

Esra ŞENGÜN ERMEYDAN

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Personal Details

Birth	February 2, 1984
Address	Ayvali Mah. Takdir Cad. 150.Sok. No:5 Etlik Kecioren 06010 Ankara, Turkey
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Professional Experience

Sep. 2020–present	Assistant Professor ANKARA YILDIRIM BEYAZIT UNIVERSITY, Ankara Turkey Department of Electrical and Electronics Engineering
Feb. 2014- Sep. 2020	Research and Teaching Assistant ANKARA YILDIRIM BEYAZIT UNIVERSITY, Ankara Turkey Department of Electrical and Electronics Engineering
Nov. 2007- Feb. 2013	Researcher TUBITAK BILGEM ILTAREN Şehit Yzb.İlhan Tan Kislasi Umtkoy-Ankara /Turkey Radar Signal Processing, Electronic Countermeasure (ECM)
Jul. 2006- Aug. 2006	Research Intern Advanced Microelectronic and Optoelectronic Center Otto-Blumental-Strasse 25 52074 Aachen /Germany Development of Graphene based devices
Sep. 2005– May 2006	Undergraduate Teaching Assistant İhsan Dogramaci Bilkent University, Ankara Turkey Department of Electrical and Electronics Engineering
Aug. 2005- Sep. 2005	Intern ASELSAN Mehmet Akif Ersoy Mahallesi 296. Cadde No: 16, 06370 Yenimahalle-Ankara, Turkey Communications Systems Department

Education

2014–2019	PhD. Department of Electronics and Communication Engineering ANKARA YILDIRIM BEYAZIT UNIVERSITY (AYBU), Ankara Turkey Thesis title: Single Pixel Imaging at Sub-THz Frequencies Based on Compressed Sensing Supervisor: Prof.Dr. Ilyas Cankaya CGPA: 3.9
2007–2010	MSc in Department of Electrical and Electronics Engineering Middle East Technical University (METU), Ankara Turkey Thesis title: Detection and Tracking of Dim Signals for Underwater Applications Supervisor: Prof.Dr. Mubeccel Demirekler CGPA: 3.7
2002–2007	BSc in Department of Electrical and Electronics Engineering Ihsan Dogramaci Bilkent University, Ankara Turkey Thesis title: Model Based and Experimental Investigation of the Heart Rate Response to Inspiratory Hold Supervisor: Prof.Dr. Yusuf Ziya Ider CGPA: 3.9

Projects Involved and Research Interests

Sep. 2018–Sep. 2019	Project Name: Modelling, Simulations and Experimental Studies of Compressing of Pathology Images with Compressed Sensing Project Budget: 21.970 TL, funded by AYBU Research Office Position: Researcher
March 2016– Nov.2016	Project Name: Imaging at TeraHertz Band using Compressive Sensing Techniques Project Budget: 22.030 TL, funded by AYBU Research Office Position: Researcher
2009–2013	Studies about Radar Signal Processing and ECM techniques for defence purposes
2008–2009	Basic Electronic Support System Design and Implementation on FPGA card.
2007–2008	Studies about Travelling Wave Tubes and Serrodyning Techniques

Languages

Turkish	Mother tongue
English	Fluent
German	Beginner
Spanish	Beginner

Software

MATLAB, L^AT_EX, C++, VHDL, MS OFFICE, XILINX

Publications

- 2020 E. S. Ermeýdan, A. Deęirmenci, I. Cankaya, and F. Erdoęan. The effects of measurement matrix and reconstruction algorithms on compressed sensing of pathology images. *Düzce Üniversitesi Bilim ve Teknoloji Dergisi*, 8:880–890, 2020
- 2019 E. S. Ermeýdan, I. Cankaya, and A.B. Sahin. Super-resolution algorithm applied to images acquired at millimeter wave frequency in single pixel and computational ghost imaging configurations. *Journal of Electromagnetic Waves and Applications*, pages 2328–2340, 2019
- 2018 E. S. Ermeýdan, M. Mete, A. Degirmenci, A.B. Sahin, and I. Cankaya. Effects of reconstruction algorithms on imaging in millimeter wave transmission system based on compressed sensing. In *3rd International Conference on Engineering Technology and Applied Sciences Congress (ICETAS)*, 2018
- 2018 E. S. Ermeýdan, M. Mete, A.B. Sahin, H. Altan, and I. Cankaya. Millimeter-wave imaging with compressed sensing: Effects of modulation frequency and data type. In *2018 26th Signal Processing and Communications Applications Conference (SIU)*, 2018
- 2018 U. Alkus, E. S. Ermeýdan, A. B. Sahin, I. Cankaya, and H. Altan. Enhancing the image resolution in a single-pixel sub-thz imaging system based on compressed sensing. *Optical Engineering*, 57:57 – 57 – 7, 2018
- 2017 E. S. Ermeýdan and I. Cankaya. Sparse fast fourier transform for exactly sparse signals and signals with additive gaussian noise. *Signal, Image and Video Processing*, 2017
- 2017 E. S. Ermeýdan and I. Cankaya. Compressed sensing with cyclic-s hadamard matrix for terahertz imaging applications. In *IECMSA 2017 6TH INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS*, 2017
- 2017 U. Alkus, E. S. Ermeýdan, A. B. Sahin, I. Cankaya, and H. Altan. Super-resolution image reconstruction applied to an active millimeter wave imaging system based on compressive sensing. In *SPIE Security + Defence and Remote Sensing 2017 Warsaw*, 2017
- 2015 E. S. Ermeýdan and I. Cankaya. Compressive sensing of sparse signals and mr images. *International Journal of Scientific Research in Information Systems and Engineering (IJSRISE)*, 1(2), 2015
- 2007 E. Sengun and Y. Z. Ider. Model based and experimental investigation of the heart rate response to inspiratory hold. In *2007 IEEE 15th Signal Processing and Communications Applications*, pages 1–4, June 2007

Honors, Awards, and Academic Activities

Full scholarship awarded by Bilkent University during undergraduate education.

Certificate of High Honor from Bilkent University in all semesters.

Ranked 80th over 1.2 million candidates of the nationwide university entrance examination of Turkey in 2002.

Full scholarship awarded for a B.Sc. degree in the US awarded by Turkish Ministry of Education in 2002 (declined).