Abdallah Salaheldeen

Address: Shubra, Cairo, Egypt
E-mail: abdallah.salaheldeen@Outlook.com
LinkedIn: https://www.linkedin.com/in/abdallah-salaheldeen/

Phone: (+2) 01012826255
Military Status: Temporarily Exempted
Date of Birth: 9/4/1998

PROFILE

Highly motivated fresh graduated Mechatronics Engineer with a solid background in programming, embedded systems, software testing, and validation. I am deeply passionate about the realms of robotics, automation, electronics, and electrical/mechanical engineering. I am committed to delivering reliability, responsibility, and a steadfast work ethic to every project I undertake.

EXPERIENCE

Mechatronics Engineer

Engineering Cars Co. Pyramids - ECCP
Aug 2020 - Sep 2020 (2 months)

KEY SKILLS AND CHARACTERISTICS

·Jira·Embedded C ·Problem Solving ·AUTOSAR ·Software Testing(ISTQB) ·SQL ·Communication Protocols Handling ·ARM Cortex-M·Tiva-C MCUs·ESP32 MCUs·Debugging ·MQTT· Mobile Robots.

COURSES & CERTIFICATIONS

October 2023 Full Embedded Systems Diploma at Edges For Training under supervision of Engineer Mohamed Tarek

The Diploma covered the below topics:

- Basic Concepts of Embedded Systems.
- C Programming.
- Data Structures (Linked-List, Stack and Queue).
- AVR Micro-controllers Interfacing (Implement all the drivers).
- C For Embedded Applications (Embedded C).
- Real Time OS(RTOS).
- Software Engineering.
- Embedded Tools.
- HW Labs.

Projects:

1. Stop-Watch:
- Developing a system that control the stop-watch time and display it on 7-segments.
- Drivers: GPIO, Timer, External Interrupts and 7-Segement - Microcontroller: ATmega32.

2. Fan Speed Controller with Temperature:
- Developing a system that controls the speed of a fan depending on the temperature.
- Drivers: GPIO, ADC, PWM, LM35 Sensor, LCD and DC-Motor - Microcontroller: ATmega32.

3. Distance Measuring System:
- Developing a system that measure the distance and display it on LCD.
- Drivers: GPIO, ICU, Ultrasonic Sensor and LCD - Microcontroller: ATmega32.

4. Door Locker Security Systems:
- Developing a system to unlock a door using a password.

March **202**4 Advanced Embedded Systems Diploma

The Diploma Includes:

1. The ARM Architecture based on TM4C Microcontrollers Course covered the below topics**:**

• ARM Cortex-M Architecture and Programming Model.
• TM4C Micro-controller GPIO Driver.
• ARM CortexM3/M4 SysTick Timer Driver.
• ARM CortexM3/M4 NVIC System:
- TM4C Micro-controller Edge Triggered Interrupts.
- ARM CortexM3/M4 System Exceptions: PendSV, SVC and SysTick Exceptions.
- ARM CortexM3/M4 Fault Exceptions: HardFault, UsageFault, BusFault and MemoryManagement Fault.
• ARM CortexM3/M4 MPU
• TM4C Micro-controller PLL

2. The Embedded Automotive and AUTOSAR Device Drivers Course covered the below topics:

- AUTOSAR Layered Architecture.
- AUTOSAR Device Drivers.
- AUTOSAR and C Misra Rules.
- Automotive buses Lin and Can.
- Implement Dio AUTOSAR Driver for TM4C Micro-controllers.
- Final project to apply the full layered architecture model which was an implementation of the Port AUTOSAR Driver for the TM4C Micro-controllers.

June **202**4 Automotive Functional Safety

Course Contents:

Functional Safety Overview
Functional Safety Basics and ASIL Determination
Introduction to ISO26262
ISO26262 Parts Overview:
Functional Safety Management Functional Safety
Concept Phase Product Development at System Level
Functional Safety Support Processes
Product Development at Software Level
Safety Lifecycle

June **202**4
ongoing

Embedded Testing Diploma

EDUCATION

September 2017 - July 2023

Modern Science and Arts University, Egypt
Bachelor's degree, Faculty of Engineering, Mechatronics Department.
-Verified by University of Greenwich, London, United Kingdom
-Grade (Good)
-UK Grade: (Good)

Graduation Project
-Design and Implementation of Restaurant's Collaborative Smart Waiter (Multi-Robot System)
-Grade: Good

Graduation Project Achievements:
-Developed the mechanical design of robots using SOLIDWORKS.
-Implemented the mechanical design of robots.
-Built a simulation model of the system using SIMULINK.
-Developed a communication network based on MQTT protocol.
-Controlled the robots using ESP32 Microcontrollers & Arduino-IDE.
-Built a software program for control the system using Node red.
-Used several peripherals like ultrasonic sensors, laser sensors, inertial measuring unit,digital compass and stepper motors.

EDUCATIONAL PROJECTS

2020
- Obstacles Avoiding Mobile Robot.

2021
- Mini-Drone Altitude Control.
- Robotic Arm-Based Pick and Place Robot.

2022
- Deep Learning-Based Image Classifier.
- PID & Fuzzy Logic Control of a Quarter Car Suspension Model on SIMULINK.

LANGUAGES

- Arabic (native)
- English (fluent)