

SOLI 2007

**2007 NSF Workshop on Service Research
and**

IEEE/INFORMS

Service Operations and Logistics, and Informatics

Technical Program

August 26-29, 2007

**The Loews Hotel
Philadelphia, USA**

Conference Quick Guide

REGISTRATION

The Registration/Information desk will be open at the following times:-

Sunday, 26th August 3:00 PM -- 6:00 PM **Registration will be in the Washington Foyer area, Loews Hotel*

Monday, 27th August 08.00 AM – 5.10 PM ***Registration will be in the Washington Foyer area*

Tuesday, 28th August 08.00 AM – 5.40 PM ***Registration will be in the Washington Foyer area*

Wednesday, 29th August 08.00 AM – 4.20 PM ***Registration will be in the Washington Foyer area*

MEETING ROOMS

The Conference General Sessions will take place in the Washington Room (See Floor Plan on Page 2).

Parallel Sessions will be held at Washington A, B, and C (See Floor Plan on Page 2).

PRESENTATION

Each meeting room will have a laptop, fully loaded with Microsoft PowerPoint and Acrobat Reader applications. All laptops take USB memory sticks (i.e., flash cards) and CD ROMs.

Internet Access

Please check with the hotel reception desk.

LUNCHESES

Lunches will be provided in the Washington Foyer area.

SOCIAL PROGRAMME

Welcome Reception:-

The Welcome Reception will be held in the Lescaze Room, Loews Hotel at 6:30 PM – 8:30 PM on Sunday, 26th August 2007.

Banquet:-

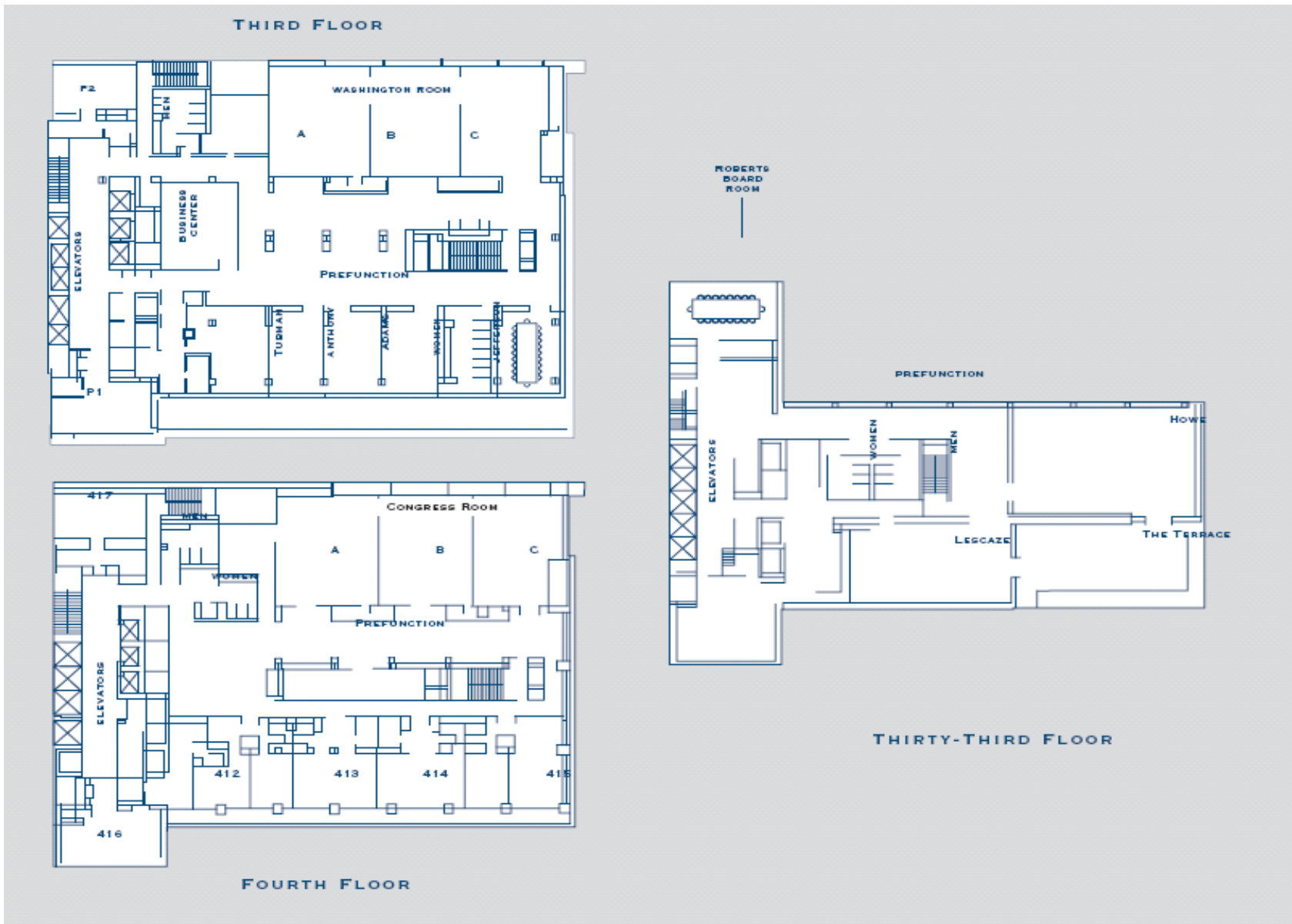
The Conference Banquet will be held in the Howe Room, Loews Hotel at 6:30 PM – 9:00 PM on Tuesday, 28th August 2007.

Credit Cards

Credit cards are widely used in the US and all leading credit cards are accepted.

