

## Dr. ARIF SELÇUK ÖĞRENCİ

Kadir Has Üniversitesi  
Elektrik-Elektronik Mühendisliği Bölümü  
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ogrenci@khas.edu.tr



### EDUCATION:

- 1995-1999 Boğaziçi University, Department of Electrical and Electronics Engineering, PhD Program, PhD Thesis: Multilayer Perceptron Neural Network in Analog VLSI: A System Level Study
- 1992-1995 Boğaziçi University, Department of Electrical and Electronics Engineering, MS Program, MS Thesis: Application of Spline Integration Methods with Waveform Relaxation Techniques in Analysis of VLSI Circuits
- 1987-1992 Boğaziçi University, Department of Electrical and Electronics Engineering, BS Program, Department of Mathematics (BS in Double Major Program), Honors student  
Graduation Project: Design of a Stereo Encoder
- 1980-1987 İstanbul (Erkek) Lisesi
- 1975-1980 Bahcelievler Primary School

### PROFESSIONAL EXPERIENCE:

- Sep. 2019 - ... Visiting Faculty, Kadir Has University, Department of Electrical-Electronics Engineering
- Nov. 1999 – Aug. 2019 Assistant Professor, Kadir Has University, Department of Electrical-Electronics Engineering  
Director of BYS (Bilgi Yönetim Sistemi-Knowledge Management System) (2001-2015)
- 1993-1999 Research Assistant, Boğaziçi University, Department of Electrical and Electronics Engineering
- 1992-1993 Research Assistant, Boğaziçi University, Department of Physics
- 1991-1992 Computer Teacher, FMV Işık Schools

### AWARD:

- Vehbi Koç Foundation, Superior Performance Award for being in the top 20 in the University Entrance Examination, 1987-1992.
- Kadir Has University: Certificate of Appreciation for the Successful Work in Knowledge Management System (2003); Certificate of Appreciation for Academic Success (2004); Certificate of Appreciation for the Successful Work in Interface Development for the Knowledge Management System (2005); Certificate of Appreciation for High Performance in Putting Kadir Has University on the Map (2007, 2008); Certificate of Appreciation for High Performance (2009)
- Award for the Best Design Project under Supervision, in Computer Engineering: 2004, 2009, 2012, 2017 (second degree); in Electrical-Electronics Engineering: 2017, 2018, 2022.
- Kadir Has University Education Award, 2014-2015

### TECHNICAL-PROFESSIONAL TRAINING:

- Nov. 1998 Short course on “Mixed Signal ASIC Design Using the Mentor Graphics Design Kit for Alcatel Microelectronics Technologies”, IMEC, Leuven, Belgium.
- Nov. 1998 Short course on “Estimating and Preventing Mismatch in Analog Design”, IMEC, Leuven, Belgium.

Oct. 1999- Apr. 2000 Oracle Application Development Courses (Introduction to SQL and PL/SQL, Develop PL/SQL Program Units, Oracle Forms-I, Oracle Forms-II, Oracle Reports), OCP (Oracle Certified Professional, Application Development), Istanbul, Turkey.

Sept. 2001- Feb. 2002 Cisco Networking Academy Program, Semester 1-4 Instructor Training, obtained the certificate of CCNA Instructor, Istanbul, Turkey.

Jan. 2003 Oracle Portal, Istanbul, Turkey.

Feb. 2004 Active Learning Workshop, Istanbul, Turkey.

Jan. 2005 Cisco-CNAP, Cisco Certified Network Associate Instructor Training Update, Semesters 1-4, Istanbul, Turkey.

Feb. 2006 TÜBİTAK Training for Project Proposal Writing, Istanbul, Turkey.

Nov. 2007 IGIP Course on Engineering Education, Istanbul, Turkey.

Jan. 2008 UYBHM 2008 Winter Workshop for High Performance Computing and Parallel Programming, Istanbul, Turkey.

Apr.-Jun. 2008 PMP, Project Management, Mentor, Istanbul, Turkey.

Nov. 2009 Workshop on IEEE Technical English Program, Saint Petersburg, Russia.

July 2010 TOBB-CISCO Entrepreneurship Program: Enterprise Management in IT Era, Istanbul, Turkey.

