

# 4<sup>th</sup> Indian International Conference on Artificial Intelligence (IICAI-09)

December 16-18, 2009, SIT, Tumkur, India

## Schedule

(the papers for which the authors informed that they are not attending the conference, are not included in the schedule)

The presenting/attending author's name is *italics*.

## Outline:

Time →	2-5.30pm	10am-1.15pm	2-5.15pm	10am-1pm (or until completion)
Rooms ↓	Dec.16 (tea break between 3.45 to 4.00PM)	Dec.17 (tea break between 11.45 to 12.00)	Dec.17 (tea break between 3.45 to 4.00PM)	Dec.18 (tea break between 11.45 to 12.00)
Room 1	S2 (2-3.30pm) S6(4-5.30pm)	S3	S4	S13
Room 2	S5	S15	S15	S14
Room 3	S20C	S20A	S20B	
Room 4	S9	S10A	S10B	Tutorial
Room 5	S17	S1	S1	S22A
Room 6	S18	S11	S19	S22B
Room 7	S21	S12	S12	S16

S1, S2, ..., S23 represent Session 1, Session 2,... Session 23 respectively.

**On December 18**, between 2PM-until completion: certificates and awards presentation and conclusion ceremony in Room 1.

### Rooms and Abbreviations:

- Room 1: Media Centre
- Room 2: TEL 101 (Telecommunication Department, Ground Floor)
- Room 3: ECL 201 (Electronics Department, 1<sup>st</sup> Floor)
- Room 4: ECL 301 (Electronics Department, 2<sup>nd</sup> Floor)
- Room 5: ECL 401 (Electronics Department, 3<sup>rd</sup> Floor)
- Room 6: Faraday Seminar Hall (Electrical Department)

- Room 7: Seminar Hall (Administrative Block)
- **On December 16**, between 9.00-12.00 noon (or until completion): the inauguration ceremony followed by a high tea and then 1<sup>st</sup> keynote speech (Ideas that shaped the Web by Dr. Ramanathan Guha) in Room 1.
- **On December 16**, between 6-7pm: a cultural programme in Birla Auditorium, SIT Campus.
- **On December 16**, between 7.30-9.30pm: conference banquet (vegetarian only). No alcohol is served.
- **On December 17**, between 8.45-9.45am: 2<sup>nd</sup> keynote speech (Multi-Level Approaches for Data Mining and Data Processing: Two Examples by Dr. Dominik Slezak) in Room 1.
- **On December 17**, between 5.45-7pm: A visit to Siddaganga Mutt (<http://www.siddagangamutt.org>) where the delegates can see the prayer of 9000 students along with revered Swamiji. Then, the delegates will receive Prasadam & blessings from revered Swamiji. All interested people are welcome to attend. Contact the registration desk for details.
- **On December 17**, between 7.30-9.30pm: conference dinner hosted by SIT (vegetarian only). No alcohol is served.
- **On December 18**, between 8.45-9.45am: invited talk (Role of Computational Intelligence in Malware Detection and Malicious Code Analysis by Dr. Srinivas Mukkamala) in Room 1.
- **Tutorial** is on Reinforcement and Systemic learning for decision making by Dr. Parag Kulkarni and Mr. Shankar Lal.
- **Each paper presentation** is for 30 minutes (if free time is available then that can be used, as determined by the session chair). You **should be** in the presentation room at least 10 minutes before the session (**not** the paper) starts and sign an attendance sheet with your session chair.

## Session details:

### Session 1: Theory and Algorithms

Session chair: *Gend Lal Prajapati* (93), Institute of Engineering & Technology, Department of Computer Engineering, Devi Ahilya University, Khandwa Road, Indore- 452001, India

93 An Improved Model for Learning Context-Free Grammars Based on Tree Automata  
*Gend Lal Prajapati*, Narendra S. Chaudhari, Manohar Chandwani

241 An Optimized technique for Test Case Generation and Prioritization Using “Tabu” Search and “Data Clustering”  
Praveen Ranjan Srivastava, *Aditya Vijay*, Bhupesh Barukha, Prashant Singh Sengar, Rajat Sharma

1005 A Decomposition Algorithm for Uniform Traveling Salesman Problem  
*Roman Bazylevych*, Bhanu Prasad, Roman Kutelmakh, Rémy Dupas, Lubov Bazylevych

1001 Extra-sliding puzzles: Experiments in Cognitive Modeling and Representation for Problem Solving  
*Elpida S. Tzafestas*

