

# ZEKİ AYAG

## Curriculum Vitae

---

### Office Address

Faculty of Engineering and Natural Sciences  
Kadir Has University  
Kadir Has Campus, Kadir Has Caddesi  
34083 Cibali, Fatih, İstanbul, Turkey

### Contact Information

Phone: +90-(212)-533-6532/1440  
Fax: +90-(212)-533-6361  
E-mail: [zekia@khas.edu.tr](mailto:zekia@khas.edu.tr)  
Personal URL: <http://www.zekiayag.org>

### Academic & Industrial Positions

Full Professor of Industrial Engineering Kadir Has University Faculty of Engineering and Natural Sciences	Feb'16-Present
Director, Kadir Has University Graduate School of Science and Engineering	Apr'14-May'17
Associate Professor of Industrial Engineering Kadir Has University Faculty of Engineering and Natural Sciences	Nov'08-Feb'16
Vice Director, Kadir Has University Graduate School of Science and Engineering	Jul'06-Dec'08
Chairman of Industrial Engineering Kadir Has University Faculty of Engineering and Natural Sciences	May'06-Feb'15
Vice Chairman of Industrial Engineering Kadir Has University Faculty of Engineering and Natural Sciences	Jan'06-May'06
Assistant Professor of Industrial Engineering Kadir Has University Faculty of Engineering and Natural Sciences	Sep'05-Nov'08
Assistant Professor of Industrial Engineering İstanbul Kültür University Faculty of Architecture and Engineering	Sep'03-Sep'05
CAD Engineer, Magna International, Inc. Cam-Slide Manufacturing, Toronto, Ontario, Canada	Nov'00-Aug'03
Engineering Designer, Mold-Masters Ltd. Georgetown, Ontario, Canada	Sep'98-Nov'00
Cutting Tool Construction Department Chief Makina Takım Endüstrisi A.Ş.	Oct'95-Aug'98
Quality Assurance Engineer, Pimaş A.Ş.	Sep'93-Oct'95
Research and Teaching Assistant, İ.T.Ü. Industrial Engineering Department	Sep'89-Sep'93
Senator, Kadir Has University	Apr'14-May'17
Quality Commission Member, Kadir Has University	Nov'15-May'17

### Institutional Services

Senator, Kadir Has University	Apr'14-May'17
Quality Commission Member, Kadir Has University	Nov'15-May'17

	Executive Board Member, Kadir Has University Graduate School of Science and Engineering	May'09-May'17
	Head of Graduate Program in Industrial Engineering Kadir Has University Graduate School of Science and Engineering	May'09-Feb'15
	Faculty Executive Board Member, Kadir Has University Faculty of Engineering and Natural Sciences	May'09-Mar'15
	Board Member, Kadir Has University Graduate School of Science and Engineering	Dec'08-May'17
	Faculty Board Member, Kadir Has University Faculty of Engineering and Natural Sciences	May'06-Feb'15 Oct'18-Present
	Faculty Academic Board Member, Kadir Has University Faculty of Engineering and Natural Sciences	Sep'05-Present
<b>Service Outside University</b>	Registered Professional Engineer (P.Eng.), Society of Professional Engineers in Ontario (PEO), Canada	Jun'01-Present
	Institutional External Evaluation, Evaluator/Team Leader, YÖK (Council of Higher Edu. in Turkey) Quality Board	Nov'16-Present
	Expert, Horizon2020 Research and Innovation Programme of European Commission	May'14-Present
	Panelist/External Referee, TÜBİTAK (Scientific and Technical Research Council of Turkey)	May'09-Present
	R&D Facility Evaluator, Ministry of Science, Industry and Technology in Turkey	Nov'10-Present
	Committee Member/Expert, Associate Professorship Exam, ÜAK (Council of Inter-University) in Turkey	Jun'17-Present
	Program Evaluator, MÜDEK (Association of Evaluation and Accreditation of Engineering Programs)	May'15-Present
	Member, General Assembly of MÜDEK	Jul'17-Present
	Mentor, InoSuit 2.0 (Innovation-Focused Mentorship Project), by TIM (Turkish Exporters Assembly) and Sabancı U.	Jul'17-Present
<b>Industrial Positions (Others)</b>	M.Sc. Study, Siemens A.Ş.	1990-1991
	Internship, Transtürk Holding A.Ş. (Tezsan A.Ş.)	Summer 1988
	Internship, Koç Holding A.Ş. (Otoyol A.Ş.)	Summer 1984
<b>Degrees</b>	Registered Professional Engineer (P.Eng.) Association of Professional Engineers in Ontario, Canada	2001-Present
	İ.T.Ü., Graduate School of Sci., Eng. & Technology Ph.D. in Industrial Engineering (ABET) (D: Excellent)	2003
	İ.T.Ü., Graduate School of Sci., Eng. & Technology M.Sc. in Industrial Engineering (ABET)	1991

	Engineering Management Program (D: Excellent)	
	İ.T.Ü., Faculty of Business Administration B.Sc. in Industrial Engineering (ABET) (D: Well)	1989
<b>Visiting Positions &amp; Others</b>	Visiting Professor Hanyang University, South Korea (on plan)	July'19-Aug'19
	Visiting Professor Fachhochschule Südwestfalen, Germany (Erasmus+) (on plan)	Apr'19
	Visiting Professor Mondragon University, Spain (Erasmus+)	May'14
	Visiting Professor Vilnius Gediminas Technical University, Lithuania (Erasmus+)	Apr'13
	Visiting Professor Copenhagen University, Denmark (Erasmus+)	May'12
	Visiting Professor Konkuk University, South Korea	July'11-Aug'11
	Visiting Professor Universidad de La Coruña, Spain (Erasmus+)	Apr'10
	Visiting Scholar University of Toronto, Canada	Summer 1998
<b>Professional Affiliations</b>	Union of Chambers of Turkish Engineers and Architects (UCTEA)-UCTEA Chamber of Mechanical Engineers Registered Professional Engineer	1989-Present
	Association of Prof. Engineers in Ontario (PEO), Canada Registered Professional Engineer (P.Eng.)	2001-Present
	Institute of Industrial Engineers (IIE) Senior Member	2006-Present
	Society of İstanbul Technical University Alumni Member	2006-Present
	Mechanical Design and Production Society (MATİM), Turkey Member	2007-Present
	Society of İstanbul Project Management (İPYD), Turkey Member	2007-Present
	Operational Research Society, Turkey (YAD) Member	2007-Present
	Turkish Industrial Engineers Group (TURK-IE) Member	2007-Present
	Society of Fuzzy Systems, Turkey (BÜSİDE) Member	2008-Present
	International Society on Multiple Criteria Decision Making (MCDM) Member	2008-Present
	International Association of Engineers (IAENG) Member	2008-Present
	IAENG Society of Industrial Engineering Member	2008-Present
	IAENG Society of Operations Research Member	2008-Present
	IAENG Society of Artificial Intelligence	2008-Present

Member	
IAENG Society of Information System Engineering	2008-Present
Member	
Danube Adria Association for Automation and Manufacturing (DAAAM) International	2012-Present
Member	
Industrial Engineering and Operations Research (IEOM) Society	2014-Present
Member	
Decision Science Institute (DSI)	2015-Present
Member	
International Society for Environmental Information Sciences	2015-Present
Member	
theIRED Institute of Research Engineers and Doctors	2015-Present
Senior Member	
Lean Enterprise Institute	2015-Present
Member	
International Association of Risk and Compliance Professionals (IARCP)	2015-Present
Member	
International Institute of Social and Economic Sciences (IIES)	2015-Present
Member	
International Engineering and Technology Institute (IETI)	2016-Present
Senior Member	
MÜDEK (Association for Evaluation & Accreditation of Engineering Programs)	2017-Present
Member	
Council of Industrial Engineering Academia Department Heads (CIEADH of IIE)	2013-2014
Member	
Institute of Industrial Engineers (IIE)	1999-2000
Student Member	
American Society for Quality (ASQ)	1999-2002
Student Member	
Society of Manufacturing Engineers (SME)	1999-2002
Student Member	
Society of Modeling and Simulation International	2007-2008
Member	
North American Fuzzy Information Processing Society (NAFIPS)	2007-2008
Member	

### **Honors & Awards**

Honored with the 25th Year Award in the Profession by Union of Chambers of Turkish Engineers & Architects (UCTEA)-Chamber of Mechanical Engineers, 2014.

Member of M.Sc. Program Team on Urban Engineering awarded by IBM, the prestigious IBM Shared University Research (SUR) Award, 2013.

Honored by the Dean of Faculty of Engineering and Natural Sciences for the Best Design Project in the 2012-2013 Academic Year, 2013.

