



1st Indian International Conference On Artificial Intelligence

**December 18-20, 2003
Hyderabad, India
Program Schedule**

Conference Venue

**Indian Institute of Chemical Technology (IICT)
Uppal Road, Tarnaka
Hyderabad - 500 007 India**

Halls

| | |
|---------|-----------------------------------|
| Hall A: | I ICT Auditorium |
| Hall B: | Museum Hall |
| Hall C: | Lecture Hall |
| Hall D: | Chemical Engineering Lecture Hall |
| Hall E: | Committee Room |
| Hall F: | Reaction Engineering Lecture Hall |

Schedule At A Glance

| Session Timings | 18 th December 2003 | | | | 19 th December 2003 | | | | 20 th December 2003 | |
|------------------|---------------------------------|------------------|--------------|---------------|--------------------------------|-----------------|------------------|------------------|--------------------------------|------------------------------|
| 10.00 – 11.30 AM | Inauguration Function Hall A | | | | S13 Hall B | S5 Hall A | S12 Hall C | S17 Hall D | 10.30 – 11.30 AM | Key Note 2 Hall A |
| Noon-1.00 PM | Key Note 1 Hall A | | | | S7 Hall B | S9 Hall E | S11 Hall C | S16 Hall D | | |
| 2.30 – 4.00 PM | S1 Hall B | S2 Hall E | S3 Hall C | S18 Hall D | S6 Hall B | S8 Hall E | S10 Hall C | S14 Hall D | 2.00 – 3.00 PM | Panel Discussion Hall A |
| 4.30-5.30 PM | S4 Hall B | S15 Hall E | | | | | | | 3.30-5.00 PM | Concluding Session Hall A |

Latest: A Tutorial on Intelligent Agents will be presented between Noon - 1.15 PM on the 20th in Hall A (auditorium). This is free for all registered participants! Presenter: Dr. Sandip Sen of University of Tulsa, USA. Please check the "sessions" page of conference website for more information.

KEY NOTE ADDRESS

Key Note 1: Machine Learning in Infrastructure Security

Speaker: Prof. V Rao Vemuri

Date: 18 December 2003

Time: Noon to 1.00 PM

Venue: Hall A

Key Note 2: Model-Based Reflection and Self-Adaptation

Speaker: Prof. Ashok K. Goel

Date: 20 December 2003

Time: 10.30 AM to 11.30 AM

Venue: Hall A

Regular (i.e., Oral) (R*) / Poster (P*) Presentations

S1: Advanced and Intelligent Image Processing Algorithms for Remote Sensing Data **Chair: Dr. Manoj K Arora**

R 16. Alexandre Henneguelle, Joydeep Ghosh and Melba Crawford: Polyline Feature Extraction For Land Cover Classification Using Hyperspectral Data

R 17. Ana. B. Ruescas: Land Use Detection in the River-Mouth Region of the Cànyoles (Valencia) Drainage Basin from 1956 to 1999

R 18. Mahesh Pal: Improving the Accuracy of Remote Sensing Classifications.

R 19. Mohamed A. Ibrahim. Manoj K. Arora and Sanjay K. Ghosh: Comparison Between Fuzzy C-Means and Possibilistic C-Means Algorithms for Sub-Pixel Classification

S2: Agent Technology and Its Applications in Communications **Chair: Dr P Venkataram and Mr. S S Manvi**

R 24. Ajay Singh, P Venkataram and S S Manvi: A QoS Routing Scheme by Using Mobile Agents

R 25. Basavaraj Menasinahal and Mohan Kumar: Active Handoff Scheme for Mobile Environments

R 26. Gautham V Pallapa and Balasundaram S : Agent Based Suspect Stalking in Ad Hoc Networks

R 27. Poornima K M, Vijay Kumar BP, Lingaraju G M and S Basavaraj Patil: An Intelligent Agent for Personal Identification Based on Handwritten Text

R 28. Srinivas Mukkamala, Andrew H. Sung: A Distributed Agent Based IDS for Stealthy Probe Detection

P8. Bhagyavati: Cellular Network Fault Management Using Mobile Agents

S3: Algorithms **Chair: Dr. Niladri Chatterjee**

R 58. Joseph Zalaket and Guy Camilleri: OPM: an Object-oriented language for Planning systems Modeling

R 59. Merlin Nandy and Ambuj Mahanti: An Efficient Search Technique Using A Lower Bound Heuristic For Maximal Revenue Determination In Combinatorial Auctions

R 60. P. Pratibha., Siva Nageswara Rao Borra, A. Muthukaruppan, S. Suresh, V. Ganesh and V. Kamakoti: A Parallel Evolutionary Approach to Spatial Partitioning in Reconfigurable Environments.