58 An Algorithm for the Estimation of a Time Period of 2-Sequences

Manish Joshi, Virendra Bhavsar, *Pawan Lingras*

74 Solving Facility Layout Problem using modified genetic search based approach  
*Surya Prakash Singh*

269 Dynamic User-Driven Available-Memory Non-Minimal Cost-Bounded Search  
*Sandeep K. Namilikonda, Nihar R. Mahapatra*

70 On the Combinatorics of Triangular Arrays  
*S. Annadurai, V.R. Dare, T. Kalyani, D.G. Thomas*

## **Session 2: Logic and Knowledge Representation**

Session chair: *Gend Lal Prajapati (93)*, Institute of Engineering & Technology, Department of Computer Engineering, Devi Ahilya University, Khandwa Road, Indore- 452001, India *and R.S. Thakur (225)*, Department of Computer Applications, National Institute of Technology, Tiruchirappalli, India

552 Deontic Extension of Deductive Verification of Component Model: Combining Computation Tree Logic and Deontic Logic in Natural Deduction Style Calculus  
*Alexander Bolotov, Alessandro Basso, Oleg Grigoriev*

203 Handling Inconsistency in Extended Logic Programs using Program Transformation  
*Navin Viswanath, Rajshekhar Sunderraman*

45 A New Operational Semantics for Prolog  
*Kaninda Musumbu*

## **Session 3: Data Mining and Knowledge Discovery**

Session Chair: *Animesh Adhikari (19)* Department of Computer Science, S P Chowgule College, Margao, Goa - 403 602, India and *Bapu B. Kiranagi (533)*, Imaging CoE, HCL Technologies, Bangalore-560 100, India

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*Anil Kumar K.M, Suresha*

175 Version Incompatibility Bugs Tracking Through Data Mining Approach  
*D. Srilakshmi, P. Sujatha*

225 Exploring Interesting Multi-Level Patterns Using Graph Based Approach  
*Pradeep Chouksey, R.S. Thakur, R.C. Jain*

## **Session 4: Learning Methodologies for Classification and Decision Making-1**

Session Chair: *Manojit Chattopadhyay(531)* Department of Computer Application, Pailan College of Management and Technology, Kolkata 700 104, India and *Alagambigai Murugan (167)* Department of Computer Applications, Easwari Engineering College, Chennai - 600089, Tamilnadu, India

530 Classification Based on Parametric Partitioning of Solution Space  
*Shankar Lal, Parag Kulkarni, Amarjit Singh*

531 Application of Self Organizing Map in Machine-Part Cell Formation  
*Manojit Chattopadhyay, Pranab K Dan, Nityananda Das*

532 Learning High Dimensional Distributed Data Using Hierarchical Subspace Clustering  
*Sunita Jahirabadkar, Parag Kulkarni*

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*Bapu B. Kiranagi, D. S. Guru*

535 Random Number Approach for Addressing Issues of Classification Problems  
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538 Incremental Learning Using Incremental Clustering Based on Adaptive Closeness Factor (ACF)  
*Preeti Mulay, Parag Kulkarni*

## **Session 5: Learning Methodologies for Classification and Decision Making-2**

Session chair: *Alka Arora (301)* Indian Agricultural Statistics Research Institute, New Delhi, India and *Rajni Jain (309)* National Center for Agricultural Economics and Policy Research, New Delhi, India

545 Semi-Supervised Learning with SVM and K-Means Clustering Algorithm  
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548 Applying Learning Algorithms to Music Generation  
Ryan N. Lichtenwalter, Katerina Lichtenwalter, *Nitesh V. Chawla*

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*P. Alagambigai, K. Thangavel, N. Karthikeyani Visalakshi*

## **Session 6: Semantic Web and Information Retrieval**

Session Chair: *Sudeep Marwaha (302)*, Division of Computer Applications, Indian Agricultural Statistics Research Institute, New Delhi, India

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*Rajeswari Sridhar, Suganya A, Geetha T V*

## **Session 9: Case-Based Reasoning**

Session Chair: *Hector Gomez-Gauchia (1043)*, Dep. Ingenieria Software e Inteligencia Artificial, Universidad Complutense de Madrid, Spain

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C.G. Patil, A.M. Khan, *Satish R Kulkarni*

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*Mahalakshmi G.S., Kannapiran T, Santhosh Babu R, Prabhu S*

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Session Chair: *Ashish M Gujarathi* (1036), Chemical Engineering Department, Birla Institute of Tehnology and Science, Pilani – 333031 Rajasthan India

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Session Chair: *N. Karthikeyani Visalakshi* (186), Department of Computer Science, Vellalar College for Women, Erode, Tamil Nadu, India

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*Gupta R. A., Kumar Rajesh, Surjuse R. S.*

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*Paramjeet Singh Rajpal*

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Session Chair: *Jagadish S Kallimani (1)*, Department of Computer Science and Engineering, MSRIT, Bangalore, India

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*Praveen Ranjan Srivastava, Mahesh Prasad Ray*