Apr. 2011 Internal Corporate Communication, Kadir Has University, Istanbul, Turkey.

Nov. 2012 Around the Globe and Around the Clock: The Science and Technology of the CTBT (Comprehensive Nuclear-Test-Ban Treaty), CTBT Organization, Vienna, Austria.

Sept. 2013 Oracle BI (Business Intelligence) 11g R1: Create Analyses and Dashboards, Instructor Training, İstanbul., Turkey.

May-June 2015 First Aid, SOS

July-Aug. 2016 Work Health and Safety e-certificate Program, Anadolu University

July 2017 First Aid,

July 2017 Unwritten rules and ways of participation in Horizon 2020: Project design, consortium and profile development, (Sistem Global and KHÜ)

December 2017 Work Package Planning and Budgeting for Participation to H2020 Consortiums

September 2019 Applied Entrepreneurship Training, certificate by KOSGEB (Directorate for Developing and Supporting SME's)

September 2019 Successful Academic Writing and Publishing Skills Workshop, Charlesworth Knowledge

January 2020 Predictive Analytics Modeler 2018, IBM

#### **CERTIFICATES:**

- OCP (Oracle Certified Professional), Internet Application Development
- CCNA (Cisco Certified Network Associate) Instructor
- First Aider
- Work Health and Safety
- Applied Entrepreneurship
- Predictive Analytics Modeler 2018, Mastery Award Badge

#### **RESEARCH PROJECTS:**

10/1993 – 6/1995 Project member, “Parallel Techniques for Accelerating Simulation of MOS VLSI Circuits,” Boğaziçi University Research Fund.

2/1996 - 2/1998 Project member, “EEEAG-183: Realization of Artificial Neural Networks Using Analog Integrated Circuits,” TÜBİTAK (Turkish Scientific and Technical Research Council). (In this project, an analog neural network integrated circuit has been

	designed using Mentor Graphics IC Station software in Alcatel-Mietec's 2.4µm technology, and it has been produced via the Europractise program.)
6/2014 – 12/2015	Researcher, Self Learning for Mobile GSM Network (Identification of base station information from log data), funded by Vodafone
9/2019-8/2022	Researcher, Erasmus+ (KA203-077194), Promoting Deep and Wide Thinking / Early Dual Degrees in Basic Sciences (thinkBS)
1/2022-12/2023	Researcher, TEYDEB-1505 (Project No: 5210098), Smart Technological Solutions to Predict Customer Complaints about Billing (for GSM company Turkcell Technology)
9/2022-8/2024	Project Coordinator, TEYDEB-1505 (Project No: 5220055), Artificial Intelligence Based Decision Support System for Financial Scoring and Crediting of Company Credit Applications (for Koc Finans)
9/2022-11/2028	Instructor, Erasmus Mundus Joint Masters-2022, CyberMACS- Master of Applied Cybersecurity

### PhD THESES ADVISED

Yıldız Karadayı, A Hybrid Deep Learning Framework for Unsupervised Anomaly Detection in Multivariate Spatio-Temporal Data, 2020, co-advisor

### MS THESES ADVISED

Aysel Aydın, Business Process Management Standards, 2012

Aslı Yılmaz, Software Cost for SOA Age, 2012

Cihan Taşkın, Service Granularity for Transforming Legacy Systems to SOA, 2012

Zeynep Erol, Information System for Diseases, 2012

İbrahim Fırat Veral, Secure Loyalty Cards in Mobile, 2014

Duygu Çolak, Concept Map Based Learning System, 2014

Engin Ozer, Analysis of Effects of Economics News on the Price Fluctuations in Bist100 and Stocks Prices, 2015.

Ramazan Cengiz, Location Estimation of Base Station of Mobile Phones Using Artificial Neural Networks, 2016.

Burcu Yılmaz, A Look at Risk Measurement Methods of Investment and Pension Funds in Turkey, and Prediction of Risk Including Credit Risk, 2016.

Ayşe Demirhas, Usage of Information Technologies in Container Shipping Industry and Impacts on Business: An ERP Solution, 2017.

Recep Çifci, Smart Chatbot, 2018.