Honored by the Dean of Faculty of Engineering and Natural Sciences for the Best Design Project in the 2011-2012 Academic Year, 2012.

Honored by Kadir Has University as “Best Academician Award of the 2010-2011 Academic Year”, presented by President H.E. Abdullah Gül, 2011.

Honored by the Chairman of Board of Trustees and Rector of Kadir Has University for the scientific articles published in SCI® in the 2006-2007 Academic Year, 2007.

Honored by the Rector of Kadir Has University for the scientific articles published in SCI® in the 2005-2006 Academic Year, 2006.

Honored by İstanbul Kültür University for the scientific articles published in SCI® in the 2004-2005 Academic Year, 2005.

Received the supporting awards for the published journal articles from Kadir Has University [many times]

Received the supporting awards for the published journal articles from TÜBİTAK (The Scientific and Technological Research Council of Turkey) [many times]

Received the supporting awards for the published journal articles from İstanbul Kültür University [2 times].

Ranked in 1019 with h-index; 11 and total citations; 827, among the listed Turkish academics with 6 or higher h-index, according to the “Ranking Web of Universities”, published by Webometrix based on Google Scholar, as of January 2015.

Listed in various editions of *Who is Who in Engineering in the World*.

Listed in various editions of the *Leading Engineers of the World*.

Listed in the *Who is Who in Turkey (Türkiye’de Kim Kimdir?)*, the on-line biography bank.

Second awarded by CEO of Makina Takım Endüstrisi A.Ş. for the project, “CAD system application for cutting tool design”, İzmit, Turkey, 1998.

Second awarded by CEO of Makina Takım Endüstrisi A.Ş. for the project, “Best gear configuration used in manufacturing of relief angle of taps with twist channels”, İzmit, Turkey, 1997.

**Skills  
(Computers)**

SAP R/3 Enterprise 4.7 x 2.00, IAS CANIAS, and familiar with others. AutoCAD, I-DEAS Master Series, CATIA, and familiar with others. MS-Cobol, QBasic, Fortran. Microsoft Word, Excel, PowerPoint, FrontPage, Project and Visio. ARENA Simulation Software. LINGO, MINITAB. Lotus Notes 5.0, Outlook and Outlook Express, Web Design with MS-Word and FrontPage. Good knowledge of Windows and PC-based systems.

**(Languages)  
(Others)**

Turkish (native), English (fluent), German (basic)  
Practically knowledge of various measurement tools, and knowledge of conventional and CNC machining centers, and CNC programming.

**Hobbies &  
Interests**

Traveling (regularly)  
Photography (occasionally)  
Gym/Fitness (regularly)  
Snow skiing (occasionally)  
Jogging (regularly-in-sports center)  
Tennis (occasionally)  
Swimming (occasionally)  
Watching movies-in theatre and series (regularly)

**SCHOLARLY WORK**

<b>Summary</b>	Journal Papers: 31 Books: 5 Book Chapters: 1 Conference Proceedings: 89 Technical Reports: 2 Posters: 1 Invited Talks: 11 Presentations: 5 Dissertation & Reports: 3 Others: 2
<b>WoS Core Collection Citation Report</b>	Total Publications: 20 <i>h</i> -index: 12 Sum of Times Cited: 686 Citing Articles: 544 Average Citation per Item: 34,3 Total Number of Citations without Self Citations: 636 (as of Dec 31 of 2018)
<b>Google Scholar</b>	Lifetime Citations: 1621 Lifetime <i>h</i> -index: 16 Lifetime <i>i10</i> -index: 18 (as of Dec 31 of 2018)
<b>Research Areas</b>	Innovation Management and New Product Development Multiple-Criteria Decision Making Fuzzy Logic-Based Multiple-Criteria Decision Making Concept Evaluation in a New Product Development Environment Simulation of Discrete-Manufacturing Systems Computer Integrated Manufacturing Systems
<b>Journal Articles</b>	Ayag, Z. "A comparative study of evaluating CAM softwares through AHP and ANP", 2019 [In-Progress]  Ayag, Z. "A fuzzy AHP-VIKOR for the evaluation of innovation projects", <i>Journal of Intelligent and Fuzzy Systems</i> , 2018 [In-Review]  Ayag, Z. "An intelligent tool to evaluating CAD packages in a product innovation process", <i>Computer Aided Design and Applications</i> , 2018 [In-Review]  Ayag, Z. "A fuzzy AHP approach to evaluate CAM software alternatives", <i>International Journal of Computer Integrated Manufacturing</i> , 2018 [In-Review]  Ayag, Z. "Green concept selection through fuzzy decision making: A comparative study", <i>Journal of Intelligent and Fuzzy Systems</i> , 2018 [In-Review]  Ayag, Z., Samanlıoğlu, F. "A fuzzy AHP-VIKOR approach for evaluation of educational use simulation software packages", <i>Journal of Intelligent and Fuzzy Systems</i> , 2018 [Accepted]  Samanlıoğlu, F., Ayag, Z. "A fuzzy AHP-GRA to evaluating energy sources: A case of Turkey", <i>International Journal of Energy Sector Management</i> , 2018 [In-Review]  Ayag, Z., Yucekaya, A. "A fuzzy ANP-Based GRA approach to evaluate ERP alternatives", <i>International Journal of Enterprise Information Systems</i> , 2018 [Accepted]

- Samanlioglu, F., Ayag, Z., "A Fuzzy AHP-PROMETHEE II approach to evaluation of solar power plant location alternatives", *Journal of Intelligent and Fuzzy Systems*, Vol.33, No.2., pp.859-871, 2017.
- Ayag, Z. "An integrated approach to concept evaluation in a new product development", *Journal of Intelligent Manufacturing*, Vol.27, No.5, pp.991-1005, 2016.
- Ayag, Z., Samanlioglu, F. "An intelligent approach to supplier evaluation in automotive sector", *Journal of Intelligent Manufacturing*, Vol.27, No.4, pp.889-903, 2016.
- Samanlioglu, F. and Ayag, Z., "Fuzzy ANP-based PROMETHEE II approach for machine tool selection problem", *International Journal of Intelligent and Fuzzy Systems*, Vol.30, pp. 2223-2235, 2016.
- Ayag, Z., "A fuzzy ANP approach to evaluate computer simulation packages", *International Journal of Business and Systems Research*, Vol.10, No.2/3/4, pp. 332-245, 2015.
- Ayag, Z. "An intelligent approach to employee performance evaluation", *International Journal of Fuzzy Systems and Advanced Applications*, Vol.2, pp. 24-32, 2015.
- Ayag, Z., "CAD software evaluation for product design to exchange data in a supply chain network", *International Journal of Supply Chain Management*, Vol. 4, No. 1, pp. 30-38, 2015.
- Ayag, Z., "A fuzzy analytic hierarchy process to evaluate computer-aided manufacturing software alternatives", *Turkish Journal of Fuzzy Systems*, Vol. 5, No. 2, pp. 114-127, 2014.
- Ayag, Z., "An intelligent approach to prioritize logistics requirements in food industry", *International Journal of Supply Chain Management*, Vol. 3, No. 4, pp. 29-38, 2014.
- Ayag, Z., Samanlioglu, F. and Buyukozkan, G., "A fuzzy QFD approach to determine supply chain management strategies in the dairy industry", *Journal of Intelligent Manufacturing*, Vol. 24, No. 6, pp. 1111-1122, 2013.
- Ayag, Z. and Ozdemir, R.G., "Evaluating machine tool alternatives through modified TOPSIS and alpha-cut based fuzzy ANP", *International Journal of Production Economics*, Vol. 140, pp. 630-636, 2012.
- Ayag, Z. and Ozdemir, R.G., "An intelligent approach to machine tool selection through fuzzy analytic network process", *Journal of Intelligent Manufacturing*, Vol. 22, No. 2, pp. 163-177, 2011.
- Ozdemir, R.G. and Ayag, Z., "An integrated approach to evaluating assembly-line design alternatives with equipment selection", *Production Planning and Control*, Vol. 22, No. 2, pp. 194-206, 2011.
- Ayag, Z., "A combined fuzzy AHP-simulation approach to CAD software selection", *International Journal of General Systems*, Vol. 39, No. 7, pp. 731-756, 2010.
- Ayag, Z. and Ozdemir, R.G., "A hybrid approach to concept selection through fuzzy analytic network process", *Computers and Industrial Engineering*, Vol. 56, No. 1, pp. 368-379, 2009.



Ayag, Z. and Ozdemir, R.G., "A combined fuzzy AHP-goal programming approach to assembly-line selection", *Journal of Intelligent and Fuzzy Systems*, Vol. 18, No. 4, pp. 345-362, 2007.

