



**3rd Indian International Conference on Artificial Intelligence (IICAI-07)
December 17-19 2007, NIA, Pune, India**

Inauguration and keynote Speeches:

- 1. December 17 2007 from 9-11.15am in Luray Carven Auditorium: Inauguration is around 1hr) and then keynote speech1 (Keynote speech: Image Biometric Verification in Spatial Frequency Domain @ Prof. Vijayakumar Bhagavatula).
- 2. On Dec 18 2007 from 9-11.15am in Luray Carven Auditorium: Keynote speech2 and then Keynote speech3 (Keynote speeches: Object and Activity Recognition in Video Streams @ Prof. Ramakant Nevatia and Diagnosis and Prognosis: From Rule-Based Systems to First-Order Graphical Models @ Prof. George Luger)
- 3. On December 19 2007 from 9-10.10am in Luray Carven Auditorium: Keynote 4. (Advanced Semantic WEB for Peer-to-Peer knowledge-bases: Intensional View-based Mapping and Epistemic Independency of Peers @ Prof. Zoran Majkic)

Tutorials:

- 1. December 17 2007 from 12noon until completion (before 5pm) in Classroom-2: Tutorial 1 (Pattern based classification and decision making (with a case study on AI aspects of Knowledge Management by @ Prof. Parag Kulkarni). Admission is free for IICAI-07 attendees.
- 2. December 18 2007 from 11.30am until completion (before 5pm) in Classroom-2: Tutorial 2 (Model-based Problem Solvers - Theory and Applications @ Prof. Peter Struss). IICAI-07 attendees can attend the tutorial by paying US\$60 (for non-Indians) and Rupees 1000 (for Indians).
- 3. December 19 2007 from 12.30-2.30pm in Classroom-2: Tutorial3 (Rough Sets in Data Mining and Data Warehousing @ Prof. Dominik Slezak). Admission is free for IICAI-07 attendees.
- 4. December 19 2007 from 10.15am until completion (before 2.30pm) in Classroom-5: Tutorial 4 (Large and Very Large Scale Intractable Combinatorial VLSI Physical Design Problems: How to solve them with high quality? @ Prof. Roman Bazylevych). IICAI-07 attendees can attend the tutorial by paying US\$100 (for non-Indians) and Rupees 1500 (for Indians).

Papers:

Dec 17 2007 from 11.30-1.15 Luray Carven Auditorium

SESSION1: Theory, Algorithms and Problem Solving-1

Chairs: Gend Lal Prajapati (Devi Ahilya University, Indore, India) and Dipak Laha (Jadavpur University, Kolkata, India)

- 8. A Framework for Synthesizing Arbitrary Boolean Expressions Induced by Frequent Itemsets @ **Animesh Adhikari**, P. R. Rao
- 22. An Effective Model for Context-Free Grammar Inference @ **Gend Lal Prajapati**, Narendra S. Chaudhari, M. Chandwani
- 28. A Constructive Heuristic for No-wait Flowshop Scheduling @ **Dipak Laha**, Debiprasad Bandyopadhyay
- 39. A Sample-based K-means Algorithm for Fast Image Segmentation @ **Malay K. Pakhira**
- 40. Parallel k-means Algorithm on a Cyclic Network @ **Malay K. Pakhira**

Dec 17 2007 from 2.30-5pm Luray Carven Auditorium

SESSION1A: Theory, Algorithms and Problem Solving – 2

Chairs: Dipak Laha (Jadavpur University, Kolkata, India) and M.A.K. Sadiq (Satyam Computer Services Ltd, Bangalore, India)