Subhan Rana, Load Flow Based Electrical System Design and Short Circuit Analysis, 2019

Taha Al-Bayati, Anomaly Detection in Time Series, 2019

Mostafa Ziadoon Ibrahim Ibrahim, Peer to Peer and Master-Slave Topologies For Edge Computing in Internet of Things, 2019

Uygar Şahin, Log Analysis with Anomaly Detection, 2019

Mohammed Abduljabbar, Caching Algorithm Implementation for Edge Computing in IoT Network, 2020, co-advisor

Ayşenur Gilik, Air Quality Prediction using a Hybrid Deep Learning Architecture, 2020, co-advisor

### RESEARCH INTERESTS:

- Electronic design automation
- Analog neural networks (analysis, modeling, training and simulation in hardware, analog IC design)
- Computational intelligence, machine learning, anomaly detection
- IoT, edge computing
- Effective teaching

### PUBLICATIONS:

#### BOOK

- Sina Balkır, Günhan Dünder, A. Selçuk Öğrenci, **Analog VLSI Design Automation**, CRC Press, June 2003.

## JOURNAL PAPERS

- İ. Bayraktaroğlu, A.S. Öğrenci, G. Dünder, S. Balkır, E. Alpaydın, "ANNSyS: An Analog Neural Network Synthesis System", *Neural Networks*, pp. February, 1999. (SCI, Q1)
- A.S. Öğrenci, G. Dünder, S. Balkır, "Fault Tolerant Training of Neural Networks in the Presence of MOS Transistor Mismatches," *IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing*, Vol.:48, No:3, pp. 272-281, March 2001. (SCI, Q1)
- A.H. Bilge, O. Pekcan, S. Kara, A.S. Öğrenci, "Epidemic models for phase transitions: application to a physical gel," *Phase Transitions*, Vol.:90, No:9, pp. 905-913 <http://dx.doi.org/10.1080/01411594.2017.1286487>, 2017. (SCI, Q3)
- A. S. Öğrenci, T. Arsan, "Transmitter source location estimation using crowd data," *Computers & Electrical Engineering*, ISSN0045-7906, Vo.:66, No:2, pp. 127-138, <https://doi.org/10.1016/j.compeleceng.2017.09.026>, 2018. (SCI-Exp, Q1)
- A.S. Öğrenci, O. Pekcan, S. Kara, A.H. Bilge, "Mathematical Characterization of Thermo-reversible Phase Transitions of Agarose Gels," *Journal of Macromolecular Science, Part B*, Vol:57, No:5, pp. 364-376, DOI:10.1080/00222348.2018.1463052, 2018. (SCI-Exp,Q1)
- A.H. Bilge, A.S. Öğrenci, O. Pekcan, "Mathematical Models For Phase Transitions In Biogels," *Modern Physics Letters B*, DOI: [10.1142/S0217984919501112](https://doi.org/10.1142/S0217984919501112) , 15.3.2019, 2019. (SCI, Q3)
- Y. Karadayi, M. N. Aydın, A. S. Öğrenci, "A Hybrid Deep Learning Framework for Unsupervised Anomaly Detection in Multivariate Spatio-Temporal Data," *Applied Sciences*, 2020, 10(15), 5191, <https://doi.org/10.3390/app10155191> - 28 Jul 2020, 2020. (SCI-Exp, Q1)
- Y. Karadayi, M. N. Aydın, A. S. Öğrenci, "Unsupervised Anomaly Detection in Multivariate Spatio-Temporal Data Using Deep Learning: Early Detection of COVID-19 Outbreak in Italy," *IEEE Access*, vol. 8, pp. 164155-164177, doi: 10.1109/ACCESS.2020.3022366 2020. (SCI-Exp, Q1)
- Gilik, A., Öğrenci, A.S. & Ozmen, A. Air quality prediction using CNN+LSTM-based hybrid deep learning architecture, *Environmental Science and Pollution Research*, 29, 11920–11938, 2022. (SCI-Exp, Q2)