Ayag, Z. and Ozdemir, R.G., "An analytic hierarchy process-based approach to concept evaluation in a new product development environment", *Journal of Engineering Design*, Vol. 18, No. 3, pp. 209-226, 2007.

Ayag, Z., "A hybrid approach to machine tool selection through AHP and simulation", *International Journal of Production Research*, Vol. 45, No. 9, pp. 2029-2050, 2007.

Ayag, Z. and Ozdemir, R.G., "An intelligent approach to ERP software selection through fuzzy ANP", *International Journal of Production Research*, Vol. 45, No. 10, pp. 2169-2194, 2007.

Ayag, Z. and Ozdemir, R.G., "A fuzzy AHP approach to evaluating machine tool alternatives", *Journal of Intelligent Manufacturing*, Vol. 17, No. 2, pp. 179-190, 2006.

Ayag, Z., "A fuzzy AHP-based simulation approach to concept evaluation in a NPD environment", *IIE Transactions*, Vol. 37, No. 9, pp. 827-842, 2005.

Ayag, Z., "An integrated approach to evaluating conceptual design alternatives in a new product development environment", *International Journal of Production Research*, Vol. 43, No. 4, pp. 687-713, 2005.

Ayag, Z., "An analytic-hierarchy-process based simulation model for implementation and analysis of computer-aided systems", *International Journal of Production Research*, Vol. 40, No. 13, pp. 3053-3073, 2002.

#### **Books**

The Journal Article Book, "AHP/ANP Applications in Industrial Engineering: Selected Works": Vol.1, Pre-Prints, 2014, *unpublished*.

The Journal Article Book, "AHP/ANP Applications in Industrial Engineering: Selected Works": Vol. 2, Pre-Prints, 2014, *unpublished*.

The Conference Paper Book, "Applications in Industrial Engineering: Selected Works": Vol.1, Pre-Prints, 2014, *unpublished*.

The Conference Paper Book, "Applications in Industrial Engineering: Selected Works": Vol. 2, Pre-Prints, 2014, *unpublished*.

Introduction of the Book, "AHP/ANP Applications to Concept Evaluation in a New Product Development", Pre-Prints: The First Edition, 2014, *unpublished*.

#### **Book Chapters**

Translation of Chapter X into Turkish – "Resisting Globalization: Critique and Action", in a book of *The Globalization Reader*, Edited by F. J. Lechner and J. Boli, The Second Edition, Blackwell Publishing, 2003.

#### **Conference Proceedings**

Ayag, Z. "A fuzzy AHP-PROMETHEE II for green concept evaluation", The International Conference on Intelligent and Fuzzy Systems (INFUS'19), June 23-25, 2019, Istanbul, TURKEY.

Ayag, Z. "Green concept evaluation through fuzzy AHP-PROMETHEE II", The 40th International Academic Conference (IISES'18), June 25-28, 2018, Stockholm, Sweden.



- Ayag, Z. "A comparison study of F-AHP based MCDM methods on green concept selection problem", The 5th International Fuzzy Systems Symposium (FUZZYSS'17), October 14-15, Ankara, Turkey, 2017.
- Ayag, Z. "Evaluating solar power plant location alternatives through a multiple-criteria decision making method", The 29th International Academic Conference (IISES'17), April 5-8, Rome, Italy, 2017.
- Ayag, Z. "Green concept selection through fuzzy decision making: A comparative study", The 6th Business and Social Science Conference (BSCC'17), August 3-4, Dubrovnik, Croatia, 2017.
- Ayag, Z. "Fuzzy based decision making for green concept evaluation: A comparative study", The 17th International Conference on Fuzzy Systems (FS'16), October 21-23, Rome, Italy, 2016.
- Ayag, Z. "AHP-based approach to evaluate solar power plant location alternatives", The 3rd Business and Research Conference-The Int'l Institute of Social and Economic Sciences (IISES'16), March 22-25, Lisbon, Portugal, 2016.
- Ozdemir, R.G., Ayag, Z., "Integrated fuzzy Monte Carlo simulation model and branch and bound algorithm for solving scheduling in filling process", The 4rd International Fuzzy Systems Symposium (FUZZYSS'15), November 5-6, İstanbul, Turkey, 2015.
- Ayag, Z., "A multiple-criteria decision making method for evaluating solar power plant location alternatives", The 9th Int'l Management Conference (IMC'15), November 5-6, Bucharest, Romania, 2015.
- Ayag, Z., "Quality function deployment approach to evaluate supply chain strategies in Turkish automotive industry", The 14th Int'l Academic Conference-The Int'l Institute of Social and Economic Sciences (IISES'14) October 28-31, La Valetta, Malta, 2014.
- Ayag, Z., "QFD approach to determine supply chain management strategies in automotive sector", The 2nd Int'l Conference on Tourism, Transport, and Logistics (ICTTL'14), April 3-4, Prague, Czech Republic, 2014.
- Ayag, Z., "Technology management in new product development environment", IX. Workshop on Industrial and Management Engineering, The Chamber of Mechanical Engineers in Turkey: Eskisehir Branch, December 6-7, Eskisehir, Turkey, 2013.
- Ayag, Z. and Ozdemir, R.G., "A fuzzy AHP-based approach to employee performance evaluation", The 3rd Int'l Fuzzy Systems Symposium (FUZZYSS'13), October 24-25, İstanbul, Turkey, 2013.
- Durak, M.Y., Ozdemir, R.G., Faki, F. and Ayag, Z., "Selection of sub-contractor for cutting operation in textile industry using fuzzy TOPSIS", The 3rd Int'l Fuzzy Systems Symposium (FUZZYSS'13), October 24-25, İstanbul, Turkey, 2013.
- Ayag, Z., "An intelligent approach to computer-aided design software evaluation", The 3rd Int'l Fuzzy Systems Symposium (FUZZYSS'13), October 24-25, İstanbul, Turkey, 2013.
- Ayag, Z., "A quality function deployment application for airline ground operations management", The 1st Int'l Sustainable Airline Management Conference (ISAMC'14), August 29, İstanbul, Turkey, 2013.

- Ayag, Z., "An intelligent approach to CAM software selection", The 2nd Int'l Conference on Communications, Computing and Control Applications (CCCA'12), December 6-8, Marseilles, France, 2012.
- Yucekaya, A., Ayag, Z. and Samanlioglu, F., "Option pricing for electricity commodity in Turkish Power Market", The 3rd Int'l Conference on Industrial Engineering and Operations Management (IEOM'12), July 3-6, İstanbul, Turkey, 2012.
- Yucekaya, A., Samanlioglu, F. and Ayag, Z., "Compressed air energy storage systems: Current, future and operational analysis", The 5th Int'l Mechanical Engineering Forum, June 20-22, Prague, Czech Republic, 2012.
- Ayag Z. and Ozdemir, R.G., "CAD software selection through fuzzy AHP", The 5th Int'l Mechanical Engineering Forum, June 20-22, Prague, Czech Republic, 2012.
- Ozdemir, R.G. and Ayag, Z., "A two stage approach for distribution network design problem in cosmetic and cleaning industry", The 25th European Conference on Operational Research (EURO'12), July 8-11, Vilnius, Lithuania, 2012.
- Ayag, Z., "Concept evaluation through multiple-criteria decision making methods: An evaluation and new approaches", The 8th Int'l DAAAM Baltic Conference (DAAAM'12), April 19-21, Tallinn, Estonia, 2012.
- Ayag, Z., Samanlioglu, F. and Yucekaya, A., "Intelligent approach to simulation software evaluation", The 3rd Int'l Conference on Industrial Engineering and Operations Management (IEOM'12), July 3-6, 2012, İstanbul, Turkey, 2012.
- Samanlioglu, F., Yucekaya, A. and Ayag, Z., "A network model for location-routing decisions of a logistics company", ISERC Annual Conference and Expo 2012 (ISERC'12), May 19-23, Florida, USA, 2012.
- Samanlioglu, F., Ayag, Z. and Yucekaya, A., "A fuzzy TOPSIS Approach for nuclear power plant site selection", The 3rd Annual Conference of the European Decision Sciences Institute (EDSI'12), June 24-27, İstanbul, Turkey, 2012.
- Ayag, Z., Samanlioglu, F. and Yucekaya, A., "Concept evaluation in a NPD environment: An integrated approach", The 2nd Int'l Fuzzy Systems Symposium (FUZZYSS 11), November 17-18, Ankara, Turkey, 2011.
- Yucekaya, A., Ayag, Z. and Samanlioglu, F., "Evaluating the energy dependency of Balkan countries and the effect of the natural gas pipelines", Int'l Balkan Annual Conference (IBAC'11), May 9-13, Skopje, Macedonia, 2011.
- Samanlioglu, F., Ayag, Z., Yucekaya, A., Elibol, D., Depe, İ., Ozdemir, G. and Davarci, C.E., "A location-routing model for regional blood banks", IX. Int'l Logistics and Supply Chain Congress (LM-SCM'11), October 27-29, Yasar University, İzmir, Turkey, 2011.
- Yucekaya, A. and Ayag, Z., "Analyzing energy plans of Turkey in the light of increasing energy demand and fuel costs", VIII. Workshop on Industrial and Management Engineering, The Chamber of Mechanical Engineers in Turkey: Bursa Branch, November 24-26, Bursa, Turkey, 2011.
- Ayag, Z. and Yucekaya, A., "Evaluating ERP software investments in terms of project management and risk factors", VIII. Workshop on Industrial and