- 123. On the Inference of Linear Single Tree Grammars from Positive Structural Information @ K. G. Subramanian, A. Roslin Sagaya Mary, **P. Helen Chandra**
- 145. IGA: an Improved Genetic Algorithm for MAX-SAT Problems @ Dalila Boughaci, **Belaïd Benhamou**, Habiba Drias
- 162. Detecting and Eliminating Local Symmetry During Search in CSPs @ **Belaïd Benhamou**, Mohamed Réda Saïdi
- 166. Local Search-based Method for Restoring Disjunctive Temporal Problem Consistency @ Mahat Khelfallah, **Belaïd Benhamou**
- 176. Hybrid Stochastic Search Approach for solution of Unit Commitment Problem @ **G. S. Sailesh Babu**, D. Bhagwan Das, C.Patvardhan
- 179. A Hybrid Evolutionary Approach to the Quadratic Knapsack Problem @ Alok Singh, **Anurag Singh Baghel**
- 180. Perturbation Based Local Search for the Degree-Constrained Minimum Spanning-Tree Problem @ **Alok Singh**, Ashok Kumar Gupta

Dec 17 2007 from 11.30-1.15 Jubilee Park

SESSION2: Fuzzy Logic and Fuzzy Systems

Chair: HK Sardana (Central Scientific Instruments Organisation, Chandigarh, India)

- 21. A New Method of Fuzzy Clustering of Ordinal Feature Valued Vectors @ **Roelof K. Brouwer**
- 41. Hybrid Particle Swarm Optimization for Rectilinear Steiner Arborescence Problem @ **S.Sudha**, J. Beula Sahaya Hepziba
- 210. Fuzzy Medical Diagnostic Decision Support with Semiautomatic Knowledge Acquisition: A Case Study in Infectious Diseases @ **Kavishwar Waghlikar**, **Ashok Deshpande**
- 226. Computer Aided Fuzzy Based Technique for Detection of Suspicious Masses and Microcalcifications from Mammographic Images @ **Madasu Hanmandlu**, Davuluri Vineel, Gurpreet Singh

Dec 17 2007 from 2.30-5pm Jubilee Park

SESSION3: Evolutionary and Computational Intelligence Techniques

Chairs: Sunita Prasad (Centre for Development of Advanced Computing, Noida, India) and Aruna Tiwari (Shri G.S. Institute of Technology and Science, Indore, India)

- 42. Intelligent Hybrid Multipath Routing in Mobile Ad Hoc Networks @ **Sunita Prasad**, Y.P. Singh
- 106. On Construction of Multi-class Binary Neural Networks @ Narendra S. Chaudhari, **Aruna Tiwari**
- 119. A New Tree Generation Algorithm for Genetic Programming @ R. Geetha Ramani, R. Subramanian, S. SivaSathya, **P. Viswanath**
- 147. Neural Networks for Identification of Crypto Systems @ **B. Chandra**, P. Paul Varghese, P. K. Saxena, Shri Kant
- 206. Particle Swarm Optimization: Experimenting the Distributions of Random Numbers @ Millie Pant, **T. Radha**, V. P. Singh

Dec 17 2007 from 11.30-1.15 Classroom-1

SESSION4: Classification and Pattern Recognition-1

Chairs: M. Balakrishnan (Central Agricultural Research Institute, Port Blair, India) and Saswati Muherjee (College of Engineering-Guindy, Chennai, India)

---92. A Symbolic Approach for Classification of Numerals @ **Bapu B. Kiranagi**, R. Dinesh, D. S. Guru

---245. Training Resource Allocating Network using Medoids and Significant Patterns @ **T. N. Nagabhushan**, S. K. Padma

---115. Category Based Feature Weighting for Automatic Text Categorization @ **K. Lakshmi**, Saswati Mukherjee

---116. Synthesizing Global Exceptional Patterns in Multiple Databases @ **Animesh Adhikari**, P. R. Rao

---170. Continuous Segmentation of Offline handwritten Word for Feature Extraction @ **C. Namrata Mahender**, K. V. Kale

Dec 17 2007 from 2.30-5pm Classroom-1. SESSION4A: Classification and Pattern Recognition-2

Chair: Mahua Bhattacharya (Indian Institute of Information Technology & Management, Gwalior, India)

---238. Edge-based Sports Video Classification using HMM @ **C. Krishna Mohan**, B. Yegnanarayana

