

Vishv Jeet

- CONTACT** C2200 Operations Research
The University of Texas at Austin, TX 78712
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Phone: (512) 657-8678
- EDUCATION** Ph.D., Operations Research (expected August 2006)
The University of Texas at Austin
Dissertation: *Logistics Network Design with Inventory Stocking, Time-based Service Levels, and Part-Commonality*
Advisor: Dr. Erhan Kutanoglu
- M.S., Computer Integrated Manufacturing, July 2001
Indian Institute of Technology, Bombay, India
Thesis: *A Study of Inbound Logistics in Tractor Manufacturing Company*
Advisor: Dr. Subash A. Babu
- B.S., Mechanical Engineering, May 2000
Indian Institute of Technology, Bombay, India
- RESEARCH INTERESTS** Mathematical modeling, optimization and analysis of problems arising in management, economics, finance, logistics, scheduling, and supply chains
- AWARDS AND HONORS**
- First Prize: Doctoral Dissertation Proposal Award (SCALE 2005)
 - Graduate Fellowship: Mahindra Tractors and IIT Bombay (2001)
 - Outstanding Contribution Award: Student Activities, IIT Bombay (2001)
- JOURNAL PAPERS**
1. V. Jeet, E. Kutanoglu and A. Partani. *Network Design with Inventory Stocking: Modeling and Optimization*. Submitted to Management Science.
 2. V. Jeet and E. Kutanoglu. *Logistics Network Design with Inventory Stocking, Time-based Service Levels, and Part-Commonality*. in preparation for IIE Transactions. (Also available as Technical Report, Industrial and Systems Engineering, University of Florida, January, 2005.)
 3. A. Partani, V. Jeet and D. Morton. *Upper and Lower Bounds on the Value of the Stochastic Solution in Stochastic Programming*. in preparation for Operations Research. (Also available as Technical Report, Operations Research, The University of Texas at Austin, March, 2006.)
 4. V. Jeet and E. Kutanoglu. *A Problem Space Search Based Efficient Algorithm for Generalized Assignment Problem*. Submitted to European Journal of Operational Research, 2005.

CONFERENCE
PAPERS AND
TALKS

1. E. Kutanoglu, V. Jeet and M. F. Candas. *Solution Methodologies for Integrated Network Design and Inventory Management in Service Parts Logistics*. Proceedings of IIE Research Conference, Orlando, 2006.
2. V. Jeet, E. Kutanoglu and A. Partani. *Solution Techniques of an Integrated Location, Allocation and Inventory Model*. Presented at INFORMS Annual Meeting, San Francisco, 2005.
3. V. Jeet and E. Kutanoglu. *Logistics Network Design with Inventory Stocking, Time-based Service Levels, and Part-Commonality*. Presented at INFORMS Annual Meeting, Denver, 2004.
4. V. Jeet and E. Kutanoglu. *Logistics Network Design with Inventory Stocking, Time-based Service Levels, and Part-Commonality*. Presented at University of Florida: SCALE Conference, Gainesville, 2005. **Best Dissertation Proposal Award.**
5. E. Kutanoglu, M. F. Candas and V. Jeet. *Considering Stochastic Inventory in Logistics Network Design Problems with Response Time Constraints*. Proceedings of IIE Research Conference, Atlanta, 2005.
6. V. Jeet and E. Kutanoglu. *An Efficient Algorithm for Logistic Network Design with Time-based Service Levels*. Proceedings of IIE Research Conference, Houston, 2004.
7. V. Jeet and A. Partani. *Metric Nearness Problem and Solution Approaches*. Presented at INFORMS Annual Meeting, Denver, 2004.

EXPERIENCE

Research Assistant University of Texas at Austin
Operations Research Austin, TX, USA
Supervisor: Dr. Erhan Kutanoglu Jan 2003–present

Worked on a class of network design problems with simultaneous inventory stocking decisions. These problems are often considered unsolvable due to inherent discreteness and nonlinearities arising from requirement to integrate “strategies” (long term issues) and “operations” (short term and volatile issues). In my dissertation research, I have developed mathematical models and optimization techniques for this problem class. The models and solution techniques make use of several ideas: variable clustering and substitution, convexification, linearization, outer-approximation, and valid inequalities. I developed a scheme to compute tight lower bounds by using a noble relaxation; this relaxation, along with a heuristic, is also useful for computing upper bounds. I have also identified an underlying fractal structure for this problem class that can be exploited to solve these problems in even larger perspective such as considering multi-commodity flow, part-commonality and inventory sharing.

Teaching Assistant University of Texas at Austin
Engineering Finance Austin, TX, USA
Supervisor: Dr. Paul A. Jensen Aug 2005–present

Developed Macromedia Flash utilities, and part of the course content related to project management. This class <http://www.me.utexas.edu/~me353> is run

online using lecture movies, chat, discussion forum and digital submission. Part of the duties include teaching spreadsheet based modeling for engineering economics and basic finance in classroom.

Summer Intern

Google Print

Manager: Dr. Chris Uhlik

Google Inc.

Mt. View CA, USA

Jun 2005–Aug 2005

Developed a spreadsheet based manpower planning optimization model and a simulation system using Arena to estimate several important system parameters (viz. System Cycle Time, WIP, etc.) for a book scanning site. This simulation system was very helpful in deciding between two different models of operating the scanning shop.

System Analyst

Citicorp Overseas Software Ltd.

Manager: Pramod Bizani

Citibank N.A.

Mumbai, India

Oct 2001–Jul 2002

Worked on Citibank's application security project for single sign-on facility. The project involved large scale C++ code development and compilation with integration of third party libraries for authentication (Netegrity Siteminder from HP), database support (ORACLE) and directory access protocol (LDAP).

Project Engineer

Farm Equipments Sector

Manager: Satish Moorjani

Mahindra Tractors Ltd.

Mumbai, India

Apr 2000–Jun 2001

Worked with supply chain management group to study the inbound supply chain of *Asia's largest tractor manufacturing company* to develop decision support system and also made several recommendations to improve procurement efficiency.

COURSE
WORK

Linear Programming, Nonlinear Programming, Integer Programming, Applied Probability, Applied Stochastic Processes, Mathematical Statistics, Large Scale Data Mining, Meta-heuristics, Stochastic Optimization, Object Oriented Programming and Simulation, Flexible Manufacturing Systems, Quality Control, Advanced Mathematical Programming, Game Theory, Digital System Simulation, Computational Complexity.

PROFESSIONAL
ACTIVITIES

1. Reviewer for the journal *IIE Transactions*
2. Reviewer for the *IIE Research Conference* for the years 2004 and 2005
3. President of student chapter of INFORMS at UT Austin (2004-05)
4. Newsletter editor of student chapter of INFORMS at UT Austin (2004-06)
5. President of student body of Mechanical Engg., IIT Bombay (1999-00)
6. Contributed to research and writing of *Water Privatization and Implications in India*. An online publication with a voluntary organization

REFERENCES

Dr. Erhan Kutanoglu
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512-576-5199

Dr. David Morton
Professor, Operations Research
The University of Texas at Austin
morton@mail.utexas.edu
512-554-3314

Dr. Leon Lasdon
Professor, McCombs School of Business
The University of Texas at Austin
lasdon@mail.utexas.edu
512-471-9433

Dr. Paul Jensen
Professor, Operations Research
The University of Texas at Austin
pjensen@mail.utexas.edu
512-837-2440