

RAOTA-2006

Program Schedule (Friday October 27, 2006)

8.30-9.00	REGISTRATION
9.00-9.45	INAUGURATION
9.45-10.00	Coffee/Tea
INVITED TALKS <i>Chairperson:</i>	
10.00-11.00	<ul style="list-style-type: none"> • R. Chandrasekaran, University of Texas at Dallas, USA <i>Nonnegative Integer Solutions to Linear Systems of Equations</i> • Vijay Chandru, SLS Bangalore <i>Qualitative Theorem Proving in Linear Constraints</i>
TECHNICAL SESSIONS	
11.00-12.45	Queueing/Reliability/Inventory Models <i>Chairperson: Manju Agarwal, University of Delhi</i> Combinatorial Optimization- I <i>Chairperson: Manjusri Basu, University of Kalyani, Kalyani</i>
12.45-13.30	Lunch
INVITED TALKS <i>Chairperson:</i>	
13.30-15.00	<ul style="list-style-type: none"> • G. Raghuram, IIM Ahmedabad <i>OR Applications in Transport Infrastructure Development</i> • Manju Agarwal, University of Delhi <i>Penalty Guided Genetic Search for Reliability Optimization of Complex Systems</i> • Jayadeva, IIT Delhi <i>SVM or Sink: Classification, Regression, and Beyond</i>
15.00-15.45	Group Discussion Title: <i>Optimization- An emerging discipline</i> Moderator: Joydeep Dutta, IIT Kanpur Speakers: Suresh Chandra, IIT Delhi Jayadeva, IIT Delhi Santosh Kabadi, University of Brunswick, Canada Joydeep Dutta, IIT Kanpur
15.45-16.00	Coffee/Tea
TECHNICAL SESSIONS	
16.00-17.30	Mathematical Programming – I <i>Chairperson: K. C. Sivakumar, IIT Madras</i> Optimization Applications <i>Chairperson: M. Mathirajan, IISc Bangalore</i>

Program Schedule (Saturday October 28, 2006)

9.00-9.45 Plenary Talk	<p>M. R. Rao, ISB Hyderabad <i>Integer Programming Formulations in Combinational Auctions: A Selected Survey</i> <i>Chairperson: R.N. Kaul, University of Delhi</i></p>
INVITED TALKS <i>Chairperson:</i>	
9.45-11.15	<ul style="list-style-type: none"> • Prabha Sharma, IIT Kanpur <i>Constrained Traveling Salesman Problem on a Halin Graph: A Pseudo Polynomial Algorithm</i> • Ashok Mittal, IIT Kanpur <i>Global Solution on Hypercube</i> • T. Parthasarathy, MI Chennai <i>Semidefinite Linear Complementarity Problems: A Survey</i>
11.15-11.30	Coffee/Tea
11.30-12.15	<p>Panel Discussion Title: <i>Role of Optimization in Indian Industries</i> Moderator: Bharat Salhotra, North Western Railways, Speakers: Bharat Salhotra, North Western Railways, Jaipur Anand Srinivasan, Sabre Airline Solutions, Bangalore G. Raghuram, IIM Ahmedabad M. R. Rao, ISB Hyderabad</p>
INVITED TALKS <i>Chairperson:</i>	
12.15-13.15	<ul style="list-style-type: none"> • P. K. Kapur, University of Delhi <i>Mathematical Modeling in Software Reliability and Related Optimization Problems</i> • Mohan Ram Akella, Deloitte Consulting, Hyderabad <i>Using Geo-statistical Methods to Decide an Additional Facility Location</i>
13.15-14.00	Lunch
INVITED TALKS <i>Chairperson:</i>	
14.00-15.30	<ul style="list-style-type: none"> • Anand Srinivasan, Sabre Airline Solutions, Bangalore <i>The Business of Operations Research</i> • Bharat Salhotra, North Western Railways, Jaipur <i>Application of Operation Research for Strategy Formulation: Case Study of Indian Railways</i> • Ashok Singh, DST New Delhi <i>DST Research Programs - An Overview and Proposals in Mathematical Sciences</i>
15.30-15.45	Coffee/Tea
TECHNICAL SESSIONS	
15.45-17.00	<p>Combinatorial Optimization – II <i>Chairperson:</i> Mathematical Programming – II <i>Chairperson: Chander Mohan, Ambala College of Engg. & Applied Research, Ambala</i></p>
17.00-17.15	Closing Ceremony

Technical Session 1 (Day 1)
(Venue: Lecture Hall)