---242. Core Vector Clustering @ **CMB Seshikanth Varma**, Asharaf S., M. Narasimha Murty

---257. Polar-eigenspace: A Linear Transformation Invariant Model for Appearance Based Object / Face Recognition @ B. H. Shekar, **G. Thippeswamy**, P. Nagabhushan, D. S. Guru

---262. MLP-based Assamese Character and Numeral Recognition using an Innovative Hybrid Feature Set @ **Kandarpa Kumar Sarma**

---1005. Performance Evaluation of Subspace Methods And a Study of Their Robust Behavior @ **Noushath S .**, Ashok Rao, Hemantha Kumar G .

---1015. Local Partial Hausdorff Distance Measure Based on Binary Feature for Iris Recognition @ **N. Sudha**, N. B. Puhan, Hua Xia, Xudong Jiang

---1027. Pulling Leader Oriented Clustering Approach for Non Symmetric Proximity Matrices @ **Bapu B. Kiranagi**, D. S. Guru

Dec 17 2007 from 11.30am-1.15pm Classroom-5. SESSION6: Control and Robotics

Chair: Lyla B.Das (National Institute of Technology, Calicut, India)

---213. Fuzzy Quadtree Based Path Planner and Trajectory Smoother for a Low Cost Unmanned Aerial Vehicle @ **Abhishek Halder**, Sayan Ghosh, Manoranjan Sinha

---250. A Hierarchical Support Vector Machine based Trajectory Tracking Methodology for Modeling Robot Manipulators Inverse Dynamics @ **D. A. Karras**

---1010. Global Localization of Robots by Occupancy Fields @ **Hemanth K, Nageshwar Rao**, K Madhava Krishna, **S Subhash**

---1011. Multi Robotic Navigation with Coverage and Communication Constraints @ **Aditya Teja**, K Madhava Krishna

---1013. Increasing Coverage and Preserving Covertness for UAV Moving in Undulated Terrains @ **Mahesh Mohan**, K Madhava Krishna, Manohar B. Srikanth, Mathias P.C.

Dec 17 2007 from 2.30-5pm Classroom-5

SESSION5: Web-based and Networking Systems

Chairs: S.N. Islam (Indian Agricultural Statistics Research Institute, New Delhi, India), Rashid Ali (A.M. U., Aligarh, India) and Fatma Mili (Oakland University, Rochester, MI, USA)

---155. Password Less System Security Using Multimodal Biometric Fusion @ **Girija Chetty**, Dat Tran, Dharmendra Sharma, Bala Balachandran

---174. Information Theory Based Intruder Detection in Sensor Networks @ Aisha Yousuf, **Fatma Mili**, Nancy Alrajai

---178. Rough Set Based Rank Aggregation for the Web @ **Rashid Ali**, M. M. Sufyan Beg

---240. Simulating and Evaluating Dynamic Channel Assignment Schemes in Wireless Communication Networks through an Improved Multi-Agent System @ P. M. Papazoglou, **D. A. Karras**, R. C. Papademetriou

---248. Online Hotlink Assignment Algorithm for Adaptive Websites @ **Poonam Goyal**, **Navneet Goyal**, Ankit Khandelwal, S. Raja Babu

---249. An Improved Evaluation Framework for the Quality Assessment of Hash Functions in Data Communications based on Computational Intelligence and Nonlinear Methodology @ **D. A. Karras**, V. C. Zorkadis

---256. Knowledge Based Discovery of Phishing Attacks @ Ram Basnet, Krishna Yendrapalli, Tenzin, **Srinivas Mukkamala**, Andrew H. Sung

Dec 17 2007 from 11.30am-1.15pm (or until completion: before 5pm) Green Leaf Dome. SESSION7: AI Applications to Hydrologic and Hydraulic Engineering

Chairs: M. Janga Reddy (Indian Institute of Technology Bombay, Mumbai, India) and Subimal Ghosh (Department of Civil Engineering, Indian Institute of Science, Bangalore, India)