R 61. Dnyanesh Rajpathak: Towards Ontological Approach to Formalise the Scheduling Task: A Generic Library of Problem-Solving Methods

R 62. Swarup Mandal, Debashis Saha and Ambuj Mahanti: A Real-time Search Technique for Fixed Channel Allocation in Cellular Mobile Communications

R 63. Venkata Deepti Kiran Bhuma and Judy Goldsmith: Bidirectional LAO* Algorithm

P21. Akshay Wadia and Niladri Chatterjee: Handling Partially Achieved Goals in Planning

P22. Ketan Kotecha and Nilesh Gambhava : A Hybrid Genetic Algorithm for Minimum Vertex Cover Problem

P23. Nouredine Bouhmala: Multilevel Techniques for the Traveling Salesman Problem

S4: Artificial Intelligence in Design of VLSI and Embedded Systems Chair: Dr. Ujjwal Maulik

R 44. Parthasarathi Dasgupta: Range-based Discrepancy Search with Application to VLSI Design.

R 45. Pushmeet Kohli: A New Genetic Algorithm Based Scheme for Inferring Finite State Machines From Accept/Reject Data Samples

R 46. Susmita Sur-Kolay, Satyajit Banerjee and C. A. Murthy: Flavours of Traveling Salesman Problem in VLSI Design.

P11. S. Roy, S. Bandyopadhyay and U. Maulik: An Evolutionary Approach to Solve the Complex Triangle Elimination CTE. Problem of VLSI Floor-planning

S5: Bio-computing and Bio-informatics Chair: Dr. U S N Murty

R 47. V. Sundararajan: Predicting Three Dimensional Protein Structure Using Genetic Algorithms: A Review

R 48. .Anuj Kumar, Pramod Kumar Upadhyay, T.Sobha Rani, S.Durga Bhavani and S.Bapi Raju: Identification of Promoter Region in a DNA Sequence Using EM Algorithm and Neural Networks

R 49. Perambur S. Neelakanta, Shivani Pandya, Tomás V. Arredondo and Dolores De Groff: Heuristics of AI-Based Search Engines for Massive Bioinformatic Data-Mining: An Example of Codon/Noncodon Delineation Search in a Binary DNA Sequence

R 50. Ashok Kolaskar and Urmila Kulkarni-Kale: In-silico approaches for the Identification and Genome Comparison of Animal Viruses (invited talk of the session)

P12. Filip Orsag and Martin Drahanaky: Biometric Security Systems: Finger Print and Speech Technology

S6: Conceptual Information Retrieval

Chair: Dr. P Rosso

R 29. Dejun Xue and Maosong Sun: Feature Selection Combining CHI and Restrained IG Weighting Measures in Chinese Text Categorization

R 30. Edgardo Ferretti, Javier Lafuente and Paolo Rosso: Semantic Text Categorization using the K Nearest Neighbours Method

R 31. Jiménez Salazar H, D. Pinto-Aveldaño and H. Salazar-Martínez: Information Retrieval based on Text Extraction

R 32. Eugene Kozlov: Architecture for Intelligent Domain-Specific Information Retrieval

R 33. Lavanya Koppaka, Narasimha Edala, S. Narayanan, Don Loritz and Raymond Daley: Source Recommendation System: A Decision Aiding Tool in the Context of Electronic Data Warehouse

R 34. Lipika Dey, Nitish Jain, Nishta Dhawan and Amir Ahmad: A Co-Occurrence Based Clustering Algorithm for Categorical Data

R 35. P A Laur, M Teisseire and P Poncellet: Web Usage Mining: Extraction, Maintenance and Behavior Trends

R 36. Shailendra Singh and Lipika Dey: Application of Rough Reasoning for Text Filtering

P9. Venu Dasigi and Xiaobing Liu: Issues in Automatic Classification and Retrieval of Closed Caption Transcripts

S7: Feature Extraction for Classification

Chair: Dr. Sanghamitra Bandyopadhyay

R 41. Guang Dai, Huanhuai Zhou, Lin Zhang and Changle Zhou: Feature Extraction Method Based on the Generalized Weighted Foley-Sammon Transform in high dimensional spaces

R 42. Saman Cooray and Tommy Curran: Region-Based Facial Feature Extraction for Face Detection in Color Images

R 43. Sanghamitra Bandyopadhyay: Feature Extraction in Transformed Domain for Protein Superfamily Identification from Amino Acid Sequences

P10. Hemantha Kumar G, Shivakumara P, Noushath S and Manjunath Aradya V. N: Feature Extraction for Alphanumeric Symbols Recognition: An Approach Based on Distance Measures.