CONTACTS DURING CONFERENCE

If there are any problems please contact the Registration desk



Floor Plan

TECHNICAL PROGRAM

2007 IEEE/INFORMS International Conference on
Service Operations and Logistics, and Informatics

August 26-29, 2007
Philadelphia, USA

SOLI 2007 PROGRAM AT A GLANCE

Sunday, Aug. 26, 2007

3:00 PM – 6:00 PM	Registration	Washington Foyer The Loews Hotel
6:30 PM – 8:30 PM	Welcome Reception	Lescaze Room The Loews Hotel

Monday, Aug. 27, 2007

8:30 AM – 5:00 PM	Registration	Washington Foyer The Loews Hotel
8:00 AM – 9:40 AM	Parallel Session	
MA01 (Room A)	MA02 (Room B)	MA03 (Room C)
Chair: Mary Jo Bitner NSF Workshop (I) N005, N010, N003,	Chair: Mairead Brady Service system design & planning 124, 151, 156, 166	Chair: Segev Wasserkrug Service workforce management (I) 53, 74, 170, 171
9:40AM – 10:00AM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
10:00AM – 11:40AM	Parallel Session	Washington
MB01 (Room A)	MB02 (Room B)	MB03 (Room C)
Chair: Mi Jung Park Retail and financial services 39, 66, 131, 143	Chair: Mairead Brady ICTS services design and management 55, 101, 127, 142	Chair: Segev Wasserkrug Service workforce management (II) 135, 145, 121, 158
11:40 AM – 12:30 PM	Lunch	Washington Foyer The Loews Hotel
12:30 PM – 1:20 PM	Plenary Lecture: Dr. Irving Wladawsky-Berger	Washington Room
1:30 PM – 3:10 PM	Parallel Session	Washington
MP01 (Room A)	MP02 (Room B)	MP03 (Room C)
Chair: Weiguo Liu Enterprise systems 119, 155, 161, 159	Chair: Usha Kumar On-demand delivery 3, 38, 94, 104	Chair: Segev Wasserkrug Service workforce management (III) 86, 93, 129, 152
3:10 PM – 3:30 PM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
3:30 PM – 5:10 PM	Parallel Session	Washington
MQ01 (Room A)	MQ02 (Room B)	MQ03 (Room C)
Chair: Yongma Moon Retail and service management 47, 63, 103, 112	Chair: Usha Kuamr Supplier relationship management 56, 96, 116, 144	Chair: Lefei Li Quality and customer satisfaction 2, 64, 82, 125

Tuesday, Aug. 28, 2007

8:30 AM – 5:00 PM	Registration	Washington Foyer The Loews Hotel
8:00 AM – 9:40 AM	Parallel Session	Washington
TA01 (Room A)	TA02 (Room B)	TA03 (Room C)
Chair: Mei Xue NSF Workshop (II) N017, N018, N019	Chair: Azzam ul Asar Metrics and logistics 54, 97, 153, 169	Chair: Service planning (I) 98, 115, 168, A014
9:40AM – 10:00AM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
10:00AM – 11:40AM	Parallel Session	Washington
TB01 (Room A)	TB02 (Room B)	TB03 (Room C)
Chair: Grace Lin NSF Workshop (III) N009, N011, N022	Chair:Seug Ki Moon Service design A002, A009, A010, 78	Chair: Roger Goodwin Service planning (II) 52, 68, 141, 157
11:40 AM – 12:40 PM	Lunch	Washington Foyer The Loews Hotel
12:40 PM – 1:40 PM	Visionary Talk: Prof. Richard Chase	Washington Room
1:40 PM – 3:20 PM	Parallel Session	Washington
TP01 (Room A)	TP02 (Room B)	TP03 (Room C)
Chair: Wei Liu Quality and customer satisfaction 10, 81, 88, A015	Chair: Chenlan Wang Event-based production and supply 33, 44, 148	Chair: Ram Akella Service system (I) F001, F002, F004, A016
3:20 PM – 3:40 PM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
3:40 PM – 5:20 PM	Parallel Session	Washington
TQ01 (Room A)	TQ02 (Room B)	TQ03 (Room C)
Chair: Wei Liu Healthcare, E-market, and data mining 24, 60, 100, 128	Chair: Shigeki Sugiyama Service process engineering 11, 27, 57, 70	Chair: Rui Zhang Service system (II) 84, 99, 133
6:30 PM – 9:00 PM	Banquet Plenary Lecture: Dr. Brenda Dietrich	Howe Room The Loews Hotel

Wednesday, Aug. 29, 2007

8:30 AM – 12:00 PM	Registration	Washington Foyer The Loews Hotel
8:00 AM – 9:40 AM	Parallel Session	Washington
WA01 (Room A)	WA02 (Room B)	WA03 (Room C)
Chair: Robin Qiu NSF Workshop (IV) N001, N002, N016	Chair: Roger Goodwin Customer relationship management 102, 40, 69, 106	Chair: Vipul Jain SCM & Logistic planning (I) 21, 91, 150, 163
9:40AM – 10:00AM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
10:00AM – 11:40AM	Parallel Session	Washington
WB01 (Room A)	WB02 (Room B)	WB03 (Room C)
Chair: Robin Qiu NSF Workshop (V) N020, N023	Chair: Lefei Li Security services and management 35, 67, 139, F003	Chair: Vipul Jain SCM & Logistic planning (II) 42, 83, 123, 85
11:40 AM – 12:30 PM	Lunch	Washington Foyer The Loews Hotel
12:30 PM – 1:20 PM	Plenary Lecture: Prof. Morris Cohen	Washington Room
1:20 PM – 2:00 PM	Visionary Talk: Prof. Rajit Gadh	Washington Room
2:00 PM – 2:20 PM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
2:20 PM – 4:20 PM	NSF Roundtable WP01 (Room A)	Washington
Coordinator: Robin Qiu NSF Roundtable		

2007 IEEE SOLI
Monday August 27, 2007

8:00 AM – 9:40 AM	Parallel Session	Washington
MA01 (Room A)	MA02 (Room B)	MA03 (Room C)
NSF Workshop (I) N005, N010, N003	Service system design & planning 124, 151, 156, 166	Service workforce management (I) 53, 74, 170, 171

Session MA01	Room A	Time 8:00 – 9:40 AM	Session Title NSF Workshop (I)	Chair Mary Jo Bitner
Paper ID	Paper Title		Author(s)	Affiliation(s)
N005	Some Issues of the Management of Technology (MOT) in the Technology-based Service Sector		Daniel Berg	RPI
N010	Self-Service Technologies: Innovation and Execution		Mary Jo Bitner	Arizona State University
N003			Francois Sainfort	Georgia Tech

