

Curriculum Vitae

KEMAL ALTINKEMER

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Research Interests

Electronic Commerce: Infrastructure for E-commerce and pricing of information goods, bidding with intelligent software agents, strategy from *Brickandmortar* to *Clickandmortar* (re-tail to e-tail) business model, bundling and pricing.

Computer Communication Networks: Design and analysis of local area networks, local access computer networks and backbone networks. Infrastructure development such as ATM, LEOS systems. Distribution of priorities by using pricing as a tool. Bandwidth packing problem, time restricted priority routing. Priority pricing with QoS guarantees. Minimum energy wireless broadcasting networks.

Neural Networks: Using neural networks for computer communication network design.

Information Systems: Analysis and understanding of Outsourcing and Reengineering in IS and how they affect productivity.

Publications:

1. K. Altinkemer and J. Guan “Analyzing Protection Strategies for Online Software Distribution” *Journal of e-commerce Research* **4**, (1) (2003), 34–48
2. I. Bose and K. Altinkemer, “Optimal Configuration of a Web Site Under Guaranteed Delay and Blocking Probability Bounds” (2003) (*DSS* accepted for publication)
3. K. Tomak, K. Altinkemer, and B. Kazaz “Market Segmentation Based on Priority Services on Data Networks” *ISeB (Information Systems and e-Business Management)* **1**, (1) (2003) 93–118
4. B. Kazaz and K. Altinkemer “Optimization of Multi-Feeder Printed Board Manufacturing with Error Guarantees” *EJOR* **150**, (2003) 370–394
5. I. Bose, K. Altinkemer and A. Chaturvedi, “Tradeoff Decisions in the Design of a Backbone Computer Network Using Visualization” *DSS* **35**, (3) (2003), 335–351
6. D. Aksen, K. Altinkemer, and S. Chand, “The Single-item Lot-sizing Problem with Immediate Lost Sales” *EJOR* **147**, (3) (2003), 558–566
7. K. Altinkemer and I. Bose, “Asynchronous Transfer Mode Networks With Parallel Links and Multiple Service classes” *EJOR* **146**, (1) (2003), 181–198
8. K. Altinkemer, W. Yue, and L. Yu “Adoption of Low Earth Orbit Satellite Systems: A Diffusion Model Under Competition” *ITM* **4**, (1) (2003), 33–54

9. T. Akçura and K. Altinkemer “Diffusion Models for B2B, B2C, P2P, and e–speak” *Journal of Organizational Computing and E–commerce* **12**, (3), (2002) 243–261
10. K. Altinkemer “Bundling in E–banking Services” *Communications of the ACM* **44**, (6) (2001) 45–48
11. K. Altinkemer and K. Tomak “A Distributed Allocation Mechanism for Network Resources using Software Agents” *Information Technology and Management* **2**, (2) (2001) 165–174
12. K. Altinkemer, S. Bandyobadhyay, “Bundling and Distribution of Digitized Music over the Internet” *Journal of Organizational Computing and Electronic Commerce* **10**, (3) (2000) 209–224
13. K. Altinkemer, B. Kazaz, M. Köksalan, and H. Moskowitz “Optimization of Printed Circuit Board Manufacturing: Integrated Modeling and algorithms” *EJOR* **124**, (2) (2000) 409–421
14. K. Altinkemer, “Operations Research and Economics in Applications of Management Information Systems” *Transactions on Operational Research* **11** (1999) 5–66
15. K. Altinkemer, A. Chaturvedi and S. Kondareddy “Business Process Reengineering and Organizational Performance: An exploration of issues” *International Journal of Information Management* **18**, (6) (1998) 381–392
16. K. Altinkemer, I. Bose and R. Pal, “Average Waiting Time of Customers in an M/D/k Queue with Nonpreemptive Priorities” *Computers and Operations Research*, **25**, (4) (1998) 317–328
17. K. Altinkemer, A. Chaturvedi, and S. Kondareddy “Evolution of America’s Infost-structure” *Information and Decision Technologies* **19** (1994) 483–498
18. K. Altinkemer, A. Chaturvedi, and R. Gulati “Information System Outsourcing: Issues and Evidence” *International Journal of Information Management* **14**, (4) (1994) 252–268
19. K. Altinkemer and Z. Yu “Two Matching Based Algorithm for Tree Network Design” *Journal of Information and Optimization Sciences* **15**, (2) (1994) 213–226
20. K. Altinkemer “Topological Design of Ring Networks” *Computers and Operations Research* **21**, (4) (1994) 421–431
21. K. Altinkemer and H. Pirkul “Heuristics with Constant Error Guarantees for the Multi Center Capacitated Minimum Spanning Tree Problem” *Journal of Information & Optimization Sciences* **13**, (1) (1992) 49–71
22. K. Altinkemer and Z. Yu “Topological Design of Wide Area Communication Networks” *Annals of Operations Research* **36** (1992) 365–382
23. A. Balakrishnan and K. Altinkemer “Using a Hop–constrained Model to Generate Alternative Communication Network Designs” *INFORMS Journal on Computing* **4**, (2) (1992) 192–205
24. K. Altinkemer and B. Gavish “Parallel Savings Based Heuristics for the Delivery Problem ” *Operations Research* **39**, (3) (1991) 456–469