- Management Engineering, The Chamber of Mechanical Engineers in Turkey: Bursa Branch, November 24-26, Bursa, Turkey, 2011.
- Ozdemir, R.G., Ayag, Z. and Karaca, N., "A production planning approach under assembly-line balancing constraints in textile sector", XI. National Production Research Symposium (UAS'11), June 23-24, İstanbul Ticaret University, İstanbul, Turkey, 2011.
- Yucekaya, A., Ayag, Z. and Samanlıoğlu, F., "Price taker bidding for power plants in Turkish Power Market", The 3rd Int'l Conference on Applied Operational Research (ICAOR'11), August 24-27, Bahcesehir University, İstanbul, Turkey, 2011.
- Samanlıoğlu, F., Ayag, Z., Yucekaya, A., Kiliç, A., Balkuvar, I. and Çikrikci, Z., "A mathematical model for ambulance location and deployment", The 3rd International Conference on Applied Operational Research (ICAOR'11), August 24-27, Bahcesehir University, İstanbul, Turkey, 2011.
- Aydemir, T., Kara, D.G., Kocabacak, I., Yildirim, B. and Ayag, Z., "Evaluating bank alternatives through ANP", XXXI. Operation Research and Industrial Engineering National Congress (YA/EM'11), July 5-7, Sakarya University, Kocaeli, Turkey, 2011.
- Ozdemir, R.G., Ayag, Z. and Aksu, G., "An mathematical approach for hierarchical production planning in food packaging industry", XXXI. Operation Research and Industrial Engineering National Congress (YA/EM'11), July 5-7, Sakarya University, İzmit, Turkey, 2011.
- Yucekaya, A. and Ayag, Z., "Cost and SO<sub>2</sub> minimizing coal resource selection for power plants", The 21st Int'l Conference on Multiple Criteria Decision Making (MCDM'11), June 13-17, Jyvaskyla, Finland, 2011.
- Ayag, Z. and Yucekaya, A., "Alpha-cut fuzzy analytic network process based approach to evaluate simulation software packages", The 11th Int'l Symposium on the Analytic Hierarchy Process and Analytic Network Process (ISAHP'11), June 15-18, Sorrento, Naples, Italy, 2011.
- Ayag, Z., "Evaluating simulation software alternatives through ANP", The 2th Int'l Conference on Industrial Engineering and Operations Management (IEOM'11), January 22-24, Kuala Lumpur, Malaysia, 2011.
- Yucekaya, A., Ayag, Z. and Samanlıoğlu, F., "Economic evaluation of wind power investments through multi-year simulation and operational constraints", The 2nd Int'l Conference on Nuclear and Renewable Energy Resources (NURER'10), July 4-7, Gazi University, Ankara, Turkey, 2010.
- Gun, E., Çetintas, F., Ozdemir, R.G. and Ayag, Z., "Estimation model to determine optimal lot size for a two-stage inventory system", X. National Production Research Symposium (UAS'10), September 16-18, Girne American University, Girne, Cyprus, 2010.
- Yucekaya, A., Ayag, Z. and Samanlıoğlu, F., "ERP software selection through AHP in a project-based production company", X. National Production Research Symposium (UAS'10), September 16-18, Girne American University, Girne, Cyprus, 2010.
- Samanlıoğlu, F., Ayag, Z. and Yucekaya, A., "Multiple-criteria crossdocking model with flexible time window ", X. National Production Research Symposium (UAS'10), September 16-18, Girne American University, Girne, Cyprus, 2010.
- Ayag, Z., Samanlıoğlu, F. and Yucekaya, A., "Fuzzy AHP approach to CAD software selection problem", X. National Production Research Symposium

- (UAS'10), September 16-18, Girne American University, Girne, Cyprus, 2010.
- Gokoluk, S.S., Tasdemir, E.E., Kirgoz, D., Çakir, H., Yucekaya, A., Ayag, Z. and Samanlioglu, F., "A mixed integer multi-period capital budgeting model for investment companies", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Alacan, M., Ozal, C., Cetinkaya, I., Altiok, I., Kol, G., Yucekaya, A., Ayag, Z. and Samanlioglu, F., "A personnel supply planning system for hospital call centers", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Samanlioglu, F., Sezenler, E., Ayag, Z. and Yucekaya, A., "A hazardous waste location-routing problem", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Elibol, D., Depe, İ., Ozdemir, R.G., Davarcı, C.E., Samanlioglu F., Ayag, Z. and Yucekaya, A., "A logistics, location and routing problem of İstanbul Kızılay blood banks", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Alev, K., Cikrikci, Z., Balkuvar, I., Samanlioglu, F., Ayag, Z. and Yucekaya, A., "A location problem of first aid ambulances", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Kayakus, O., Ergin, D., Samanlioglu, F., Ayag, Z. and Yucekaya, A., "A mathematical model of pandemic influenza A/H1N1", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Duman, B., Erdem, M., Isik, E.N., Ozkaya, E., Ayag, Z., Samanlioglu, F. and Yucekaya, A., "Cloth selection problem for passenger seats in public transport vehicles through TOPSIS", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Has, M., Taskiran, I., Turkyilmaz, M., Ayag, Z., Samanlioglu, F. and Yucekaya, A., "Evaluating shopping center location alternatives through ANP: A case study", XXX. Operation Research and Industrial Engineering National Congress (YA/EM'10), June 30- July 2, Sabancı University, İstanbul, Turkey, 2010.
- Ayag, Z., Samanlioglu, F. and Yucekaya, A., "Fuzzy analytic network process approach to shopping center location selection problem", VIII. Int'l Logistics and Supply Chain Congress (LM-SCM'10), November 4-5, Maltepe University, İstanbul, Turkey, 2010.
- Ozdemir, R.G. and Ayag, Z., "Fuzzy ANP-based modified TOPSIS for machine tool selection problem", XVI. Int'l Working Seminar on Production Economics (IWSPE'10), March 1-5, Innsbruck, Austria, 2010.
- Samanlioglu, F. and Ayag, Z., "Determining master schedule of surgical operations by integer programming: A case study", IIE Annual Conference and Expo 2010 (IERC'10), June 5-9, Cancun, Mexico, 2010.