Session MA02	Room B	Time 8:00 – 9:40 AM	Session Title Service system design & planning	Chair Mairead Brady
Paper ID	Paper Title		Author(s)	Affiliation(s)
124	Developing a collaborative supply chain reference model: A case study in China		Shuihua Han, Chao-Hsien Chu, Shuangyuan Yang	Xiamen University Penn State
151	Modeling a Flow-Shop with Setup Times in Dioid Algebra		Aurélien Corrêa, Abdeljalil Abbas-Turki, Rachid Bouyekhf and Abdellah El Moudni	UTBM
156	Coordination through Revenue Sharing and Bargaining in a Two-stage Supply Chain		Amy Z. Zeng, Jing Hou, Lindu Zhao	Worcester Polytechnic Institute Southeast University,
166	A PHA based on a systemic and generic ontology		Mohamed-Habib MAZOUNI, Jean-François AUBRY	NANCY UNIVERSITY

Session MA03	Room C	Time 8:00 – 9:40 AM	Session Title Service workforce management (I)	Chair Segev Wasserkrug
Paper ID	Paper Title		Author(s)	Affiliation(s)
53	Addressing Arrival Rate Uncertainty in Call Center Workforce Management		Thomas Robbins	Pennsylvania State University

74	Shift Scheduling for Third Level IT Support: Challenges. Models and Case Study	S. Wasserkrug, S. Taub, S. Zeltyn, D. Gilat, V. Lipets, Z. Feldman, A. Mandelbaum	IBM Haifa Research Lab Technion
170	Workforce Management and Performance Optimization at Call Centers	Turgut Aykin	AC2 Solutions
171	Cross Selling in Call Centers	Mor Armony	New York University

9:40AM – 10:00AM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
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10:00AM – 11:40AM	Parallel Session	Washington
MB01 (Room A)	MB02 (Room B)	MB03 (Room C)
Retail and financial services 39, 66, 131, 143	ICTS services design and management 55, 101, 127, 142	Service workforce management (II) 135, 145, 121, 158

Session MB01	Room A	Time 10:00 – 11:40 AM	Session Title Retail and financial services	Chair Mi Jung Park
Paper ID	Paper Title		Author(s)	Affiliation(s)
39	Impact Analysis of RFID on Financial Supply Chain Management		Tatsuya Inaba	Keio University
66	Information Enrichment Service Systems		Daniel Gruhl, Kevin Haas, Jan Pieper, Christine Robson and Tony Stuart	IBM Research
131	Perceived Interactivity in Online Retail Services: Approach from the Features		Mi Jung Park, Jungkun Park	Purdue University
143	A Two-Stage Solution Procedure for Food Delivery Decisions in Cities with Circular Transportation Networks		Zheng Wang, Xiangpei Hu, Amy Z. Zeng	Dalian University of Technology Worcester Polytechnic Institute

Session MB02	Room B	Time 10:00 – 11:40 AM	Session Title ICTS services design and management	Chair Mairead Brady
Paper ID	Paper Title		Author(s)	Affiliation(s)
55	A Decision Model for Selecting an Offshore Outsourcing Location: Using a Multicriteria Method		Zheng-Kui Lin, Jian-Jun Wang, Yi-Yan Qin	Dalian Maritime University Dalian University of Technology Guangxi University for Nationalities
101	The Service Paradox: Supporting Service Supply Chains with Product-oriented ICT		Mairead Brady and Martin R. Fellenz	Trinity College Dublin
127	Ontology-based Digital Ecosystem Conceptual Representation		Hai Dong, Farookh Khadeer Hussain,	Curtin University of Technology

		Elizabeth Chang	
142	Discrete Intersection Signal Control	Abdeljalil Abbas-Turki, Aurélien Corrêa and Abdellah El Moudni	UTBM

Session MB03	Room C	Time 10:00 – 11:40 AM	Session Title Service workforce management (II)	Chair Segev Wasserkrug
Paper ID	Paper Title		Author(s)	Affiliation(s)
135	Demand Forecasting in Operational Workforce Management		Mitul Shah, Gilbert Owusu, Chris Voudouris	Infosys Technologies Ltd. British Telecom
145	Modeling and Examining Efficiency Loss in Supply Chains Through Interaction of Multiple Time Zones		Raschid Ijioui, Heike Emmerich, Jürgen Hubert	Aachen University of Technology
121	Study on the Logistics Management Information System For Discrete Manufacturing Enterprises		Chunju Jing, Fang Zhiyuan, Yu Zhou	Shanxi University of Finance and Economics Sun Yat-sen University Lanzhou University
158	Shift Scheduling in Call Centers with Multiple Skill Sets and Transportation Costs		Emre Emil, E. Lerzan Örmeci and F. Sibel Salman	Bogazici University Koç University

11:40 AM – 12:30 PM	Lunch	Washington Foyer The Loews Hotel
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12:30 PM – 1:20 PM	Plenary Lecture: Dr. Irving Wladawsky-Berger	Washington Room
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Chair: **Robin Qiu**, Pennsylvania State University, USA

Speaker: **Dr. Irving Wladawsky-Berger**, *Vice president, Technical Strategy and Innovation, IBM, Chairman Emeritus, IBM Academy of Technology, Visiting Professor of Engineering Systems, MIT*

Title: **Reflections on Innovation in a Services-based Knowledge Economy**

Abstract: Advances in information technology coupled with powerful market forces are transforming just about all aspects of business and society. We can increasingly leverage the Internet and related open standards to look at a whole organization - an enterprise, an industry eco-system or an economy - as a holistic, integrated system, linking together processes, information and people. This talk will explore some of the huge challenges that we face in order to realize the potential benefits of such business and societal transformations, including the

ability to effectively design and use highly complex, human oriented, market-facing systems and applications.