25. K. Altinkemer and B. Gavish “Heuristics for Delivery Problems with Constant Error Guarantees” *Transportation Science* **24**, (4) (1990) 294–297
26. B. Gavish and K. Altinkemer “Backbone Network Design Tools with Economic Trade-offs” *INFORMS Journal on Computing* **2**, (3) (1990) 236–252
27. K. Altinkemer and B. Gavish “Heuristics with Constant Error Guarantees for the Design of Tree Networks” *Management Science* **34**, (3) (1988) 331–341
28. K. Altinkemer and B. Gavish “Heuristics for Unequal Weight Delivery Problems with a Fixed Error Guarantee” *Operations Research Letters* **6**, (4) (1987) 149–158

Working Papers:

1. K. Altinkemer and C. Kumar “Dell’s Effective Supply Chain” Working Paper, Krannert School of Management, Purdue University (2002)
2. K. Altinkemer and Y. Özçelik “Outsourcing and reengineering – How They Affect Productivity” Working Paper, Krannert School of Management, Purdue University (2002)
3. K. Altinkemer and Y. Özçelik “Incentive Compatible Electronic Loyalty” Working Paper, Krannert School of Management, Purdue University (2002)
4. K. Altinkemer and Z.D. Özdemir “Telemedicine and Distance Learning – An Economic Analysis” Working Paper, Krannert School of Management, Purdue University (2002)
5. K. Tomak and K. Altinkemer “Service Level Agreements in Internet Connectivity markets” Working Paper, Krannert School of Management, Purdue University (2002)
6. T. Akçura and K. Altinkemer, “Bundling: A Product-Pricing Framework” Working Paper, Krannert School of Management, Purdue University (2002)
7. D. Aksen and K. Altinkemer “The Logistics of Evolution to Clickandmortar Business Model” Working Paper, Krannert School of Management, Purdue University (2003)
8. K. Altinkemer and J. Guan “Bar Code Shopping – A New M-commerce Business Model” Working Paper, Krannert School of Management, Purdue University (2002)
9. K. Altinkemer, B. Gavish, D. Aksen “Augmented Lagrangean Method for Routing in Frame and Cell Relay Networks with Time restrictions” Working Paper, Krannert School of Management, Purdue University (2001)
10. K. Altinkemer, F.S. Tseng, and Z. Zhou, “Comparisons between Nonpreemptive M/M/1 and M^x/D/1 Priority Queues on an Unreliable Link” Working Paper, Krannert School of Management, Purdue University (2002) .

Other Publications – Book Chapter:

1. K. Altinkemer and K. Tomak “Pricing and service quality in electronic commerce” 100–115 *Managing Business with E-commerce: Issues and Trends* ed. Aryya Gangopadhyay Idea Publishers (2001)

Refereed Proceedings:

1. K. Altinkemer and Y. Özçelik “Incentive Compatible e-loyalty” WISE 2002 Barcelona SPAIN
2. K. Altinkemer and Y. Özçelik “Incentive Compatible e-loyalty” 6th ICTEC, Montreal, CANADA 2002 (in CD)
3. K. Altinkemer and J. Guan “Privacy Issues in Location Based Services” 6th ICTEC, Montreal, CANADA 2002 (in CD)
4. K. Altinkemer and J. Guan “Internet as the new software distribution mechanism” 6th ICTEC, Montreal, CANADA 2002 (in CD)
5. K. Tomak and K. Altinkemer “Service Level Agreements in Internet Connectivity markets: Relationship between Price and Capacity” *Proceedings of the Tenth International Conference on Telecommunication Systems, Modeling and Analysis* (2002) Vol. 2, 386–394
6. I. Bose and K. Altinkemer, “Configuration of a Web Site Prespecified Service Related Constraints” *Proceedings of the Tenth International Conference on Telecommunication Systems, Modeling and Analysis* (2002) Vol. 2, 365–372
7. K. Altinkemer and J. Jaisingh, “Pricing Bundled Information Goods” *Proceedings of the IEEE WECWIS 2002*, 89-96
8. K. Altinkemer and J. Guan, “Information Goods Bundling: Quality, Market Segmentation and Pricing” *Proceedings of the sixth INFORMS Conference on Information Systems & Technology (CIST)* (2001) 412-427
9. D. Aksen and K. Altinkemer, “The evolution from Brickandmortar to Clickandmortar Business Model” *Proceedings of INFORMS San Antonio 5th CIST*, November 4th (2000) (in CD)
10. D. Aksen and K. Altinkemer, “The change from Brickandmortar to Clickandmortar Business Model” *3rd ICTEC Dallas*, November 16-19, (2000)
11. K. Altinkemer, B. Gavish, and D. Aksen “Bandwidth Packing Problem” *Proceedings of the Eighth International Conference on Telecommunication Systems, Modeling and Analysis* (2000)
12. K. Altinkemer “Bundling of Information Goods” WISE 1999
13. K. Altinkemer, “Bundling of Information Goods” *Proceedings of the Second International Electronic Commerce Conference* (1999) 300–303
14. D. Aksen, K. Altinkemer, and J. Rees “Stochastic Modeling of Group Decision Support System” *Proceedings of the Fourth INFORMS Conference on Information Systems and Technology* May 2–3, (1999) 131-141

15. K. Altinkemer, W. Yue, and L. Yu "Adoption of Low Earth Orbit Satellite Systems" *Proceedings of the Seventh International Conference on Telecommunication Systems, Modeling and Analysis* (1999) 339–355
16. K. Tomak, K. Altinkemer, and B. Kazaz, "Priority Pricing in Cell Switched Networks" *Proceedings of the Seventh International Conference on Telecommunication Systems, Modeling and Analysis* (1999) 72–79
17. K. Altinkemer, and S. Bandyopadhyay "The Effect of the Internet on the Music Industry" *Proceedings of the First International Electronic Commerce Conference* (1998) 72–82
18. K. Altinkemer and K. Tomak "Priority Pricing in ATM Networks with Stochastic Demand" *Proceedings of the Third INFORMS Conference on Information Systems and Technology* April 26-28, (1998) 108–119
19. K. Altinkemer and I. Bose "A Queuing Model for World-Wide-Web Servers" *Proceedings of the Third INFORMS Conference on Information Systems and Technology* April 26-28, (1998) 28–34
20. K. Altinkemer and K. Tomak "Pricing and Routing Multiple Priority Classes in ATM Networks with Stochastic Demand" *Proceedings of the Sixth International Conference on Telecommunication Systems, Modeling and Analysis* (1998) 23-28
21. K. Altinkemer, and I. Bose "ATM Networks with Parallel Links and Multiple Service Classes" *Proceedings of the Fifth International Conference on Telecommunication Systems, Modeling and Analysis*, March, (1997), 594–601
22. K. Altinkemer and P. Beckman, "Mathematical Modeling of the Accuracy: Completion time Tradeoff in Human System Interactions" *Midwest DSI 1997 Conference Proceedings* (1997), 124–126
23. K. Altinkemer and S. Kondareddy, "Business Process Redesign: Bridging the Process Gap" *Midwest DSI 1997 Conference Proceedings* (1997), 199–202
24. K. Altinkemer, and I. Bose "The Priority Pricing with Parallel Links in Computer Networks" *Proceedings of the First INFORMS Conference on Information Systems and Technology* May 5–7, (1996), 35–41
25. K. Altinkemer and B. Gavish "Augmented Lagrangean Method for Routing with Time Restriction" *Proceedings of the Fourth International Conference on Telecommunication Systems, Modeling and Analysis* (1996) 285–294
26. K. Altinkemer "Virtual Reality for Emergency Training" *Proceedings of the International Emergency Management and Engineering Conference* (1995) 117–122
27. K. Altinkemer, and M. Kalwani "Selected Issues in the Design and Pricing of Virtual Reality" *Proceedings of the Third European Conference on Information Systems* (1995) 627–634
28. K. Altinkemer and B. Kim "Ring Network Design" *Proceedings of the Third International Conference on Telecommunication Systems, Modeling and Analysis* (1995) 429–442

