



Summer Internships

Iasi, Romania, july-september, onsite

Apply until The **29th of April 2023**

to your favourite project

(English CV only!)



Project #1 CUT - Cybersecurity Update Tool (for embedded systems in automotive)

Activities

- Develop a tool for Windows that communicates with ECU and provides generic functionalities (Diagnostic Authentication, Reprogramming, Update Over the Air, etc.);
- The tool will have a friendly GUI that allows different configurations for passing Cybersecurity Controls.

Your skills

- Programming: C, Python, DXL;
- OOP concepts;
- Database basics.

Project #2 Automation Tool

Activities

- Create an automation environment between debugger and CAN communication;
- Understand the functionality of debugging/testing an ECU in real time mode (The ECU is connected to a tool which simulates the car);
- Develop a C++ application using the API's of both Trace32 and CANoe tools;
- Develop application DLL in order to analyze internal data extracted from the ECU via the JTAG debugger, software, Trace32, in the regular testing environment, CANoe.

Your skills

- C/C++ programming knowledge(Python will be a plus);
- Basic electronics, microcontrollers knowledge;
- Basic communications protocols with an electronic device.

Project #3 WAV Player

Activities

- Transform an existing HMI device into a wav player;
- Implement a light game;
- Prepare and control wav list.

Your skills

- C programming;
- Microcontrollers knowledge.

Project #4 Signal generator based on a TI demo board

Activities

- Learn about TI development board;
- Create the schematics and PCB (shall cover analog&digital signal generation);
- Understand the theory of signal acquisition and generation;
- Create the microcontroller software.

Your skills

- Basic electronics;
- Embedded C programming.

Project #5 Simulation Environment for Vehicle Communication

Activities

- Simulate the car environment for DCDC / BOOSTER / OBC products;
- Charging sequences, startup and dynamic transitions.

Your skills

- Basic electronics knowledge;
 - System identification and Control theory knowledge;
 - C programming knowledge.
-

Project #6 Software simulation for Power Converter

Activities

- Understand the functionality of a DCDC converter;
- Understand the current PLECS simulation;
- Understand how to work with C code in PLECS;
- Improve the performance of the control loop.

Your skills

- System theory knowledge;
 - Matlab/Simulink basic usage.
-

Project #7 Timming Analysis Tool

Activities

- Acquire runtime measurements from a microcontroller;
- Process and display results in a graphical mode.

Your skills

- C# programming.
-

Project #9 DC/DC converter of high efficiency

Activities

- Selection of the applicable topology for the given requirements;
- Selection of Key Components;
- Realization of the schematic drawing;
- Realization of PCB Layout respecting rules and guidelines for the given application;
- Assembly of the real PCB;
- Testing of the converter and evaluation of the results.

Your skills

- Knowledge and understanding of the switching mode power supplies;
- Knowledge and work abilities in Altium Designer;
- Skills in using laboratory equipment (power supply, multimeter, oscilloscope).

START
YOUR CAREER
WITH US



...scan the QR-code
to apply

Project #8 SW Status Tracking

Activities

Implement an application that is able to:

- get the errors and warning from Jenkins log server;
- create a report with specific component errors and warnings;
- update the report only if new errors were recorded.

Your skills

- Python programming.
-

Project #10 Cooler investigation for Power electronics products

Activities

- Material Selection for requested application;
- Design single parts and assembly;
- Calculate mechanical components and assembly.

Your skills

- Basic knowledge of mechanical design and used materials in automotive industry;
- Good communications skills, team oriented person, fast learning capabilities.