



Seçkin Sertaç LALLI

M.Sc. Geophysicist – R&D Engineer

09/1992

Driver License: B

Hi, I'm Sertaç. I was born in 1992 in Balıkesir, Turkey. After completing my primary and secondary education in various cities, I started my undergraduate studies in 2010 at Ankara University, Department of Geophysical Engineering, and graduated in 2017. In 2024, I earned my master's degree from the same university's Institute of Science and received the title of M.Sc. Geophysical Engineer.

My passion for electrical and electronic systems deepened during my university years, leading me to specialize in geophysical measurement technologies, data acquisition systems, and embedded software. I develop software using Python, C, and C++, and design industrial automation solutions and custom electronic hardware.

In 2019, I founded LARES Engineering and Earth Sciences Ltd., where we design, manufacture, and market multi-electrode electrical resistivity tomography (ERT) systems under the CERES product line. We also develop custom data acquisition platforms, embedded control software, and automation solutions tailored to client needs.

By combining geophysical engineering with advanced electronics, I continue to create innovative and high-precision systems for earth sciences and industrial applications.

• [linkedin.com/in/seckinsertaclalli/](https://www.linkedin.com/in/seckinsertaclalli/)

• seckinsertaclalli@gmail.com

• Istanbul / Turkey

• +90 541 690 58 10



Experiences



• **LARES Engineering and Earth Sciences Ltd. Co.** **R&D Engineer & Co-Founder (May 2019 – Now)**

- ✓ Designing, prototyping, and managing geophysical measurement systems for academic and industrial applications.
- ✓ Developing and implementing 2D & 3D Electrical Resistivity Tomography (ERT) modeling algorithms, including forward and inverse modeling.
- ✓ Conducting field surveys using Electrical Resistivity Method and Ground Penetrating Radar (GPR), followed by data processing and professional reporting.
- ✓ Designing and programming embedded electronic systems with C, C++ and Python, including firmware development for STM32 microcontrollers.
- ✓ Creating high-speed signal acquisition and recording systems for geophysical and industrial sensors.
- ✓ Designing industrial-grade mechanical enclosures and protective storage boxes for field instruments, including shock and weather resistance considerations.
- ✓ Managing company operations, including official documentation, quality management systems, financial records, and budgeting.
- ✓ Designing custom PCB layouts and supervising manufacturing for field-ready electronics.
- ✓ Integrating IoT, LoRaWAN, GSM, and Wi-Fi communication modules into geophysical systems for remote monitoring and data transfer.
- ✓ Developing automated data acquisition and control software with GUI interfaces for real-time monitoring.
- ✓ Coordinating prototype-to-production transitions, supplier communications, and compliance testing.
- ✓ Leading R&D grant applications (e.g., TÜBİTAK projects) and preparing technical documentation for funding institutions.
- ✓ Designing custom test benches and simulation setups for high-voltage endurance and performance validation.



• **BES A Electronic Inc. Co. - R&D Engineer (Jan 2023 – Now)**

- ✓ Designing, prototyping, and managing emergency lighting monitoring systems compliant with industrial safety and building automation standards.
- ✓ Developing and implementing RF and Wi-Fi communication protocols for device-to-server and device-to-device connectivity.
- ✓ Designing custom electronic architectures and multi-layer PCB layouts, ensuring EMC/EMI compliance.
- ✓ Creating high-speed signal acquisition systems for real-time device status and performance monitoring.
- ✓ Designing durable industrial-grade enclosures and protective storage solutions for electronics used in harsh environments.
- ✓ Developing UI/UX designs and implementing full-stack software solutions, integrating backend data processing with responsive front-end interfaces.
- ✓ Building IoT-enabled device management systems with real-time monitoring, logging, and analytics dashboards.
- ✓ Managing company documentation workflows, ensuring compliance with ISO/CE directives and safety regulations.
- ✓ Preparing financial reports, cost analyses, and project budgets, contributing to strategic planning.
- ✓ Conducting prototype testing, debugging, and performance validation for both hardware and software components.
- ✓ Integrating cloud services and MQTT/BACnet protocols for seamless communication with building management systems.

Educations



• **Master's Degree Program of Geophysics (2021 – 2024)**

- ✓ Ankara University, Graduate School of Natural & Applied Sciences of Geophysics Department (4.0/4.0)
- ✓ Thesis topic: Archeogeophysical Surveys Using Wireless Direct Current Resistivity Receivers and Distributed Arrays

• **Bachelor of Geophysical Engineering**

- ✓ Ankara University, Engineering Faculty, Geophysical Engineering (2.7 / 4.0)
- ✓ Bachelor Thesis: MT2DGUI A MATLAB program for the 2D inversion of MT data supported with a user interface: MT2DGUI
- ✓ MATLAB software and interface for a derivative of unequally spaced data: NUMDIFF

Skills