## CONFERENCE PAPERS

- A.S. Öğrenci, S. Balkır, "Bezier function based waveform relaxation techniques for the simulation of MOS VLSI circuits," ESS'95: European Simulation Symposium, Erlangen, Germany, 1995.
- A.S. Öğrenci, G. Dünder, "SAFANN (Silicon Assembler For Analog Neural Networks)," TAINN'96: Turkish Artificial Intelligence and Neural Networks Symposium, Istanbul, Turkey, 1996.
- İ. Bayraktaroğlu, A.S. Öğrenci, G. Dünder, S. Balkır, E. Alpaydın, "On-Chip Training by Software for Analog Neural Networks Using ANNSyS," 6th NASA Symposium on VLSI Design, pp. 910-915, Albuquerque, USA, 1997. DOI: 10.1109/ICNN.1997.616146
- A.S. Öğrenci, G. Dünder, S. Balkır, E. Alpaydın, "Training of Multilayer Artificial Neural Networks with Nonlinear Multipliers in Analog Integrated Circuits," SIU'97: Sinyal İşleme ve Uygulamaları Konferansı, Kuşadası, Turkey, 1997. (in Turkish)
- I.G. Erten, A.S. Öğrenci, G. Dünder, "A Compaction Algorithm for SAFANN," Proceedings of the 6<sup>th</sup> Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN'97), pp. 311-316, Ankara, Turkey, 1997.
- İ. Bayraktaroğlu, A.S. Öğrenci, G. Dünder, S. Balkır, E. Alpaydın, "ANNSyS (An Analog Neural Network Synthesis System)", ICNN'97: IEEE International Conference on Neural Networks, Houston, USA, 1997.
- A.S. Öğrenci, M.R. Becer, G. Dünder, S. Balkır, "Incorporating MOS Transistor Mismatches into Training of Analog Neural Networks", NC'98: ICSC/IFAC Symposium on Neural Computation, Vienna, Austria, 1998.
- G. Coşgöl, A. S. Öğrenci, G. Dünder, "Neural Network Based CAD Tool for Modeling Manufacturing Variations in MOS Devices," Proceedings of the 8<sup>th</sup> Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN'99), pp. 202-209, Istanbul, Turkey, 1999.
- İ. C. Çevikbaş, A.S. Öğrenci, G. Dünder, S. Balkır, "VLSI Implementation of GRBF (Gaussian Radial Basis Function) Networks," ISCAS'2000 International Symposium on Circuits and Systems, Geneva, Switzerland, May 2000. DOI: 10.1109/ISCAS.2000.856143

