

## Curriculum Vitae

**I. Burhan Türkşen**

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### **3. UNIVERSITY AND DEPARTMENTAL ADMINISTRATIVE COMMITTEES**

- 3.1 University and Faculty Committees
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### **4. TEACHING**

- 4.1 Undergraduate Teaching
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### **5. PUBLICATIONS**

- 5.1 Refereed Journal Publications
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Revised date: August 18, 2004

### SECTION I – PERSONAL INFORMATION

1.1 Name: I. Burhan Türkşen

1.2 Date of Birth: December 20, 1937

#### 1.3 Education

Degree	Institution	Department	Thesis Field	Year
B.Sc. (Honours)	University of Pittsburgh, Pennsylvania	Industrial Engineering		1960
M.Sc.	University of Pittsburgh, Pennsylvania	Industrial Engineering	Boolean Constrained Class Room Scheduling	1962
Ph.D.	University of Pittsburgh, Pennsylvania	Operations Research and Systems Management Engineering	Micro Level Resource Allocation and Forecasting Models with an Information System for Universities	1969

#### 1.4 Full Time Employment, Sabbatical Leave and University Administrative Functions

Dates	Employer	Position
1964-1966	Middle East Technical University	Instructor
1966-1969	University of Pittsburgh	Instructor
1970-1974	University of Toronto, Department of Industrial Engineering	Assistant Professor
1974-1983	University of Toronto, Department of Industrial Engineering	Associate Professor
1983-2003	University of Toronto, Department of Mechanical and Industrial Engineering	Professor
2000-2003	Sabancı University	Network Faculty
2003-P*	University of Toronto, Dept. of Mechanical and Industrial Engineering	Professor Emeritus

P\* - Present

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### 1.5 Lifetime Academic, Research and Professional Honours

Date	Award Title	Awarded By
1959	Sigma Tau	
1959	Alpha Pi Mu	
1961	Outstanding Senior	
1974	AIEE Award-Director of Canadian Affairs	
1975	AIEE Award of Excellence to Toronto Chapter	
1985	Outstanding Paper Award	NAFIP's Workshop plus Annual Conference
1995	"Lofti A. Zadeh" Best Paper Award	Fuzzy Theory and Technology Award, University of North Carolina
2000	Science Award	Middle East Technical University – Prof. M. Parlar Research and Education Foundation
2001	Honorary Doctorate	University of Sakarya
2001	Honorary Member	Soft Computational Intelligence Society of Turkey
2002	Foreign Member	Academy of Modern Sciences, named after Lofti Zadeh
2003	IFSA Fellow	IFSA, International Fuzzy System Associates
2004	IEEE Fellow	IEEE, Institute of Electrical and Electronics Engineers

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## SECTION 2 – PROFESSIONAL ACTIVITIES

### 2.1 Professional Association Activities

Date	Association	Capacity
1964	Association of Professional Engineers of Turkey	Member
1970	Association of Professional Engineers of the Province of Ontario	Member
1970	Canadian Operational Research Society	Member
1970	Institute of Industrial Engineers	Member
1970	Canadian Society for Industrial Engineers	Member
1970-88	Encyclopaedia of Computer Science and Technology	Member, Board of Advisors
1977	Operations Research Society of Turkey	Member
1978	IFSA, International Fuzzy Systems Association	Member
1980	North American Fuzzy Information Processing Society (NAFIPS)	Member
1985	New York Academy of Science	Member
1987	International Journal of Decision Support Systems	Member, Editorial Board
1987	NATO-ASI	Institute Director
1988	SIG-BAM-IFSA	Council of Founders
1988	NATO-ASI Proceedings, "Computer Integrated Manufacturing (CIM): Current Status and Challenges", Springer Verlag	Editor
1988-90	NAFIPS	Board of Directors
1989-92	International Journal of Approximate Reasoning	Member, Editorial Board
1989	International Journal of Expert Systems with Application	Member, Editorial Advisory Board
1990	Proceedings of NAFIPS'90 Conference	Editor
1991	International Journal of Fuzzy Sets and Systems	Editorial Board Guest Editor (Special Issue)
1992	Turkish Transactions on Operational Research	Member, Editorial Board
1992	Fuzzy Systems & AI-Reports and Letters	Member, Editorial Board
1992-95	NAFIPS	Board of Directors
1992-97	International Journal of Fuzzy Sets and Systems	Member, Editorial Board
1993	International Journal of Fuzzy Sets and Systems	Guest Editor (Special Issue)
1993	Information Sciences	Member, Editorial Board
1994	IEEE	Senior Member

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### I. Burhan Türkşen

<b>Date</b>	<b>Association</b>	<b>Capacity</b>
1994	Scientific Committee of the 1 <sup>st</sup> Int'l Association of Fuzzy-set Management and Economy	Member
1994-97	IEEE-Transactions on Fuzzy Systems	Associate Editor
1996	International Journal of Information Technology Management	Member, Editorial Board
1996	International Journal of Computational Intelligence and Organization	Member, Editorial Board
1997	NATO-ASI Proceedings, "Soft Computing and Computational Intelligence", Springer Verlag	Editor
1997	Journal of Advanced Computational Intelligence	Member, Editorial Board
1997-2003	IFSA, International Fuzzy Systems Association	Council Member
1998	FSS: Membership Functions and Production Research	Area Editor
1999	International Journal of Fuzzy Systems	Member, Editorial Board
1999-2001	IFSA, International Fuzzy Systems Association	President
2001-2003	IFSA, International Fuzzy Systems Association	Past President
2001-2004	PEO	Examiner
2002	Journal of Environmental Peace	Member, Editorial Board
2002	Bilgi Dergisi, Texnika	Member, Editorial Board
2002	I. J. of Computational Intelligence and Applications	Member
2003	Iranian Journal of Fuzzy Systems	Member

### 2.2 Technical Consulting, Investigator/Director and Advisory Activities

<b>Duration</b>	<b>Client</b>	<b>Activity</b>
1970-99	NSERC Operating – Approximate Reasoning for Decision and Control	Principal Investigator
1984-87	NSERC Strategic – Management of New Technologies	Principal Investigator
1987-94	Manufacturing Research Corporation of Ontario (A Centre of Excellence)	Principal Investigator
1991-	Knowledge/Intelligence Systems Laboratory	Director
1997-	HUTOP, Human Sensory Factors for Total Product Life Cycle; IMS, Intelligent Manufacturing Program	Technical Board Member
1999-05	NSERC – Information/Intelligent System Design	Principal Investigator
1999-04	NORTEL – Applicability of Fuzzy-Logic Based Controller	Principal Investigator
2000-03	NSERC-CRD Prediction, Allocation and Scheduling IP Traffic	Principal Investigator

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### 2.3 Professional Interests

#### Basic Research

Dempster – Pawlak: Belief and Plausibility,  
Meaning Representation with Canonical Forms,  
Computing with "Descriptive and Veristic Words",  
Computational Intelligence,  
Data Mining: Knowledge Acquisition,  
Measurement and Representation,  
Fuzzy Sets, Logics and Systems,  
Neural Networks,  
Knowledge-Based Expert Systems,  
Approximate Reasoning ,  
Intelligent Manufacturing,  
Type 2 Fuzzy Sets, Logics and Systems,  
Disjunctive and Conjunctive Forms,  
Break-down of Equation

