Languages

Embedded and Real-Time Programming Languages

These courses are designed for developers with a basic understanding of programming concepts and are suitable for a wide range of applications, including the development of real-time systems, firmware, and drivers.

The C, C++ languages, and OpenCL for embedded systems category includes courses on language fundamentals, advanced programming techniques, and the use of these technologies in specific embedded systems applications. **oL2 - C Language for Embedded MCUs** The course covers topics such as language fundamentals, advanced programming techniques, and the use of C in specific embedded systems applications. It is suitable for developers with a basic understanding of programming concepts and is designed to provide a strong foundation in C programming for embedded systems.

Upon completion of the course, attendees will be able to develop reliable and efficient software for microcontroller-based systems using C with confidence.

oL3 - Embedded C++ Programming The course covers topics such as language fundamentals, the use of C++ templates in embedded systems, advanced aspects such as polymorphism and inheritance, dynamic memory allocation in embedded applications, and the management of C++ exceptions for secure embedded applications.

Additionally, students will learn how to use C++ objects to handle serial transmission/reception of character strings.

oL9 - Parallel programming with OpenCL Parallel programming with OpenCL-1.2 High Performance Computing (HPC) is more and more frequent in embedded systems, for graphics rendering, virtual reality of parallel computing. The OpenCL language allows to program in a more or less hardware-independent way complex parallel algorithms that will be able to run on various hardware platforms.

oL10 - Embedded Modern C++ Programming The Modern C++ Language for Embedded Systems

oL30 - Classic and Modern C++ for Embedded Systems This course is the combination of the oL3 - Embedded C++ Programmingcourse and oL10 - Embedded Modern C++ Programming course; it is intended for engineers that switch from C programming to C++ and want to learn everything about classic and modern C++ programming for embedded systems.