---551. Multi-objective Differential Evolution Approach for Optimal Control of Water Resource Systems @ **M. Janga Reddy**, D. Nagesh Kumar

---553. Modeling GCM and Scenario Uncertainty: An Imprecise Probability Approach @ **Subimal Ghosh**, P. P. Mujumdar

---555. Flood Forecasting using ARMA and Artificial Neural Networks @ Abhinav Lele, **V. R. Desai**

---169. Optimal Division of Dataset into Three Subsets for Artificial Neural Network Models @ **Goloka Behari Sahoo**, Chittaranjan Ray

---199. Forecasting Extremes of Indian Summer Monsoon Rainfall using Bayesian Learning @ **Shivam Tripathi**, **Rao S. Govindaraju**

---726. Development of Water Resources Management Policies for Multi-Reservoir Systems using Simulation-based Soft Computing Models Approach @ **Selvaraj Sivakumar**, Sankaralingam Mohan

Dec 17 2007 from 2.30-5.00pm Classroom-6

SESSION8: Natural Computing in Infrastructure Engineering and Management

Chairs: V. R. Desai (Indian Institute of Technology, Kharagpur, India) and M.A.Jayaram (Siddaganga Institute of Technology, Tumkur, India)

---68. Confinement Efficiency of R C Columns with Rectangular Ties: A SVM Approach @ **Sk. Faruque Ali**, Pijush Samui

---98. Fuzzy Logic Approach for Automating Visual Condition Monitoring of Railway Sleepers @ **Siril Yella**, Mark Dougherty, Narendra K. Gupta

---205. SVM Based Traffic Sign Classification Using Legend Moments @ **Hasan Fleyeh**, Mark Dougherty

- 36. Change Detection of Satellite Images for Disaster Assessments using Image Registration @ Mahendra K. R., **Lyla B Das**
- 1012. Soft Computing in Concrete Technology: A Pragmatic Appraisal @ **M. A. Jayaram**, M. C. Nataraja, C. N. Ravikumar

Dec 18 2007 from 11.30-1.15 Luray Carven Auditorium. Session66: Miscellaneous-0

Chair: Ashish M. Gujarathi (Birla Institute of Technology and Science, Pilani, India)

- 1009. Decomposition Algorithms for Large-scale Clustered TSP @ **Roman Bazylevych**, Roman Kutelmakh, Rémy Dupas, Lubov Bazylevych
- 244. Integrated Learning Particle Swarm Optimizer @ **Samrat L. Sabat**, Layak Ali
- 1004. *Elitist* - Multi-objective Differential Evolution (E-MODE) Algorithm for Multi-objective Optimization @ B. V. Babu, **Ashish M. Gujarathi**
- 1022. On the Stability of SVR-based Nonlinear Autoregressive Dynamical Model @ **Jianmin Li**, Bo Zhang
- 1028. Investigations with AI Techniques for Land-Use/Land-Cover Classification @ **Virendra Pathak**

Dec 18 2007 from 2.30-5pm Luray Carven Auditorium

SESSION10: Machine Learning and Data Mining

Chairs: Gend Lal Prajapati (Devi Ahilya University, Indore, India), Saswati Muherjee (College of Engineering-Guindy, Chennai, India), Chalavadi Krishna Mohan (National Institute of Technology Karnataka, Surathkal, India)

- 656. Error Estimation for Kernel Matrix Learning Through Leave-One-Out-Kernel Bootstrap @ **V. Vijaya Saradhi**, Harish Karnick
- 660. Forecasting PVT Correlations of Crude Oil Systems Using Type1 Fuzzy Logic Inference Systems @ **E. A. El-Sebakhy**, A. Abdulraheem, M. Ahmed
- 113. Improving Link Detection System using SVM with Context-Graph @ **K. Lakshmi**, S. Sakthi Kala, Saswati Mukherjee
- 121. A Probabilistic Approach on Association Rule-based Text Classifier System @ **Asit Kumar Das**, Jaya Sil, Mainak Mondal
- 259. Learning from Missing Data: A Reflex Fuzzy Min-Max Neural Network Approach @ **A.V. Nandedkar**, P. K. Biswas
- 1001. Rough Sets Based Hybrid C-Means Algorithm @ **Pradipta Maji**, Sankar K. Pal
- 1021. Current Trends in Bayesian Network Inference @ **C.J. Butz**