#### Applied Research

Supply Chain Management,  
IP (Internet Protocol) Networks,  
Bandwidth Allocation,  
Prediction of IP Traffic,  
Scheduling Traffic,  
Admission Rejection Control,  
Systems Analysis, Diagnosis Prediction and Control,  
Scheduling Industrial Processes,  
Spare Parts Planning,  
Capacity and Inventory Control,  
Consumer Preference Analysis,  
Market Share Prediction,  
Diagnosis of Pharmacological Agents, i.e., effect of drugs and their dosages,  
Financial Data Analysis,  
Income Prediction,  
SOW, Size of Wallet, Prediction,  
Prediction of Crises in Economics,

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### 2.4 Scholarly Addresses and Conference Presentations

1. "Disjunctive Boolean Queries in Data Base Modules", to the Combinatorics and Optimization Seminar, University of Waterloo, March 1975.
2. "Fuzzy Set Theory", for Biological Science Series to staff and students of New College, University of Toronto, December 1975 and January 1976.
3. "Information-Decision Systems", to Interdisciplinary Medical Engineering Group, Department of Industrial Engineering, University of Toronto, April, 1976.
4. "States of Development in Information System Design", the University of Stockholm, March 23, 1977.
5. "Karar-Bilgi Sistemlerinde On-Tasarım Gelisme Asamaları", Proceedings of IIIrd Turkish Operations Research Conference, Izmir, Turkey, May 1977.
6. "Elements of Fuzziness and Randomness in Information Systems", the University of Stockholm, March 25, May 2, 9, June 20, 1977; and to the Turkish Academy of Sciences, Istanbul, Turkey, June 9, 1977.
7. "Decision Information Systems", the Institute of Control Sciences, The Academy of Sciences, Moscow, USSR, July 1, 1977.
8. "Medical Diagnostic System with Human-like Reasoning Capability", Proceedings of MEDINFO 77, Toronto, Ontario, 1977.
9. "Cognitive and Information Systems", the Ontario Institute for Studies in Education, January 25, 1978.
10. "INRC-Groupments on Fuzzy Sets at the Joint-National TIMS/ORSA Meeting, New York City, May 1-3, 1978.
11. "A Fuzzy-Stimulus-Response Theory of Information Systems Design", at the Fourth World Conference on General Systems Research, Amsterdam, Holland, August 20-26, 1978.
12. "Measurement of Fuzzy Linguistic Variables in Medical Diagnostic Systems", at the Twenty-Third Annual Meeting of the Society for General Systems Research, Houston, TX, January 3-6, 1979.
13. "A Fuzzy-Stimulus-Response Theory of Information Systems Design", the Second Conference on Computers and Industrial Engineering, Chicago, IL, March 14-16, 1979.
14. "A Model of Data Production and Error Control", the 1979 Spring Annual Conference of the AIIE, San Francisco, CA, May 22-25, 1979.
15. "Computer Aided Diagnosis with Fuzzy Reasoning", at the Institute of Management Sciences", XXIV Int. Meeting, Honolulu, Hawaii, June 18-22, 1979.
16. "A Perspective of I.E. for the 1980's", the 1<sup>st</sup> CSIE-Student Conference (3<sup>rd</sup> – AIIE Student Conference in Canada), Toronto, Canada, March 14-15, 1980.

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### 2.4 Scholarly Addresses and Conference Presentations ...Continued

17. "File Redundancy in Information Systems", SRE-80, Society of Reliability Engineers, Toronto, Ontario, May 14-16, 1980.
18. "Complexity of Crane Scheduling Problems", at the Third National Conference on Theory and applications of Computers and Industrial Engineering, Orlando, FL., October 22-24, 1980.
19. "Measurement and Scaling of Fuzziness", to Int. Congress on Applied System Research and Cybernetics, Acapulco, Mexico, December 11-16, 1980.
20. "Human Production and Detection of Errors", Int. Congress on Applied Systems Research and Cybernetics, Acapulco, Mexico, December 11-16, 1980.
21. "Human Detection and Control of Errors in Data Processing", at Dept. of Industrial Engineering, University of Toronto, February 25, 1981.
22. "Mesure de la Fonction Caractéristique d'un Sous-Ensemble Flou", at Faculté des Sciences de l'Administration, Université Laval, Québec, February 19, 1981.
23. "The Ambiguity in Human Communications", at Canadian Society of Industrial Engineers, Toronto, Mary 17, 1981.
24. "Stochastic Fuzziness", at TIMS-ORSA-CORS, Toronto, May 3-6, 1981.
25. "Measurement of Fuzziness" Int. Conference on Policy Analysis and Information Systems, Taipei, Taiwan, August 19-22, 1981.
26. "Bounds for Fuzzy Inference", Sixth European Meeting on Cybernetics and Systems Research, Vienna, Austria, April 13-16, 1982.
27. "Stochastic and Fuzzy Sets", Second World Conference on Mathematics at the Service of Man, Las Palmas, Spain, June 18-July 3, 1982.
28. "Forecasting in Health Care", Second Int. Symposium on Forecasting, Istanbul, Turkey, July 6-9, 1982.
29. "Crane Scheduling", XI International Symposium on Mathematical Programming, Bonn, West Germany, August 23-27, 1982.
30. "Upper and Lower Probabilities Over Fuzzy Sets", ORSA/TIMS, San Diego, California, October 25-27, 1982.
31. "Inspection Strategies for Data Quality Control", IIE Fall Systems Conference, Cincinnati, Ohio, November 14-18, 1982.
32. "Fuzzy Reasoning in Medical Diagnosis", Modeling and Simulation Conference, Pittsburgh, Pennsylvania, April 21-22, 1983.
33. "Fuzzy Set Theory and Its Applications", The Eighth National Conference on Operations Research, Ankara, Turkey, June 21-23, 1983.

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### 2.4 Scholarly Addresses and Conference Presentations ...Continued

34. "Ambiguity in Human Communication and Decision Making", The Institute of Industrial Engineers Fall Conference, Toronto, Ontario, November 13-16, 1983.
35. "Normal Forms in Fuzzy Logic", Institute of Electrical and Electronics Engineering – Systems, Man, and Cybernetics Conference, Bombay – New Delhi, India, December 17, 1983.
36. "Measurement of Fuzziness: An Interpretation of the Axioms of Measurement", Int. Symposium on Fuzzy Information and Knowledge Representation and Decision Analysis, Marseille, France, July 19-21, 1983.
37. "Klein Groups in Fuzzy Inference", American Control Conference, San-Diego, CA, June 6-8, 1984.
38. "Fuzzy Set Theory: A Human-Like Reasoning for OR", CORS'84, Ottawa, ON, May 22-24, 1984.
39. "Fuzzy Sets for Management Sciences", Department of Management Sciences, University of Waterloo, February 27, 1984.
40. "Combination of Concept, VC Berkeley, October 8, 1984.
41. "Evidential Reasoning", Middle East Technical University of Ankara, Turkey, February 6, 1985.
42. "Models of Human Decision-Making", Tsinghua University, Beijing, PRC, April 2, 1985.
43. "Decision-Making and Fifth Generation Computers", IFSA – Tokyo, Japan, April 13, 1985.
44. "Decision-Making and Evidential Reasoning", University of Osaka Prefecture, Japan, April 20, 1985.
45. "Fuzzy Sets and Approximate Decision-Making, Meiji University, Tokyo, Japan, April 26, 1985.
46. "Prototype Expert Systems", Autofact. Detroit, November 12-14, 1986
47. "Expert Systems and Management of Imprecision", School of Business, McMaster University, April 6, 1987; University of Toronto, April 28, 1987.
48. "Approximate Reasoning for Production Planning", TIMS/ORSA, New Orleans, May 3-6, 1987
49. "Approximate Reasoning in Production Planning and Control", Modeling and Simulation Conference, Pittsburgh, PA, May 5-6, 1987.
50. "Manufacturing Support Systems: An Expert Systems Approach", Centennial Conference of the Engineering Institute of Canada, Montreal, May 19-20, 1987.
51. "Management of Imprecisioning Knowledge Engineering", International Symposium on Fuzzy Systems and Knowledge Engineering, Guanzho-Guiyan, PRC, July 10-16, 1987.
52. "Approximate Reasoning with Interval Valued Fuzzy Sets", The Second IFSA Congress, Tokyo, Japan, July 20-25, 1987.

