   Technique
Mrinal Buragohain, Chitralekha Mahanta
Indian Institute of Technology Guwahati

ANFIS Modeling of Nonlinear System Based on Subtractive Clustering and Combined FFD-Vfold Technique
Mrinal Buragohain, Chitralekha Mahanta
Indian Institute of Technology, Guwahati

Alternative Formulation for Risk Sensitive Particle Filter (Posterior)
Shoavn Bhaumik, S. Sadhu, T. K. Ghoshal
JadavpurUniversity, Kolkata

Full Factorial Design based ANFIS Model for Complex Systems
Mrinal Buragohain, Chitralekha Mahanta
Indian Institute of Technology, Guwahati

Performance Analysis due to Feature Transformation for Automated Marine Vessel Recognition in Cepstral Domain
Arnab Das, Arun Kumar, Rajendar Bahl
Indian Institute of Technology, Delhi

Role of Weighting on TDM in Improvising Performance of LSA on Text Data
Sudarsun S., Venkatesh Prabhu G., Sathish Kumar V.
Chectronix India Pvt Ltd, Chennai

Session 5   Networks II

Self-Healing for Self-Organizing Cluster Sensor Networks
Rajiv Misra, Chittaranjan Mandal
Indian Institute of Technology, Kharagpur

Secure AODV with QoS Support in On-Demand Ad Hoc Networks
Preethl G., Sathya.I., Vigneswaran R., S. Radha, B. Anand Krishna
SSN College of Engineering, Kalavakkam

Fuzzy Proactive Queue Management Technique
Saman Taghavi Zargar, Mohammad Hossein Yaghmaee, Amin Milani Fard
Ferdowsi University, Mashhad, Iran

Modeling of a Hybrid Protocol for a MANET using Fuzzy Petri Nets
Subramanyan P. V., Ashutosh Chauhan, Yaduvir Singh
Thapar Institute of Engineering and Technology, Punjab

Optimal Reactive Routing Protocol (ORRP): A New Reactive Routing Protocol for the Shortest Path in Ad Hoc Networks
Sagnik Dutta[1], Rituparna Chaki[1], Nabendu Chaki[2]
[1]University of Technology, Kolkata
[2]University of Calcutta, Kolkata

Access Point Priority based Capacity Enhancement scheme for VoIP over WLAN
Danish Hashmi, P. V. Kiran, Brejesh Lal
Indian Institute of Technology, Delhi

An Algorithm for Wavelength Converter Placement in Optical Networks
Reena Harnal, V Chandra
Indian Institute of Technology, Delhi

FPGA Implementation of DSDV based Router In Mobile Adhoc Network
M.Ramakrishnan, S.Shanmugavel
College of Engineering, Guindy, Anna University, Chennai

Session 6   Information Technology I

Implementation Aspects of Software Development Projects
Sandhya Kakkar
Tata Consultancy Services, New Delhi

Significance of Software Metrics in ERP Projects
S. Parthasarthy, N. Anbazhagan
Thiagarajar College of Engineering, Madurai

Quantitative Measurement of Software Architectural Qualities through COSMIC FFP
G. Zayaraz, P. Thambidurai
Pondicherry Engineering College, Pondicherry

An M-ary Tree Based Frequent Temporal Pattern (FTP) Mining Algorithm
Sivaselvan, N. P. Gopalan
National Institute of Technology Tiruchirappalli

An Effective Fusion Technique based on Signal to Noise Ratio
N. P. Gopalan, K. Batri
National Institute of Technology Tiruchirappalli

A New Grid Monitoring Framework using Mobile Agents
S. Thamarai Selvi,   C. Valliyammai
Madras Institute of Technology,Anna University, Chennai

Compensation-Based Grid Scheduling
R. Anitha, N. Rajkumar
Sri Ramakrishna Engineering College, Coimbatore

Status Monitoring of Jobs in Heterogeneous Grid Environments
G. Sumathi[1], N. P. Gopalan[2]
[1]Sri venketeswara College of Engineering, Sriperumbudur
[2]National Institute of Technology, Tiruchirapalli

Session 7   Communications II

On The Development of a New Adaptive Channel Equalizer using Bacterial Foraging Optimization Technique
Babita Majhi[1], G. Panda[1], A. Choubey[2]
[1]National Institute of Technology, Rourkela
[2]National Institute of Technology, Jamshedpur