1:30 PM – 3:10 PM	Parallel Session	Washington
MP01 (Room A)	MP02 (Room B)	MP03 (Room C)
Enterprise systems 119, 155, 161, 159	On-demand delivery 3, 38, 94, 104	Service workforce management (III) 86, 93, 129, 152

Session MP01	Room A	Time 1:30 – 3:10 PM	Session Title Enterprise systems	Chair Weiguo Liu
Paper ID	Paper Title		Author(s)	Affiliation(s)
119	A Quantity Discount Pricing Model to Increase Vendor Profits in a Just – in – Time (JIT) Environment		A. Aparna	Narsee Monjee Institute of Management & Higher Studies
155	The Digital E-Commerce Divide In Service SMEs Between China And Australia		Ergun Gide and Ming X. Wu	Central Queensland University. Australia
161	Curated consumption infrastructure prototyping and its evaluation for video sharing archive based on persistent usage scenario association technology		Tadashi Nakanishi, Noboru SONEHARA, Yo'ichi TOHKURA	The Graduate University for Advanced Studies National Institute of Informatics
159	Illustrative example of determining Quality of Service (QoS) using trustworthiness measurement methodology		Farookh Khadeer Hussain, Omar Khadeer Hussain, Elizabeth Chang	Curtin University of Technology

Session MP02	Room B	Time 1:30 – 3:10 PM	Session Title On-demand delivery	Chair Usha Kumar
Paper ID	Paper Title		Author(s)	Affiliation(s)
3	A Study on the Production Quantity - Delivery Lead Time Decision Model For a Two-stage Supply Chain of Seasonal Items		Yong Lin, Chen Kai	Huazhong University of Science and Technology
38	A Dynamic (s, S) Replenishment Policy for Suppliers Engaged in VMI Agreement with Retailers		Lanjuan Liu and Xinyan Zhou	Shanghai University of Finance and Economics
94	Modeling automated service orchestration for IT-based home services		Jochen Meis, Jörg Draeger	Fraunhofer ISST
104	Optimization with Conflicting Objectives in Logistic Services		Christina Aperjis, Ray Strong	Stanford University IBM Almaden Research Center

Session MP03	Room C	Time 1:30 – 3:10 PM	Session Title Service workforce management (III)	Chair Segev Wasserkrug
Paper ID	Paper Title		Author(s)	Affiliation(s)
86	Optimatch: Applying Constraint Programming to Workforce Management of Highly-skilled Employees		Yossi Richter, Yehuda Naveh, Donna L. Gresh and, Daniel P. Connors	IBM Research
93	Stochastic Forecasting and Dynamic Updating of Uncertain Arrival Rates		Haiping Shen, Jianhua Z. Huang, Chihoon Lee	University of North Carolina at Chapel Hill Texas A&M University
129	Research on the Organizational Mode of Information Resources in Knowledge Alliance		Rende Feng and Zejun Liu	Chongqing Technology and Business University
152	A decision support tool to plan shifts in a home for the aged		Roberto Cordone, Michele Milesi, Matteo Salani	Universit`a degli Studi di Milano @logistics Reply Ecole Polytechnique F´ed´erale de Lausanne

3:10 PM – 3:30 PM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
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3:30 PM – 5:10 PM	Parallel Session	Washington
MQ01 (Room A)	MQ02 (Room B)	MQ03 (Room C)
Retail and service management 47, 63, 103, 112	Supplier relationship management 56, 96, 116, 144	Quality and customer satisfaction 2, 64, 82, 125

Session MQ01	Room A	Time 3:30 – 5:10 PM	Session Title Retail and service management	Chair Yongma Moon
Paper ID	Paper Title		Author(s)	Affiliation(s)
47	Customer Switching Intention in Service Industries and the Effect of Customer Perceived Value		Rui Zhang, Keyi Wang, Kaibo Chen, Rong Rong	Dalian University of Technology
63	A Joint Decision Model of Variants Selection. Shelf-space Allocation and Inventory Control		Jun-Jun Gao, L.R. Yu	Shanghai University
103	Inefficiency of Dual Channel in E-business: Asymmetric Cost Structure and Customer Behavior		Yongma Moon and Tao Yao	The Pennsylvania State University
112	Price Decision in the Supply Chain of One Product Family with Price-dependent Demand		Li Qian, Yongma Moon , David Ben-Aireh, Tao Yao	South Dakota State University, Pennsylvania State University, Kansas State University

Session MQ02	Room B	Time 3:30 – 5:10 PM	Session Title Supplier relationship management	Chair Usha Kumar
Paper ID	Paper Title		Author(s)	Affiliation(s)
56	Research on Industrial Clusters Classification		Lei Wang	China University of Mining and Technology
96	A Reinforcement Learning Approach for Dynamic Supplier Selection		Tae Il Kim, R. Ufuk Bilsel, Soundar R.T. Kumara	Pennsylvania State University
116	Strategies and challenges in dynamic supply chain procurement activities		Lyes Benyoucef and Vipul Jain	INRIA-France
144	Study on Coordinated and Un-coordinated Mechanism of Supply Chain		Herui Cui	North China Electric Power University

Session MQ03	Room C	Time 3:30 – 5:10 PM	Session Title Quality and customer satisfaction	Chair Lefei Li
Paper ID	Paper Title		Author(s)	Affiliation(s)
2	Research on Optimization of the Customer-Enterprise Interacting Mechanism based on the GA-WNN Method		Weiqiang Wu	Tianjin University
64	Evaluating Supply Chains with Stochastic Models		Gabriel Alves, Jr., Paulo Maciel, Ricardo Massa	Universidade Federal de Pernambuco
82	The Strategic Research of Air Cargo Based on Rule Knowledge and Decision Tree		Cheng Li, Danqing Zhou, Chunxun Xie, Zhong Wu	Shanghai University of Engineering Science
125	Compare and Contrast of Contemporary Technical Knowledge Sharing Technologies		Hai Dong, Farookh Khadeer Hussain, Elizabeth Chang	Curtin University of Technology

**2007 IEEE SOLI
Tuesday August 28 2007**

8:00 AM – 9:40 AM	Parallel Session	Washington
TA01 (Room A)	TA02 (Room B)	TA03 (Room C)
NSF Workshop (II) N017, N018, N019	Metrics and logistics 54, 97, 153, 169	Service planning (I) 98, 115, 168, A014

