

TUGAY ARSLAN

Çankaya, Ankara, TURKEY

E-mail: info@tugayarslan.com

Web site: www.tugayarslan.com

EU Blue Card: <https://www.apply.eu/share/22gt0>

LinkedIn: <https://tr.linkedin.com/in/tugayarslan>

EDUCATION

Hacettepe University, Ankara, TURKEY 2017-

Degree: Master of Science in Computer Science (Bologna Process)

Hacettepe University, Ankara, TURKEY 2009-2014

Degree: Bachelor of Science (One year English language education + Four years EEE education in English) in Electrical and Electronics Engineering (Bologna Process - ABET Accredited)

MEV College Guzelbahce Private Science High School, Izmir, TURKEY 2005-2009

WORK EXPERIENCE

Senior Electronics System Design Engineer, Team Leader at System Development Team, MikroSens Electronics, Ankara, Turkey (2014 – present)

Mikrosens makes thermal cameras with all parts such as sensors, electronics and software. Also Mikrosens is the one of three companies in the world which can produce low cost mini LWIR sensors and cameras.

- Leading to design, production and development of cameras, test systems, camera cores and software
- Creating innovative and low-cost solutions for customer and market needs
- Leading to Technical Contributions and Responsible of HW/SW and System Design of Mikrosens LWIR Module in SEERS (Snapshot Spectral Imager for IR Surveillance) - European Union's Horizon 2020 research and innovation programme
- Designing desktop usb cameras, android thermal camera and camera cores
- Designing mixed signal pcbs, rigid-flex pcbs for cameras and systems (Dewar, Probe Station, Other test systems)
- Firmware development of cameras and systems (Fpga and Cortex-M4/M0)
- Software development of cameras and systems (C++/C#.NET, Python)
- Development of web based camera/wafer management system and test system
- Cross-Compiling ARM Cortex-A series with OpenCV
- Development of Cross Platform and multi camera compatible C++ API
- Development of Android, Ios mobile application for Mikrosens Cameras

Backend Developer and Linux System Administrator (Entrepreneur) at Ulepus, Ankara, Turkey (2015 – 2017)

- Designing RESTful Api for Child Smart Watch
- Responsible/Head of all web based projects in Ulepus

Electronics Laboratory Student Assistant at Electrical and Electronics Engineering, Hacettepe University, Ankara, Turkey (2012 - 2014)

- Measurements Laboratory and Electronics Laboratory 1 lectures

Intern at ASELSAN, Ankara, Turkey (Summer 2013)

In the year 2013, ASELSAN has continued its climb for the aim of being one of the top 50 defense companies, and ranked 74th according to annual sales. And also ASELSAN is the biggest defense company in Turkey.

- Test and calibration of 9 DOF IMU.
- Design of UART module with VHDL for Altera FPGA
- Research about Sensor Fusion, Kalman filter and Control Algorithms

Intern at BAYKAR, Istanbul, Turkey (Summer 2012)

Baykar is the one of the biggest and successful UAV Company in Turkey. And also Turkish armed forces have ~200 Bayraktar mini UAVs, ~8 Malazgirt mini VTOL UAVs and ~10 Bayraktar tactical UAVs.

- Software development on TI Tms570 Hercules development kit (ARM Cortex-R)
- Design and test of desktop software for radar altimeter with C#.NET
- Design of system engineering tool for excel documents with C#.NET
- Design control application of Maxon motor drivers and Maxon motors

HONORS AND AWARDS

First Prize with Mini UAV Project – Hacettepe University EEE's Senior Design Project Competition 2014 – www.tugayarslan.com/TugayArslan-hun2.pdf

First Prize with Mini UAV Project – Hacettepe University Faculty of Engineering's Senior Design Project Competition 2014 – www.tugayarslan.com/TugayArslan-hun1.pdf

First Runner-up in Innovative Category with Mini UAV Project –Middle East Technical University Robotics Days (UORG) 2014 – www.tugayarslan.com/TugayArslan-uorg.pdf

First Runner-up in Innovative Category with Mini UAV Project - Istanbul Technical University Robotic Olympics (ITURO) 2012 – www.tugayarslan.com/TugayArslan-ituto.pdf