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### 2.4 Scholarly Addresses and Conference Presentations ...Continued

53. "An Approximate Reasoning Framework for Aggregate Production Planning", NATO – Advanced Study Institute on Computer Integrated Manufacturing, Istanbul, Turkey, August 30-September 12, 1987.
54. "Approximate Reasoning in Production Planning and Control", Modeling and Simulation Conference, Pittsburgh, PA, May 5-6, 1987.
55. "Approximate Reasoning Approaches in Expert System Design: Applied Case of Production Planning and Inventory Control", 2<sup>nd</sup> Symposium on Artificial Intelligence and Expert System Design, West Berlin, West Germany, June 20-24, 1988.
56. "Approximate Reasoning Approaches IFSA Workshop: Iizuka, Japan, August 20-24, 1988.
57. "Approximate Reasoning for Production Planning", 13<sup>th</sup> Mathematical Programming Symposium: August 29-September 2, 1988.
58. "Approximate Reasoning Approaches to Aggregate Production Planning", University of Osaka Prefecture, Osaka, Japan, August 17, 1988.
59. "Interval Valued Representation and Reasoning", Hosei University, Tokyo, Japan, August 30, 1988.
60. "Approximate Reasoning Models for CIM", International Conference on CIQ Systems in CIM, Belgrade, Yugoslavia, June 20-23, 1989.
61. "Operational Research and Approximate Reasoning", XII National Conference of the Operations Research Society of the Turkey, Ankara, Turkey, June 23-26, 1989.
62. "A Multi-Objective Scheduling Framework", CORS/TIMS/ORSA Joint Conference, Vancouver, B.C., May 8-10, 1989.
63. "An Expert System Prototype for Inventory Capacity Planning: An Approximate Reasoning Approach", CORS/TIMS/ORSA Joint Conference, Vancouver, B.C., May 8-10, 1989.
64. "A Knowledge Based Approach for Machine and Robot Configuration in a CIM Factory", CORS/TIMS/ORSA Joint Conference, Vancouver, B.C., May 8-10, 1989.
65. "A Qualitative Model for Hierarchical Scheduling", CORS/TIMS/ORSA Joint Conference, Vancouver, B.C., May 8-10, 1989.
66. "Ordinal Uncertainty Models", Proceedings of Int. Symposium on Uncertainty Modeling, University of Maryland, pp. 120-123, December 3-5, 1990.
67. "Hardware Realization of Fuzzy Logic and Artificial Neural Network Integration", Proceedings of International Conference on Fuzzy Logic and Neural Network, Iizuka, Japan, pp. 133-136, July 20-24, 1990.
68. "Uncertainty Measurement in Multiattribute Models", Theory and Application, Proceedings of NAFIPS'91, Columbia-Missouri, pp. 358-362, May 14-17, 1991.

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### 2.4 Scholarly Addresses and Conference Presentations ...Continued

69. "Approximate Gradual Inference", Proceedings of International Symposium on Fuzzy Systems, Iizuka, Japan, pp. 63-66, 1992.
70. "A Method of Gradual Shifts in Interval Valued Reasoning", Proceedings of Second Int. Conference on Fuzzy Logic and Neural Networks, Iizuka, Japan, pp. 621-624, 1992.
71. "Sensitivity Analysis in Fuzzy Systems", Proceedings of the Second Int. Conference on Fuzzy Logic and Neural Networks, Iizuka, Japan, pp. 287-290, 1992.
72. "Fuzzy Logic Expert Systems Scheduler", Proceedings of Second Int. Conference on Fuzzy Logic and Neural Networks, Iizuka, Japan, pp. 371-374, 1992.
73. "Architecture of a Fuzzy Inference-System Shell", Proceedings of Second Int. Conference on Fuzzy Logic and Neural Networks, Iizuka, Japan, pp. 361-363, 1992.
74. "A Syllogistic Reasoning as a Multi-Objective Default Expectation Process", Proceedings of Second Int. Conference on Fuzzy Logic and Neural Networks, Iizuka, Japan, pp. 291-294, 1992.
75. "Fuzzy Systems Modelling", Proceedings of the Second Int. Conference of BUFSA, 1992.
76. "How to Select Combination Operators for Fuzzy Expert Systems Using CRI", NAFIP'92, Puerto Vallarta, Mexico, I, pp. 29-38, 1992.
77. "An Experimental Methodology for a Fuzzy Set Preference Model: NAFIPS'92, Puerto Vallarta, Mexico, I, pp. 276-285, 1992.
78. "A Fuzzy Set Preference Model for Market Share Analysis", NAFIPS'92, Puerto Vallarta, Mexico, I, pp. 286-295, 1992.
79. "A Decision-Making Approach to Syllogistic Reasoning Problems with Consistency Maintenance in Knowledge Base", 2<sup>nd</sup> IEEE-FUZZ'93, San Francisco, CA, II, pp. 76-81, 1993.
80. "Constraints on Membership Functions of Rules in Fuzzy Expert Systems", 2<sup>nd</sup> IEEE-FUZZ'93 Conference, San Francisco, CA, III, pp. 1010-1015, 1993.
81. "Interval Valued Strick Preference", EUFIT'93, Aachen, Germany, 1993.
82. "Normal Form Based Compensatory Connectives", NAFIPS'93 Allentown, PA, 1993.
83. "A Heuristic Approach to Rule Search in a Fuzzy Expert System", NAFIPS'93, Allentown, PA, 1993.
84. "Interval-valued Fuzzy Sets with nilpotent Minimum", NAFIPS'93, Allentown, PA, 1993.
85. "Fuzzy Expert System Shell for Scheduling", SPIE-The International Society for Optical Engineering, Boston, MA, 1993.

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### 2.4 Scholarly Addresses and Conference Presentations ...Continued