Dec 18 2007 from 2.30pm until completion (before 5pm) in Jubilee Park

SESSION9: AI Applications in Bioinformatics and Chemoinformatics

Chairs: M. Balakrishnan (Central Agricultural Research Institute, Port Blair, India), Sandip Sarkar (Saha Institute of Nuclear Physics, Kolkata, India)

- 30. Discrimination for Malignant and Benign Masses in Breast Using Mammogram: A Study on Adaptive Neuro-Fuzzy Approaches @ **Mahua Bhattacharya, Arpita Das**
- 85. Cohesive Geneset Discovery in Microarray Data @ **Ramkishore Bhattacharyya**, Balaram Bhattacharyya
- 101. Electrocardiogram Pattern Classification: An Approach Employing DCT and Artificial Neural Networks @ **Rajesh Ghongade**, Ashok Ghatol
- 233. Statistical Analysis and Compression of DNA using Weighted Probability Approach and Modified Run-Length Encoding @ Srinivasa K. G., **Sagnik Dhar**, Venugopal K. R., L. M. Patnaik

Dec 18 2007 from 2.30pm until completion (before 5pm) in Green Leaf Dome

SESSION11: Logic and Knowledge Representation

Chairs: S.N. Islam Indian Agricultural Statistics Research Institute, New Delhi, India) and Zoran Majkic (University of Belgrade, Serbia)

---751. I-KARe - A Rational Approach to Knowledge Acquisition and Reasoning using Indian Logic Based Knowledge Models @ **Mahalakshmi G.S.**, Geetha T.V.

---76. Logics for Action @ **Michael P. Fourman**

203. Autoepistemic Belief-revision for Integration of Mutually Inconsistent Knowledge @ **Zoran Majkic**

---235. A Simpler Formulation of Natural Deduction Calculus for Linear-Time Temporal Logic @ **Alexander Bolotov**, Oleg Grigoriev, Vasilyi Shangin

Dec 18 2007 from 11.30-1.15pm Jubilee Park. SESSION12: Multi-Agent Systems

Session Chairs: Madhu Goyal (University of Technology Sydney, Australia) and Chayan Chakrabarti (University of New Mexico, Albuquerque, NM, USA)

---804. Clustering Coefficient and Connectivity in a Network of Multi-Agent Systems Competing for Dominance @ **K.Y. Szeto**, T.Y. Pang

---83. Using Agents' Commitments for Multi-agent Problem Solving @ **Madhu Goyal**

---172. Chasing Multiple Mobile Signal Sources: A Glowworm Swarm Optimization Approach @ **K.N. Krishnanand**, D. Ghose

---202. Non Omniscient Intensional Contextual Reasoning for Query-agents in P2P Systems @ **Zoran Majkic**

---57. Extending Contract Net Protocol for Arguing Agents @ **Ananta Charan Ojha**, Sateesh Kumar Pradhan, Manas Ranjan Patra

Dec 18 2007 from 2.30-5pm Classroom-1

SESSION13: Cellular Automata and its Applications in AI

Chairs: Pradipta Maji (Indian Statistical Institute, India) and Anurag Singh Baghel (Banasthali Vidyapith Jaipur Campus, Jaipur, India)

---826. An Analytical Framework for Characterizing Restricted Two Dimensional Cellular Automata Evolution @ **Shiladitya Munshi**, Nirmalya Sundar Maiti, Deepan Ray, Debabrata Roy Chowdhury, P. Pal Chaudhuri

