PERSONAL INFORMATION

Name FATİH ALPARSLAN
Date of Birth 1993
Marital Status Single
Military Service Done

CONTACT INFORMATION

Address: Gülhabar Mahallesi Şişli/İstanbul
Phone Number: 05414173569
E-mail: falparslaniletisim@gmail.com
Website: fatihalparslann.wordpress.com
LinkedIn: Fatihalparslan

EDUCATION

- **UNIVERSITY** **Karadeniz Teknik Üniversitesi – Trabzon**
  Electrical-Electronical Engineering 2014 – June 2018
  Graduating GPA: 3.42/4

PROFESSIONAL EXPERIENCE

- **Medron Teknoloji 04/2019-Şuan**
  Position: Embedded Systems Engineer
  Job Description: develop embedded software for IoT products like a gateway with BLE and Wi-Fi interfaces, a bracelet that tracks step number, activity temperature and pulse data

- **Argenom Elektronik Yazılım 19/10/2018-3/01/2018**
  Position: Electrical-Electronical Engineer
  Job Description: Development of mobile applications, development of embedded systems for IoT devices and other company devices, database monitoring and management.

- **Elektrikport.com 2014-2017**
  Position: Technology author
  Job Description: Writing articles in the field of Electrical-Electronical Engineering

TRT TRABZON BRANCH 06/2016-08/2016

Position: Intern**, Job Description:** Working in the field of communications systems.

GMF MÜHENDİSLİK VE OTOMASYON 07/2017-08/2017

Position: Intern**, Job Description:** Worked on electrical installation projects, project design and reports.

FOREIGN LANGUAGES

ENGLISH Reading: Very good, Writing: Very good, Speaking: Good

PROJECTS AND ACTIVITIES

- KTU Microsoft Tech Tour-April 2016, Position: Organizer
- KTU Microsoft Azure Day-December 2015, Position: Organizer
- KTÜ AR-GE Club Electronics Team Member2017-2018, Quadrupedal Robotic Project
  In this project, I designed a four-legged robot that can be used in the fields of agriculture and defense. But after the electronic design, due to lack of resources, the project was abandoned midway.
- Child Lock System based on Capacitive Sensors (Graduation project supported by TUBİTAK 2209B)

  In this project, based on the change of fluid and substance amount in the human body that changes with age, an idea has been put forward that these changes will cause a change in the finger ability of the person. It has been observed that the finger ability of the subjects using capacitive sensors is different in children and adults. As a result of the classification of the obtained values, a lock that classify people with upper limit capacity as adults and those with lower limits as children was designed. People with intermediate values are redirected to a second finger test.

- Monitoring Bracelet (Medron Teknoloji)
  In this project, the bracelet designed for patient monitoring tracks and transmits the patient's steps number, activity detail, body temperature and pulse data.
- Forklift Security System (Medron Teknoloji)
  In this project, rss values are used to prevent forklifts from getting close to each other beyond safety distances.
- Employee monitoring device (Medron Teknoloji)
  With the use of wireless technology, employees' motion status, fall or need to press the help button are transmitted to the gateway by the device.

PROFESSIONAL COMPETENCES

- Software Reverse Engineering: Analyzing software outputs to figure out the system and its inputs for possible re-creation.
- IoT, M2M and Remote-Control Systems Design & Application Development.
- Smart Home Ecosystem Development.
- Realtime indoor positioning systems and algorithms (IPS, RTLS)
- Product Development: Building scenarios and planning, Turning ideas into products.
- Version Control Supervision: GIT, VisualSVN.
- Network Systems and Management.
- Computer Maintenance: Software and Hardware.

