Real-Time Systems

Design and Program Embedded and Real-Time Systems

An embedded real-time operating system (RTOS) is a software platform that is specifically designed to support the development of real-time applications. These systems are used in a wide range of applications, including aircraft control systems, military systems, industrial control systems, and medical devices.

The courses cover a range of topics related to embedded RTOS, including RTOS fundamentals, RTOS architecture and design, and RTOS development using specific platforms such as FreeRTOS, AzureRTOS ThreadX and ZephyrOS. These courses are designed to provide professionals with the skills and knowledge they need to develop and maintain real-time systems that are reliable, efficient, and scalable.

Moreover as creating systems that work in real-time pose specific challenges ac6 provides also courses to explain you all the specific techniques and tools to use in this context.

oRT1 - Linux Real-Time and Multi-Core programming Programming Linux real-time and multi-core systems, avoiding common pitfalls The Linux Real-Time and Multi-Core programming course from AC6 covers the design and implementation of real-time applications on Linux systems.

The course covers topics such as real-time scheduling, interrupt handling, and multi-core programming, and is designed to give professionals the skills they need to develop reliable and efficient real-time systems on Linux platforms.

This course is suitable for developers with a basic understanding of Linux and programming concepts, and is designed to provide a strong foundation in real-time and multi-core programming. Upon completion of the course, attendees will be able to design, implement, and debug real-time applications on Linux systems with confidence.

oRT3 - Real Time Programming with FreeRTOS This is a Live Online Training The Real Time Programming with FreeRTOS course from AC6 covers the design and implementation of real-time applications using the FreeRTOS operating system. The course covers topics such as task scheduling, synchronization, and memory management, and is designed to give professionals the skills they need to develop reliable and efficient real-time systems using FreeRTOS.

This course is suitable for developers with a basic understanding of real-time systems and programming concepts, and is designed to provide a strong foundation in FreeRTOS development. Upon completion of the course, attendees will be able to design, implement, and debug real-time applications using FreeRTOS.

oRT5 - Zephyr Real Time Programming This is a Live Online Training Throughout the course, you will learn about scheduling, thread management, memory management, resource management, synchronization primitives, data passing, interrupt management, and software timers. These concepts are essential for the development of reliable and efficient real-time systems using Zephyr.

oRT6 - Real Time Programming with Eclipse ThreadX Real-time programming applied to ThreadX (previously Azure RTOS) The Azure RTOS - ThreadX course will give you the skills and knowledge needed to create real-time applications using the Azure RTOS operating system. This includes learning about thread management, memory management, resource management, synchronization primitives, and application timers - all crucial for developing reliable and efficient real-time systems using Azure RTOS and ThreadX.

oSTG - STM32 + FreeRTOS + LwIP This is a Live Online Training In this course, attendees will learn how to use STM32 System on Chips (SoCs) effectively and efficiently, as well as how to utilize the FreeRTOS operating system and optimize LwIP TCP/IP applications. Upon completion, students will have a comprehensive understanding of how to use these technologies to create reliable real-time systems.