

Dr. Selma ÖZAYDIN

**Cankaya University
Faculty of Engineering
Electronic & Communication Engineering**



Mailing Adress : Cankaya University, Engineering Faculty, Dept. of Electronics & Communication, Office-No:105, Eskisehir yolu, Yukariyurtcu mah, Mimar Sinan cd, No:4, 06790, Etimesgut-Ankara-TURKEY

Phone : +90 (312) 233 1331

e-mail : selmaozaydin@cankaya.edu.tr

EDUCATION

PhD : Gazi University, Department of Electrical and Electronics Engineering, *Implementation of a 1200 bps Low Bit Rate Speech Coder*, 2001

M.Sc : Gazi University, Department of Electrical and Electronics Engineering, *Implementation of a Computer Aided Authoring System*, 1993

B.Sc : Gazi University, Department of Electrical and Electronics Engineering, 1990

WORK & PROJECT EXPERIENCE

Çankaya University, Department of Electronics & Communication Engineering,

2016/02- Currently Employed as Faculty Member

Undersecretariat for Defence Industries, Ankara, Turkey,

2001/01-2016/04 Employed as Defense Industry Expert, (defence projects for the modernization requirements of Turkish Armed Forces),

participated in many national and international design projects within a close cooperation with national & international companies.

Nagoya University, CIAIR (Center of Integrated Acoustic Information Research) Research Center, Nagoya-Japan,

**2003/03-
2004/04**

Postdoctoral Visiting Researcher, has been at Itakura Laboratory with the invitation of Prof. Dr. Fumitada Itakura, (URL: <http://www.nagoya-u.ac.jp>), Research on speech recognition with a scholarship from Nagoya University, participated and get a scholarship in a project "Integrated Understanding of Multidimensional Acoustic Signals" (In this Project, a research has been made on speech recognition and noise estimation algorithms)

University of Surrey, Centre for Communication Systems Research (CCSR), Surrey-UK,

**1999/08-
1999/10**

Doctoral Visiting Research Associate, has been at CCSR research centre with the invitation of Prof. Dr. Ahmet Kondoç (URL: <http://www.ee.surrey.ac.uk/CCSR>), Research on speech coding & vector quantization techniques. Get a scholarship by Gazi University,

Baskent University, Department of Electrical and Electronics Engineering, Ankara, Turkey

**1997/09-
1999/08**

Doctoral Visiting Research Associate, participated in a Project called as "Low bit rate video and speech coding Project" supported by TUBITAK-UEKAE (Turkish Technology Research Council-Electronics and Cryptology Institute). (In this Project, a real time low bit rate speech & video coder is designed using C programming language and converted into assembly language to run on TMS320C30 DSP card)

Gazi University, Department of Electrical and Electronics Engineering, Ankara, Turkey

**1990-
2001**

Employed in full time position Research Assistant at Gazi University, (<http://www.mf.gazi.edu.tr>). During assistantship, has been participated in some Gazi University research fund projects

PROFESSIONAL SKILLS

Signal Processing, Speech Processing, Speech Coding, Speech recognition, Biometric Recognition, Noise Estimation, Vector Quantization, Filter Bank Theory, DSP processors and their assembly, Underwater Acoustics Systems, Wireless Communications, Software Defined Radio, Wireless Sensor Networks, Computer Architecture,

Project Management, Contract Management, Risk Management, Quality & Configuration Management, Military based Quality Standards

PUBLICATIONS

- **Ozaydin, S.**, “*A Complexity Reduction Method for Joint MSVQ*”, ISEIA2016, Accepted to be presented on 4rd International symposium on Engineering, Artificial Intelligence & Applications Technology & Science, Kyrenia-Cyprus, 2-4 November 2016
- **Ozaydin, S.**, “*Residual LSF Quantization using ARMA prediction*” ICAT2016, 3rd International conference on Advanced Technology & Science, Konya-Turkey, 1-3 September 2016
- **Ozaydin, S.**, “*Performance Improvement of Innovation Projects by Risk Management*” ISITES2015, 3rd International Symposium On Innovative Technologies In Engineering And Science, Universidad Politécnic de Valencia-Spain, 3-5 June 2015
- **Ozaydin, S.**, “*Wireless Sensor Networks Performance Factors and Defense Industry Applications*”, ASES-2010, 1. Avionics & System Integration Symposium, April, 2010
- **Ozaydin, S.**, “*Underwater sensor networks & applications*”, SAVTEK2010, Defence Technologies Conference, Ankara, Turkey, June, 2010
- **Ozaydin, S.**, “*evaluation of CWA test & evaluation criteria used in Mechanical mine clearance machines*”, SAVTEK2010, Defence Technologies Conference, Ankara, Turkey, June, 2010
- **Ozaydin, S.**, “*Application areas for Sonar systems and current situation in turkey and world in sonar production*”, SAVTEK2008, National Conference on Defence Technologies, Ankara, Turkey, June, 2008
- **Ozaydin, S.**, “*Sonar systems and local production*”, SAVTEK2008, Defence Technologies Conference, Ankara, Turkey, June, 2008
- **Ozaydin, S.**, “*Differences between military and commercial ship production and effects on procurement projects*”, SAVTEK2008, Defence Technologies Conference, Ankara, Turkey, June, 2008
- **Ozaydin, S.**, Baykal, B., “*Matrix quantization based linear predictive speech coding at very low bit rates*”, Speech Communication, Vol. 41, Issues 2-3, pp:381-392, Oct. 2003 (cited 20 times)
- **Ozaydin, S.**, Baykal, B., “*A 1200 bps speech coder with LSF matrix quantization*”, ICASSP2001, proceedings, IEEE International conference on acoustics speech and signal processing”, Utah, USA, May 2001 (cited 11 times)
- **Ozaydin, S.**, Baykal, B., “*Matrix quantization based speech coder at 1200 bps*”, ISCAS2001, proceedings, IEEE International symposium on circuits and systems, Sydney, Australia, May 2001
- **Ozaydin, S.**, Baykal, B., “*Multi stage matrix quantization for very low bit rate speech coding*”, SPAWC2001, proceedings, IEEE signal processing workshop on signal processing advances in wireless communications”, Taoyuan, Taiwan, March 2001 (cited 5 times)
- **Ozaydin, S.**, Bozdagi, G., “*Tree-structured subband coding of speech with two different filter bank*”, ELECO'99, proceedings, International Conference on Electrical and Electronics Engineering, Bursa, Turkey, Dec. 1999

