RTOS

Real-Time Operating Systems

As any other computer application, embedded systems must be tailored to the operating system they are running on. Furthermore the, usually quite specific, environment in which these systems will execute often require them to be adapted to their hardware environment.

ac6-trainingprovides trainings to help you create embedded systems using a Real-Time Operating System (RTOS) but also to tailor this RTOS to your needs if you have to.

Main Courses

IOT1 - Internet of Things (IOT) on Microcontrollers Building low-power IOT devices using standard microcontrollers Th is course introduce the IoT ecosystem, describe the most used IoT Edge to Cloud Protocols (MQTT, MQTT-SN and CoAP), explore particularly heinous IoT focused attacks and security provisions at each level of stack (physical devices, communication systems and networks) . This course explains how to configure the LwIP (with MQTT), FreeRTOS and MbedTLS for a microcontroller-based IoT application; it requires previous knowledge of FreeRTOS.

Additional Courses

RT3 - FreeRTOS Real Time Programming Real-time programming applied to the FreeRTOS operating system

RT5 - Zephyr Real Time Programming Real-time programming applied to the Zephyr operating system

RT6 - Real Time Programming with Eclipse ThreadX Real-time programming applied to ThreadX (previously Azure RTOS)

STG - STM32 + FreeRTOS + LwIP This course covers the STM32 ARM-based MCU family, the FreeRTOS Real Time OS, the LWIP TCP/IP Stack and/or the EmWin GUI Stack

TI3 - Cortex M4 Texas Instruments Implementation and Ti-RTOS This course describes the Texas Instruments ARM Cortex M4F implementation and TI-RTOS real-time programming