Advanced Embedded C

Duration - 3 Days / 24 Hours

Program Description

This program offers an in-depth exploration of Embedded C, focusing on advanced concepts like memory management, data structures, and hardware-level programming.

Participants will learn essential techniques such as bit manipulation, interrupt handling, and real-time system considerations.

The course also covers multithreading, synchronization, and dynamic memory allocation, with a strong emphasis on debugging, profiling, and optimizing performance for embedded systems.

Learning Goals

- Master Embedded C programming fundamentals.
- Efficiently manage pointers and memory.
- Utilize advanced data structures in Embedded C.
- Perform bit manipulation and hardware access.
- Implement interrupt handling and real-time considerations.
- Apply multithreading and synchronization techniques.
- Manage dynamic memory and resources effectively.
- Use debugging and profiling techniques.
- Optimize performance of embedded applications

Course Topics

- Review of Embedded C Basics
- Pointers and Memory Management in Embedded C
- Advanced Data Structures in Embedded C
- Bit Manipulation and Hardware Access
- Interrupt Handling and Real-time Considerations
- Multithreading and Synchronization
- Dynamic Memory Allocation and Resource Management
- Debugging and Profiling Techniques
- Performance Optimization in Embedded C

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Modules can be customized to suit client's specific needs and duration accordingly