---827. Design of Response-Pattern Classifier for Fault Diagnosis of Electronic Circuits @ **Pradipta Maji**, P. Pal Chaudhuri

---828. Time-Optimum Synchronization Algorithms for Two-Dimensional Cellular Arrays - A Survey @ **Hiroshi Umeo**

---829. Cellular Automata Model for Cost Optimal Design of Steel Building Frames @ Debashis Moitra, S. Dhar, J. M. Mallick, **Biplab K. Sikdar**

---830. Scalable Evolutionary Design of CA Pattern Classifier @ **Joy Deep Nath**, Pabitra Mitra, Niloy Ganguly

---831. Hybrid Fuzzy One Dimensional Cellular Automaton with External Input @ **Subhasree Basu**, **Sumita Basu**

---832. Probabilistic Cellular Automata Model for Identification of CpG island in DNA String @ **Soumyabrata Ghosh**, Nizamuddin Laskar, Sourav Mahapatra, P. Pal Chaudhuri

Dec 18 2007 from 11.30am- 5pm in Classroom-5

SESSION14: AI Applications in Agriculture and Social Sciences

Chairs: Rajni Jain (National Centre for Agricultural Economics and Policy Research, New Delhi, India) and M. Balakrishnan (Central Agricultural Research Institute, Port Blair, India)

- 876. Forecasting Rice Yield using Neural Networks @ **Amrender Kumar**, Ramasubramanian V., Ranjana Agrawal
- 877. Development of an Artificial Neural Network Based Model for Shelf-Life Prediction of Basundi Mix – An Indian Dairy Product @ **Anand Prakash Ruhil**, Ram Ran Bijoy Singh, Devender Kumar Jain, Ashok Ambalal Patel, Girdhari Ramdas Patil
- 878 Applying Decision Tree for Automatic Classification of Agricultural Web Documents @ **Anu Sharma**, Rajni Jain
- 879. Yield Prediction Through Feed Forward Neural Network Approach for Direct Seeded Rice (*Oryza sativa*) in Bay Islands @ **M.Balakrishnan**, N.Ravisankar, K.Meena, R.Elanchezian, S.K Zamir Ahmed
- 880. Development of a Knowledge Acquisition System for Pulse Crop Diseases @ **Devraj**, Renu Jain
- 882. Knowledge Based Decision Support System for Management of Powdery Mildew Disease in Grapes @ **K.Y. Mundankar**, S.D. Sawant, Indu S. Sawant, J. Sharma, P.G. Adsule
- 885.Evaluation of Neural Network Applications for Data Editing @ **Ramasubramanian V.**, Ranjana Agrawal, S.B. Lal, Anil Rai, Amrender kumar, Syed Moonis Raza, G.K. Jha
- 886. Prototype Intelligent Information System for Disease Diagnosis in Crops @ **Savita Kolhe**, Raj Kamal, Harvinder S. Saini , G. K. Gupta
- 887. A Software for Imputing Missing Values using Neural Networks @ **S.B. Lal**, Ramasubramanian V., Ranjana Agrawal, Syed Moonis Raza, G.K. Jha
- 888 Neural Network with Delta Learning to Predict Male and Female Indian Population of Different Age Groups @ Surajit Chattopadhyay, Goutami Chattopadhyay (Rajni Jain will present)
- 889. Rough Set based Feature Selection for Clustering @ **Alka Arora**, Rajni Jain, Shuchita Upadhyaya
- 890. Self-Organizing Map Based Classification of Smell Stages of Black Tea Fermentation Process Using Electronic Nose @ **Bipan Tudu**, Nabarun Bhattacharyya, Arun Jana, Devdulal Ghosh, Rajib Bandyopadhyay
- 894. Knowledge Engineering for an Expert System on Wheat Crop Management @ **S.N. Islam** , K.K. Chaturvedi, Hari Om Agarwal, M.S. Farooqi, Kirti Sharma, A.K. Sharma, Randhir Singh, R.K. Sharma, H.S. Sikarwar
- 895. Automatic Rice Classification under Uniform Specification Using Flat-Bed Scanner and Image Processing @ **H.K. Sardana**, H.N. Bhargaw, Sheetu Sachdeva, Deepak Varshney
- 897. Approximate Core based RDT model for Classifying Technology Savvy Farmers @ **Rajni Jain**