Session TA01	Room A	Time 8:00 – 9:40 AM	Session Title NSF Workshop (II)	Chair Mei Xue
Paper ID	Paper Title		Author(s)	Affiliation(s)
N017	Customer Efficiency and the Management of Multi-Channel Service Delivery Systems		Mei Xue	Boston College
N018	Taming Service Elephants		Scott E. Sampson	Brigham Young University
N019	Enabling the Services Sciences via a Unified Services Theory		Craig Froehle	University of Cincinnati

Session TA02	Room B	Time 8:00 – 9:40 AM	Session Title Metrics and logistics	Chair Azzam ul Asar
Paper ID	Paper Title		Author(s)	Affiliation(s)
54	RFID Tag Characterization in a GHz Transverse Electromagnetic Cell		Sidney K. D'Mello, Divya Choudhary, Srikant Chari, James Markham, and Lee McCauley	University of Memphis
97	Swarm Intelligence based Reputation Distribution for Trust Models in Open Multi Agent Systems		Saba Mahmood, Azzam-ul-Asar, Farah Mahmood	University of Engineering & Technology Peshawar, Institute of Management Sciences
153	Analysing E-Mail Surveys At The Beginning Of The 21st Century: A Case Study In Australia		Ergun Gide and Ming X. Wu	Central Queensland University
169	Online Simulation for Logistics and Decision Making		Enrique Espinosa and Ernesto Pacheco	Monterrey Institute of Technology

Session TA03	Room C	Time 8:00 – 9:40 AM	Session Title Service planning (I)	Chair Lenny Koh
Paper ID	Paper Title		Author(s)	Affiliation(s)
98	Strategic Module Sharing for Customized Service Family Design using a Bayesian Game		Seung Ki Moon, Jaehun Sim, Jun Shu, and Timothy W. Simpson	The Pennsylvania State University
115	Adaptive Project Risk Management		Léa A. Deleris, Kaan	IBM Research / Math Sciences Department

		Katircioglu, Shubir Kapoor, Richard Lam, Sugato Bagchi	
168	Performance Modeling of Service Businesses	Barbara Jones, Ying Tat Leung, Sunil Noronha, Jorge Sanz	IBM Almaden Research Center
A014	Supply Chain and Information System Services: An Efficiency Comparison Between Turkish and Bulgarian SMEs	S.C. Lenny Koh, Erkan Bayraktarb, Ekrem Tatogluc, Mehmet Demirbagd and Selim Zaime	University of Sheffield

9:40AM – 10:00AM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
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10:00AM – 11:40AM	Parallel Session	
TB01 (Room A)	TB02 (Room B)	TB03 (Room C)
NSF Workshop (III) N009, N011, N022	Service design A002, A009, A010, 78	Service planning (II) 52, 68, 141, 157

Session	Room	Time	Session Title	Chair
TB01	A	10:00 – 11:40 AM	NSF Workshop (III)	Grace Lin
Paper ID	Paper Title		Author(s)	Affiliation(s)
N009	Emerging Topics in Service Sciences		Grace Lin	IBM
N011	Two Issues in Workforce Management for Inbound Call Centers		Noah Gans, Haipeng Shen, Yong-Pin Zhou	University of Pennsylvania
N022			John Hollingsworth	IBM

Session	Room	Time	Session Title	Chair
TB02	B	10:00 – 11:40 AM	Service design	Seug Ki Moon
Paper ID	Paper Title		Author(s)	Affiliation(s)
A002	A Model of Rapid New Service Development Process: Rapid-NSD		Kwang-Jae Kim, Kwangsoo Kim, Byung-In Kim, and Deok-Hwan Kim	Pohang University of Science and Technology
A009	Locational Tying of Complementary Retail Items		Bacel Maddah and Ebru K. Bish	American University of Beirut
A010	Defining Service in Software Business		Aku Valtakoski	Helsinki University of Technology
78	Development Method of Domain Ontology Based on Reverse Engineering		Yan Luo	Shanghai Jiao Tong University

Session TB03	Room C	Time 10:00 – 11:40 AM	Session Title Service planning (II)	Chair Roger Goodwin
Paper ID	Paper Title		Author(s)	Affiliation(s)
52	Efficient Spare Part Management to Satisfy Customers Need		Uwe Dombrowski, Johannes K. Wrehde, Sven Schulze	Institute for Production Management and Operations Research
68	Analysis on the Developmental Characters of the Producer Services		Chun Li Yang, Ming Yu	Tsinghua University
141	Factor Analysis to identify latent constructs across management subjects at a business school		Usha Ananthakumar and Manandeep Singh	Indian Institute of Technology
157	Using Strategy Maps to Align Distributed Service Organizations		Andreas Nobs, André Minkus, Fabrice Seite	ETH Zurich

11:40 AM – 12:40 PM	Lunch	Washington Foyer The Loews Hotel
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12:40 PM – 1:40 PM	Visionary Talk: Prof. Richard Chase	Washington Room
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Chair: **Lefei Li**, Tsinghua University, China

Speaker: **Prof. Richard Chase**, *Marshall School of Business, University of Southern California*

Title: **The New Service I.E.: Engineering Customer Psychology into Service Encounter Design**

Abstract: A service encounter is essentially an interaction between a customer and a server. The general approach to engineering this interaction is to focus on the informational and logistical needs of the customer and the activities required by the server to complete the process; the consumer behavior aspects, with the exception of the psychology of waiting have been virtually ignored. In this talk, I propose that we can build in cues and process steps that foster trust and enhance customer perceptions of control, choice, and the flow of the encounter itself. I will also discuss some on-going field studies of call centers, casinos, and health care organizations that my colleague, Sriram Dasu, and I have been undertaking. The long term goal of this effort is to create a new behavioral tool set for the industrial engineering of service work.

Biography: Dick Chase is a specialist in service operations management. He is the originator of the customer contact theory for service processes, with articles on the subject in Management Science and Operations Research. Two of his Harvard Business Review articles, "Where Does the Customer Fit in a Service Operation?" and "The Service Factory" (with Dave Garvin) have been cited as classics. His most recent HBR paper is "Want to Perfect Your Company's Service Use Behavioral Science." He is coauthor with Bob Jacobs of Operations Management for

Competitive Advantage, 11th edition. In 2006, he received a Lifetime Achievement Award from the Production Management Society, and 2004, he was recognized as Scholar of the Year by the POM Division of the Academy of Management. He has recently consulted with Dell Computers and MGM Grand Hotels. He is on the Editorial Boards of several journals including MSOM and POMS.

