

Ali Tümkaya - Mechanical Engineer

Curriculum vitae

+90-544-918-7090
ali.tmkya@outlook.com

web site (portfolio)
https://alitumkaya.com.tr/

Gaziantep Sahinbey, 27270

LinkedIn:
https://www.linkedin.com/in/ali-tümkaya1/

EDUCATION

University of Gaziantep | *Bachelor of Science in Engineering* Oct 2019 – Oct 2025
Major: Mechanical Engineering

Relevant Coursework: Thermodynamics, Fluid Mechanics, Mechanical Design, Materials Science, Control Systems, Dynamics.

Elective Courses:

- Solar Energy Engineering
- Energy Management
- Biofluid Dynamics

Languages:

- Turkish (native language)
- Arabic (intermediate level)
- English (intermediate level)

TECHNICAL SKILLS — Level (1-5)

- HTML (4)
- CSS (4)
- JavaScript (3)
- Python (4)
- C++ (2)
- SolidWorks (3)
- ANSYS WB (2)
- PvSyst (4)
- MATLAB (1)
- Adobe After Effects (2)
- LTspice (2)
- Altium Designer (2)
- KiCad (5)
- FlatCAM (2)
- Proteus (2)

ENGINEERING EXPERIENCE

Network & Internet Service Specialist | UYDU NETWORK June 2019 - Aug. 2019

- Installed and configured satellite and parabolic antennas to provide reliable internet access, ensuring optimal signal strength and quality for both urban and remote locations.
- Performed troubleshooting, maintenance, and on-site technical support for antenna systems, resolving connectivity issues and ensuring uninterrupted service.

PCB Designer & IoT Project Developer | AIRLAB Technology March 2024 - Present

- Contributed to cutting-edge projects in the field of electronics, PCB, and IoT technologies, applying advanced engineering principles.
- Led the design, implementation, and testing of systems for real-time data acquisition, sensor integration, and communication protocols.
- Collaborated closely with faculty members and research teams to conduct experimental studies, analyze results, and produce reports for further academic research and development.
- Developed AC/DC circuits, designed 3D printed parts for prototypes and worked with a variety of sensors (temperature, humidity, motion, etc.) to optimize system performance.
- Played a key role in writing TUBİTAK & HORIZON project proposals, contributing to the development of innovative technological solutions.

Founder & Software Development Specialist | ArsuzTech March 2025 - Present

- The corporate website was designed and put into publication. (arsuztech.com)
- Technical Service Management Platform (under construction)
- Inventory management mobile application initiative (first version introduced)

ENGINEERING PROJECTS

Design SPP for Timbeco Woodhouse OÜ | PVsyst 8.0.0 December 2024

- Conducted an 11.26MW SPP (Solar Power Plant) analysis to assess performance, efficiency, and optimization potential for solar energy systems.
- Evaluated key technical and economic factors to improve system design and operational efficiency.

Air Quality System – IoT Project Development February 2025

- Designed and developed an IoT-based air quality monitoring system integrating multiple sensors for real-time environmental data collection.
- Utilized Flask to process and retrieve sensor data, automating the data logging and storage process into Excel files for easy analysis and reporting.
- Created dynamic visualizations and graphical representations of collected data to identify trends, patterns, and insights for environmental quality assessment.

Huawei SUN2000 Monitoring System | RS485 July 2024

- Developed an RS485-based IoT monitoring system for Huawei SUN2000 inverter, enabling real-time data acquisition and transmission.
- Implemented data collection using ESP modules, integrated the system with an online platform for remote monitoring, and designed a web interface using Python Flask for user interaction.
- Designed a website integrated with Excel, enabling seamless data management and visualization for system performance analysis.

CERTIFICATES

- Applied CNC CAD/CAM
- Crash Course Electronic and PCB Design
- Hardware (PCB) Design With KiCad
- PCB Design with Altium Designer
- Internet of Things (IoT) and Security
- PCB Design from A to Z with Altium Designer
- Single phase transformerless inverters using MATLAB
- Complete Electronics Hardware Design Course 2025 - Esteem PCB
- Learn KiCad V6 and STM32 Hardware Design
- Project Writing Training
- IoT Application Development with Raspberry Pi
- PCB Application Flight Control Board (4 Layer Board Design)