## CONTACT


+216 58 156 152

trabelsiayoub152@gmail.com

www.linkedin.com/in/trabelsiayoub

Sfax , Tunisia


## SKILLS

- **Microcontrollers:** PIC,STM32 Arduino, Raspberry Pi ,NRF ,Renesas and ESP32
- **Programming Languages :** C/C++ , Python , Matlab ,JAVA
- **Machine Learning :** Implementing regression models for predictive analysis
- **Simulink**
- **Electronic design automation softwares :** Altium Designer
- **Hardware Description Languages :** VHDL/VHDL-AMS
- **Graphical programming platforms :** LabView
- **Real-time operating systems (RTOS) :** Zephyr RTOS
- **Robot Operating System :** ROS
- **3D simulation environment :** Gazebo
- **Project Management Frameworks :** Scrum, Agile ,Lean Six Sigma
- **Realtime Database :** Fire Base
- **Buses and Communication Peripherals** $I^2C$ , UART , USB , Modbus , SPI

## ACTIVITES

- Enactus Enet'com Team Leader
- BioCtus Project Leader
- Participation in a national Enactus competition as a member of the presentation team

## LANGUAGES

- Arabic : native language
- English : professional
- French : professional

# AYOUB TRABELSI

### INTELLIGENT EMBEDDED SYSTEMS ENGINEER

## PERSONAL PROFILE

As a dedicated student of Intelligent Embedded Systems Engineering, I have a strong academic foundation and hands-on experience in electronics and embedded systems. I excel in collaborative environments and am committed to driving innovation in embedded systems through novel perspectives and effective teamwork.

## EDUCATION

- **2021-Present : National School Of Electronics And Telecom Of Sfax**
  Electronic and Communication Systems Engineering student
- **2019-2021 :Sfax Preparatory Engineering Institute (IPEIS)**
  Entrance examination to engineering schools, specialty Physics-Chemistry.

## EXPERIENCE

- **Februray 2024 - June 2024 : Graduation project at Measurement and Sensor Technology (MST) at Chemnitz University of Technology**
  - Bio-Impedance Spectroscopy Application Implementation
    - Implements the Distribution of Relaxation Times (DRT) algorithm on the STM32U575 microcontroller, utilizing its low-power capabilities and the CMSIS library.
    - Enables accurate and efficient bioimpedance data analysis.
    - Optimizes execution time by 40 %, enhancing performance and minimizing energy consumption.
- **June 2023 - August 2023 : Summer intership at Hayat Technologie**
  - Aquaculture Water Quality Monitoring System Development
    - Leveraged Zephyr RTOS and NRF technologies to enhance connectivity from Bluetooth to Wi-Fi, resulting in a 70% range improvement, enabling real-time remote water quality monitoring.

## PROJECTS

- **End of year project :**
  - Energy Management between Two Buildings
    - Enhances sustainability.
    - Reduces energy consumption .
    - Monitors and controls energy through automation.
    - Identifies inefficiencies.
- **Rapberry Pi Project :**
  - NAS server :
    - Creating Network Attached Storage server (NAS) using Raspberry Pi.
    - Connecting storage devices like USB drives or external hard disks.
- **ALTIUM designer projects:**
  - FM radio receiver PCB design
  - Arduino Uno PCB design
- **Android Studio Projects**
  - Train Stations Classification App
    - Utilizes GPS functionality to classify stations based on user input
    - Implements classification system within the app
  - House Monitoring Application Features
    - Enables remote access to data from various sensors in the home environment
    - Displays real-time sensor data in an intuitive interface
    - Provides control functionality for IoT devices such as smart lights and thermostats
- **Matlab GUI project :**
  - Image Processing Interface .