# Modeling, analysis and development methodologies

The complexity of computer systems led more and more to the use of standard tools to support their specification, design and development. These tools are based, where possible, on standard methods and languages .

**Ac6-training**offers training on the most common modeling language UML (*Unified Modeling Language*); these courses are tailored to the industrial and embedded systems environment and the specific needs of real-time applications.

We also offer training on management tools for the software development process, as *Eclipse*.

C8 Critical Systems Safety and standards applicable to safety-critical systems 3 days **Inquiry**

C9 Software Architecture with UML Embedded systems are increasingly complex and therefore, call to more be directly designed using existing schemes. One need to first create a detailed architecture to control and plan their development and integration appropriately. This course will help address these phases efficiently and avoid common pitfalls: it will explain you why software architecture is needed and how architecture processes can be implemented in an enterprise environment. 4 days **Inquiry**

C7 UML Real-Time 4 days **Inquiry**

Embedded systems are more and more critical and subject to safety constraints. This training introduces the main concepts and standards applicable to safety-critical systems.

Real-time and embedded code, especially targetting multicore processors cannot be effectively tested if it most be validated before coding. This training help you master multitask and real-time programming of multicore processors, understanding how to effectively solve problems using the primitives provided by the underlying Operating System. 3 days **Inquiry**

RT2 FreeRTOS Real-Time Programming FreeRTOS is a lightweight, real-time operating system (RTOS) designed to efficiently manage tasks in embedded applications. The Real-Time Programming with FreeRTOS course delves into the design and implementation of real-time applications using FreeRTOS, covering essential topics such as task scheduling, synchronization, and memory management. This course equips professionals with the skills necessary to develop reliable and efficient real-time systems. Ideal for developers with a basic understanding of real-time systems and programming concepts, it provides a solid foundation in FreeRTOS development, enabling participants to design, implement, and debug robust embedded applications. 3 days **Inquiry**