29. K. Altinkemer and A. Srinivasan "Deciding on Priority Rankings and Prices Under Externalities for Packet Switched Networks" *Proceedings of the Second International Conference on Telecommunication Systems, Modeling and Analysis* (1994) 408–420
30. K. Altinkemer and A. Chaturvedi "Neural Networks for Topological Design of Local Access Tree Networks" *Proceedings of the First International Conference on Telecommunication Systems, Modeling and Analysis* (1993) 256–263
31. K. Altinkemer "Parallel Savings Heuristics for Designing Multi Center Tree Networks" *Proceedings of HICSS-22* (1989) 762–769
32. B. Gavish and K. Altinkemer "A Parallel Savings Heuristic for the Topological Design of Local Access Tree Networks" *Proceedings of IEEE-INFOCOM-86* (1986) 130–139

Education

- 6/87 Ph.D. in Computers and Information Systems from William E. Simon School of Business Administration, University of Rochester, Rochester, NY 14627.
- 2/83 M.S. in Business with major in Computers and Information Systems, minor in Operations Research from the University of Rochester, Rochester NY 14627.
- 2/80 B.S. in Industrial Engineering at Boğaziçi University, İstanbul, Turkey
- 5/75 Robert College (An American High School) İstanbul, Turkey

Experience

- 7/95 to current: Associate Professor of Management, Krannert Graduate School of Management, Purdue University. MIS Area Coordinator and responsible for teaching MIS courses.
- 7/94 to 7/95: Associate Professor of Management, Krannert Graduate School of Management, Purdue University. Responsible of teaching MIS courses.
- 1/94 to 6/94: Associate Professor of Management, Sabbatical leave, in Industrial Engineering Department and Computer Engineering Department at Boğaziçi University İstanbul, TURKEY.
- 4/92 to 12/93: Associate Professor of Management, Krannert Graduate School of Management, Purdue University. MIS Area Coordinator and responsible for teaching MIS courses.
- 8/86 to 4/92: Assistant Professor of Management, Krannert Graduate School of Management, Purdue University. Taught Introduction to Management Information Systems, Economics of Computer Management, Database Management Systems and Computer Communication Networks.
- 9/83 to 6/86: Instructor, University of Rochester. Taught Database Management Systems, Introduction to Computer Programming, and Mathematics Review for Business.
- 9/81 to 6/86: Teaching Assistant for Computer Communication Systems, Systems Analysis and Design, Introduction to Computers, Economics of Computer Management.
- 6/81 to 6/86: Research Assistant, University of Rochester. Programmed in FORTRAN for optimization models for configuring distributed computer

systems and computerized school bus system. Developed a friendly interactive system for computer communication network design and analysis. The system is being used as an integral part of the course on Computer Communication Systems.

6/81 to 9/82: Supervisor, Computing Center, University of Rochester. Direct supervision of the center, monitor HP3000 system and assist users with programming.