His recent work with Sriram Dasu deals with engineering service encounters to include behavioral concepts.

1:40 PM – 3:20 PM	Parallel Session	Washington
TP01 (Room A)	TP02 (Room B)	TP03 (Room C)
Quality and customer satisfaction 10, 81, 88, A015	Event-based production and supply 33, 44, 148	Service system (I) F001, F002, F004, A016

Session TP01	Room A	Time 1:40 – 3:20 PM	Session Title Quality and customer satisfaction	Chair Wei Liu
Paper ID	Paper Title		Author(s)	Affiliation(s)
10	A Study on Information Quality Maturity Model in Enterprise		Xiuxia Yan and SIMA Zhongwen	Shandong University of Technology
81	The Relationships Between The Antecedents of Innovativeness and Business Performance		Ching-Huai Peng	Chung-Kuo University of Technology
88	Empirical Analysis of the Driving Factors of Logistics Service Ability Innovation		Wei Liu, Wenshun Li, and Wen Wang	Shanghai Maritime University
A015	“What sounds beautiful is good?” How vocal attractiveness affects customers’ evaluation of voice-to-voice service encounters		Silke Bartsch, Prof. Dr. Anton Meyer, and Christiane Semmler	Ludwig-Maximilians-Universität (LMU) Munich

Session TP02	Room B	Time 1:40 – 3:20 PM	Session Title Event-based production and supply	Chair Chenlan Wang
Paper ID	Paper Title		Author(s)	Affiliation(s)
33	Research on the Contract in Jointly Managed Inventory		Zhisong Chen, Wang Hui-min, Chen Jun-fei	Hohai University
44	An Exploratory Study of Integrated Product Design and Development		R.S.M. Lau	HKUST
148	The Study on Structure and Characteristics of Coal Supply Chain		Hui Jiang, Meihua Zhou, Jian Meng	China University of Mining & Technology

Session TP03	Room C	Time 1:40 – 3:20 PM	Session Title Service system (I)	Chair Ram Akella
Paper ID	Paper Title		Author(s)	Affiliation(s)
F001	Reactive Power Compensating Device for		Hui-rong Xiao,	Nanchang Hangkong University

	High Power Windings Rotor Induction Motor	Xiaohua Chen, Quanshui Zhu	
F002	Digital Application of Web Engineering: Implications for Business Informatics Systems	Ezendu Ariwa and Marios Michael	London Metropolitan University
F004	Enhancing Service Quality Through Integrated Services Marketing	Alex Maritz	Swinburne University of Technology
A016	Intelligent Platforms for Services	Ram Akella and Zuobing Xu	University of California

3:20 PM – 3:40 PM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
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3:40 PM – 5:20 PM	Parallel Session	Washington
TQ01 (Room A)	TQ02 (Room B)	TQ03 (Room C)
Healthcare, E-market, and data mining 24, 60, 100, 128	Service process engineering 11, 27, 57, 70	Service system (II) 84, 99, 133

Session TQ01	Room A	Time 3:40 – 5:20 PM	Session Title Healthcare, E-market, and data mining	Chair Wei Liu
Paper ID	Paper Title		Author(s)	Affiliation(s)
24	Intuitive Data Editing Examples		Roger L. Goodwin	US Department of Agriculture/National Agricultural Statistics Service
60	Improving E-Government Services Should Start with Domain Names: A Longitudinal Study of Chinese E-Government Domain Names		Yuquan Shi	University of New South Wales
100	Optimization of Duties Assignment in Emergency Services		Daniele Gilberti and Giovanni Righini	University of Milan
128	Trustworthiness measurement methodology (TMM) for assessment purposes		Farookh Khadeer Hussain, Omar Khadeer Hussain, Elizabeth Chang	Curtin University of Technology

Session TQ02	Room B	Time 3:40 – 5:20 PM	Session Title Service process engineering	Chair Shigeki Sugiyama
Paper ID	Paper Title		Author(s)	Affiliation(s)
11	Logistics service abilities: An empirical study of its impact on service quality in China		Xiuxia Yan and SIMA Zhongwen	Shandong University of Technology
27	Basic Concept In Service Science With		Shigeki	University of Gifu

	Holon	Sugiyama	
57	A Top-Down Approach from Service Centers to Business Processes	Amit Fisher, Fabiana Fournier, Dagan Gilat, Guy Rackham, Natalia Razinkov, and Segev Wasserkrug	IBM
70	Total customer service thinking:Application research in resource-based industries----take coal enterprises as example	Manzhi Liu, ZHOU Mei-Hua YAO Wei-Kun MENG Jian	China University of Mining & Technology

Session TQ03	Room C	Time 3:40 – 5:20 PM	Session Title Service system (II)	Chair Rui Zhang
Paper ID	Paper Title		Author(s)	Affiliation(s)
84	Research on Vehicle Scheduling Problem of distribution in VMI model		Hongguang Yao, Danqing Zhou	Shanghai University of Engineering Science
99	An Innovative System For Learning Services In Project Management		Constanta-Nicoleta Bodea	Academy of Economic Studies
133	Online Advertisement Campaign Optimization		Weiguo Liu, Shi Zhong, Mayank Chaudhary and Shyam Kapur	Yahoo! Inc.

6:30 PM – 9:00 PM	Banquet Plenary Lecture: Dr. Brenda Dietrich	Howe Room The Loews Hotel
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Chair: **Fei-Yue Wang**, University of Arizona, USA and Chinese Academy of Sciences, China

Speaker: **Dr. Brenda Dietrich**, *Director, IBM, President of INFORMS*

Title: **Business to Business Services: New Opportunities for Operations Research**

Abstract: Most OR models for the services industry focus on business to consumer services, and consider issues such as offering composition, channel management, pricing, and staffing. The business services segment, in which one enterprise performs a business function for another enterprise, has received relatively little attention, despite its recent rapid growth. This talk will outline some of the opportunities for OR in business services. It will discuss some of the challenges of applying traditional OR approaches, particularly those developed for managing the supply chain, to modeling and managing business services.