86. "Consumer Preference Models: A Fuzzy Theory Approach", SPIE-The International Society for Optical Engineering, Boston, MA, 1993.
87. "Interval-valued Fuzzy Uncertainty", Fifth World Congress of IFSA, Korea, 1993.
88. "Fuzzy Representation and Inference: Review and Challenges", Fifth World Congress of IFSA'93, Seoul, Korea, 1993.
89. "A Multiple-valued Fuzzy Approximate Analogical-Reasoning System", Fifth World Congress of IFSA, Seoul, Korea, 1993.
90. "A Decision-Making Approach to Syllogistic Reasoning Problems with Consistency Maintenance in Knowledge Base", 2<sup>nd</sup> IEEE-FUZZ'93, San Francisco, CA, 1993.
91. "Constraints on Membership Functions of Rules in Fuzzy Expert Systems", 2<sup>nd</sup> IEEE-FUZZ'93 Conference, San Francisco, CA, 1993.
92. "Type I and 'Interval Valued' Type II Fuzzy Sets and Logics", Third Fuzzy Theory and Technology Conference, Pinehurst, NC, 1994.
93. "Linguistics and Uncertainty in Intelligent Systems", Proceedings of the Fourth IEEE International Conference on Fuzzy Systems and the Second International Fuzzy Engineering Symposium, Yokohama, Japan, pp. 2297-2304, 1995.
94. "Knowledge Representation and Approximation Reasoning with Type II Fuzzy Sets", Proceedings of the Fourth IEEE Int. Conference on Fuzzy Systems and the Second Int. Fuzzy Engineering Symposium, Yokohama, Japan, pp. 1911, 1918, 1995.
95. "Neuro-Fuzzy Data Analysis and its Future Directions", Proceedings of the Fourth IEEE Int. Conference on Fuzzy Systems and the Second Int. Fuzzy Engineering Symposium, Yokohama, Japan, pp. 1919-1926, 1995.
96. "A Comparison of Direct Fuzzy Reasoning Methods", Proceedings of the Fourth IEEE Int. Conference on Fuzzy Systems and the Second Int. Fuzzy Engineering Symposium, Yokohama, Japan, pp. 1927-1934, 1995.
97. "A Multi-objective Decision-Making Approach to Syllogistic Reasoning with Consistency Maintenance", Proceedings of the Fourth IEEE Int. Conference on Fuzzy Systems and the Second Int. Fuzzy Engineering Symposium, Yokohama, Japan, pp. 1935-1942, 1995.
98. "Fuzzy Interpretation of Linguistic Expressions", Proceedings of Information Processing and Management of Uncertainty in Knowledge-Based Systems", Paris, pp. 6250630, 1994.
99. "Semantics to Computations", ISUMA'95, University of Maryland, USA, 1995.
100. "Language of Fuzzy Theory", FT&T'95, Duke University, 1995.
101. "Computational Intelligence", IEEE-SMC'95, Vancouver, B.C., 1995.
102. "Hybrid System", WCES'96, Seoul-Korea, 1996.

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#### 2.4 Scholarly Addresses and Conference Presentations ...Continued

103. "Fuzzy Neural Integration", IFS'96, Istanbul, Turkey, 1996.
104. "Fuzzy Theory: Semantics to Computations", NAFIPS'96, UC Berkely, 1996.
105. "Intelligent Manufacturing", Bilateral Workshop, Canada-Japan, 1996.
106. "Intelligent Manufacturing", WCIM'96, Sapanca, Turkey, 1996.
107. "Language of Fuzzy Theory", Department of Industrial Engineering, METU, 1996.
108. "Computational Intelligence: Extended Truth Tables and Fuzzy Normal Forms: NATO-ASI'96, Antalya, Turkey, 1996.
109. "Intelligent Fuzzy Systems Modeling NATO-ASI'96, Antalya, Turkey, 1996.
110. "Fuzzy Sets and Semiotics", Intelligent Systems: Semiotic Perspective, Washington, D.C., 1996.
111. "Fuzzy Excluded Middle and Contradiction", BOFLE'96, Yokohama, 1996
112. "Foundations of Fuzzy Logic", Fuzzy Theory and Technology Conference, Durham, N.C., 1997.
113. "Foundational Issues in Fuzzy Theory", FLA'97, Zichron Yaakov, 1997
114. "Fuzzy Systems Modeling", FLA'97, Zichron Yaakov, 1997.
115. "Unified Fuzzy Modeling", TAINN'97, Ankara, 1997.
116. "Formulae of Fuzzy Logics", NAFIPS'97, Syracuse, N.Y., 1997.
117. "Fuzzy Sets and Semeiotics", IEEE-SMC'97, Orlando, Florida, 1997.
118. "Fuzzy Logic: Review of Recent Concerns", EUFIT'97, Aachen, Germany, 1997.
119. "Elicitation of Membership Functions", FUZZY-IEEE'97, Barcelona, Spain, 1997.
120. "Truth Tables and Normal Forms", IFSH'97, Prague, Czech Republic, 1997.
121. "A Fuzzy Neural Hybrid System Modeling", ICNN-IEEE'97, Houston, Texas, 1997.
122. "Fuzzy Technology for Steel Industry", Association of Steel and Iron Engineers, Boston, USA, July 1998.
123. "Interval-Valued Fuzzy Set and Logic Theories", Society for Industrial and Applied Mathematics, Toronto, Ontario, July 1998.
124. "Fuzzy Knowledge Representation: Computing with Descriptive and Veristic Words", Proceedings of IFSA'99, Taipei, Taiwan, July 17-20, 1999.

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### 2.4 Scholarly Addresses and Conference Presentations ...Continued

125. "Computing with Descriptive and Veristic Words: Knowledge Representation and Approximation Reasoning", Proceedings of FUZZ-IEEE'99, Seoul, Korea, pp. 1-6, 1-10, August 22-25, 1999.
126. "Fuzzy System Modeling and Its Application in Pharmacology", Proceedings of MIF'99, International Symposium on Medical Informatics and Fuzzy Technology, Hanoi, Vietnam, pp. 139-145, August 26-29, 1999.
127. "Fuzzy Logic Pharmacokinetic Modeling", Proceedings of Fuzzy Diagnostic and Therapeutic Decision Support, ERUDIT-Workshop, Vienna, Austria, May 11-12, 2000.
128. "Models of Fuzzy Theory with Descriptive and Veristic Words", National Seminar on Applications of System Modeling, July 1-3, 2000, Yogyakarta, Indonesia, pp. 1-10, 2000.
129. "Sources, Measurements and Models of Type 2 Fuzziness in the New Millennium", WSES, World Symposium on Engineering Systems, Tenerife Playa, February 11-15, 2001.
130. "Scientific and Philosophical Contributions of L.A. Zadeh", Processing of ICSCCW, International Conference on Soft Computing and Computation With Words, Antalya, Turkey, pp. 5-10, June 6-8, 2001.
131. "Scientific and Philosophical Contributions of L.A. Zadeh", Processing of ICSCCW, International Conference on Soft Computing and Computation With Words, Bosphorus University, Istanbul, June 4, 2001.
132. "Scientific and Philosophical Contributions of L.A. Zadeh", Processing of ICSCCW, International Conference on Soft Computing and Computation With Words, Middle East Technical University, Ankara, June 11, 2001.
133. "Scientific and Philosophical Contributions of L.A. Zadeh", Processing of ICSCCW, International Conference on Soft Computing and Computation With Words, 9<sup>th</sup> September University, Izmir, June 14, 2001.
134. "Operations Research and Management Science Applications of Fuzzy Theory", Bosphorus University, Istanbul, June 4, 2001.
135. "Operations Research and Management Science Applications of Fuzzy Theory", ICSCCW Conference, Antalya, June 7, 2001.
136. "Operations Research and Management Science Applications of Fuzzy Theory", Middle East Technical University, Ankara, June 12, 2001.
137. "Operations Research and Management Science Applications of Fuzzy Theory", 9<sup>th</sup> September University, Izmir, June 14, 2001.
138. "Ontological Grounding of Fuzzy Theory: Breakdown of Equivalences", Proceeding of FIF, Helsinki, May 20-26, 2004.
139. "A Foundation for Computing With Words: Meta-Linguistic Axioms", Proceedings of ICCI'2004, Nicosia, May 27-29, 2004.
140. "A Foundation for Computing With Words: Meta-Linguistic Axioms", Proceedings of NAFIPS'2004, Alberta, Canada, June 27-30, 2004.