Maximum Likelihood Decoding of Low Density Parity Check Coded Subcarrier Modulation in Optical Wireless Systems
Manish Sharma[1], D. Chadha[2]
[1]Government Polytechnic College, Alwar
[2]Indian Institute of Technology, Delhi

A Reduced Complexity Hybrid Switched Mode Detector using Interference Cancellation Methods for DS-CDMA Systems
Rekha Agarwal, B. V. R. Reddy, K. K. Aggarwal
Guru Gobind Singh Indra PrasthaUniversity, Delhi

Robust Time and Frequency Synchronization in OFDM based 802.11a WLAN Systems
S. K. Manusani, R. S. Kshetrimayum, R. Bhattacharjee
Indian Institute of Technology, Guwahati

Signal To Interference Ratio Based Fuzzy Logic Controlled Call Handover
P. P. Bhattacharya[1], P. K. Banerjee[2]
[1]Netaji Subhas Engineering College, Kolkata
[2]Jadavpur University, Kolkata

Automatic Blind Recognition for Noisy and Faded Digitally Modulated MQAM Signals
Sumeet Gulati, Ratnajit Bhattacharjee
Indian Institute of Technology, Guwahati

Effect of Array Geometry on the Capacity of Outdoor MIMO Communication: A Study
Babu Sena Paul, R. Bhattacharjee
Indian Institute of Technology, Guwahati

VLSI Implementation of a Low Power High Throughput Low Density Parity Check Decoder for Optical Communication Systems
Kaushik Vaidyanathan, Anusha.Radhakrishnan, Valli Sounthariya Kumar, Kannan. M
Madras Institute of Technology, Anna University, Chennai

An Application of Multi Wavelets in Wireless Communication in the Presence of Frequency Selective Fading
Sujata Sengar[1], S. D. Joshi[2], S. Prasad[2]
[1]Netaji Subhas Institute of Technology, New Delhi
[2]Indian Institute of Technology, Delhi

Session 8   Security & Encryption I

Agent based Intrusion Detection System : A Computational Biology Approach
S. Janakiraman[1], V. Vasudevan[2], S. Radhakrishnan[2]
[1]P S R Engineering College, Sivakasi
[2]Arulmigu Kalasalingam College of Engineering, Krishnakoil, Tamil Nadu

An Active Rule Based Approach for Network Intrusion Detection with NeuroC4.5 Algorithm
Siva S. Sivatha Sindhu[1], S. Geeta[1], S. Subashini[1], R Vijaya Priya[1], A Kannan[2]
[1]Thiagarajar College of Engineering, Madurai
[2]Anna University, Chennai

RPAKE: RCA based Password Authenticated Key-Exchange
Somntah Tripathi, Sukumar Nandi
Indian Institute of Technology, Guwahati

Enterprise System-Deployment,Architecture,Threats and Security
Deven Shah, Radha Shankarmani, Rupali Sawant
S.P.I.T Mumbai

A Prolate Contour Cryptography (PCC) Primer
Rahul S Aurora[1], Ashwat Ramani[2], Nithin K[2], Bhanu Kalyan K.
[1] Vasavi College of Engineering, Hyderabad
[2]J.B Institute of Engineering and Technology

A Novel Dynamic ID-based Remote User Authentication Scheme
Mohammed Misbahuddin[1], Md. Aijaz Ahmed[2], A. Ananda Rao[3], C. S. Bindu[3], M. A. Muqsit Khan[1]
[1]Maulana Azad National Urdu University, Gachibowli, Hyderabad
[2]M.G.M'S College of Engineering, Nanded
[3]JNTU College of Engineering, Anantapur

Improved Collusion Resistant Multimedia Fingerprinting for Non-Linear Attacks
Abhijit Kedia, Sumit Agrawal, P.K. Bora
Indian Institute of Technology, Guwahati

Session 9   Speech Processing

Log Gabor Wavelet and Maximum a Posteriori Estimator in Speaker Identification
Suman Senapati, Sandipan Chakroborty, Goutam Saha
Indian Institute ofTechnology, Kharagpur

Enhancement of Noisy Speech by Spectral Subtraction and Residual Modification
P. Krishnamoorthy, S. R. Mahadeva Prasanna
Indian Institute of Technology, Guwahati

Reduction of Musical Noise in Spectral Subtracted Speech Using Excitation Source Information
N. Gandhi, P. Krishnamoorthy, S. R. Mahadeva Prasanna
Indian Institute of Technology, Guwahati

