Electrical Engineer

WIEM TABBAL

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Work Experience and Internships

ADJUNCT UNIVERSITY LECTURER - Higher Institute of Technological Studies (ISET) - Kebili, Tunisia

October 2025 - Current

- Conducting practical sessions in electrical circuits.
- Supervising students in analog electronics.
- Preparing and managing teaching materials and lab equipment.

ELECTRICAL ENGINEER - Construction Work Company - Kebili, Tunisia

July 2024 – June 2025

- Conducted electrical design studies in accordance with relevant standards and project specifications.
- Supervised site installations to ensure quality and safety compliance.
- Prepared detailed electrical schematics using AutoCAD.

END-OF-STUDIES PROJECT INTERNSHIP – DRÄXLMAIER SATE – Mahdia, Tunisia

February 2023 - June 2023

- Developed a full-stack web application to report and track defects on the production line, improving communication between operators and supervisors.
- Used Angular for the front end and Spring Boot for the back end to ensure responsive and scalable performance.
- Integrated MySQL for data storage and used Power BI for real-time data visualization and analytics.
- Employed Postman for API testing and followed the Scrum methodology for agile development.

INTERN — Consulting Engineer's Office for Electricity and Fire Safety — Kebili, Tunisia

July 2022 – August 2022

- Created single-line electrical schematics using AutoCAD.
- Developed code for cable section calculations using MATLAB.

INTERN - Tunisian Company of Electricity and Gas (STEG) - Kebili, Tunisia

July 2021 - August 2021

Learned about electricity production and distribution systems.

Projects

DRIVER DROWSINESS DETECTION SYSTEM

2023

- Designed and implemented a real-time driver drowsiness detection system using Python and OpenCV on a Raspberry
 Pi 4.
- Integrated deep learning models with Keras to detect signs of fatigue from live video input.

RASPBERRY PI BOARD CONTROL

2023

- Programmed and tested the Pi Sense HAT extension board and controlled the Raspberry Pi camera module using
 Python.
- Gained hands-on experience with IoT protocols by implementing MQTT and integrating ThingSpeak for real-time data monitoring and visualization.

SMART CONNECTED LOCK

2022

Designed a smartphone-controlled connected lock using ESP32 and C language.

Skills

- Programming: Python, C/C++, Java, HTML/CSS
- Frameworks/Tools: Angular, Spring Boot, Power BI, MATLAB/Simulink, TIA Portal, VHDL, LabVIEW
- Hardware & Design: Raspberry Pi, STM32, ESP32, Proteus, AutoCAD, Linux/Windows environments

Training

STM32 Training - ACTIA Engineeing Services

Topics covered: UART, ARM, Embedded C.

Languages

- French Proficient
- English Intermediate
- Arabic Native

Education

ENGINEERING DEGREE IN ELECTRICAL ENGINEERING (Specialization: Automation and Industrial Computing)

National Engineering School of Sfax (ENIS), Tunisia

2020 - 2023

PREPARATORY CYCLE IN PHYSICS-CHEMISTRY

Higher Institute of Applied Sciences and Technology of Gabes, Tunisia

2018 - 2020