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#### 2.4 Scholarly Addresses and Conference Presentations ...Continued

141. “Ontological Grounding of Fuzzy Theory: Breakdown of Equivalences”, Proceeding of IPMU’04, Perugia, Italy, July 4-9, 2004.
142. “Ontological Grounding of Fuzzy Theory”, Proceedings of IIEC’2004, Tehran, Iran, July 14-15, 2004.
143. I. Ozkan, I.B. Türkşen, "Entropy Assessment of Type 2 Fuzziness”, Fuzz-IEEE, Budapest, Hungary, July 25-29, 2004.
144. “Ontological Grounding of Fuzzy Theory”, Proceedings of IEEE-Fuzzy, Budapest, Hungary, July 25-29, 2004.

#### 2.5 Research Grants/Contracts/and Equipment Grants

Duration	Grantor	Type	Co-grantees	Topic	Amount
1970-1999	NSERC	Operating			\$539,866
1974-1976	NRC			Boolean Method for Information Systems and Scheduling	\$18,250
1976-1977	NRC			Travel Fellowship	\$1,188
1976-1979	NRC			System Design and Scheduling	\$47,720
1978-1983	NSERC	Operating		Scheduling and Information Systems	\$74,500
1981-1984	NSERC	Operating		Scheduling and System Design	\$57,448
1984-1985	DSS	Sub-contract		Risk Analysis for Transportation of Hazardous Goods	\$50,000
1985-1987	NSERC	Strategic	B.R. Gaines, N. Moray, H. Kolodny	Management of New Industrial Technology	\$104,000
1984-1985	DSSC-IBI	Contract			\$56,100
1986-1989	NSERC	Operating		Approximate Reasoning	\$92,000
1987	NATO	ASI			\$52,000
1987-1988	NSERC	Strategic		Management of New Technology	\$54,000
1988	MRCO-	Operating		Knowledge and Information Based Systems for Integrated Manufacturing	172,597
1989-1990	MCU	Int. Prov.		Integration of Approximate Reasoning & Math Program For Market Share Prediction	\$4,000
1988-1990	MRCO			Knowledge Based Systems for Integrated Manufacturing	\$279,422
1989-1991	NSERC	Operating		Approximate Reasoning	\$50,000
1989-1991	MRCO-KIBSIM	Operating		Fuzzy Logic Models for Manufacturing	\$305,900

## Curriculum Vitae

### I. Burhan Türkşen

#### 2.5 Research Grants/Contracts/and Equipment Grants ...Continued

<b>Duration</b>	<b>Grantor</b>	<b>Type</b>	<b>Co-grantees</b>	<b>Topic</b>	<b>Amount</b>
1989-1991	Ontario-Quebec	EXCHPROJ		Market Share Analysis	\$7,000
1990-1993	NSERC	Operating		Fuzzy Systems Theory	\$30,000
1991-1992	MRCO	Operating		Fuzzy Logic	\$166,000
1991-1994	NSERC	Operating		Approximate Reasoning	\$30,000
1992-1994	MRCO	Operating		Intelligent Management Systems	\$100,000,
1992-1994	MRCO	Operating		Intelligent Processor Design	\$253,000
1994-1998	Rotoflex	Contract		Neuro-Fussy Control	\$275,750
1995-1997	NSERC	Operating		Fuzzy Noural Integration	\$32,000
1994-1999	NSERC	Operating		Neuro-Fuzzy Theory	\$32,000
1997-1998	Rotoflex	Contract		Lateral Web Guide System Design	\$80,000
1998-1999	NSERC	Operationg		Fuzzy System Modeling	\$32,000
1998-2000	MRC	Operationg	C. Naranjo (PI)	Alcohol Dependence Using Fuzzy Logic	\$47,865
1998-2001	MRC	Operationg	C. Naranjo (PI)	Fuzzy Logic Modeling in Litium Kinetics	\$23,258
1998-2001	Whitaker Foundation		C. Naranjo (PI)	Fuzzy Logic Modeling in Clinical Pscopharmacology	\$58,381
1999-2004	NSERC	Operating		Fuzzy Neural Theory	\$37,000
1999-2000	NORTEL	Contract		Applicability of Fuzzy Theory	\$147,000
2000-2001	NSERC	CRD		Prediction Allocation and Scheduling IP Traffic	\$90,500
2000-2001	NORTEL	Contract		Application of Fuzzy Logic Based Controller	\$128,400
2000-2004	NSERC- NORTEL	Co-operative		University/Industry Collective	\$162,000
2000-2004	NSERC	Operating		Neuro-Fuzzy System Modeling	\$184,800
2003-2004	IIC-Information Intelligence Co.			Knowledge for Decision Support System Development	\$65,000
2004-2005	NSERC	Discovery		Fuzzy Data Mining and Fuzzy Regression	\$22,000
2004-2007	OCRN	Translational Research, C.Caldwell		Automated Target Definition for Radian Treatment	\$225,000

# Curriculum Vitae

## I. Burhan Türkşen

### 2.6 Graduate Students

(Completed and current graduate student supervision. For current supervision, indicate starting date in date column with asterisk)

Date	Degree	Candidate	Thesis Title
1975	M.Eng.	P.G. Hartwick	A Preliminary Design for the URBISM System
1975	M.A.Sc.	S.F.R. Thomas	A Quadratic Optimization Approach to Educational Enrolment Planning
1975	Ph.D.	J.K. Martin	A Heuristic Goal Structure for Information Need Analysis
1976	M.A.Sc.	S.E. Keeley	ASQUE – A Simple Query System
1976	Ph.D.	T.R. Mahashi	Information Systems
1976	M.Eng.	T. Darnos	Information System Design
1976	M.Eng.	C. Petrides	Information System Design
1977	M.Eng.	A. Perez-Ojeda	Medical Knowledge Network: A Database for Computer-Aided Diagnosis
1979	Ph.D.	S. Jordanov	Human Approximate Reasoning
1979	Ph.D.	R.W. Lieberma	Scheduling Under Interference Constraint
1979	Ph.D.	S.F. Thomas	A Theory of Semantics and Possible Inference with Application to Decision Analysis
1980	M.A.Sc.	T. Raz	A Model for Data Production Systems with ....Errors
1980	Ph.D.	R. Swirsky	A Macro-Analysis of Ontario University and non-University Sectors...."
1981	Ph.D.	A. Norwich	Measurement of Fuzziness
1982	M.Eng.	T. Wilson	Data Base Design
1982	M.A.Sc.	V. Sharma	Information Systems Design
1983	M.A.Sc.	S. Vakil	Information Systems Design
1983	M.A.Sc.	R.H. Kelk	Human Error in Data Quality Control
1984	M.A.Sc.	M. Dennison	The Computational Complexity of Crane Scheduling Problem
1984	M.Eng.	B. Rasmussen	Personal Data Base Design
1984	M.Eng.	S. Chodavarapu	Medical Data Base Design
1986	M.Eng.	B.S. Kumar	Financial Planning
1986	M.A.Sc.	D. Mitchell	An Expert System Shell
1986	Ph.D.	K. Hassanein	Medical Diagnosis
1986	Ph.D.	W.W. Smith	Computer Aided Instruments

## Curriculum Vitae

### I. Burhan Türkşen

#### 2.6 Graduate Students ...Continued

(Completed and current graduate student supervision. For current supervision, indicate starting date in date column with asterisk)