- D. Albuz, A.S. Öğrenci, G. Dündar, "Using Sensitivity Analysis for Weight Quantization," Proceedings of the 9<sup>th</sup> Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN'2000), pp. 127-136, Izmir, Turkey, 2000.
- E. Karakuş, A.S. Öğrenci, G. Dündar, "Parameter Quantization Effects in Gaussian Potential Function Neural Networks," NNA2001 (2001 WSES International Conference on Neural Networks and Applications), Puerto de la Cruz, Spain, February 2001.
- T. Arsan, A.S. Öğrenci, İ.A. Yılmaz, "Kadir Has University Oracle Academic Initiative," AB'2001: Akademik Bilişim 2001, Samsun, Turkey, 1-2 February 2001. (in Turkish)
- A.S. Öğrenci, "System Level Requirements for Molecular Computing Architectures in Realizing Information Processing Systems", NATO-ASI, Molecular Electronics: Bio-sensor and Bio-computer, Pisa, Italy, 24 June - 4 July 2002.
- A. Bürümcek, A.S. Öğrenci, "Analysis of Square Root Function Design and Optimization in FPGAs," DSD2003 (EUROMICRO Symposium On Digital System Design), Antalya, Turkey, 1-6 Sept. 2003.
- A.S. Öğrenci, T. Arsan, T. Saydam, "An Open Software Architecture of Neural Networks: NeuroSoft," SEA2004 (IASTED Conference on Software Engineering and Applications), Boston, USA, 9-11 Nov. 2004.
- T. Arsan, A.S. Öğrenci, T. Saydam, "A Systems Software Architecture For Training Neural, Fuzzy Neural And Genetic Computational Intelligent Networks," WCCI2006 (*World Congress on Computational Intelligence*, 2006 International Joint Conference on Neural Networks), pp. 5275-5280, Vancouver, Canada, 16-21 July 2006. DOI: 10.1109/IJCNN.2006.247282
- A.S. Öğrenci, "Abstraction in FPGA Implementation of Neural Networks," *The 9th WSEAS International Conference on NEURAL NETWORKS (NN'08)*, Sofia, Bulgaria, May 2-4, 2008.
- A.S. Öğrenci, "Empirical results about efforts for effective teaching to y-generation freshman students," 11th International Conference on Information Technology Based Higher Education and Training (ITHET 2012), Istanbul, Turkey, 2012. DOI: 10.1109/ITHET.2012.6246043
- A.S. Öğrenci, "Complex event post processing for traffic accidents," 13th IEEE International Symposium on Computational Intelligence and Informatics (CINTI 2012), pp. 341-345, Budapest, Hungary, 2012. DOI: 10.1109/CINTI.2012.6496787
- A.S. Öğrenci, "Why do students prefer search engines over academic databases," 12th International Conference on Information Technology Based Higher Education and Training (ITHET 2013), pp. 1-3, Antalya, Turkey, 2013. DOI: 10.1109/ITHET.2013.6671054
- A.S. Öğrenci, "Collaborative Peer Assessment in a Blended Learning Environment," Immersive Education Europe Summit (iEDE 2013), London, UK, 2013.
- A.S. Öğrenci, Z. Erol "Disease Information System Based on Web Services," 2014 7th International Conference on Computer Science and Information Technology (ICCSIT 2014), Barcelona, Spain, 2014.
- A. S. Öğrenci, "How to Prevent Students Falling Down in a Flipped Classroom," The Future of Education, Florence, Italy, 2015.
- A. Yesilkaya, O. Karatalay, A.S. Ogrenci and E. Panayirci "Channel Estimation for Visible Light Communications Using Neural Networks," WCCI2016: IEEE World Congress on Computational Intelligence, pp. 320-325, Vancouver, 2016. 2016 International Joint Conference on Neural Networks (IJCNN) DOI: 10.1109/IJCNN.2016.7727215
- J. Dorner, S. Favrichon and A.S. Ogrenci, "Weight Exchange in Distributed Learning," WCCI2016: IEEE World Congress on Computational Intelligence, pp. 3081-3084, Vancouver, 2016. DOI: 10.1109/IJCNN.2016.7727591
- M. T. Altabba, T. Ayabakan, A. S. Ogrenci, "Fuzzy Logic for Decision Extraction from Product Reviews," International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017), Chennai, India, 1-2.8.2017.
- E. Cay, Y. Mert, A. Bahcetepe, B. K. Akyazi, A. S. Ogrenci, "Beacons for Indoor Positioning," Int. Conference on Engineering and Technology ICET17, Antalya, 21-23.8.2017
- O. Ulgen, A. S. Ogrenci, "Structured Learning Based Turkish Sentiment Analysis," ASYU2017 Innovations and Applications in Intelligent Systems, Alanya, 5-7.10.2017.
- A. S. Ogrenci, "Anomaly Detection in Walking Trajectory," 26. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SİU), İzmir, 2-5.5.2018.
- Arif Selçuk ÖĞRENCİ, Atilla ÖZMEN, Batuhan ALBAYRAK, Buket DARICI, Furkan KİRACI, Kerem ERTEZ, "Sickle Cell Anemia Detection," TIPTEKNO2018 Medical Technologies Conference, 8-10.11.2018, Kıbrıs
- Ayşenur Gilik, Batuhan Albayrak, Arif Selçuk Öğrenci, "Clustering of Countries using Computational Models," INTERNATIONAL CONFERENCE ON THEORETICAL AND APPLIED COMPUTER SCIENCE AND ENGINEERING 2018, 23-24.11.2018, Ankara.
- Mhd Tahsin Altabbaa, Arif Selcuk Ogrenci, Erdal Panayirci, and H. Vincent Poor, "Sparse Channel Estimation for Space-Time Block Coded OFDM-Based Underwater Acoustic Channels," 2018 IEEE Global Communications Conference (GLOBECOM), UAE, 2018.