%100 Academic Scholarship - MEV College Guzelbahce Private Science High School

Sponsorship for Graduate Thesis – Hacettepe University EEE by Empa Electronics

LEADERSHIP ACTIVITIES AND INTERESTS

Member of AdaPilot Team (2016 - 2017)

Member of Hacettepe Formula Student Team (2015 - 2016)

Mentor and 3D Printer Sponsor of Hacettepe Robotics Society (2014 - 2017)

Member of Hacettepe Hydrogen Car and Electric Car Team (2014 - 2015)

President of Hacettepe Robotics Society (2012 - 2013)

Vice President of Hacettepe Robotics Society (2010 - 2012)

SKILLS

Web: Html5, Php, JavaScript, Css3, MySQL, Laravel 5, Apache, Nginx, Ajax, jQuery

Programming: C/C++, C#.NET, Java, Python, VHDL, LabVIEW, Matlab

CAM/CAD & Sim Tools: Altium Designer, Autodesk Inventor, SolidWorks, ModelSim, Unity Game Engine

Compilers and IDEs: CodeBlocks, PhpStorm, Visual Studio, Arduino IDE, NetBeans IDE, Keil MDK, Code Composer Studio, Eclipse IDE, Xilinx ISE Design Suite, Android Studio, Emacs

Operating Systems: Linux (mostly Debian based), Windows, iOS, Android, Embedded Linux

MPUs & MCUs: Microchip PIC, Atmel Atmega, STM32, TI TMS570, TI MSP430, NXP LPC43xx, Intel 8086

Experienced/Interested Fields and Technologies: 3D Printers, CNC Machines, UAVs, Robotics, Electric Cars, Internet of Things, Embedded Systems, FPGAs, Web design, Image processing, Wearables, High-speed mixed signal PCBs design, Game design, Git, RESTful API, Cross-compiling, Artificial Intelligence, Deep Learning, Software Development, Version Control, Inventory Management, Product Design/Production/Development

Trilingual: full professional in English, beginner in German

GRE Quantitative Reasoning Score: 163/170 (ALES Equivalent: 94/100)

PROJECTS

Software and Electronics Designer at Ford Anadol Electric Car Project for Tubitak Elektromobil Races 2014, Hacettepe Electric Car Team, and Ankara, Turkey

- Design of telemetry system, battery management system for li-ion batteries and navigation system, embedded road mapping and driving support system

Software and Electronics Designer at Hacettepe Hydrogen Car Project for Shell Eco-marathon Europe 2014, Hacettepe Hydrogen Car Team, and Rotterdam, Netherlands

Shell Eco-marathon is a unique competition that challenges students to design, build and drive the most energy-efficient car. At three events around the world hundreds of team compete to travel the furthest on the least amount of energy.

- Design of telemetry system and smart cruise control system

Pilot, Software and Electronics Designer at Mini UAV graduation project, Hacettepe University EEE, Ankara, Turkey

- Design of ground station system which includes software and hardware development
- Hardware and Software design of stm32f4 based auto-pilot
- Hardware and Software design of atmega328 based 9 DOF AHRS
- Algorithm development of INS
- Firmware and communication algorithm development of high range telemetry system

Other Hobby and Undergraduate Projects

- Design of Php based e-commerce website (Ajax, Json and jQuery are also used)
- Design of online homework system and e-mail system for Hacettepe robotics society
- Design and production of MCU controlled buck-boost converter
- Design and production of 3 Input LSTTL nor gate with Bjt transistors
- Design and production of line follower robots and mini sumo robots
- Design and production of 5 watts' guitar amplifier
- Design of Google earth and real-time camera stream embedded telemetry software
- Design, simulation and test of CMOS Simple Serial Peripheral Configuration Interface module (SSPCI) at Layout and schematic level using Cadence
- Design of 6 legged spider movement control software and real-time image-processing software to follow desired target
- Design and production of automatic flower watering system for High School graduation project

REFERENCES

Dr. Murat TEPEGÖZ, Vice President of Engineering at MikroSens, Ankara, Turkey

Phone: (+90) (312) 287 0228

Email: mtepegoz [at] mikrosens.com.tr

Dr. Ali Ziya ALKAR, Professor at Hacettepe University EEE, Graduation Thesis Supervisor, Ankara, Turkey

Phone: (+90) (312) 297 7027

Email: alkar [at] hacettepe.edu.tr