Date	Degree	Candidate	Thesis Title
1987	M.A.Sc.	L. Waldron	Engine Fault Diagnosis
1987	M.A.Sc.	E. Krushelnycky	Mental Workload
1987	M.Eng.	Y. Modi	Aggregate Production Planning
1988	M.A.Sc.	Z. Zhong	Approximate Reasoning Based on Similarity Measurement
1988	M.A.Sc.	K. Jagadisan	Group Technology
1989	Ph.D.	A. Norwich	Measurement of Fuzziness
1989	Ph.D.	F. Shein	A Computer Aid for Physically Disabled
1989	Ph.D.	T. Kesik	Expert Dev. For Cost Estimation
1989	Ph.D.	N. Al-Otaibi	Fuzzy Logic in Civil Eng. Projects
1989	M.Eng.	H. Pain	An Expert System for FMS
1989	M.A.Sc.	B. Julien	A Fuzzy Interactive Screening Model
1989	M.Eng.	B. Bahatnagar	An Expert System Prototype for Plant Layout Analysis
1990	M.Eng.	D. Ulguray	A Qualitative Model for Hierarchical Job Sheets Scheduling
1990	M.Eng.	H. Pan	Expert System Prototype for Repair Service Centre
1990	M.A.Sc.	S. Mills	Performance Evaluation (part-time)
1991	Ph.D.	I.A. Willson	Fuzzy Sets and Uncertain Choice Process: An Imperial Test of Models
1991	Ph.D.	Z. Zhong	Fuzzy Dispatching systems
1991	M.Eng.	Q. Yin	Box Sorter System Based on State Information: A Fuzzy Logic Control Approach
1992	M.Eng.	T. Yurtsever	Fuzzy Logic Expert System Scheduler
1992	M.A.Sc.	Q. Wang	Sensitivity Analysis
1993	Ph.D.	Y. Tian	Fuzzy Expert System with Application to Production Management
1994	Ph.D.	E. Krushelnysky	A Heuristic Goal Structure for Information Needs Analysis
Jan. 1995	Ph.D.	H. Zhao	Automatic Generation and Reduction of the Semi-Fuzzy Knowledge Base in Symbolic Process and Numerical Calculation
Jan. 1995	Ph.D.	K. Demirli	A Unified and Extended Framework for Operation Selection in Generalized Modus Ponens Type Fuzzy Reasoning
Jan. 1995	Ph.D.	T. Bilgic	Measurement Theoretic Frameworks for Fuzzy Set Theory with Applications to Preference Modeling

## Curriculum Vitae

### I. Burhan Türkşen

#### 2.6 Graduate Students ...Continued

(Completed and current graduate student supervision. For current supervision, indicate starting date in date column with asterisk)

Date	Degree	Candidate	Thesis Title
Jan. 1995	M.Eng.	R. Wang	Intelligent Fuzzy Scheduler
May 1995	M.Eng.	I.J.A. Rodrigues	Development and Analysis of Intelligent Fuzzy Scheduling System
Dec. 1995	Ph.D.	K.W. Li	Two-Phase Fuzzy Control
Jan. 1996	M.Eng.	L. Feno	Fuzzy Scheduling
Jan. 1996	Ph.D.	S. Jiang	Rule Base Reorganization for Fuzzy Expert System Design
Jan. 1996	Ph.D.	M.R. Emami	Systematic Methodology of Fuzzy Logic Modeling and Control: Application to Robotics
Apr. 1997	M.Eng.	L. Feng	Intelligent Fuzzy Scheduler-W'95
Dec. 1997	Ph.D.	L.Z. Guo	Key Optimization Issues for Design of Fuzzy Inference Systems
Sept. 1998	Ph.D.	M.H.F. Zarandi	Aggregate System Analysis for Prediction of Tardiness and Mixed Zones of Continuous Casting with Fuzzy Methodology
Apr. 1998	Ph.D.	M. Bazoon	Neuro-Fuzzy Integration
Aug, 1998	M.Eng.	O. Uncu	Fuzzy Modeling Approaches
June 1999	M.Eng.	J. Duan	Cont. Caster Scheduling
June 1999	M.Eng.	T. Cotroneane	Fuzzy Reasoning
Dec. 1999	M.Eng.	J. Duang	Fuzzy Clustering and FSM
Dec. 2000	M.A.Sc.	C. Iskander	(Dropped out after Fall)
Dec. 2000	M.A.Sc.	M. Lofti	(Dropped out after Fall)
Aug. 2001	M.Eng.	N. Fung	Reinforcement Learning
Dec. 2002	Ph.D.	K. Kiliç	A Proposed Fuzzy System Modeling with an Application in Pharmacokinetic Modeling
Dec. 2003	Ph.D.	O. Uncu	Fuzzy System Modeling – BWA
Jan. 2003	Ph.D.	I. Ozkan	Fuzzy Economic Crises Analysis
Sept. 2002 *	M.A.Sc.	A. Kulkarni	Network Message Routing
Jan. 2003 *	M.A.Sc.	E. Chung	Band Width Allocation
Jan. 2004 *	M.A.Sc.	A. Celikyilmaz	Advance Methods for Feature Selection
Sept. 2003 *	Ph.D.	M.C. Arslan	Image Analysis for Cancer Treatment
Sept. 2001 *	Ph.D.	J. Viola	Storage of Hydrogen Vehicles

# Curriculum Vitae

## I. Burhan Türkşen

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### 2.6.1. Career Totals

Ph.D.	: 30
M.A.Sc.	: 20
M.Eng.	: 24
Ph.D. Committee Memberships	: 40
Postdoc. Supervision and Scholars	: 8

### 2.7 Post Doctoral Supervisor and Contract Employees Supported by Research Contracts

#### 2.7.1 Post Doctoral Supervision

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Duration	Fellow	Financial Sponsor	Topic of Study
1975-1976	V.V. Kulba	USSR Academy of Science	File Redundancy in Info. Systems.
1992-1993	N. Hirosha	Kayoba Industries	Syllogistic Reasoning
1994-1996	H. Ishibuchi	Osaka Prefecture Univ.	Neuro Fuzzy System Modeling
1996-1998	N. Nakajima	Toyama University	Fuzzy System Modeling
2000-2002	M. Bodur	IIC/Nortel	QOS & SLA
2000-2003	E. Hacimenni	Nortel/NSERC	Bandwidth Allocation
2000-2003	I. Ozkan	IIC	Crises in Economics
2001-2002	H. Tizhoush	Nortel	Reinforcement Learning

#### 2.7.2 Contract Employees Supported by Research Contracts

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Duration	Employee	Financial Sponsor	Topic of Study
1997-2003	O. Uncu	Nortel/NSERC	IP Traffic
2002-2003	A. Kulkarni	Nortel/NSERC	Fuzzy Reinforcement Learning for Routing
2002-2003	E. Chung	Nortel/NSERC	Internet Bandwidth Allocation
2002-2003	C. Arslan	Nortel/NSERC	Image Analysis for Cancer Treatment

## Curriculum Vitae

I. Burhan Türkşen

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### SECTION III – UNIVERSITY AND DEPARTMENTAL ADMINISTRATIVE COMMITTEES