### **ADMINISTRATIVE DUTIES:**

- Vice Dean, Faculty of Engineering and Natural Sciences, (Jul. 2015-Aug. 2019)
- Vice chairman, Dept. of Electronics Engineering (Nov. 1999 – June 2006)
- Member of the Executive Board, Faculty of Engineering (Nov. 1999 – Jun. 2012)
- Member of the Executive Board, School for Technical Vocational Studies (Nov. 1999 – Oct. 2002, Oct. 2006-Feb. 2010)
- Chairman of the Electronics-Communication Program, School for Technical Vocational Studies (Oct. 2002 – Oct. 2006)

### **MEMBERSHIPS in COMMITTEES:**

- Faculty of Engineering Transfer Students Committee (2000-2010)
- Scholarship Committee (2002-2009, 2016-2017)
- Faculty of Engineering ABET Accreditation Committee (2003-2004)
- Faculty of Engineering Diploma Committee (2003 - 2010)
- GE400 Engineering Design Project coordinator, Faculty of Engineering (2003 - 2006)
- Double Major Program Committee (representative of Faculty of Engineering) (2003-2010)
- Summer School Coordination Committee (2004-2019)
- Committee for the Coordination of EU 6th Framework Program Activities (representative of Faculty of Engineering) (2005-2006)
- Strategic Planning Committee (2005-2006) (Development of the first strategic plan: 2006-2011)
- ADEK (Academic Evaluation Committee) (representative of Faculty of Engineering / Engineering and Natural Sciences) (2006 - 2013)
- Blackboard Project (representative of Faculty of Engineering) (2007)
- EUA (European Universities Association) Self Evaluation Report Committee (2007)
- International Relations Committee (representative of Faculty of Engineering) (2007 - 2010)
- Promotion Coordination Committee (2010)
- Faculty of Engineering and Natural Sciences, Exchange Programs Course Transfer Committee Coordinator (2012-2019)
- Faculty of Engineering and Natural Sciences, Promotion Committee member (2012-2019), coordinator (2017-2019)

### **OTHER ADMINISTRATIVE-ACADEMIC DUTIES**

- OAI (Oracle Academic Initiative) administrator (Sept. 2000 - 2015)
- Local Cisco Networking Academy administrator (Oct. 2001 - 2012)
- Director of the BYS (Bilgi Yönetim Sistemi-Knowledge Management System) (Automation project for students-faculty-course information system) (2001 - 2015)
- Erasmus Program coordinator, Faculty of Engineering / Engineering and Natural Sciences (2004-2019)
- Erasmus Program department coordinator, Department of Electrical-Electronics Engineering (2004 - 2019)
- SAP SLCM (Student Life Cycle Management) Project Key User (Representative of Engineering and Natural Sciences) (July 2012- 2013)

### **CONDUCTED PROJECTS and BIDS:**

- BYS (Bilgi Yönetim Sistemi-Knowledge Management System) Project: Between January 2001 and September 2002, management of student records, grades and other academic affairs, along with

preparation of course listings and printing of transcripts, have been carried out by a database application in Access developed by myself. In May 2002, the second phase of the BYS project has been launched. The project aimed to model the “business”: the system analysis has been carried out by me. Then, further client-server and 3-tier applications have been developed for the processes such as student and course registrations, advisor approval, grade submission and student records’ investigation via internet. The applications have been developed using Oracle tools by the project team with two members, under my leadership. Currently, the system is still being developed incorporating new requests.

- Cibali Main Campus LAN (Local Area Network) Project: Feasibility study, preparation of the “Call for Tender”, examination of proposals, membership in the decision committee, supervision of the implementation, conduction of the acceptance tests. (Jun.- Oct. 2001)
- Cibali Main Campus infrastructure projects (computer laboratories, electronics laboratories, server systems, projection systems, laboratory furniture, software) Feasibility study, preparation of the “Call for Tender”, examination of proposals, membership in the decision committee, supervision of the implementation, conduction of the acceptance tests. (Mar.- Oct. 2001, jointly with another colleague)
- Bahçelievler Campus LAN (Local Area Network) Project and WAN (Wide Area Network) Project with the Gayrettepe Building: Feasibility study, preparation of the “Call for Tender”, examination of proposals, membership in the decision committee, contract with the Turkish Telecom, implementation, operation and maintenance (Sept.-Dec. 2000)
- Preparing parts of the University Promotional Catalogs related to the Engineering Faculty (2000, 2001, 2002), Faculty poster (2002) and multimedia for the promotion of the University (2002).