Some recent IBM projects involving the use of OR to improve the delivery of business services will be described.

Biography: Brenda Dietrich is Director, Mathematical Sciences, at the IBM Thomas J. Watson Research Center and an IBM Fellow.

She holds a BS in Mathematics from UNC and an MS and Ph.D. in OR/IE from Cornell. Her research includes manufacturing scheduling, services resource management, transportation logistics, integer programming, and combinatorial duality. She is a member of the Advisory Board of the IE/MS department of Northwestern University, a member of the Industrial Advisory Board for both IMA (Minnesota) and DIMACS (Rutgers), and IBM,'s delegate to MIT's Supply Chain 2020 program. She has participated in numerous INFORMS, Math Programming, SIAM, CLM, and APICS conferences. She holds a dozen patents, has co-authored numerous publications, and co-edited the book Mathematics of the Internet: E-Auction and Markets. She has been a member of the INFORMS Roundtable, served on the INFORMS board as VP for Practice, was chair of the advisory committee for the first two Practice meetings, and is currently the President of INFORMS. Additionally she has served on the editorial board of M&SOM and is currently on the editorial board of Logistics Research Quarterly.

**2007 IEEE SOLI
Wednesday August 29 2007**

8:00 AM – 9:40 AM	Parallel Session	Washington
WA01 (Room A)	WA02 (Room B)	WA03 (Room C)
NSF Workshop (IV) N001, N002, N016	Customer relationship management 102, 40, 69, 106	SCM & Logistic planning (I) 21, 91, 150, 163

Session WA01	Room A	Time 8:00 – 9:40 AM	Session Title NSF Workshop (IV)	Chair Robin Qiu
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Paper ID	Paper Title	Author(s)	Affiliation(s)
N001	Revenue Management as a Theoretical and Computational Foundation for Study of the Service Sector	Terry Friesz	Penn State
N002	Adaptive User Profiling in Enhancing RSS-based Information Services	Robin Qiu	Pennsylvania State University
N016		Christopher Lovelock	Yale

Session WA02	Room B	Time 8:00 – 9:40 AM	Session Title Customer relationship management	Chair Roger Goodwin
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Paper ID	Paper Title	Author(s)	Affiliation(s)
102	Container Forwarder Operational Planning: A Local Vehicle Routing Model with Simultaneous Pick up and Delivery Service	Pengfei Zhou	Dalian University of Technology
40	Supply chain optimization by reducing and preventing inflated orders	Mehdi Mohseni Ali Abadi	University college of Bor??s
69	Value-based Customer Loyalty Evolution	YAO Wei-Kun, ZHOU Mei-Hua, MENG Jian	Management of School, CUMT
106	A Model of Competition in Service Management	Terry Friesz, Changhyun Kwon, Matthew A. Rigdon	The Pennsylvania State University

Session WA03	Room C	Time 8:00 – 9:40 AM	Session Title SCM & Logistic planning (I)	Chair Vipul Jain
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Paper ID	Paper Title	Author(s)	Affiliation(s)
21	Applicability of RFID in the prognostics of logistic systems	Adriana Lopez De La Cruz, H.P.M. Veeke, G. Lodewijks	Delft University of Technology
91	A Capacity Planning Model in the TFT-LCD Production Chain	James T. Lin and Tzu-Li Chen	National Tsing-Hua University

150	Agent-based Clustering Approach to Transport Logistics	Gulshanara Singh, B.-L. Wenning, M. Becker, A. Timm-Giel, Carmelita Görg	University of Bremen
163	Visualization and data mining method for inventory classification	Innar Liiv	Tallinn University of Technology

9:40AM – 10:00AM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
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10:00AM – 11:40AM	Parallel Session	Washington
WB01 (Room A)	WB02 (Room B)	WB03 (Room C)
NSF Workshop (V) N020, N023	Security services and management 35, 67, 139, F003	SCM & Logistic planning (II) 42, 83, 123, 85

Session WB01	Room A	Time 10:00 – 11:40 AM	Session Title NSF Workshop (V)	Chair Robin Qiu
Paper ID	Paper Title		Author(s)	Affiliation(s)
N020	Services Sciences - research, education or just integration?		Richard Taylor and Chris Tofts	HP
N023	Technology Management for the Service Sector		Antonie Jetter	Portland State University

Session WB02	Room B	Time 10:00 – 11:40 AM	Session Title Security services and management	Chair Lefei Li
Paper ID	Paper Title		Author(s)	Affiliation(s)
35	Financial Distress Prediction Based on Decision Tree Models		Qin Zheng Yanhui Jiang	Shanghai University of Finance Economic, Hunan University
67	A Trust Evaluation Model for B2C E-commerce		Zheng Qin, Bo Tian	Shanghai university of Finace & Economics, Xi'an Jiaotong University
139	Risk Identification of Information System based on ISELC		Li-ping Liu and Hai-long Yu	Shanghai Jiao Tong University East China University of Science and Technology
F003	IT Government and Facilities Management of Online Customers Expectations with respect to UK customers' perceptions towards Hotel Websites		Ezendu Ariwa and Sarah Olaya	London Metropolitan University

Session WB03	Room C	Time 10:00 – 11:40 AM	Session Title SCM & Logistic planning (II)	Chair Vipul Jain
Paper ID	Paper Title		Author(s)	Affiliation(s)
42	Outsourcing Decision-making Strategy for Collecting Used-products in Reverse Logistics		Chenlan Wang and Tijun Fan	East China University of Science and Technology
83	The Research of Enterprise's logistics information on the basis of EAI		Zhong Wu, Cheng Li, Hongguang Yao, Chunxun Xie	Shanghai University of Engineering Science
123	A new approach to model goal and plan conflicts in a dynamic supply chain		Vipul Jain, Lyes Benyoucef and S. G. Deshmukh	INRIA-France
85	Research on Model of the Logistics Cooperative Relation Based on Theories of Ecosystem		Chunxun Xie, Cheng Li, Hongguang Yao, Zhong Wu	Shanghai University of Engineering Science

11:40 AM – 12:30 PM	Lunch	Washington Foyer The Loews Hotel
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12:30 PM – 1:20 PM	Plenary Lecture: Prof. Morris Cohen	Washington Room
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Chair: **Robin Qiu**, Pennsylvania State University, USA