Stress Compensation for Improvement in Speaker Recognition
G. Senthil Raja, S. Dandapat
Indian Institute of Technology, Guwahati

Characterization and Incorporation of Emotions in Speech
T. V. Sagar, K. S. Rao, S. R. M. Prasanna, S. Dandapat
Indian Institute of Technology, Guwahati

Speech Pitch Shifting using Complex Continuous Wavelet Transform
Abhay Kumar[1], Renuka Jain[2]
[1]School of Electronics, D. A. University, Khandwa Road, Indore
[2]SDB college of Technology, Indore

Session 10   Biomedical Applications

On An Algorithm for Boundary Estimation of Commonly Occurring Heart Valve Diseases in Time Domain
Samit Ari, Prashant Kumar, Goutam Saha
Indian Institute of Technology, Kharagpur

Medical Image Denoising using X-lets
Latha Parthiban, R. Subramanian
Pondicherry University

Detection of Diabetic Retinopathy in Fundus Images Using Vector Quantization Technique
Divyanjali Satyarthi, B. A. N. Raju, S. Dandapat
Indian Institute of Technology, Guwahati

The Webcam Mouse: Visual 3D Tracking of Body Features to Provide Computer Access for People with Severe Disabilities
M. Atyabi, M. S. Khajeh Hosseini, M. Mokthari
Islamic Azad University, Sport Science Research Center, Tehran, Iran

New Method in Sensation Transferring Through Internet
M. S. Khajeh Hosseini, M. Atyabi
Islamic Azad University, Sport Science Research Center, Tehran, Iran

Wavelet based ECG Compression with Large Zero Zone Quantizer
M. Sabarimalai Manikandan, S. Dandapat
Indian Institute of Technology, Guwahati

Wavelet based Novel Technique for Signal Conditioning of Electro-Oculogram Signals
Ayush Bhandari[1], Vijay Khare[2], Mrinal Trikha[1], Sneh Anand[2]
[1] Jaypee Institute of Information Technology, Noida
[2] Indian Institute of Technology, Delhi

Tracking of Heart Wall Motion using Unscented Kalman Filter
D. Hazarika, C. Mahanta, S. Dandapat
Indian Institute of Technology, Guwahati

Session 11   Image Processing I

Combining Structural & Statistical Features for Numeral Recognition
P. Samrajya Lakshmi[1], M. Hanmandlu[2], A. Swaroop[1]
[1] National Institute of Technology, Kurukshetra
[2] Indian Institute of Technology, Delhi

A Design of Secure Watermarking Scheme for Images in Spatial Domain
S. S. Bedi[1], Shekar Verma[2]
[1]MJP Rohilkhand University, Bareilly
[2] I.I.I.T.M. Gwalior

Fault Detection In PCB using Homotopic Morphological Operator
Kiran Talele, S. T. Gandhe, M. M. Shah
S. P. College of Engineering, Mumbai

A Hybrid DWT-DCT based Video Coding
M. Ezhilarasan, P. Thambidurai
Pondicherry Engineering College, Pondicherry

Hexagonal Pixel Grid Modeling for Edge Detection and Design of Cellular Architecture for Binary Image Skeletonization
M. Senthilnayaki , S .Veni , K. A. Narayanan Kutty
Amrita school of Engineering, Ettimadai, Coimbatore

Texture Segmentation using Tchebichef Moments
P. Ananth Raj[1], A. Venkataramana[2]
[1]College of Engineering, Osmania University, Hyderabad
[2]Government Polytechnic College, Mahabubnagar

Session 12   Information Technology II

Data Warehousing Estimation – A Fuzzy Approach
Nonika Bajaj, Rakesh Agarwal
Accenture Private Limited, India

A Multi-Language System for Knowledge Extraction in E-Learning Videos
Aparesh Sood, Divya Sarthi, Ankush Mittal
Indian Institute of Technology, Roorkee

A Study of ICT Enabled Laboratories
Ashish Mani, C. Patvardhan
Dayalbagh Educational Institute, Dayalbagh, Agra

SWARM: Sensor driven Water and Agricultural Resources Management
Chitra Babu[1], Naren Athmaraman[2], Archana Ganesan[3], Srivathsan Soundararajan[4], Rama Muthukumar
[1]SSN College of Engineering, Chennai
[2]University of Illinois at Chicago, Chicago, IL, U.S.A.
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Multi-agent System based Multi-auctioning in e-Commerce
Lokesh B. B., S. S. Manvi
Basaveshwar Engineering College, Bagalkot