S8: Genetic Algorithms and Machine Learning

Chair: Dr. V Rao Vemuri

(R 81) D A Karras and R C. Papademetriou: On the Use of Genetic Algorithms in Verifying and Producing Message Digests for Secure Communication Systems

(R 82) Gaurav Pandey, Chaitanya Mishra and Paul Ipe: TANSEN: A System for Automatic Raga Identification

R 83. Jan Zizka and Michal Madr: Learning Representative Patterns From Real Chess Positions: A Case Study

R 84. Jürgen M. Janas: On the Impact of Functional Dependencies on Association Rule Mining

R 85. Krishnamoorthy Srikumar and Bharat Bhasker: Data Pre-Processing for Association Rule Mining

R 86. Niranjan Roy and Ranjan Ganguli: Denoising Signals for Improved Fault Detection and Isolation Using Recursive Median Filter and Genetic Algorithm

R 87. Pankaj B Gupta and Vicki H. Allan: Performance Analysis of an Acyclic Genetic approach to Learn Bayesian Network Structure

R 88. Pankaj B Gupta¹ and Vicki H. Allan: The Acyclic Bayesian Net Generator

R 89. Rajni Jain and Sonajharia Minz: Should Decision Trees be Learned Using Rough Sets?

P35. Amir Ahmed and Shehroz S. Khan: Generating K-Prototype Points for Unsupervised Learning.

P36. Biplab Kumer Sarker, Toshiya Hiarata and Kuniai Uehara: Sequential Association Rules from Multi-Stream Time Series Data- A Lattice Based Parallel Mining Approach

P37. Hemanta Kumar Maji and Prateek Jain: Generic System to Evolve Memory and Recall Based Fuzzy Controllers for Anytime Learning

P38. Raja Kumar Reddy N and Somayajulu DVLN: Genetic Database Index Tuning Tool for SQL Server 2000

S9: Intelligent Agents and Interfaces

Chair: Dr. S B Nair

R 20 Pierre-Alexandre Favier: Cross-paradigm Programming for Behavioural Specification in Multi-agent Systems Intentionality : From decision to action

R 21 Rakesh Dave, Subhashini Ganapathy, Mary Fendley and S. Narayanan: Dynamic Path Planning of Ground Robots and Uninhabited Aerial Vehicles in Human Search and Rescue Missions

R 22. *K. Palanivel, Marie Stanislas Ashok, S. Kuppuswami and V Amouda:* Mining and Applying Design Patterns to Agent-Based Systems

R 23. P. Ramasubramanian and A Kannan: Intelligent Agent Based Back-Propagation Neural Network Paradigm to Predict Intruder behavior in Temporal databases

S10: Knowledge Representation and Reasoning

Chair: Dr. Ashok K. Goel

R 51. Amit Kumar Mondal, Deepak Kumar Maji, Koushik Pal and Amitabha Mukherjee: Pointing Gesture Detection

R 52. Andrés Gómez de Silva Garza, Ana Patricia Torres Campos Licastro and Osvaldo Comelli Izetta: A Coevolutionary Simulation of Airport Gate Scheduling

R 53. Bhaskara Reddy Moole and Marco Valtorta: Causal Explanation with Background Knowledge

R 54. Kiran P, Prasanna K, Deepak Khemani and Sreenivasa Kumar, P: Design of CBR System for Multivariate Time Series Analysis.

R 55. Patrick W. Yaner and Ashok K Goel : Visual Case-Based Reasoning I: Memory and Retrieval

R 56. Wagner Alves and Pedro Porfirio: Building Ontologies From Taxonomic and Non-Taxonomic Relations Extracted From Web-Pages

R 57. Vladan DEVEDŽIĆ: Web Intelligence and Education

P13. Alexander Kaplan, Jong-Jin Lim, Kyung-Soo Jin, Jong-Gil Byeon, and Tarasova S.U : The Conception of Intellectual Brain Computer Interface: Fundamentals and Experiment.

