

Session 1: *Introduction to Microcontrollers*

- **Topics**

- ARM Architecture
- Memory – Variables – Pointers
- Build Process
- GPIO
- Bit Banding
- Project

- **Objectives**

- Self-learning from different resources
- Gaining hands-on skills
- Teamwork
- How to use Microcontroller documentation and get what you need?

- **Applications in Industry**

- To be discussed

- **Prerequisites**

- C language knowledge

- **Resources**

- Attachments posted on Microsoft Teams
- Download IAR software: <https://www.iar.com/products#/search?currentTab=free-trials>
- <https://www.watelectronics.com/arm-processor-architecture-working/>
- Miro Samek Lessons: <https://www.state-machine.com/video-course>
- You may need more resources from the internet, search for what you need.

- **Task**

- Write a C code project to turn ON the white LED when switch 1 or switch 2 or both of them are pressed, and the white LED should be turned OFF if all of the switches are released.

- **Delivery Date**

- Monday 24/7/2023, each team will present his working project on Tiva C TM4C123GH6PM microcontroller board.