- **Ozaydin, S.,** Baykal, B., “*A 1200 bps matrix quantization based speech coder*”, SIU2001, 9th National Signal Processing and Applications Congress, Cyprus, Apr. 2001
- **Ozaydin, S.,** Baykal, B., “*A multi stage matrix quantization method for low bit rate speech coding*”, SIU2001, 9th National Signal Processing and Applications Congress, Cyprus, Apr. 2001
- **Ozaydin, S.,** Baykal, B., “*Reduction of distortion and memory in Multi Stage Vector Quantization*”, SIU2000, 8th National Symp. on Signal Processing and Applications, Antalya, Turkey, June 2000
- **Ozaydin, S.,** Yuncu, S., “*A graphical based authoring system in computer aided education*”, 6th National Congress of Electrical Engineers, Bursa, Turkey, Sept. 1995
- **Ozaydin, S.,** Yuncu, S., “*Design of a Graphic based software packet*”, 5th National Congress of Electrical Engineers, Trabzon, Turkey, 1993

CONFERENCES ATTENDED

- 6-Sigma in Total Quality Management, Antalya, 2012
- DSP in Cars, Nagoya University, Nagoya, Japan, Apr. 2003
- Technology Seminars in Bilişim summit 2001, Bilişim’01, İstanbul, Turkey, Sep. 2001
- 7th National Signal Processing and Applications Congress, SIU99, Ankara , Apr. 1999
- 6th National Signal Processing and Applications Congress, SIU98, Ankara , Apr. 1998
- Computer and Technology Seminar, Bilisim’95, İstanbul, September, 1995

TEACHING EXPERIENCE

2016- Fall

2017 Assistant Professor, ECE109, Computational tools for Electronci and communication Engineering, Çankaya University, (URL: <http://ece109.cankaya.edu.tr>), Student num: 80

**2016- Fall
2017**

Assistant Professor, ECE265, numerical methods in Electronic and communication Engineering, Çankaya University, URL: <http://ece265.cankaya.edu.tr>), Student num: 70

**2016- Fall
2017**

Assistant Professor, ECE426, Filter Design, Çankaya University, URL: <http://ece426.cankaya.edu.tr>), Student num: 55

2015- Fall

Assistant Professor, ECE 246 – Fundamentals of Electronics, Çankaya University, (URL: <http://ece246.cankaya.edu.tr>), Student num: 126

2016

Part Time Instructor, MECE 305 - Digital Systems, Atilim University, (URL,

**2005- Sprng
2006**

<http://mechatronics.atilim.edu.tr/academicprograms/courseList/id/17?lang=en>)

Fall

2010-2011 **Fall** Part Time Instructor, EE 303 - Signals & Systems, Atilim University, (URL, <http://eee.atilim.edu.tr/academicprograms/courseList/id/30?lang=en>): 90

COMPUTER SW/HW SKILLS

Programming Languages : C++, Pascal, Fortran, Assembly Languages (Motorola 680x, Intel 8085, TMS320Cx floating point DSP processor and its assembly)

Operating Systems : Linux, Windows

Software Packages : Matlab, Sphinx, HTK toolkit

FORIGN LANGUAGE : English (Professional), German (little)

AWARDS AND ACHIEVEMENTS

2003 – 2004 : Postdoctoral visiting researcher scholarship, funded by Nagoya University, Nagoya, Japan (1 year)

1997 – 1999 : researcher, funded by Başkent University in a project called “Development of a low bit rate vocoder and videophone” (2 years)

1999 : Doctoral visiting researcher scholarship, funded by Gazi University for a visiting researcher in Universtiy of surrey, UK (2 months)

2006 – 2008 : 6 different certificate of achievements from Undersecretariat for Defence Industries (SSM) due to the contributions to the some projects

SPECIAL COURSES & CERTIFICATES

- TMS320C80 Microprocessor Workshop
- Material Technologies
- Electronic Warfare & Technologies
- Modul 4: Military EMI/EMC Standards
- KU-Band Satallite System Training Course
- US DoD Risk Management Traning Course
- Statistical Data Analysis by SPSS Packet Program
- Preperation of Technical Specification Document
- Configuration Management
- Risk Management
- Project Management
- Performance Management
- Certificate of Project Leader
- Coding Activities
- Procurement of Good and Services

- Applied Course on Electronic Signature
- Security of knowledge and communication
- Knowledge security notes
- Effects of new technologies on information systems
- Sertificate of honorary submarine personnel (after a diving to 300m)
- New trends in Defence Industry in Turkey and World
- A course on Human- Instution-Motivation
- Basic Quality Terms
- Effective Presentation Techniques
- Increasing the negotiation Performance
- Strategic Management
- Management of Time and Meeting
- Stress Management
- Innovative Thinking, Problem solving problems and making decisions
- Conflict Management