#### 3.1 University and Faculty Committees

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<b>Duration</b>	<b>Position and/or Duties</b>
1975-1977	Scholarships and Awards
1976-1977	Student Clubs and Chapters
1977-1980	Computer Science Option Committee
1978-1979	Tenure Committee – Electrical Engineering
1978-1983	Faculty Library Committee
1979-1980	C <sup>2</sup> E <sup>2</sup> Organization Committee - Treasurer
1979-1980	Senate Oral Committee: OISE
1981-1982	Advanced Standing Committee <sup>3</sup>
1983-1984	Examination Committee
1985-1986	Decanal Task Force on First Year Studies
1985-1986	Committee on Transfers
1985-1987	Advance Standing Committee
1986-1987	Senior Promotions Committee
1986-1987	OCIM Proposal Committee
1986-1987	Ph.D. Thesis Committee
1987-1988	Iron Ring Membership Information Systems Development
1987-1988	MRC Proposal and Operations Committee
1988-1990	Continuing Education Committee
1988-1991	Chairman, Library Committee
1990-1991	Group Coordinator, Information Systems
1990-1991	Provostial Advisory Committee on the Library
1990-1991	Ad-hoc Committee on Library Acquisitions
1992-1994	Tenure Committee
1993-1994	Vice-Chair, Examinations Committee
1994-1995	Undergraduate Studies Committee
1994-1996	Advance Research Committee
1995-1996	First Year Committee
1997-1998	PEO - Examiner
1997-1999	Senior Promotions Committee
1998	L.A. Zadeh, Honoris Causa-Nomination and Citation 1998
1999-2000	Professional Development Committee - Chair
1999-2001	Professional Development Committee - Member

# Curriculum Vitae

## I. Burhan Türkşen

### 3.2 Departmental Committee

<b>Duration</b>	<b>Position and/or Duties</b>
1974-1977	Information Systems Committee
1976-1977	Departmental Council
1976-1977	Computer/Information Systems Lab. Committee
1976-1984	Graduate Selection Committee
1978-1982	Undergraduate Curriculum Committee
1978-1979	Time Tabling
1979-1980	Search Committee for the Chairman
1979-1980	Senate Oral Committee
1981-1983	Information Engineering Option Committee
1982-1983	Open House Committee
1982-1983	Cooperative on Information Technology
1983-1984	Assessment Report Sub-Committee
1986-1987	M.A.Sc. Committees
1986-1988	Computer Committee
1986-1989	Search Committees
1986-1990	Promotions Committee
1988-1991	Library Committee
1989-1990	Tenure Committee for Mark Fox
1990-1991	Senior Promotions Committee
1990-1991	Computer Committee
1992-1993	Chair of Reading and Subcommittee, Tenure Committee
1992-1993	Committee on Examinations
1992-1994	Chair, Search Committee
1993-1995	Curriculum Committee
1994-1995	Information Systems Committee
1994-1995	Strategic Planning Committee
1994-1995	2 Ph.D. Committees
1995-1996	Open House
1995-1996	Departmental Merger Committee
1997-1998	Open House
1997-2001	Senior Promotion Committee
1998-1999	Executive Committee
1998-1999	Chairman – Standing Committee on Continuing Professional Development
1999-2000	Information Systems Selection Committee
2000-2001	Search Committees: Information Engineering Production
2000-2001	Ph.D. Departmental Seminar Committees – 4
2000-2001	Chalmers Chair Committee

# Curriculum Vitae

I. Burhan Türkşen

## SECTION IV – TEACHING

### 4.1 Undergraduate Teaching

Year	Subject No. and Title	No. of Students	Year and Course	Lect./ Week	Wt
1974	IND 416 Scheduling and Control	42	IV	2	8
	IND 418 System Simulation	22	IV	2	8
1975	IND 416 Scheduling and Control	42	IV	2	8
	IND 418 System Simulation	32	IV	2	8
1976	IND 416 Scheduling and Control	22	IV	2	8
	IND 418 System Simulation	24	IV	2	8
1977	IND 416 Scheduling and Control	25	IV	2	12
	IND 418 System Simulation	35	IV	2	12
1978	IND 416 Scheduling and Control	25	IV	2	12
	IND 418 System Simulation	14	IV	2	12
1979	IND 416 Scheduling and Control	12	IV	2	12
	IND 418 System Simulation	34	IV	2	12
1980	IND 416 Scheduling and Control	39	IV	2	12
	IND 518 System Simulation	37	V	2	12
1981	IND 416 Scheduling and Control	24	IV	2	12
	IND 518 System Simulation	30	V	2	12
1982	IND 416 Scheduling and Control	22	IV	2	12
	IND 518 System Simulation	45	V	2	12
1983	IND 416 Scheduling and Control	38	IV	2	12
	IND 518 System Simulation	25	V	2	12
1984	IND 416 Scheduling and Control	27	IV	2	12
	IND 518 System Simulation	43	V	2	12
1986	IND 309 Design Methods in IE	66	III	2	12
	IND 518 Systems Simulations	35	V	2	12
1987	IND 309 Design Methods in IE	70	III	2	12
	IND 518 Systems Simulations	20	V	2	12
1988	IND 309 Design Methods in IE	73	III	2	12
	IND 518 Systems Simulations	64	V	2	12
1989	IND 309 Design Methods in IE	63	III	2	12
1990	IND 309 Design Methods in IE	69	III	2	12
1991	IND 416 Scheduling and Control	34	IV	2	12
1992	IND 370 Engineering Economics analysis		Release Time		
	IND 416 Scheduling and Control	59	IV	2	12

## Curriculum Vitae

### I. Burhan Türkşen

#### 4.1 Undergraduate Teaching ...Continued

Year	Subject No. and Title	No. of Students	Year and Course	Lect./ Week	Wt
1993	IND 416 Scheduling and Control	47	IV	2	12
	IND 421 MIS	64	IV	2	12
1994	IND 220 Data Modeling	106	II	3	12
	IND 322 Scheduling	72	III	3	125
1995	IND 322 Scheduling	60	III	3	12
1996	MIE 361 Scheduling	28	III	3	12
	MIE 452 Distributed Information Systems	26	IV	3	12
1997	MIE 353 Data Modeling	41	III	3	12
	MIE 452 Distributed Information Systems	27	V	3	12
1998	MIE 353 Data Modeling	54	III	3	12
	MIE 452 Distributed Information Systems	40	V	3	12
1999	MIE 353 Data Modeling	61	III	3	12
	MIE 452 Distributed Information Systems	18	V	3	12
2000	MIE 353 Data Modeling	51	III	3	.5
	MIE 562 Scheduling	64	V	3	.5

#### 4.2 Graduate Teaching

Year	Subject No. and Title	No. of Students
1974	IND 1403 Applied Simulations Models	12
	IND 1405 Foundations of Information Systems	5
	IND 1406 Design of Information Systems	5
1975	IND 1403 Applied Simulations Models	22
	IND 1405 Foundations of Information Systems	3
	IND 1406 Design of Information Systems	1
	IND 1410 Applied Boolean Methods	1
	IND 1814 Reading in Industrial Engineering II	1
1976	IND 1403 Applied Simulations Models	2
	IND 1405 Foundations of Information Systems	4
	IND 1418 Simulation	17
	IND 1813 Readings in Industrial Engineering I	2
	IND 1814 Readings in Industrial Engineering II	2
1977	IND 1406 Design of Information	1
	IND 1418 Simulation	15
	IND 1813 Readings in Industrial Engineering I	1
	IND 1814 Readings in Industrial Engineering II	1

## Curriculum Vitae

### I. Burhan Türkşen

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#### 4.2 Graduate Teaching ...Continued