- Ayag, Z. and Samanlioglu, F., "Analytic Network Process (ANP) for solar power plant location problem", IIE Annual Conference and Expo 2010 (IERC'10), June 5-9, Cancun, Mexico, 2010.
- Ayag, Z. and Ozdemir, R.G., "Fuzzy ANP-based modified TOPSIS for concept selection problem", I. Int'l Fuzzy Systems Symposium (FUZZSS'09), TOBB University of Economics and Technology, October 1-2, Ankara, Turkey, 2009.
- Ayag, Z., Buyukozkan, G. and Samanlioglu, F., "A fuzzy QFD approach to determine logistics requirements in food industry", VII. Int'l Logistics and Supply Chain Congress (LM-SCM'09), November 5-6, İstanbul, Turkey, 2009.
- Ayag, Z. and Samanlioglu, F., "Concept selection in a NPD environment through AHP/ANP: A comparative study ", IIE Annual Conference and Expo 2009 (IERC'09), May 30-June 3, Miami, USA, 2009.
- Samanlioglu, F. and Ayag, Z., "A cross-docking model with soft time windows ", IIE Annual Conference and Expo 2009 (IERC'09), May 30-June 3, Miami, USA, 2009.
- Ayag, Z., Samanlioglu, F., Ozpamuk, T., Ertem, S. and Gumulcinelioglu, C., "Fuzzy analytic hierarchy process to evaluate solar power plant location alternatives", XXIX. Operation Research and Industrial Engineering National Congress (YA/EM'09), 22-24 June, Bilkent University, Ankara, Turkey, 2009.
- Samanlioglu, F., Ayag, Z., Esen, E.E., Gunduz, A., Polat, M.O., Tavsanlı, S. and Ozak, F., "Route improvement for a courier truck: A case study", XXIX. Operation Research and Industrial Engineering National Congress (YA/EM'09), 22-24 June, Bilkent University, Ankara, Turkey, 2009.
- Buyukozkan, G., Ayag, Z., Caka, E., Ozgunduz, G. and Sahin, G., "Determining the supply chain strategies in food industry: A proposed model and its application", VIII. National Production Research Symposium (UAS'08), 24-25 October, organized by İstanbul University and İstanbul Kültür University, İstanbul, Turkey, 2008.
- Ayag, Z. and Ozdemir, R.G., "The evaluation of ERP software through fuzzy replacement analysis and analytic network process ", XXVIII. Operation Research and Industrial Engineering National Congress (YA/EM'08), 30 June-2 July, Galatasaray University, İstanbul, Turkey, 2008.
- Samanlioglu, F., Ayag, Z., Ercan, B.B. and Yetim, M., "Application of a bi-objective ambulance location model ", XVIII. Operation Research and Industrial Engineering National Congress (YA/EM'08), June 30- July 2, Galatasaray University, İstanbul, Turkey, 2008.
- Samanlioglu, F. and Ayag, Z., "OR/MS research in hazardous waste management ", XXVIII. Operation Research and Industrial Engineering National Congress (YA/EM'08), June 30- July 2, Galatasaray University, İstanbul, Turkey, 2008.
- Ayag, Z., Samanlioglu, F., Turkmen, E., Ozturk, V. and Kotek, H., "Facility site location through analytic network process ", XXVIII. Operation Research and Industrial Engineering National Congress (YA/EM'08), June 30- July 2, Galatasaray University, İstanbul, Turkey, 2008.
- Ayag, Z., Samanlioglu, F., Dalgic, M.Ş., Eksi, M. and Erol, Y.A., "A software development for product costing through activity-based costing ", XXVIII. Operation Research and Industrial Engineering National Congress

- (YA/EM'08), June 30- July 2, Galatasaray University, İstanbul, Turkey, 2008.
- Ozdemir, R.G. and Ayag, Z., "Equipment selection in an assembly-line design through fuzzy replacement analysis and analytic network process", XV. Int'l Working Seminar on Production Economics (IWSPE'08), March 3-7, Innsbruck, Austria, 2008.
- Danaci Sakalar, T. and Ayag, Z., "Technology road-mapping for effective new product development process", II. National System Engineering Congress, Yıldız University, February 6-8, İstanbul, Turkey, 2008.
- Ozdemir, R.G. and Ayag, Z., "An integrated approach to assembly-line selection", IX. Int'l Symposium on Analytic Hierarchy Process (ISAHP'2007), August 3-6, Viña del Mar, Chile, 2007.
- Danacı, T. and Ayag, Z., "Technology management for effective new product development process", VI. Workshop on Industrial and Management Engineering, The Chamber of Mechanical Engineers in Turkey: Bursa Branch, November 9-10, Bursa, Turkey, 2007.
- Ayag, Z., Buyukozkan, G., Tufekcioglu, M., Gürel, S. and Ozdemir, S., "An ANP-based application for supplier selection in automotive industry ", XXVII. Operation Research and Industrial Engineering National Congress (YA/EM'07), 2-4 July, Dokuz Eylul University, Izmir, Turkey, 2007.
- Ayag, Z. and Ozdemir, R. G., "Enterprise resource planning (ERP) system investments and analysis", Dynamics 2007-Management of Investments and Project Risks, National Project Management Congress, 13-14 April, Kadir Has University, İstanbul, Turkey, 2007.
- Ozdemir, R. G., Ayag, Z., Kula, U. and Ince, O., "A case study in supply chain management using 0-1 integer goal programming ", XXVI. Operation Research and Industrial Engineering National Congress (YA/EM'06), 3-5 July, Kocaeli University, İzmit, Turkey, 2006.
- Ayag, Z. and Ozdemir, R. G. and Yelken, B., "An effective implementation of an enterprise resource planning (ERP) system with an assessment in a Turkish firm ", The 3rd Int'l Logistics and Supply Chain Congress, November 23-24, Galatasaray University, İstanbul, Turkey, 2005.
- Ince, O., Ayag, Z. and Ozdemir, R.G., "Simulation approach to minimizing total cost in the supply chain ", The 3rd Int'l Logistics and Supply Chain Congress, November 23-24, Galatasaray University, İstanbul, Turkey, 2005.
- Ince, O, Ayag, Z. and Ozdemir, R. G., "The determining of buffer size capacity in assembly lines) ", XXV. Operation Research and Industrial Engineering National Congress (YA/EM'05), July 4-6, Koç University, İstanbul, Turkey, 2005.
- Gultas, I., Ozdemir, R. G. and Ayag, Z., "Using of investment analysis techniques for equipment selection in assembly lines under demand uncertainty ", XXV. Operation Research and Industrial Engineering National Congress (YA/EM'05), July 4-6, Koç University, İstanbul, Turkey, 2005.
- Ayag, Z., "An approach to evaluating machine tool alternatives using simulation and AHP ", The 4th Int'l Symposium on Intelligent Manufacturing Systems (SAU'04), September 6-8, Sakarya University, Sakarya, TURKEY, 2005.



- Ayag, Z., Ozdemir, R. G. and Yılmaz, A., “A step-by-step model for implementing hardware infrastructure of ERP systems “, XXIV. Operation Research and Industrial Engineering National Congress (YA/EM`04), June 15-18, Çukurova University, Adana, Turkey, 2004.
- Ayag, Z., Ozdemir, R. G. and Uguz, H., “A decision support system for evaluating ERP packages “, XXIV. Operation Research and Industrial Engineering National Congress (YA/EM`04), June 15-18, Çukurova University, Adana, Turkey, 2004.
- Ayag, Z., Ozdemir, R. G. and Beser, M., “An approach for competitive advantage by improving integration between marketing and production”, XXIV. Operation Research and Industrial Engineering National Congress (YA/EM`04), June 15-18, Çukurova University, Adana, Turkey, 2004.
- Ozdemir, R. G., Ayag, Z. and Dursunoğlu, M., “A simulation-based model for capacity improvement in manufacturing systems”, XXIV. Operation Research and Industrial Engineering National Congress (YA/EM`04), June 15-18, Çukurova University, Adana, Turkey, 2004.
- Ozdemir, R. G., Ayag, Z. and Çakır, D., “A line balancing method for set-up time reduction”, XXIV. Operation Research and Industrial Engineering National Congress (YA/EM`04), June 15-18, Çukurova University, Adana, Turkey, 2004.
- Ozdemir, R. G., Ayag, Z. and Ozturk, İ., “An economic error measure for demand forecasting”, XXIV. Operation Research and Industrial Engineering National Congress (YA/EM`04), June 15-18, Çukurova University, Adana, Turkey, 2004.
- Ayag, Z., Dincmen, M., Durmusoglu, M. B. and Ertay, T., “Expert simulation systems in production systems”, Symposium of Computer Use and Automation in Industry, İ.T.Ü. in cooperation with Alumni of Berlin Technical University (TU Berlin) and KOSGEB, İstanbul, Turkey, 1991.
- Erkut, H., Polat, S., Bozdog, C. E., Ceylan, C., Bayraktar, C. A. and Ayag, Z., “Investigation of inflation–productivity–interest relationships using system dynamics modeling “, Advances in Simulation`92 Symposium, July 6-7, Boğaziçi University, İstanbul, Turkey, 1992.
- Akhun, M., Ayag, Z. and Ertay, T., “Simulation of production systems based on expert systems”, Advances in Simulation`92 Symposium, July 6-7, Bogazici University, İstanbul, TURKEY, 1992.
- Ayag, Z. and Dincmen, M., “Expert systems in industry and an expert system design for quality control”, XV. Operation Research and Industrial Engineering National Congress (YA/EM`1993), July 7-9, İstanbul, Turkey, 1993.

### Technical Reports

- “Innovation Capacity and Performance Evaluation Report”, Ören Kablo Sistemleri Elektrik San. ve Tic. Ltd. Şti., InoSuit Program, Nov 2017, İstanbul, Turkey [in-Turkish]
- “Innovation Capacity and Performance Evaluation Report”, Boytaş Mobilya A.S. (currently-managed by TMSF), InoSuit Program, May 2018, Kayseri, Turkey [in-Turkish]

### Posters

- Ayag, Z. and Samanlıoğlu, F., “Cross docking mathematical model, The Workshop on Women in Industrial Engineering Academia (WIEA`12), May 30-Jun 1, Kadir Has University, İstanbul, Turkey, 2012.