Speaker: **Prof. Morris Cohen**, *Wharton School, University of Pennsylvania*

Title: **Service Supply Chain Customer Value Delivery: Optimization, Performance Incentives and Implementation**

Abstract: Manufacturers and providers of maintenance support services for mission critical products such as semi-conductor manufacturing equipment, commercial aircraft and military weapon systems are interested in developing more effective supply chain relationships with their suppliers in order to provide superior, cost effective support services to their customers. A major focus of these efforts concerns the use of Performance Based Logistics (PBL), which has the potential to align incentives in the service supply chain by tying a supplier's compensation to the product output value generated by the customer. Successful delivery of performance based product support however requires three key elements: 1) management of the complex service supply chains that provide maintenance and repair resources, 2) contracts that determine the relationship between product users and providers of support services, and 3) decision support systems that enable implementation of advanced planning processes that maximize supply chain value.

In this talk, I will discuss recent developments in each of these areas. I will begin by describing a model hierarchy that builds on the extensive operations research and logistics literature on multi-echelon, multi-indenture inventory systems for after-sales service. The goal of the model hierarchy is to optimize resource deployments over time and geography in a manner that maximizes product availability, minimizes costs and respects the complex dynamic and stochastic inter-relationships associated with this problem.

I will then introduce an economic modeling framework developed by Cohen, Netessine and Kim [2006] in the context of a project with a major system integrator (prime supplier), in the Aerospace and Defense industry, to analyze product performance based incentives in service support relationships. Traditional contracting mechanisms are driven by the sale of the product and of high margin support services. The performance based approach requires customers to pay only for actual use/up-time of the products. Such "power by the hour" payment mechanisms can lead to more reliable products with a lower cost of ownership and improved overall supply chain performance. The economic model, which combines elements of principal-agent theory and stochastic repairable inventory modeling, allows us to consider traditional (cost plus, fixed price) and performance based contracting in a multi-tiered supply chain, characterized by an end customer (i.e. the military) a prime contractor and a second tier of major system suppliers.

I will conclude by reviewing my experience with MCA Solutions, in implementing optimization, performance based decision support systems in complex A&D environments (e.g. Boeing IDS, Lockheed Martin, US Navy), and with advanced high tech and semiconductor companies (e.g. Cisco, KLA-Tencor). We will discuss lessons learned and implications for future research.

Biography: Morris A. Cohen is the Panasonic Professor of Manufacturing and Logistics in the Operations and Information Management Department of the Wharton School, University of Pennsylvania with a secondary appointment in the Department of Electrical and Systems Engineering of the School of Engineering and Applied Science. He is also Co-Director of Wharton's Fishman-Davidson Center for Service and Operations Management. Professor Cohen is Chairman and founder of MCA Solutions, a software company that specializes in planning and optimization for the service supply chain in industries that include Aerospace & Defense, Semiconductor Equipment, Computers, Telecommunications and Industrial Equipment. His research interests include supply chain strategy and technology planning in a global context with a focus on service support strategies that are enabled by advanced decision support tools. Professor Cohen holds a B.A.Sc. in Engineering Sciences from the University of Toronto, and an M.S. in Industrial Engineering and Ph.D. in Operations Research from Northwestern University.

1:20 PM – 2:00 PM	Visionary Talk: Prof. Rajit Gadh	Washington Room
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Chair: **Fei-Yue Wang**, University of Arizona, USA and Chinese Academy of Sciences, China

Speaker: **Prof. Rajit Gadh**, *Professor of Engineering, UCLA and Director of UCLA-WINMEC Consortium*

Title: **WinRFID: An architecture for Creating a Global Healthcare Quality Service Platform with RFID and Wireless Sensing/Tracking Technologies**

2:00 PM – 2:20 PM	Coffee/Tea/Refreshments	Washington Foyer The Loews Hotel
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2:20 PM – 4:20 PM	NSF Roundtable	Washington
WP01 (Room A)		
Coordinator: Robin Qiu NSF Roundtable		

APPENDICES

Visitors' Interests and Area Attractions

Discover sites and attractions around the Philadelphia region and within a 2-hour drive of the Penn State Great Valley campus at the following Web sites:

- Philadelphia, PA: <http://www.phila.gov/visitors/>
- Valley Forge National Historic Park: <http://www.nps.gov/vafo/>
- Longwood Gardens, Chester County: <http://www.longwoodgardens.org/>
- Baltimore, Maryland Inner Harbour: <http://www.baltimore.to/baltimore.html>
- New York City: <http://www.nycvisit.com/home/index.cfm>,
<http://www.nyc.com/home.aspx>
- Shopping: [King of Prussia Mall](#), [QVC Studio Park](#)
- Museums: [Pennsylvania Academy of the Fine Arts](#) , [Philadelphia Museum of Art](#)
- Center for International Business: <http://www.ivic.org/pages/cib.htm>

Acknowledgements

We, the chairpersons of the 2007 IEEE/INFORMS International Conference on Service Operations and Logistics, and Informatics (SOLI2007), are indebted to many individuals for their contribution, support, and endorsement. We wish to thank all keynote and visionary speakers who shared their views and visions towards service science, management, and practice. We also wish to acknowledge, with many thanks, the contributions of all authors who presented their work at the conference and submitted quality papers for this proceedings publication. Our special thanks are extended to all SOLI2007 peer reviewers and session moderators who helped ensure the high quality of the conference.

We would further like to acknowledge the contribution of the International Program and Organizing Committees, for their work in paper reviewing, scheduling, the preparation of the papers, session moderators, organization of the social events, and the general operation involved in running this international conference. We would also like to thank the staff and students from Penn State, Drexel, and University of Arizona for their great support of this conference. We are particularly grateful to Yanqing and Guaipi who spent long hours working with us to assure a smooth-run conference.

Last but not the least, we would like to acknowledge the role of the Loews Hotel, in being able to run such a prestigious conference, and thank all the support staff at the Loews Hotel, who often goes unnoticed.

Fei-Yue Wang, Robin G. Qiu, and Xiaohua (Tony) Hu
Aug. 24, 2007

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