Dec 19 2007 from 10.15am-until completion (before 1.15pm) Luray Carven Auditorium. SESSION15: Semantic Web and Information Retrieval

Chairs: S.N. Islam (Indian Agricultural Statistics Research Institute, New Delhi, India) and Rashid Ali (A.M. U., Aligarh, India)

- 173. Hierarchical Course Knowledge Representation using Ontologies @ Javed Khan, **Manas Hardas**
- 7. Study of Select Items in Multiple Databases by Grouping @ **Animesh Adhikari**, P. R. Rao
- 247. Relation Extraction from Texts for Efficient Access to Information–Application to Bio-Medical Text Processing. @ **Lipika Dey**, Muhammad Abulaish, Jahiruddin
- 62. A Novel Semantic-based Text Representation Method for Improving Text Clustering @ **Linyuan Yan**, Chunping Li

- 901. Personalized Web Search Using a Modified User Conceptual Index Based on a Search Flow Graph @ S. Sendhilkumar, T. V. Geetha
---902. Project SEWEBAR – Considerations on Semantic Web and Data Mining @ **Jan Rauch**
---1025. An Ontological Approach to Business Process Modeling @ Antonio De Nicola, Mario Lezoche, **Michele Missikoff**

Dec 18 2007 from 11.30am-1.15pm in Classroom-6

SESSION16: Natural Language-Independent Engineering-1

Chairs: Narayana Murthy Kavi (University of Hyderabad, Hyderabad, India) and Yassine Benajiba (University Polytechnic Valencia, Spain)

- 926. ANERsys 2.0: Conquering the NER Task for the Arabic Language by Combining the Maximum Entropy with POS-tag Information @ **Yassine Benajiba**, Paolo Rosso
---927. Extractive Summarization in Clinical Trials Protocol Summaries: A Case Study @ **Graciela Rosemblat**, Laurel Graham, Tony Tse
---928. Extraction and Translation of Multi-Word Number Expressions @ **Anil Kumar Singh**
---929. Exploring Translation Similarities for Building a Better Sentence Aligner @ Anil Kumar Singh, **Samar Husain**
---930. Text Categorization in Indian Languages using Machine Learning Approaches @ **K Raghuvver, Kavi Narayana Murthy**

Dec 18 2007 from 2.30-5pm in Classroom-6

SESSION16A: Natural Language-Independent Engineering-2

Chairs: Narayana Murthy Kavi (University of Hyderabad, Hyderabad, India) and Yassine Benajiba (University Polytechnic Valencia, Spain)

- 931. Automatic Conversion of Html Pages to Semantic Web Pages @ **Sri Krishna**, Saroj kaushik
---932. A Java Implementation of an Extended Word Alignment Algorithm Based on the IBM Models @ **G. Chinnappa**, Anil Kumar Singh
---933. A Web Based English to Bengali Text Converter @ **Siddhartha Ghosh**, Sameen S Fatima
---934. HMM-based Language-independent POS Tagger @ Pradeep Varma D., Rakesh M., **Ratna Sanyal**
---935. Language Independent Named Entity Transliteration @ Asif Ekbal, Sudip Kumar Naskar, **Sivaji Bandyopadhyay**
---122. Named Entity Recognition in Tamil using Context-cues and the E-M algorithm @ **S.Lakshmana Pandian**, T.V.Geetha, Krishna
---1026. Sentiment Analysis of Text by Weighted Polarity Approach @ **Swetha Kurup, Mohamed Sadiq, Sridhar V.**

Dec 18 2007 from 11.30-1.15pm Classroom-1

SESSION17: Speech, Audio, Image and Video Processing using AI Tools-1

Chair: Bapu B. Kiranagi (HCL Technologies, Bangalore, India)

- 851. A Quantization Based Heuristic to Stabilize Low Quality Video @ Prashanth Ravindran, **Chetan H Nadiger**
---853. Application of Euclidean Distance in Optimal Coupling used in Text to Speech Synthesis @ **Leena Dutta**, Suryakanth .V.Gangashetty
---16. Face Recognition by Multiresolution Contourlet Transform on Bit Quantized Facial Images @ **A. Majumdar**, S. Ray, A. Bhattacharya .