**Invited Talks**

- “Fuzzy based decision making for green concept evaluation: A comparative study”, *Plenary Speaker*, The 17th International Conference on Fuzzy Systems (FS’16), October 21-23, Rome, Italy, 2016.
- “Introduction to facility layout planning”, American University of Middle East (AUM), College of Engineering, Jan 10, Egaila, Kuwait, 2016.
- “Concept evaluation in a new product development environment through multiple-criteria decision making methods: A review and new approaches”, Kadir Has University, Faculty of Engineering and Natural Sciences, December 5, İstanbul, Turkey, 2014.
- “Product design evaluation in a new product development environment”, Mondragon University, Faculty of Engineering, Erasmus Teaching Staff Mobility (TSM) Program, May 2-7, Bilbao, Spain, 2014.
- “Strategic management in the 21st Century”, Vilnius Gediminas Technical University, Faculty of Business Management, Erasmus Teaching Staff Mobility (TSM) Program, April 15-19, Vilnius, Lithuania, 2013.
- “Product design evaluation in a new product development environment”, Copenhagen University, College of Engineering, Erasmus Teaching Staff Mobility (TSM) Program, May 8-11, Copenhagen, Denmark, 2012.
- “Multiple-criteria decision making methods for concept selection in a NPD environment”, Universidad de La Coruña, Escuela Universitaria Politécnica, Erasmus Teaching Staff Mobility (TSM) Program, April 5-9, Ferrol - A Coruña, Spain, 2010.
- “A step-by-step implementation and analysis model of a computer integrated manufacturing (CIM) system-The overview of CAD/CAM systems: An application in a Turkish firm”, İstanbul Technical University, İstanbul, Turkey, 1998.
- “A step-by-step implementation and analysis model of a computer integrated manufacturing (CIM) system: An application in a Turkish firm”, İstanbul Technical University, İstanbul, Turkey, 1997.
- “A step-by-step implementation and analysis of a computer integrated manufacturing (CIM) system: An application”, İstanbul Technical University, İstanbul, Turkey, 1997.
- “Introduction to computer-aided process planning (CAPP)”, İstanbul Technical University, İstanbul, Turkey, 1997.

**Presentations**

- “Innovation in the world: How the South Korea has developed by innovation? India, China and Silicon Valley”, Conference on Innovation and Competitive Advantage, April 2008, Kadir Has University, İstanbul, Turkey, 2008.
- “A step-by-step implementation and analysis model of a computer integrated manufacturing (CIM) system”, Ph.D. Seminar, Institute of Science and Technology, İstanbul Technical University, İstanbul, Turkey, 1998.
- “The adaptation to the changing: the strategies for excellence”, In-House Seminar, Makina Takım Endüstrisi A.Ş., İzmit, Turkey, 1997.
- “The implementing of a computer-aided design (CAD) and documentation system”, In-House Seminar, Makina Takım Endüstrisi A.Ş., İzmit, Turkey, 1997.

“The developing of a computer software to calculate the required gear group for tap manufacturing”, In-House Seminar, Makina Takım Endüstrisi A.Ş., İzmit, Turkey, 1996.

### **Dissertation & Reports**

Ayag, Z., A step-by-step implementation and analysis model for a computer integrated manufacturing (CIM) system, Ph.D. Dissertation, Industrial Engineering Department, İstanbul Technical University, 2003.

Ayag, Z., The simulation of a mold manufacturing facility using SIMAN, Master Thesis, Industrial Engineering Department, İstanbul Technical University, 1991.

Ayag, Z., A survey on simulation applications in production systems”, Bachelor Thesis, Industrial Engineering Department, İstanbul Technical University, 1989.

### **Others**

Lecture Notes: “Introduction to Enterprise Resources Planning (ERP) Systems”, based on the class presentations, Spring 2004, *unpublished*.

Booklet: “The Workshop on Women in Industrial Engineering Academia 2012- (WIEA’12)”, Kadir Has University, in collaboration with Auburn and Wichita State Universities, 2012.

## **RESEARCH AND INDUSTRIAL PROJECTS**

### **Research Projects**

IBM SUR Award: Urban Engineering Studies in İstanbul, the prestigious IBM Shared University Research (SUR) award, 137,000 \$, 2013-2015 (Project member).

Kadir Has University Scientific Research Project (KHAS-BAP): Development of an effective hazardous material (HAZMAT) management system for Marmara Region through a multiple-criteria decision making method (with Dr. F. Samanlıoğlu), 15,000 TL, 2009-2010 (Project member).

Eureka Project: An expert system design for quality control in household manufacturing, in collaboration with İstanbul Technical University, Arçelik A.Ş., TEE A.Ş. and Bruel Kayer Co. of Denmark (as a member for a year of 1993), 275,000 \$, 1993 (Project member).

TTGV Project: The design and manufacturing of thin-ceramic- and TIN-coated cutting tools, Makina Takım Endüstrisi A.Ş., 52,000 \$, 1996-1997 (Project member).

### **Projects in Industry**

InoSuit (Innovation-Focused Mentorship Project) by Turkish Exporters Assembly (TIM) and Sabancı University: Establishing an Enterprise Innovation Systems  
[Ören Kablo Sistemleri Elek.San. ve Tic. Ltd. Şti., İstanbul, Nov’17-Oct’18]  
[Boytaş San. ve Tic. A.Ş., currently by TMSF, Kayseri, Apr’18-Mar’19]

Establishment of an effective project planning system for ship-making using Microsoft Project  
[Türkter A.Ş., Tuzla, Turkey, 2006]

The development of adjustable airbag system for 2003 Model FORD cars. In this system, the blown-up speed of airbag can be adjusted to the seating position of the occupant by using the sensor placed at the bottom of the seat. [Magna International, Inc., Ontario, Canada, 2000]

The development of child seat to the occupant seat for more safety.  
[Magna International, Inc., Ontario, Canada, 2000]

The automation of drawing checking operations in company's engineering department: Decreased the drawing checking time with eliminating paper waste in order to improve drawing lead times in the engineering department.  
[Mold-Masters Ltd., Ontario, Canada, 1999]

As a reporter in TSE, prepared an national twist drill standard-TS 62 using the following ISO standards (ISO 5468: 92, ISO 235: 80, ISO 3292: 95, ISO 3291: 95, ISO 494: 75, ISO 5419: 82, ISO/DIS 10899: 75, ISO 10898: 92, ISO 3314: 75, ISO 3438: 75, ISO 3439: 75, ISO 4780, ISO 296), Ankara, Turkey.  
[Makina Takim Endustrisi A.Ş., İzmit, Turkey, 1996-1998]

Established "CAD system using I-DEAS Master Series" for cutting tool design.  
[Makina Takim Endustrisi A.Ş., İzmit, Turkey, 1995]

Developed an computer software using QBasic to calculate "the best gear configuration used in manufacturing of relief angle of taps with twist channels"  
[Makina Takim Endustrisi A.Ş., İzmit, Turkey, 1996]

## TEACHING ACTIVITIES

### Courses Taught

Kadir Has University

Introduction to System Analysis (IE 211)  
Manufacturing Processes (IE 241)  
Operations Research I (IE 311)  
Operations Research II (IE 312)  
Multiple-Criteria Decision Making (IE 317)  
Factory Design and Plant Layout (IE 321)  
Management Information Systems (IE 331)  
Systems Simulation (IE 332)  
Introduction to Manufacturing Processes (IE 344)  
Computer Integrated Manufacturing (IE 348)  
Production Planning and Control (IE 401)  
Strategic Planning (IE 422)  
Integrated Enterprise Systems (IE 423)  
Final Project (GE 400, Coordinator and Advisor)  
Engineering Problem Solving and Project Management (GE 401)  
Principles of Industrial Engineering (IE 102)  
Production Planning and Control (IE 211)  
Innovation and Technology Management (IE 421)  
Graduate Seminar (IE 598, Coordinator)  
Master's Thesis (IE 599, Coordinator and Advisor)

İstanbul Kültür University

Computer Integrated Manufacturing (IE 009)  
Enterprise Resource Planning (IE 011)  
Decision Support and Artificial Intelligence (IE 842)  
Quality Engineering (IE 855)  
Final Project (IE 890)  
Supply Chain Management (IE 754)

İstanbul Technical University

Computer Integrated Manufacturing (as T.A.)  
Computer Programming using BASIC (as T.A.)  
Computer Prog. using MS-COBOL (as T.A.)  
Data Processing in Industrial Systems (as T.A.)  
Facility Planning (as T.A.)  
Introduction to Industrial Engineering (as T.A.)

Int. to Measurement and Machine Tools (as T.A.)  
 Machine and Cutting Tools (as T.A.)  
 Production Planning and Control (as T.A.)  
 Quality Control (as T.A.)  
 Statistics (as T.A.)  
 System Simulation (as T.A.)  
 Technical Drawing (as T.A.)