## **COURSES OFFERED:**

### **Kadir Has University**

Undergraduate: **Engineering Guide and Ethics, Electronic Circuit Components, Electronic Circuits, Electronic Circuits Laboratory I-II, Electronics Design Project, Design, Scientific Discoveries and Engineering, Computational Intelligence, Database Management Systems**, Software Engineering, Database Application Development, Calculus I-II, **Differential Equations**, Information Technology, Numerical Analysis, Advanced Digital Design, Computer Architecture, Bilgisayar Temelleri, Bilgisayarda Matematik Uygulamaları, Veri Tabanı Yönetim Sistemleri, Veri Tabanı Uygulama Geliştirme.

Graduate: Neural Networks and Fuzzy Systems, Advanced Computational Intelligence, **Special Topics in Electrical-Electronics Engineering: IoT; Research Methods, Research Methods and Scientific Ethics, Machine Learning and Business Applications**, Web Services, Business Intelligence and Data Warehouses, Application Development for SOA, Database Design and Management

### **Boğaziçi University**

Graduate: Advanced Digital Design Using Hardware Description Languages,  
Özyeğin University: Programming with PL/SQL (2016)

## **TECHNICAL TRAINING OFFERED:**

Mentor Graphics Design Tools (1995)

Oracle Academy Courses (Introduction to SQL and PL/SQL; Develop PL/SQL Programming Units; Advanced SQL; Advanced PL/SQL; SQL Tuning; Forms; Reports) (2003-2015)

Ethics, Engineering Ethics, Problem Solving (2015-...)

## **COMPUTER KNOWLEDGE:**

Microsoft: Microsoft Office (WORD, EXCEL, POWERPOINT, ACCESS, OUTLOOK, ONENOTE), SQL Server, SQL Server Management Studio, Visual Studio Code, Visio, Frontpage ve WINDOWS 3-10

Oracle: Oracle8i/10g/12c/19c, PL/SQL, Developer Suite, APEX, SQL Developer, TOAD

- SQL, PHP, C, Fortran, MPI
- Blackboard, Moodle, Canvas, Turnitin, Endnote, Zotero, LATEX,
- Zoom, BBB, GoTo Meeting, Skype, Teams
- VHDL, Electronics design: MENTOR GRAPHICS, Altera and Xilinx FPGA tools, ModelSim, HSPICE, MAGIC, L-Edit (Tanner Tools), ORCAD, BoardMaker, Electronics Workbench - Multisim, LAYO1, TINA-T, CircuitMaker.
- MATLAB, R, KNIME
- Python

#### **MEMBERSHIP:**

IEEE (1991-...): Senior member in the societies of Education and Computational Intelligence  
(Member of Administrative Committee in Turkey Section for 2010-2011)

MERLOT (2016-...) [www.merlot.org](http://www.merlot.org), Online Educational Resources, task force in Information Technology (IT)

BilTekDer (Information Technology Association) (2021- ...)

ECSI (1999-2008) (European Electronic Chips and Systems design Initiative)

Soft Computing Association (2001-2008)

#### **ACADEMIC/TECHNICAL SERVICES**

- Member of TPC (Technical Program Committee), IEEE Int. Conference on Ubiquitous Intelligence and Computing, UIC 2019, UIC 2020, UIC 2021
- Reviewer, IEEE Trans. on Very Large Scale Integration Systems
- Reviewer, IEEE Conference Signal Processing and Communication Applications
- Reviewer, DAC (Design Automation Conference)
- Reviewer, TÜBİTAK 1501-1505 Programs
- Reviewer, TÜBİTAK 1002-1003 Programs
- Reviewer, TÜBİTAK 2209 Program

**LANGUAGES:** Turkish (Native), English (fluent), German (fluent)

#### **ACTIVITIES:**

Turkish music choir, basketball, running, orienteering, gardening.

#### **PERSONAL INFORMATION:**

Date of birth: 22.5.1969

Nationality: Republic of Turkey

Married, two children, military service completed, non-smoker, Class-B driving license (1992)