Towards Adaptive e-learning: Technological Challenges and Enabling Technologies
Aasim Zafar, Nesar Ahmad
Aligarh Muslim University, Aligarh

Implementation of Expert Systems in Gaming
Rahul S. Aurora[1], Ashwat Ramani[2], Nithin K.[2], Bhanu Kalyan K.[3]
[1]Vasavi College of Engineering, Hyderabad
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Formal Verification of Power Scheduling Policies for Battery Powered Mobile Systems
Sayak Ray, Pallab Dasagupta, P. P. Chakrabarti
Indian Institute of Technology, Kharagpur

Semantic based GI Service Composition for Efficient Utilization of Distributed GI Services
Manoj Paul, S. K. Ghosh
Indian Institute of Technology, Kharagpur

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Design of High-Speed Pipelined Execution Unit of 32Bit RISC Processor
Shofiqul Islam, Debanjan Chattopadhyay, Manoj Kumar Das, V. Neelima, Rahul Sarkar
VLSI Division, DRDO, Anurag

Test Vector Ordering for Power Reduction During Transmission of Compressed Test Patterns to Embedded System-On-Chip
Chandan Giri,   Nikhil Reddy Cheruku, Santanu Chattopadhyay
Indian Institute of Technology, Kharagpur

Output Phase Assignment for Area and Power Optimization in Multi-Level Multi-Output Combinational Logic Circuits
Saurabh Chaudhary, Santanu Chattopadhyay
Indian Institute of Technology, Kharagpur

New Silicon-Carbide Schottky-Gate Bipolar Mode Field Effect Transistor (SiC SBMFET) Without PN Junction
Jagadesh Kumar, Harsh Bahl
Indian Institute of Technology, Delhi

VLSI Implementation of Modified SPIHT Image Coder/Decoder
Anil Kumar, V. Nandi, R. M. Banakar
B.V.Bhoomaraddi College of Engineering and Technology, Vidyanagar, Hubli

High Throughput, Low Cost, Fully Pipelined Architecture for AES Crypto Chip
Nalini C. Iyer[1], Anandmohan P. V.[2], Poornaiah D.V.[3], V. D. Kulkarni[4]
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ASIC Design for Micro satellite Data Acquisition Bus Control
Balaji. V, P.V.Ramakrishna
Anna University, Guindy

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Adaptive Localized Curve Tracing Methodology for Efficient Transmission of Audio Streams over Noisy ATM Networks
Prasanna Kannan[1], Pravin Kumar[2]
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Non-linear State Estimation for Continuous Stirred Tank Reactor using Neural Network State Filter
K. Srinivasan, J. Prakash
Madras Institute of Technology, Anna University, Chennai

Semantic Text Document Clustering
Nadeem Akhtar, Nesar Ahmad
Aligarh Muslim University, Aligarh

Learning to Optimize VLSI Design Problems
Jayadeva, Sameena Shah, Suresh Chandra
Indian Institute of Technology, Delhi

Learning to Optimize Constrained Problems
Jayadeva, Sameena Shah, Suresh Chandra
Indian Institute of Technology, Delhi

Regularized Least Squares Potential SVRs
Jayadeva, Alok Kanti Deb, Reshma Khemchandani, Suresh Chandra
Indian Institute of Technology, Delhi

Unsupervised Contextual Keyword Relevance Learning and Measurement using PLSA
Sudarsun S.[1], Dalou Kalaivendhan[2], Venkateswarlu M.[2]
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Image Segmentation using Global and Local Fuzzy Statistics
Debashis Sen, Sankar K. Pal
Indian Statistical Institute, Kolkata

Adaptive Rank-ordered Switching Median Filter for Salt & Pepper Impulse Noise Reduction
Krishnan Nallaperumal[1], Justin Varghese[1], S. Saudia[1], Santhosh P. Mathew[2], K. Krishnaveni[3], S. Annam[1]
[1]Manonmaniam Sundaranar University, Tirunelveli
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A Novel Beard Removal Method based on Structural Similarity and Co-ordinate Transformations
Nitin Kaushik, Ankush Mittal
Indian Institute of Technology, Roorkee

A Novel Rate-Scalable Multimedia Service for E-Learning Videos using Content Based Wavelet Compression
Aparesh Sood, Divya Sarthi, Amit Pande, Ankush Mittal
Indian Institute of Technology, Roorkee