Date: 27-10-2006

Time: 11.00-12.45

Title: Queueing /Reliability /Inventory Models

Session Chairperson: Manju Agarwal, University of Delhi

Sapna Chakrawarti	Optimal flow control for the finite capacity markovian queueing network for the time sharing system
Kapil Govil	Reliability based static approach for performance enhancement of networks
G.Geetharamani	Multi-items inventory control in a fuzzy Environment
B.C.Giri	Production lot sizing with process deterioration and machine breakdown under inspection schedule
P. Lakshmi	A study of M/G/1 queueing systems with server vacations using Markov regenerative theory
Kasturi Ramanth	An alternative approach to the analysis of a M/G/1 vacation queueing system under a gated vacation scheme
Shalini Rathore	Quality control for EPL model with Shortage
Neetu Singh	Optimal threshold policy for markovian queue with discouragement and additional servers
Priyanka Verma	Two-warehouse inventory model when end demand is price sensitive

Technical Session 2 (Day 1)
(Venue: Auditorium)

Date: 27-10-2006

Time: 11.00-12.45

Title: Combinatorial Optimization - I

Session Chairperson: Manjusri Basu, University of Kalyani, Kalyani

Reena Kapoor	Linearization of 0-1 multiquadratic fractional programming problem
Manoj Kumar	A fuzzy multicriteria decision-making method for vendor selection
V. Charles	E-model for transportation problem of linear stochastic fractional programming
Ravi Shanker	Enumeration technique for solving multi-objective quadratic set-covering problem using goal programming
Jagdish C. Bansal	An introduction to particle swarm optimization method
Vaneeta Jindal	Survivability analysis for 3G cellular networks
Manjusri Basu	Optimal distribution of commodities under budgetary restriction : A fuzzy approach (Invited Talk)

Technical Session 3 (Day 1)
(Venue: Auditorium)

Date: 27-10-2006

Time: 16.00-17.30

Title: Mathematical Programming - I

Session Chairperson: K. C. Sivakumar, IIT Madras

Divya Agarwal	Optimality and duality in nondifferentiable multiobjective mathematical programming involving higher order generalized type I functions
Anulekha Dhara	Conjugate duality for nonconvex optimization problems
S. R. Pattanaik	Inexact lagrangian multiplier rules
Ritu Gupta	Interactive fuzzy goal programming approach for bilevel programming problem
Anjana Gupta	Nonconvex vector minimization with set inclusion constraints
K C Sivakumar	Applications of nonnegative operators in optimization (Invited Talk)

Technical Session 4 (Day 1)
(Venue: Lecture Hall)

Date: 27-10-2006

Time: 16.00-17.30

Title: Optimization Applications

Session Chairperson: M. Mathirajan, IISc Bangalore

J.Jeya	Hybrid meta-heuristic algorithms for detection of microcalcifications in digital mammograms
M.Karnan	Ant colony and genetic algorithms for feature selection and classification of microcalcifications in digital mammograms
Anshu Gupta	Innovation diffusion models with promotional efforts and related optimization problems maximizing the adoption of multi-products in multiple market segments
R. Sarvanan	TRIZ application in design of an industrial robot
Ravindra Gokhale	A solution framework for discrete parallel processors scheduling problem with weighted flow time minimization
M.Mathirajan	Mathematical programming formulations for scheduling batch processing machines (Invited Talk)

Technical Session 5 (Day 2)
(Venue: Lecture Hall)

Date: 28-10-2006

Time: 15.45-17.00

Title: Combinatorial Optimization-II

Session Chairperson:

Shalini Arora	Phased time minimizing transportation problem
Sudha Arora	Multiobjective capacitated plant location problem
Ritu Narang	Weighting method for bilevel integer fractional programming problem with bounded variables
Kalpana Dahiya	Capacitated transportation problem with bounds on rim conditions
N. Guruprasad	Optimization of traveling salesman problem – an algorithmic approach with code and animation
S. K. Gupta	Mond-Weir type higher-order symmetric duality with cone constraints

Technical Session 6 (Day 1)
(Venue: Auditorium)

Date: 28-10-2006

Time: 15.45-17.00

Title: Mathematical Programming - II

Session Chairperson: Chander Mohan, Ambala College of Engg. & Applied Research, Ambala

Deepali Gupta	Two types of approximate saddle points
Bhawna Kohli	Nonsmooth cone convexity in terms of convexifactors and its generalizations in vector optimization
Meetu Bhatia	Higher order duality in multiobjective fractional programming with support functions
Reshma Khemchandani	Fuzzy twin support vector machines for classification
Ruchi Arora	Weak clarke epiderivative for set-valued maps
C. Mohan	Heuristics based optimization Techniques (Invited Talk)