Professional Activities

- Guest Co-Editor of **Information Technology and Management** special issue on *Selected Papers of CIST 2001*. 2002
- Guest Co-Editor of **Information Technology and Management** special issue on *Economics of Electronic Commerce*. 2001, 2, (2)
- Guest Editor of **Telecommunication Systems** special issue on *Design and Analysis of Wide Area Networks*. 2002, 1,2 pp1-168
- Associate Editor in **Information Technology and Management**.
- Associate Editor in **Telecommunication Systems**.
- Associate Editor in **Electronic Commerce Research Journal**.
- Associate Editor in **Transactions on Operational Research**.
- Associate Editor in **Information Systems and e-Business**.
- Member 1996-2000, in the INFORMS SECTION ON TELECOMMUNICATION
- Vice-chair 2000-2002, in the INFORMS SECTION ON TELECOMMUNICATION
- Chair-elect 2002-2004, in the INFORMS SECTION ON TELECOMMUNICATION
- Conference Co-chair 6th INFORMS Conference on Information Systems and Technology CIST 2001 Miami Florida , Nov. 3-4, 2001
- Organizing committee member First, second, third, fourth, fifth, seventh, eight INFORMS IS Conference in Washington May 5-7,1996, San Diego May 4-6,1997, Montreal April 26-28, 1998, Cincinnati May 2-3, 1999, San Antonio November 4-6,2000, San Jose November 16-17,2002, Atlanta October, 2003
- Organizing committee member First, second, third, forth, fifth, sixth International Conference on Electronic Commerce in Nashville Nov 20-22,1998, Nov 1999, Nov 16-19, 2000, Nov 2001, Oct 23-27,2002, Oct., 2003
- Organizing committee member sixth, seventh, eighth, ninth, tenth International Conference on Telecommunication System Modeling and Analysis in Nashville March 5-8, 1998, March 18-21, 1999, March 9-12, 2000, March 9-12, 2001, Oct. 3-6, 2002 (Monterey, CA), March 2004
- Organizing committee member INFORMS Telecommunication section conference March 5-8,2000 Boca Raton FL.
- Organizing committee member Fifth European Conference on Information Systems, Cork-Ireland June 19-21, 1997
- Cluster Chair of Sponsored Sessions on Telecommunications in San Diego INFORMS May, 4-7,1997 (13 sessions)

Major Advisor for the following PhD students

- Zhuolin Yu (U Utah)
- Byoungcho Kim (Korea)
- Sashidar Kondareddy (Industry)
- Paul Beckman (San Francisco State)
- Kerem Tomak (UT Austin)
- Indranil Bose (U Florida)
- Deniz Aksen (Koç U, İstanbul, Turkey)
- Junwei Guan (Indiana University, South Bend)

Committee Member for the following PhD students

- Vidyanand Choudhary (UC Irvine)
- Wei Yue (UT Dallas)
- Subhajyoti Bandyopadhyay (U Florida)
- Burak Kazaz (U Miami)

Grants, Honors and Awards

- 2002 Krannert Faculty Award (\$ 10,000)
- 2001 Contributed with telecommunication and e-commerce research to a grant with Principle Investigator Professor Alok Chaturvedi, received 1 million dollars from the 21st Century Research Fund.
- 1997-1998 Strathmore's Who's Who for 1997-1998
- 1996: AT&T Special Purpose Grant (\$ 20,000 grant) Purdue University
- 1996: CMME Research Grant (\$ 6,000 grant) Purdue University
- 1992: AT&T Special Purpose Grant (\$ 25,000 grant) Purdue University
- 1992: CMME Research Grant (\$ 6,000 grant) Purdue University
- 1991: Faculty XL Grant
- 1989: AT&T Special Purpose Grant (\$ 25,000 grant) Purdue University
- 1988: Jay Ross Young Faculty Scholar Award (\$ 10,000 award) Krannert Graduate School of Management.
- 1987: Faculty XL Grant
- 9/80 to 6/86: Fellowship at William E. Simon School of Business Administration, University of Rochester, Rochester, NY.
- 9/76 to 6/80: Departmental fellowship, ranked second in the department of Industrial Engineering, Boğaziçi University, İstanbul, Turkey.
- 9/72 to 6/76: Scholarship, Robert College (An American High School), İstanbul, Turkey.

SERVICE:

- 2001 Chair of the United Way campaign for Krannert. Raised \$ 30,737.50 up 28 % from the previous year. (Most improved unit in the Purdue University Campus.)
- 1995-2002 Faculty Advisor of the Turkish Student Association

Other Activities

Interested in basketball, tennis, skiing, golf, playing bridge, backgammon and chess.

PERSONAL:

Birthdate : 11/13, 1957

Citizenships : USA, Turkey

Marital Status : Married