## **Session 12: Artificial Intelligence Applications in Agriculture and Social Sciences**

Session Chair: *Rajni Jain (309)*, National Center for Agricultural Economics and Policy Research, New Delhi and *Sudeep Marwaha (302)*, Division of Computer Applications, Indian Agricultural Statistics Research Institute, New Delhi, India

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*Arora Alka, Shuchita Upadhyaya, Jain Rajni*

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*Ruhil A.P., Raja T.V., Gandhi R.S.*

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Session Chair: *S.M. Shiva Nagendra (328)* Department of Civil Engineering, Indian Institute of Technology Madras, Chennai- 600 036, India. and *Adarsh S (404)* Department of Civil Engineering, Indian Institute of Technology Bombay, Powai, Mumbai-400076, India

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330 A Simple Rule Based Fuzzy Air Pollution Index  
*Kariampallil V. George, Arif Khan, Parikshit Verma, Babu J. Alappat*

## **Session 14: Artificial Intelligence Applications in Structural Engineering**

Session Chair: *Jagadish S Kallimani (1)* Department of Computer Science and Engineering, MSRIT, Bangalore, India and *Adarsh S (404)* Department of Civil Engineering, Indian Institute of Technology Bombay, Powai, Mumbai-400076, India

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Session Chair: *M Janga Reddy (412)* Department of Civil Engineering, Indian Institute of Technology Bombay, Powai, Mumbai-400076, India

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*Adarsh S*, M Janga Reddy

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*Mehta Rama*, Kumar Vipin

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*C.T. Dhanya*, *D. Nagesh Kumar*

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*P. Satyanarayana*, V. V. Srinivas

410 Geospatial Web Portal for Hydrological Information

*A. K. Gosain*, Nagraj S. Patil, Chakresh Sahu, D.C.Thakur

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*A.Vasan*, *K.Srinivasa Raju*

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## **Session 16: Web 2.0 and Natural Language Engineering Tasks**

Session Chair: *Paolo Rosso (651)*, Natural Language Engineering Lab – EliRF, Departamento de Sistemas Informaticos y Computacion, Universidad Politecnica de Valencia, Spain

651 Evaluating Humorous Features: Towards a Humour Taxonomy

Antonio Reyes, *Paolo Rosso*, Davide Buscaldi

652 A Methodology to Cluster Informal Language Register Data  
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653 Analyzing Emotion in Blog and News at Word and Sentence Level  
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Session Chair: *Mrutyunjaya Panda* (20, 30) Department of ECE, Gandhi Institute of Engineering and Technology, Gunupur, Orissa-765022, India

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Session Chair: *Mehta Rama (406)*, National Institute of Hydrology, Roorkee, India

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630 A New Feature from Modified STFT Filter Bank for Robust Text-Independent Speaker Identification

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631 Cross-Cultural Vocal Emotion Recognition in Five Native Languages of Assam

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Session Chair: *A. Vadivel (152)* Department of Computer Applications, National Institute of Technology, Tiruchirappalli, India and *Bapu B. Kiranagi (533)*, Imaging CoE, HCL Technologies, Bangalore-560 100, India

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Session chair: *S.Anila (179)*, ECE Department, Sri Ramakrishna Institute of Technology, Coimbatore, India

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*Nibaran Das*, Subhadip Basu, Ram Sarkar, Mahantapas Kundu, Mita Nasipuri

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Chair: *Mohan.S (49)*, Dept of IT, Karunya University, Coimbatore, Tamilnadu, India

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112 SIFT-PCA: An efficient and accurate face representation and recognition model  
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49 Interactive 3D walkthrough from sampled video frames - An approach based on perspective correction using symmetric objects  
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126 Segmentation of Motion Objects from Four Successive Video Frames Simultaneously by Temporal Differencing Combined with Multivariate Statistics  
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*Alwyn R. Pais, Naveen Pasupuleti, Rajashekhar Gidnavar, John D'Souza*

## **Session 21: Text Processing**

Session Chair: *Nirmalya Chowdhury* (1015), Department of Computer Science and Engineering, Jadavpur University, Kolkata – 700 032, India and *Mohan.S* (49), Dept of IT, Karunya University, Coimbatore, Tamilnadu, India

1 A Study on Developing and Analysis of Text to Speech (TTS) Synthesizer for an Indian Regional Language  
*Debjani Goswami, Jagadish S Kallimani*

84 Automatic Index Generation of Technical Articles Using a Combination of Heuristics, Linguistic and Statistical Approach  
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98 English to Indian Sign Language Machine Translation: A Structure Transfer Framework  
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1019 A Self-Organizing Network Based Method for Text Classification using MST of data points for grouping  
*Nirmalya Chowdhury, Diganta Saha*

### **Session 22A: Miscellaneous-1**

Session chair: *S.Anila (179)*, ECE Department, Sri Ramakrishna Institute of Technology, Coimbatore, India

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