P14. Anurag Gupta , Tasos Anastasakos and Claude Sammut: MMIF: A Modular Architecture for Multimodel Integration

P15. Jim Davies and Ashok K Goel: Visual Case-based Reasoning II: Transfer and Adaptation

P16. Norbert Gronau, Clemens Grosse Kreymborg and Frank Laskowski: Improving Information Retrieval in Knowledge Management Systems Using CBR- The Multi Reuse Approach of the Project T_Know

P17. Dade Nurjanah: Knowledge Management in Intelligent Tutoring System

P18. J. Angele, E. Moench, H. Oppermann, S. Staab and D. Wenke: Ontology-Based Meta-Inferencing

P19. Hiranmay Ghosh, Dipansh Malik, SantanuChaudhury and GyanMantra: An Interactive Question Answering System

P20. Nabil M. Hewahi: Credit Assignment Scheme for General Rule Structure

S11: Logic and Languages

Chair: Dr. Satoshi Tojo

R 76. Hiroki Matsui and Satoshi Tojo: Artificial Market with Intervention Agent

R 77. Parag C Prasad and Subramani Arun Kumar: Co-occurrence Based Semantics in Lexical Access: A Model of Learning

R 78. Parijat Prosun Kar and Sandip Sen: Agent Teaching Agent Framework

R 79. Suguru Yoshioka, Ken Kaneiwa and Satoshi Tojo: Occurrence Logic with Temporal Heredity

R 80. Yi Guo, Nan Hua: Syntactic and Lexical Analysis and Event-Indexing based Automatic Document Summarization

S12: Neural and Cognitive Modeling

Chair: Dr. Raju S. Bapi

R1. John A. Black Jr, Kanav Kahol, Priyamvada Tripathi, Sethuraman Panchanathan: Visual Concept Derivation from Natural Scenery Images Using Lexical Basis Functions, Multidimensional Scaling, and Density Clustering

R2. Yu-Ju Shen and Ming-Shi Wang: Neural Schemes for Elastically Deformable Models

R3. Laxmidhar Behera, Bharat Sundaram and Gaurav Singhal: Speech Enhancement Using Recurrent Quantum Neural Network

R4. Jurgen Paetz: Evolving Score Neural Networks

P1. P. S. V. S. Sai Prasad and P. N. Girija: Speech Recognition of Isolated Telugu Vowels Using Neural Networks

P2. Garimella Rama Murthy, Gaurav Vijayvargiya, M.Thiyagarajan and P.Krishna Reddy: Optimal Binary Filters: Neural Networks

P3. Jurgern Paetz1: Monte-Carlo Clustering by Neuro-Fuzzy Classification

S13: Neural Networks and Fuzzy Logic

Chair: Dr. Pawan Lingras

R 64. Deepani B Guruge, Russel J Stonier: Building an Efficient Document Retrieval System Using Fuzzy Clustering

R 65. Livia C. F. Araújo, Luiz H. R. Sucupira Jr., Miguel G. Lizárraga, Lee L. Ling, João B. T. Yabu-uti: A Fuzzy Logic Approach in Typing Biometrics user Authentication.

R 66. Pawan Lingras, Rui Yan and Adish Jain: Clustering of Web Users: K-Means vs. Fuzzy C-Means

R 67. Pawan Lingras1, Rui Yan and Mofreh Hogo: Roughset Based Clustering: Evolutionary, Neural and Statistical Approaches

R 68. Raj Mathew and M. R. Kaimal: A Fuzzy Approach to the Game of Chicken Based on Fuzzy Expected Value Models

P24. Aparna S. Varde, Makiko Takahashi, Elke A. Rundensteiner, Matthew O. Ward, Mohammed Maniruzzaman and Richard D. Sisson Jr.: QuenchMiner: Decision Support for Optimization of Heat Treating Processes

P25. D A Karras¹ and V Zorkadis: Quality Assessment of Hash functions for message authentication based secure Internet communications Using Neural Networks

P26. K. Senthil Kumar , J. Shanmugam and K.V. Srinivasan: Neural Network Approach for Autopilot and Landing Phase of Unmanned Air Vehicle

P27. Marcelo A A Araújo . Edilberto P. Teixeira, Fabio R. Camargo, Joao P.V. Almeida, Pier A.T. Filho: Implementation for Training Neural Networks with Shared Memory

P28. P C Panchariya, A K Palit, D Popovic and A L Sharma: Data Driven Simple Fuzzy Rule Generation Algorithm for Fuzzy Modeling and Identification

P29. P C Panchariya¹, A K Palit, D Popovic and A L Sharma: Simple Fuzzy Modeling Scheme for Compact TS Fuzzy Model Using a Real-Coded Genetic Algorithm

P30. V. R. Akula, S J. Ghunakikar, Somanath Nagendra, J.B. Staubach and A.J. Suydam: Neural Networks for Rapid Design Space Exploration

S14: Smart eBusiness (session-workshop)

Chair: Dr. John Debenham and Mr. S. Kameshwaran

R 13. John Debenham: A Bargaining Agent Reaches 'Comfortable' Deals

R 14. Peter Dalmaris and Paul Bogg: Future Generation Trading Environments

R 15. V. S. Borkar, Mehul S. Dave and R.K.Shyamasundar: Algorithmic Mechanisms for Secure Multi-Auction System

P5. C.Chaitanya and Michael P. Frank: Automated Negotiations and Use in O.C.E.A.N.