Dec 19 2007 from 10.15-until completion (before 2.30pm) Jubilee Park

SESSION17A: Speech, Audio, Image and Video Processing using AI Tools-2

Chair: HK Sardana (Central Scientific Instruments Organisation, Chandigarh, India)

---31. Support Vector Machines Applied to Automated Categorization of Facial Expressions @ Abu Sayeed Md. Sohail, **Prabir Bhattacharya**

---50. Visual Feature Extraction Method for Identification of South Indian Languages @ **M. C. Padma**, P. A. Vijaya

---89. A Vector Approach to Boundary Traversing @ **Nitin L. Narappanawar, B. Madhusudan Rao, Srikanth T.**

---131. Fast Contrast Enhancement Technique for Medical Images @ **Anita Shinkar**, Prakash Devale

---209. Unconstrained Handwritten Kannada Numeral Recognition: An Approach Based on Thinning and Distance Measure @ Niranjan S. K., **Vijay Kumar V.**, Hemantha Kumar G.

---246. Stochastic Resonance in the Perceptual Interpretation of Zero Crossing Maps: A Low Level Center Surround Model of Vision @ **Sandip Sarkar**, Kuntal Ghosh, Kamales Bhaumik

Dec19 2007 10.15-1.15 Classroom-6. SESSION18: Miscellaneous

Chairs: Lorenza Saitta (Universita Amedeo Avogadro, Alessandria, Italy) and M.A.K.

Sadiq (Satyam Computer Services Ltd, Bangalore, India)

---78. Modeling Temporal Behavior via Structured Hidden Markov Models: an Application to Keystroking Dynamics @ Ugo Galassi, **Attilio Giordana**, Charbel Julien, **Lorenza Saitta**

---109. Strategy Proof Electronic Markets @ **A. R. Dani**, Arun K. Pujari, V. P. Gulati

---168. A Context-Partitioned Stochastic Modeling System with Causally Informed Context Management and Model Induction @ Nikita A. Sakhanenko, **Roshan R. Rammohan**, George F. Luger, Carl R. Stern

---236. BiTutor - Decision Making and Tutoring Strategy in Bayesian Intelligent System @ **Yaser Nouh**, Varunkumar Nagarajan, R. Nadarajan

---239. Fault Detection in Hot Strip Mill using Multi-way Principal Component Analysis and Autoregressive Model Spectrum Estimation @ Wei-Li Chuang, **Yuan-Liang Hsu**, Jia-Yush Yen, Cheng-Hung Chen

---1006. Figure-Ground Segregation: Cues from Early Vision @ **Kuntal Ghosh**, Sankar K. Pal

---1017. Automated Test Generation from Models Based on Functional Software Specifications @ Michael Esser, **Peter Struss**

Conference Banquet Dinner:

---December 17 2007 between 7-11pm in "Sadananda Resorts" S.No. 105/3, Baner Mahalunge Road, OPP. Balewadi Sports Complex, Baner, Pune 411045. The hotel is very near to the conference venue (few minutes by walk). Several Indian dishes will be served. A music program is scheduled during the banquet. **People who registered on time SHOULD collect their banquet coupons before 4pm on December 17 2007.** The leftover coupons will be issued to the people who registered late.

Conclusion:

---Dec19 2007 from 3pm until completion (before 5pm): conclusion and awards (including best paper award) in Luray Carven Auditorium.