Konkuk University (Seoul, South Korea)

Strategic Management in the 21st Century (Int'l Summer School'2011)

**Teaching  
 Staff  
 Mobility  
 (TSP) &  
 Others**

Universidad de La Coruña, Escuela Universitaria Politécnica, Spain, 2010  
 International Summer School at Konkuk University, South Korea, 2011  
 Copenhagen University, College of Engineering, Department of Production  
 Engineering, Denmark, 2012  
 Vilnius Gediminas Technical University, Faculty of Business Management,  
 Lithuania, 2013  
 Mondragon University, Faculty of Engineering, Spain, 2014

**Student  
 Advising**

Ph.D. Students

Bilal Oday Saeed-Kadir Has University (supervised, on-going)  
 Özge Tuğrul-İstanbul Technical University (monitoring & committee member,  
 2016)  
 Sachin K. Patil-Sardar Vallabhbhai National Institute of Technology  
 (committee member, 2014)  
 İlkay Gültaş (committee member, 2013)  
 Ahmet S. Suntur- İstanbul Technical University (committee member, 2012)  
 Murat Durucu- İstanbul Technical University (committee member, 2012)  
 Murat Mala-Sakarya University (committee member, 2010)

M.Sc. Students

Yunus Ali Erol-Kadir Has University (supervised, on-going)  
 Deniz Kemal Aslan-Kadir Has University (supervised, on-going)  
 Birol Kaya-Kadir Has University (supervised, on-going)  
 Nazmiye Yağmur Aslan-Kadir Has University (supervised, 2016)  
 Ecem Taşdemir-Kadir Has University (committee member, 2013)  
 Hande Çakır-Kadir Has University (committee member, 2013)  
 Sinem Gürel-Kadir Has University (supervised, 2013)  
 Özlenen Şentürk-Kadir Has University (supervised, 2013)  
 Erkan Çaka- İstanbul Technical University (committee member, 2012)

Others

Undergraduate Student Counselling  
 Graduate Student Counselling  
 GE 400 Final Project Advising

**SERVICE ACTIVITIES**

**Editorial  
 Activities**

Technology Audit and Production Reserves	2017-Present
Editorial Board Member	
International Journal of Economics, Commerce and Management	2015-Present
Editorial Board Member	
The Scientific World Journal	2013-2016
Editorial Board Member	
Science Discovery	2013-2015
Editorial Board Member	
Int'l Journal of Fuzzy Systems and Advanced Applications	2013-Present

	Associate Editor	
	International Journal of Supply Chain Management	2012-Present
	Editorial Board Member	
	International Journal of Computer Science and Information Engineering	2010-2014
	Editorial Board Member	
	International Journal of Production Research (SCI®)	2008-2016
	Editorial Board Member	
	Asian Journal of Industrial Engineering	2008-2010
	Associate Editor	
	Advances in Fuzzy Systems	2007-Present
	Editorial Board Member	
	Modeling and Simulation in Engineering	2007-2017
	Editorial Board Member	
	Asian Journal of Information Management	2007-2009
	Technical Editor	
	Journal of Intelligent Manufacturing (SCI-E®)	2007-2014
	Associate Editor	
	Asian Journal of Marketing	2007-2009
	Technical Editor	
	Research Journal of Business Management	2007-2009
	Technical Editor	
<b>Editorial Review Board Member</b>	Asia Pacific Management Review	2005-Present
	Journal of Computers	2009-Present
	Engineering Letters	2010-Present
<b>Peer Review</b>	MÜDEK (Assoc. for Evaluation & Accreditation of Engineering Programs, the full member of ENAEE, and Washington Cord of Int'l Eng. Alliance, IEA) Evaluator for Accreditation of Engineering Programs (2015-Present)	
	Atılım University (Industrial Engineering Program (2016)	
	Marmara University (Industrial Engineering Program (2017)	
	YÖK (Council of Higher Education in Turkey) Quality Council Evaluator/Team Leader for Institutional External Evaluation (2016-Present)	
	İzmir Katip Çelebi University, İzmir (2016-2017) (as Evaluator)	
	Adnan Menderes University, Aydın (2017-2018) (as Team Leader)	
	Council of Inter-University in Turkey (ÜAK): Jury Membership for Associate Professorship (2017-Present) (6 candidates)	
<b>Reviewing (Journals &amp; Conferences)</b>	Journals	
	International Journal of Production Economics	
	Advances in Fuzzy Systems	
	Asia Pacific Management Review	
	Asia-Pacific Journal of Operational Research	
	Computers and Industrial Engineering	
	European Journal of Industrial Engineering	
	International Journal of Approximate Reasoning	
	Information Sciences	
	International Journal of Design Engineering	
	International Journal of Production Research	
	Journal of Engineering Design	
	Journal of Intelligent Manufacturing	
	Endüstri Mühendisliği Dergisi	
	International Journal of Information Technology and Decision Making	
	Journal of Computers	
	Computers and Industrial Engineering	

Annals of Operations Research  
 Journal of Engineering Design  
 Journal of the Faculty of Engineering and Architecture of Gazi University  
 International Journal of Information Technology and Decision Making  
 Journal of Sakarya University-Institute of Science and Engineering  
 International Journal of Computer Integrated Manufacturing  
 International Journal of Industrial and Systems Engineering  
 Expert Systems with Applications  
 Journal of Systems Science and Systems Engineering  
 Universidad Nacional de Colombia Revista Ingeniería Investigación  
 International Journal of Information Technology and Decision Making  
 International Journal of Fuzzy Systems  
 International Journal of Energy Applications and Technology  
 International Journal of Analytic Hierarchy Process

#### Conferences

The 2nd IEOM European Conference on Industrial Engineering and Operations Management (IEOM European'18)  
 The 8th Int'l Conference on Industrial Engineering and Operations Management (IEOM'18)  
 The 5th International Conference on Industrial Engineering and Operations Management 2015 (IEOM'15)  
 The Global Conference on Eng. and Technology Management (GCETM'14)  
 The 2nd Int'l Conf. on Communications, Computing and Control Applications (CCCA'12)  
 The 3<sup>rd</sup> International Conference on Industrial Engineering and Operations Management 2012 (IEOM'12)  
 The 9th International Logistics and Supply Chain Congress (LM-SCM'11)  
 The 2<sup>nd</sup> International Conference on Industrial Engineering and Operations Management 2011 (IEOM'11)  
 International Symposium on Innovations in Intelligent Systems and Applications (INISTA'10)  
 IIE Annual Conference and Expo 2010 (IERC'10)  
 IEEE International Symposium on Industrial Electronics (IEEE ISIE'10)  
 IIE Annual Conference and Expo 2009 (IERC'09)  
 IEEE International Conference on Cybernetics & Intelligent Systems (CIS) and Robotics, Automation and Mechatronics (RAM)(CIS-RAM)  
 International Conference on Information Systems (ICIS)

#### (Others)

Evaluating Proposals for the Following Publishers

Taylor and Francis Group: New Journal (proposal evaluation, 2013)  
 Hindawi Publishing Group: Special Issues (proposal evaluation; many)

For Personal Evaluations for the Following Institutions

Sabancı University: Periodic View (personal evaluation, 2013)  
 Nisantası University: Job Evaluation (personal evaluation, 2014)

Program/Project Evaluations

TÜBİTAK Career Development Project: External Referee (2012)  
 TÜBİTAK Projects: Panelist and Referee (many)  
 Eurostars Programme: Eurostars Project: External Referee (2017)

For R&D Facility Evaluations

Martur Sünger ve Koltuk Tesisleri Ticaret A.Ş. (R&D center evaluation for the Ministry of Science, Industry and Technology, 2010)  
 Bosch Sanayi ve Ticaret A.Ş. (R&D center evaluation for the Ministry of Science, Industry and Technology, 2013)  
 Samet Kalıp ve Metal Sanayi A.Ş. (R&D center evaluation for the Ministry of Science, Industry and Technology, 2015)

Others

Council of Inter-University in Turkey (ÜAK): Expertise of Scientific Research and Business Ethics: Expert (2017)

**Other  
Professional  
Activities**

Conference Organization

- Symposium on Computer Use and Automation in Industry (1990)  
Organizing Committee Member
- XIV. Operational Res. and Industrial Eng. National Cong.(YAEM`1991)(1991)  
Organizing Committee Member
- Symposium on Computer Use and Automation in Industry (1991)  
Organizing Committee Member
- 6-Sigma and its Applications Panel (2007)  
Moderator and Organization Member
- Conference on Innovation and Competitive Advantage (2008)  
Moderator and Organization Member
- The Workshop on Women in Industrial Eng. Academia (WIEA`12) (2012)  
Co-Organizer
- VII. İstanbul Informatics Congress on Smart Cities (2013, 2014, 2015)  
Steering Committee Member
- VII. İstanbul Informatics Congress on Smart Cities: Panel on Business Continuity and Security in Public Sector (2013)  
Moderator
- IEEE International Conference on Fuzzy Systems (FUZZ-IEEE`15) (2015)  
Co-Organizer
- The 3rd Int`l Conference and Exhibition on Industrial Engineering (2016)  
Organizing Committee Member
- Int`l Conf. on Civil and Structural Engineering (2018)  
Organizing Committee Member