"FOTA" AKA "File Over The Air" is a project to make sure all the company`s IoT devices are controlled remotely and can be updated (Firmware Update) quickly, efficiently and securely

- Created and Executed Android application for controlling Things using the Internet, Wi-Fi Lan, Blueooth, Radio Frequency or Infrared:

- "SmartHome" is a project allows its users to control their homes using their smartphones with Wi-Fi, Radio Frequency and Infrared Technologies, such as air conditioning, combi boiler, DVD player, tv, lights, etc...
  - "NodeMCU ESP8266 MQTT Protocol Integration" Implemented and Tested the MQTT protocol between ESP8266 Chip and NodeJS server to prepare the Company's gateways/sniffers to support this protocol.
  - "NodeMCU ESP8266 Wi-Fi Indoor Positioning "Implemented an algorithm that will detect indoor location using Wi-Fi Technology in NodeMCU after doing data training and using MQTT protocol to sync data instantly with server.

1. **Effective use of Microsoft Word, Power Point, Excel programs**

2. **C Programming language**: first started learning C language in programming course during 1st year at university. Further developed that knowledge over the years while using microcontrollers and doing simulations with the C language.

3. **Python Programming language: good level**
   MATLAB & Simulink: good level

4. **Use of MSP430 and Assembly Programming** (in IAR Program)

5. Write programs for STM32 microcontrollers by use of the HAL libraries in the STM32Cube IDE.

6. Gained experience in the use of C language along with STM32F407VG in the Keil Vision 5 program.

7. Programming of PIC16F and PIC18F microcontrollers while using CCS C IDE. These microcontrollers were used in following ways:
   -Servo motor, step motor, bldc motors control with PIC microcontroller
   -Use of LCD and TFT screens
   -Realized projects with I2C, UART and SPI protocols used as base.
   -USB HID applications.

8. **Use of Raspberry pi 3, Arduino Development Boards**:
   - Developed a web server application for the control of step and servo motor with the Raspberry pi 3 development board.
   - Developed applications for the use of capacitive sensors, step, servo, bldc motors with the Arduino development board.
   - Did a project for the control of servo motor through the Arduino development board with the use of MATLAB and Arduino IO.

9. **Use of Proteus, Multisim Programs**: I have used both programs in combination with microcontrollers or only analog electronic elements to run simulations to analyze frequency, power, voltage and current. In this spirit, more than 100 projects were developed.

10. **PCB design on Proteus/ARES programs**:

    - For the need of my graduation project, I designed 4 PCBs for the AD7746 integrated and 21 PCBs for the MPR121 integrated.
    - 7805 converter circuit
    - designed a motor controller circuit for the L298 integrated.

11. **Programming of Wi-Fi module ESP8266 with Lua and C languages** (intermediate level): while working in Argenom company, I used Lua language on ESPlorer IDE and C language on Arduino IDE to develop software that ensure mobile device communication using UDP, TCP and MQTT protocols. Using these along with the serial data of the devices produced by the company, I designed a software transferring that data to a local web server with http protocol.
12. **Altium Designer** (basic level): project creation on Altium designer, addition of library, creation of schematics for microcontrollers or analog circuits and I also gained experience in designing PCBs using PIC and STM32F4 as basis. I keep improving myself every day on this matter.
13. **Programming of NRF51/52 microcontrollers**
    I have developed applications DFU OTA connectable and working on the central mode with these microcontrollers having BLE interface peripheral. I developed applications and libraries for these microcontrollers by using the following protocols:
    -TWI(I2C)
    -USART
    -1Wire
    -SPI
    -LPWM

HOBBIES AND SOCIAL ACTIVITIES

Chess, outdoor walks, blog writing, watch theatre plays

REFERENCES

Name: Cüneyt YILMAZ-**Organization:** GMF Mühendislik ve Otomasyon/ **Phone:** 05412108004/**Relationship**: Employer

Name: Doç. Dr. Gökçe Hacıoğlu- **Organization:** KTÜ Electrical-Electronical Engineering Dept./**E-mail:** gokcehacıoglu@ktu.edu.tr **Relationship**: Graduation project consultant

AWARDS

1st prize with Honorable Mention at the 2018 KTÜ TTO Project Fair: This award was obtained with the “Child Lock System based on Capacitive Sensors” project.