An efficient Multiscale Morphological Watershed Segmentation using Gradient and Marker Extraction
Krishnan Nallaperumal[1], K. Krishnaveni[2], Justin Varghese[1], S. Saudia[1]
[1]Manonmaniam Sundaranar University, Tirunelveli
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A Wavelet Transform Based Digital Image Watermarking and Authentication
Krishnan Nallaperumal[1], R. K. Selvakumar[2] , S. Rajapandian[3], K.ArulMozhi[1], C. Nelson Kennedy Babu[4]
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Implementation of Integer Wavelet Transform on Software Configurable Processor
Shishir Pandey[1], U. C. Niranjan[2]
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High Speed Power Efficient CGIC Digital Filters For VLSI Applications
Gopal Paul, Ajit Pal
Indian Institute of Technology, Kharagpur

Systematic Analysis, Design and Optimization of On Chip Spiral Inductor for Silicon Based RFIC's
Genemala Haobijam, Roy Paily
Indian Institute of Technology, Guwahati

New Silicon Carbide (SiC) Hetero-Junction Darlington Transistor
M. Jagadesh Kumar, Amit Sharma
Indian Institute of Technology, Delhi

Property Driven Test Generation in Absence of Direct Interface
Bhaskar Pal, Pallab Dasgupta, Partha P. Chakrabarti
Indian Institute of Technology, Kharagpur

Reconfigurable Architecture for WTLS
R. Seshasayanan, K. K. Senthil Kumar
College of Engineering, Guindy, Chennai

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Shared Based Rate Limiting: An ISP Level Solution to Deal DDoS Attacks
Rajesh Sharma, Vijay Allu, Krishan Kumar, Kuldip Singh, R. C. Joshi

Indian Institute of Technology, Roorkee

A Novel Fast Hybrid Cryptographic System: MARS4
Sheena Mathew, K. Paulose Jacob

Cochin University of Science and Technology, Kochi

Security Model of Service Oriented Computational Grids
Debasish Jana[1], Amritava Chaudhuri[2], Bijan Bihari Bhaumik[3]

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StegoBreaker: Audio Steganalysis using Ensemble Autonomous Multi-Agent and Genetic Algorithm
S. Geetha,[1] Siva S.Sivatha Sindhu[1], A. Kannan[2]

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[2]Anna University, Chennai

Neuro - Genetic based Speech Processing for Promoting Global Cyber Security using Staganography Technique
Tilendra Shishir Sinha, Gautam Sanyal

National Institute of Technology, Durgapur

Session 18   Applied Signal Processing III

On-line Mobile Robot Path Tracking Using PI Controller
P. K. Padhy, S. Majhi
Indian Institute of Technology, Guwahati

An Efficient Fuzzy Mechanism for 3D Soccer Player Agent's Shoot Skill
Mehrdad Mozafari, Amin Milani Fard, Vahid Salmani, Mahmoud Naghibzadeh
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Simulation and Hardware Implementation of DSP Based Shunt Active Power Filter
G. Bhuvaneswar, Sathish Kumar Reddy, Randhir Singh
Indian Institute of Technology, Delhi

A Framework for Hand Gesture Recognition with Applications to Sign Language
M. K. Bhuyan[1], D. Ghosh[2], P. K. Bora[1]
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Artificial Neural Network Controlled Shunt Active Power Filter
N. B. Muthuselvan[1], Subharansu Sekhar Dash[1], P. Somasundaram[2]
[1]SSN College of Engineering, Chennai
[2]College of Engineering, Guindy

Design and Development of a DSP based Laboratory Kit
Shankar Prakriya, Ajit Singh Shekawat, Nishant Shekar
Indian Institute of Technology, Delhi

Ground-Based Radar Tracking of Ballistic Target on Re-entry Phase Using Derivative-Free Filters
M. Srinivasan, S. Sadhu, T. K. Ghoshal
Jadavpur University, Kolkata

Enhancing LZW Algorithm to Increase Overall Performance
Parvinder Sing, Manoj Duhan, Priyanka
Guru Jambheshwar University of Science and Technology, Hisar

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India Habitat Centre

Distances

From	Distance	Time
From International Airport	15 Kms.	30 mins.
Domestic Airport	12 Kms.	20 mins.
New Delhi Railway Station	07 kms.	15 mins.
Old Delhi Railway Station	16 kms.	30 mins.
Connaught Place	05 kms.	07 mins.
India Gate	03 kms.	05 mins.
Diplomatic Enclave	05 kms.	07 mins.

Road Map to India Habitat Centre...