Year	Subject No. and Title	No. of Students
1978	IND 1418 Simulation	20
	IND 1814 Readings in Industrial Engineering II	5
1979	IND 1813 Readings	2
	IND 1814 Readings	2
	IND 1418 Simulation	9
	IND 1430 Decision Information Systems	10
1980	IND 1430 Decision Information Systems	6
1981	IND 1813 Readings	2
	IND 1814 Readings	2
	IND 1430 Decision Information Systems	9
	IND 1440 Decision of Information System	2
1982	IND 1430 Decision Information Systems	10
	IND 1440 Decision of Information System	4
	IND 1450 Scheduling	8
1983	IND 1430 Decision Information Systems	8
	IND 1450 Scheduling	2
1984	IND 1430 Decision Information Systems	10
	IND 1440 Decision of Information System	12
1986	IND 1430 Decision Information Systems	10
	IND 1440 Decision of Information System	10
1988	IND 1430 Decision Information Systems	14
	IND 1440 Decision of Information System	7
1988	IND 1430 Decision Information Systems	21
	IND 1440 Decision of Information System	6
1989	IND 1430 Decision Information Systems	8
	IND 1440 Decision of Information System	40
1990	IND 1430 Decision Information Systems	14
	IND 1440 Decision of Information System	5
1991	IND 1430 Decision Information Systems	13
	IND 1440 Decision of Information System	4
1992	IND 1321 Information Systems II	9
	IND 1430 Analysis of Fuzzy Systems	2
	IND 1445 Approximate Reasoning	4
1993	IND 1321 Information Systems II	9
	IND 1430 Analysis of Fuzzy Systems	5
	IND 1440 Design of Fuzzy Systems	4

## Curriculum Vitae

### I. Burhan Türkşen

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#### 4.2 Graduate Teaching ...Continued

Year	Subject No. and Title	No. of Students
1994	IND 1321 Information Systems II	6
	IND 1430 Analysis of Fuzzy Systems	5
	IND 1440 Design of Fuzzy Systems	1
1995	IND 1430 Fuzzy System Analysis	6
1996	MIE 1506 Information Systems II: Models of Reasoning	3
	MIE 1507 Analysis of Fuzzy Systems	3
1997	MIE 1506 Information Systems II: Models of Reasoning	3
	MIE 1507 Analysis of Fuzzy Systems	5
1998	MIE 1506 Information Systems II: Models of Reasoning	2
	MIE 1507 Analysis of Fuzzy Systems	9
1999	MIE 1506 Information Systems II: Models of Reasoning	2
	MIE 1507 Analysis of Fuzzy Systems	4
2000	MIE 1500 IS-II Reasoning	3
	MIE 1507 Analysis of Fuzzy Systems	6

# Curriculum Vitae

## I. Burhan Türkşen

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### 4.3 Undergraduate Thesis Supervision

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Year	Student Name	Thesis Topic
1974-1975	A.I. Hailman	
1974-1975	A.S. Yoshiki	
1974-1975	A.S.H. Vurlaid	
1974-1975	A. Lean	
1975-1976	K.C. Chan	
1975-1976	S.R. Kamper	
1975-1976	L.C.C. Lai	
1975-1976	L.P. Lo	
1975-1976	M. Pun	
1975-1976	P.A. Staedman	
1976-1977	R.K. Leong	
1976-1977	J.P. Einola	
1976-1977	J.A.F. Hitchcock	
1976-1977	R.P. Mahler	
1977-1978	P. Gillies	
1978-1979	J. Shields	
1979-1980	A.A. Ounpuu	
1979-1980	K. Riedler	
1980-1981	Batty	
1980-1981	Chan/Lee	
1980-1981	De Girolama/Kelk/Ridout	
1980-1981	Dennison	
1980-1981	Battoni/Lemke	
<i>(No records since 1981)</i>		
1994-1995	W. Y.H. Chan	
1994-1995	S. K.T. Ma	
1994-1995	D. Duong	

## Curriculum Vitae

### I. Burhan Türkşen

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#### 4.3 Undergraduate Thesis Supervision ...Continued

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Year	Student Name	Thesis Topic
1994-1995	A. Yusuf	
1996-1997	E. Tsai-Ren Liu	
1996-1997	L. Wong-Ling Wan	
1999-2000	J.C. George Chen	
1999-2000	C. To Lo	
1999-2000	J. Hwang	
1999-2000	P. Sivakumar	
1999-2000	J. Kung	
1999-2000	J. Ng	
1999-2000	L. O	
1999-2000	S. Shaikh	
1999-2000	K. Bajay	
2000-2001	Andre Lendak	
2000-2001	Martha Guardado	
2000-2001	Jason Ing	
2000-2001	Dino Cavallo	
2000-2001	Nima Ghazizadeh	

# Curriculum Vitae

## I. Burhan Türkşen

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### SECTION V – PUBLICATIONS

#### 5.1 Refereed Journal Publications

1. A.G. Holzman and I.B. Türkşen, "Boolean Isomorphic Structures in an Educational Scheduling Model", The Automation of School Information Systems, pp. 43-48, 1963.
2. A.G. Holzman and I.B. Türkşen, "Computerizing Student Information in an Engineering School", Engineering Education, 61(4), January 1971.
3. I.B. Türkşen and A.G. Holzman, "Binary Conversions and Related Design Concepts for Management Data Systems", INFOR, 9(2), July 1971.
4. I.B. Türkşen and A.G. Holzman, "Information System Design for Educational Management", Socio-Econ. Plan. Sci., 6, pp. 1-20, 1972.
5. I.B. Türkşen, "A Concept of IE for the 70's", Industrial Engineering, pp. 22-23, 1973.
6. I.B. Türkşen, "The Set of Solutions for Boolean Equations", Discrete Mathematics, 5, pp. 261-282, 1973.
7. I.B. Türkşen, "Extensions on Solutions of Boolean Equations via its Conjunctions", Discrete Mathematics, 8(2), pp. 187-200, 1974.
8. I.B. Türkşen and R.E. Harrison, "Interactions of Particular Boolean queries and Attributes in Data Bases", INFOR, 1(3), pp. 282-292, October 1974.
9. R.E. Moon, S.Z. Jordanov, I.B. Türkşen and A. Perez, "Human-like Reasoning Capability in a Medical Diagnostic System: The Application of Fuzzy Set Theory to Computerized Diagnosis", J. of Clinical Computing, 8(3), pp. 122-151, 1979.
10. I.B. Türkşen and V.V. Kul'ba, "Strategies of File Redundancy in Information Systems", Microelectronics and Reliability, 20(1), pp. 131-144, 1980.
11. R.W. Lieberman and I.B. Türkşen, "Crane Scheduling Problems", AIIE-Transactions, 13(4), pp. 304-311, December 1981.
12. A.M. Norwich and I.B. Türkşen, "Stochastic Fuzziness", Approximate Reasoning in Decision Analysis, North Holland, M.M. Gupta, E. Sanchez (eds.), 2, pp. 13-22, August 1982.
13. R.W. Lieberman and I.B. Türkşen, "Two-Operation Crane Scheduling Problems", IIE Transactions, R.E.D. Woolsey (ed.), 14(3), pp. 147-155, October 1982.
14. P. Harmon, J.D. Lavers and I.B. Türkşen, "A Novel Continuously Variable Single to Three Phase Load Matching Circuit", IEEE Trans. Magnetics, MAG18, pp. 1749-1751, 1982.
15. I.B. Türkşen and D.D. W. Yao, "Representation of Connectives in Fuzzy Reasoning: The View Through Normal Forms", A.P. Sage, Institute of Electrical & Electronics Engineering, Transactions on Systems Man and Cybernetics, 14(1), pp. 146-150, 1984.

## Curriculum Vitae

### I. Burhan Türkşen

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#### 5.1 Refereed Journal Publications ..Continued

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