Committee Member

- XXVII. Operation Res. and Industrial Eng. National Congress (YA/EM`07)  
Academic Advisory Board Member
- II. System Engineering National Congress  
Scientific Committee Member
- XXVIII. Operation Res. and Industrial Eng. National Congress (YA/EM`08),  
The Series of Seminars on Optimization in Industrial Engineering  
Academic Advisory Board Member
- XXIX. Operation Res. and Industrial Eng. National Congress (YA/EM`09)  
Scientific Committee Member
- XXX. Operation Res. and Industrial Eng. National Congress (YA/EM`10)  
Academic Advisory Board Member
- X. National Symposium on Production Research (UAS`10)  
Academic Advisory Board Member
- VIII. International Logistics and Supply Chain Congress (ILSCC`10)  
Scientific Committee Member
- XXXI. Operation Res. and Industrial Eng. National Congress (YA/EM`11)  
Scientific Committee Member
- Industrial Eng. Software and Applications Congress and Exhibition  
(EMYK`11)  
Academic Advisory Board Member
- The 2nd Int`l Conf. on Industrial Eng. and Operations Management  
(IEOM`11)  
Academic Advisory Board Member
- IX. International Logistics and Supply Chain Congress (ILSCC`11)  
Technical Committee Member
- The 3rd Int`l Conf. on Industrial Eng. and Operations Management  
(IEOM`12)  
Scientific Committee Member
- The 10th International Conference on Uncertainty Modelling in Knowledge Engineering and Decision Making (FLINS`12)  
Advisory Committee Member



- XXXII. Operation Res. and Industrial Eng. National Congress (YA/EM'12)  
Scientific Committee Member
- XXXIII. Operation Res. and Industrial Eng. National Congress (YA/EM'13)  
Academic Advisory Board Member
- The International IIE Conference (IIE'13)  
Academic Advisory Board Member
- The 1st Int'l Conf. on Information, Operations Man. and Statistics (ICIOMS'13)  
Technical Committee Member
- The 1st Int'l Conf. on Information, Operations Man. and Statistics (ICIOMS'13)  
Advisory Committee Member
- The 7th İstanbul Information Technology Congress (2013)  
Steering Committee Member
- The 15th International Conference on Fuzzy Systems (FS'14)  
Scientific Committee Member
- The 2nd Int'l Conf. on Information, Operations Man. and Statistics (ICIOMS'14)  
Technical Committee Member
- The 2nd Int'l Conf. on Information, Operations Man. and Statistics (ICIOMS'14)  
Advisory Committee Member
- The Global Conference on Engineering and Technology Man. (GCETM'14)  
Program Committee Member
- The 4th Int'l Conf. on Industrial Eng. and Operations Management (IEOM'14)  
Industry Committee Member
- The First International Symposium on Industrial Design Engineering (ISIDE'14)  
Advisory Committee Member
- XXXIV. Operation Res. and Industrial Eng. National Congress (YA/EM'14)  
Academic Advisory Board Member
- The 8th İstanbul Information Technology Congress (2014)  
Steering Committee Member
- The 2015 Int'l Conference on Neural Networks-Fuzzy Systems (NN-FS'14)  
Program Committee Member
- The 5th Int'l Conf. on Industrial Eng. and Operations Management (IEOM'15)  
Industry Committee Member
- IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'15)  
Workshop Co-Chair
- The 2nd Global Conference on Engineering & Technology Man. (GCETM'15)  
Program Committee Member
- The 3rd International Conference on Industrial Engineering (ICIE'15)  
Advisory Committee Member
- The 57th National Convention of Indian Institution of Industrial Eng. (2015)  
Advisory Committee Member
- The 4th International Fuzzy Systems Symposium (FUZZYSS'15)  
Advisory Committee Member
- The 16th International Conference on Fuzzy Systems (FS'15)  
Advisory Committee Member
- The 9th İstanbul Information Technology Congress (2015)  
Steering Committee Member
- Global Joint Conference on Industrial Engineering and Its Application Areas (GJCIE'16)  
Scientific Committee Member
- The 2nd International Conference on Advancements and Recent Innovations in Mechanical, Production and Industrial Engineering (ARIMPIE'16)  
Advisory Committee Member
- The 3rd Business and Management Conference (IISES'16)  
Advisory Committee Member
- The 17th International Conference on Fuzzy Systems (FS'16)  
Scientific Committee Member

The 7th Int'l Conf. on Industrial Eng. and Operations Man.(IEOM'17)  
 Industry Committee Member  
 The 29th International Academic Conference (IISES'17)  
 Advisory Committee Member  
 The International Conference on Fuzzy Systems (2017)  
 Scientific Committee  
 The 1st International Conference on Business and Management (ICBM'17)  
 Technical Committee  
 The 1st Int. Conf. on Education, Culture and Social Development  
 (ICECSD'17)  
 Technical Committee  
 The 1st European Conference on Fuzzy Systems (EECS-FUZZY'17)  
 Scientific Committee  
 The 5th International Fuzzy Systems Symposium (FUZZYSS'17)  
 Scientific Committee  
 The 4th International Conference on Industrial Engineering (ICIE'17)  
 Advisory Committee  
 The 1st World Symposium on Economics, Business and Management  
 (WSEBM'17)  
 Technical Committee  
 The 8th Int'l Conf. on Industrial Eng. and Operations Management  
 (IEOM'18)  
 Industry Committee  
 The Int'l Conf. for Smart Computing System and Application (ICSCSA'18)  
 Scientific Committee  
 The Int'l Conference on Emerging Technologies for Comm. & Networks  
 (ICETCN'18)  
 Technical Program Chair  
 The 2nd IEOM European Conference on Industrial Engineering and  
 Operations Management  
 European Academic Committee  
 The 3rd IEOM North American Conf. on Industrial Engineering and  
 Operations Management  
 Industry Solutions Committee  
 The 2nd European Conference on Fuzzy Systems (EECS-FUZZY 2018)  
 Scientific Committee  
 The 3rd EU International Conference on Industrial Engineering and  
 Operations Management  
 European Academic Committee

#### Session Chaired

XXIV. Operational Research and Industrial Engineering National Congress  
 (YA/EM'04).  
 The 4th Int'l Symposium on Intelligent Manufacturing Systems (IMS'04).  
 XXVII. Operational Research and Industrial Engineering National Congress  
 (YA/EM'07).  
 XXVIII. Operational Research and Industrial Engineering National  
 Congress (YA/EM'08).  
 XXIX. Operational Research and Industrial Engineering National Congress  
 (YA/EM'09).  
 XXX. Operational Research and Industrial Engineering National Congress  
 (YA/EM'10).  
 The 16th Int'l Working Seminar on Production Economics for the Sessions of  
 Innovation Management and Simulation Applications (IWSPE'10).  
 The 2nd Int'l Conference on Industrial Engineering and Operations  
 Management (IEOM'11).  
 XXXI. Operational Research and Industrial Engineering National Congress  
 (YA/EM'11).  
 The 3rd Int'l Fuzzy Systems Symposium (FUZZYSS'13)  
 The 9th International Management Conference (IMC'15)  
 The 5th International Fuzzy Systems Symposium (FUZZYSS'17)

#### Track Chaired

The 3rd Int'l Conference on Industrial Engineering and Operations Management (IEOM'12)  
The 3rd Int'l Conference on Industrial Engineering and Operations Management (IEOM'14)  
The 8th Int'l Conf. on Industrial Eng. and Operations Management (IEOM'18)

**Contribution to Media**

Introduction of the industrial engineering department at Kadir Has University, introductory video for *YouTube*, 2014-2017.  
Effective project and risk management for a successful enterprise resource planning (ERP) implementation”, article, *MakinaTEK*, May 2007 (with Tuğba Danacı).  
One of the outstanding professions: industrial engineering, article, *Kadir Has Bulletin*, April-May, pp. 35-37, 2010.  
A new century, changing world and industrial engineering, article, *Panorama Khas*, No.3, pp. 27-29, 2011.  
Many presentation videos through social media on the programs in the Graduate School of Science and Engineering.  
Many short informative articles published on my interest fields on the social media.