# ARIF SALIH OZMEN (Undergraduate)

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My undergraduate program at Hacettepe University, Department of Electrical and Electronics Engineering has been started in 2013 without studying the preparatory class. I was completed my undergraduate education in June 2017. I am always in a constant effort to constantly improve myself in my career and social life.

I have the ability to quickly understand, assimilate and implement programming languages. I am interested in the fields of Embedded Systems, Digital Signal Processing, Control Systems and Defense Industry. I am motivated to work on these fields.

Within the my University graduation project, I was worked on hardware and software developments in the study titled "Distant Temperature Measurement for Detecting Sleep Apnea Episodes" conducted by Prof. Dr. Atila YILMAZ and Res. Asist. Tuna ORHANLI. I am 6 month engineer. During this short time interval, I have found an opportunity to work under the System Engineering department. So, I am aware all steps of project process eye from System Engineering. Also, I have detailed knowledge about System testing and integration processes.

As a person who has a good relationship with people, is in harmony with social groups. I am sure that I can be a member of team works, also can manage and follow project processes and groups. I am confident that I will be able to carry out the necessary research on my field of study and to carry out the assigned tasks in the perfect way.

#### **EXPERIENCES**

- 09.2017-12.2017 USTUNOVA Engineering, Research and Development
- ✓ System Engineer, Electronic Warfare Systems
- 07.2016-09.2016 BITES Defense & Aerospace Technologies Inc.
- ✓ Intern Engineer
- 08.2012-08.2013 Isıklar Military Air Force High School Commandary
- ✓ Operation Officer in the School Executive Board

# **EDUCATION**

- 09.2017- MSc, Electrical and Electronics Engineering, Hacettepe University, Ankara, Turkey
- 09.2013-06.2017 BSc, Electrical and Electronics Engineering, Hacettepe University, Ankara, Turkey
- 09.2012-06.2013 BSc, Physics, Bogazici University, Istanbul, Turkey
- 09.2008-07.2012 High School, Isıklar Military Air Force High School, Bursa, Turkey

# **LANGUAGES**

Turkish (Mother Language)

• English (Writing: Intermediate/Reading: Upper-Intermediate/Listening: Upper-Intermediate)

<u>Exam Grade:</u> YOKDIL – 86.250 (Result Announcement Date: 24.03.2017)

#### **PROJECTS**

- Full Wave Rectifier (Spring Term 2014)
  - ✓ Within the scope of "ELE214 Electronic Laboratory I" course, a full wave rectifier circuit was designed and the circuit was turned into a printed board circuit.
- FM Demodulator Band Pass Filter (Fall Term 2015)
  - ✓ Within the scope of "ELE313 Electronics Laboratory II" course, band pass filter which is part of analog remote control car project was designed and the circuit was turned into a printed board circuit.
- Communication System Design and Simulation (Spring Term 2016)
  - ✓ Within the scope of "ELE326 Communication Theory Laboratory I", an analog communication system working on a noisy channel was designed, simulated via MATLAB and examined the effect of channel noise on different modulation types.
- LANGBOX (Internship Semester 2016)
  - ✓ Throughout the internship period, a language education device was designed and implemented by using Raspberry Pi 3, thermal printer, GSM Module, Touchscreen and Analog inputs. This device allows for remote text update via FTP server, by choosing touch and analog inputs it gives short English to Turkish story translation on different levels via thermal printer.
- Security System (Fall Term 2016)
  - ✓ Within the scope of the "ELE417 Embedded Systems Design" course semester project, a device for theft detection was designed and implemented. MSP430 microcontroller was communicated using the I2C and UART protocol with the Thermal sensor and Bluetooth module respectively. The temperature change in the environment was continuously monitored through the thermal sensor and it was determined whether there was a person or not, and if the person was detected in the environment, a warning message was sent to the mobile phone via Bluetooth module. \*Click for video link\*
- Digital Piano (Spring Term 2017)
  - ✓ Within the scope of "ELE432 Advanced Digital Design" course semester project, a Digital Piano was designed and implemented. By using Altera DE1-SoC FPGA Development board, a note input taken via PS/2 keyboard. Appropriate frequency sound signal was generated with respect to input note via FPGA. Generated sound signal taken as an output via speaker and also pressed note position on the piano was visualized by VGA screen. \*Click for video link\*
- Detection of Sleep Apnea Episodes (Graduation Project)
  - ✓ Within the scope of the Graduation Project, I was worked on hardware and software developments in the study titled "Distant Temperature Measurement for Detecting Sleep Apnea Episodes" conducted by Assoc. Dr. Atila YILMAZ and Res. Asist. Tuna ORHANLI.
    - A sleep test platform was designed and implemented in order to diagnose Sleep Apnea disease without patient intervention. Sleep interruption for at least 10 seconds during sleep is defined as sleep apnea. For this reason, it was aimed to detect the time intervals where the breathing was stopped by observing

temperature changes in the breath signal, assuming that the respiratory arrest would have a direct effect on the temperature change in the mouth region. The system was intended to be able to follow the breath during the sleeping period. For this purpose, a sleeping circle was designed to track breath signal weather patient's breathing directions changes during sleep. The breath signal effects temperature on the surface of the sleeping circle. These temperature changes on the sleeping circle were continuously monitored and recorded via thermal sensors. After that, applying the developed Sleep Apnea detection algorithm to the recorded breath signals, it was determined whether the breath was interrupted during sleep.

## AREAS OF INTEREST

- Embedded Systems
- Biomedical Systems
- Operating Systems
- Signal Processing
- Aviation & Aerospace
- Elektronik Harp Sistemleri

#### PROGRAMMING SKILLS

- MATLAB
- VHDL
- C++

## **OTHER SKILLS**

- Proteus
- CCS
- Emu8086
- FPGA
- MSP430
- Raspberry Pi
- Arduino
- Microsoft Word, Excel, PowerPoint

# **HONORS & AWARDS**

- Isiklar Military Air Force High School Commandary, June, 2010,2011
  - ✓ Military Schools Table Tennis Tournament, Teams First Place
- Isıklar Military Air Force High School 2nd Squadron Commandary, July, 2009
  - ✓ High Performance and Devotion
  - ✓ Sense of Responsibility and Sense of Duty

#### **CERTIFICATIONS**

- SOLOLEARN, January, 2018
  - ✓ C++ Tutorial Course
- SOLOLEARN, January, 2018
  - ✓ <u>C# Tutorial Course</u>
- SOLOLEARN, January, 2018
  - ✓ <u>HTML Fundamentals Course</u>
- SOLOLEARN, January, 2018
  - ✓ CSS Fundamentals Course
- Turkish Aeronautical Association, November, 2011
  - ✓ Glider and Flight Training
- Traffic Inspection Department, December, 2006
  - ✓ School Gateway Officer

#### **LICENCES**

• Driver License, 2012(B)

# **HOBBIES**

- Table Tennis ( Semi-Professional)
- Swimming
- Football
- Aviation

#### REFERENCES

- Prof. Atila YILMAZ
  - ✓ Hacettepe University Electrical and Electronics Engineering
    - Circuits and Systems Division Chair
    - Faculty Member
  - ✓ Hacettepe University Computer Center Director

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- Res. Asist. Tuna ORHANLI
  - ✓ Hacettepe University Electrical and Electronics Engineering
    - Research Assistant

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