P6. M.Missikoff and F.Schiappelli: Semantic Annotation for Enterprise Interoperability

P7. Hiranmay Ghosh¹, Satinder Pal and Santanu Chaudhury: An Economic Frame Work For Agent Based Product Recommendation on Internet

Note: There are some other papers in this session-workshop, which are specific only to the workshop. Those papers are not mentioned in the schedule, although they are part of the workshop and will also be presented.

S15: Soft computing for pattern recognition and data mining
Chair: Dr. Sanghamitra Bandyopadhyay

R37. Pushmeet Kohli¹: A Classifier System based on Evolved Finite State Machines

R38. Pabitra Mitra, B. Uma Shankar and Sankar K. Pal: Active Support Vector Machines for Pixel Classification in Remote Sensing Images

R 39. Rajni Jain¹ and Sonajharia Minz: Classifying Mushrooms in the Hybridized Rough Sets Framework

R 40. U. Maulik: Pattern Discovery in Graphs: A Hierarchical Approach

S16: Soft Computing Tools in Civil Engineering I
Chair: Dr. Sudhirkumar Barai

R 5. Ashu Jain and Amit Kumar: Calibration of Infiltration Parameters using Artificial Neural Networks

R 6. Lalit Kapur, Ashok Gupta and S. P. Chiew: Neural Network-Based Estimation Of Stress Concentration Factors For Steel Multiplanar Tubular XX-Joints.

R 7. Rajkumar V Raikar: ANN Application in End Depth Computation for Inverted Semicircular Channels

R 8. Ramachandra Rao Kalaga and Venkata Narasimham Kannekanti: Accident Rate Prediction on Rural Highways Using Artificial Neural Networks

S17: Soft Computing Tools in Civil Engineering II
Chair: Dr. Sudhirkumar Barai

R 9. Sanaga Srinivasulu and Ashu Jain: Comparative Analysis of Back-Propagation and *Real-Coded* GA for Training of ANN Rainfall-Runoff Models

R 10. S.M. Shiva Nagendra and Mukesh Khare: artificial neural network based vehicular exhaust emission modeling

R 11. S V Barai and Gaurav Agarawal: Hybrid Learning Model for Liquefaction Potential Assessment

R 12. T. Devi Prasad, Godfrey A. Walters and Dragan A. Savic: Booster Disinfection Facility Location using Multi-Objective Genetic Algorithms

P4. Venkat Reddy Gali, A. Boominathan and S.Mohan : CPT-based Liquefaction Analysis: Neural Network Approach

S18: Speech, Vision, and Decision Support Systems
Chair: Dr. Shamim Khan

R 69. Colin Keng Yan Tan, Kim Teng Lua: Belief Augmented Frame Sets for Knowledge Representation in Spoken Dialog Systems

R 70. K K Aggarwal, Shakti Kumar, Arun Khosla and Jagatpreet singh: Introducing Lifetime Parameter in selection Based Particle Swarm Optimization for Improved Performance

R 71. Mohammed El Helly, Ahmed Rafea and Salwa El-Gammal: An Integrated Image Processing System for Leaf Decease Detection and Diagnosis

R 72. M. Shamim Khan and Alex Chong: Fuzzy Cognitive Map Analysis with Genetic Algorithm

R 73. Nicolas Guionnet and Guy Gouarderes: Artificial Coagulation for Adaptive Query Distribution in a Grid Application

R 74. Pradipta Maji, Rishi Nandi and P Pal Chaudhuri: Application of Fuzzy Cellular Automata FCA. For Modeling Tree-Structured Pattern Classifier

R 75. Liu WenTao, Baocai Yin and Xibin Jia: A Realistic Chinese Talking Face

P31. Chad West, Adish Jain, Pawan Lingras and Bill Leonard: Supermarket Customer Attrition Analysis based on Cluster Membership Patterns

P32. Dipti Deodhare, Shekhar S S, Satwik V and Sangeeta Kumari: AADARSHA - A Flexible Decision Support System Shell Architecture

P33. G K Palshikar, Sunod Kumar, S. Achalia, P. Alhat, Y M Dhimate: Soft Temporal Patterns for Technical Analysis of Stock Markets

P34. Reza Ravani and Ali Meghdari: Smooth Motion Design From Curve Design Using Vision Registration

Note: Another suitable scientist will lead a session if an announced session chair won't show up for any reason and won't make alternate arrangements.