

ASSESSMENT EVIDENCE

Assessment

Module 1

- For assessing whether the participant can apply the learned concept of Embedded C Programming with ARM Cortex Microcontrollers, a theory examination is conducted using moodle software with multiple choice questions where the evaluation is done automatically.
- For assessing whether the participant can apply the learned concept of Embedded C Programming, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it in embedded c, compile, link and execute in PC platform with GNU Linux Tools.
- For assessing whether the participant can apply the learned concept of ARM Cortex M Architecture and Embedded C Programming on ARM, a Practical Examination is conducted for 3 hours duration where the student has to find solution of a problem by coding in Embedded with KEIL Microvision Tools and implementing it on ARM Cortex Kit

Module 2

- For assessing whether the participant can apply the learned concept of Embedded operating systems that is needed to run embedded systems and Embedded Linux Internals, a theory examination is conducted using moodle software with multiple choice questions where the evaluation is done automatically.
- For assessing whether the participant can apply the learned concept of Embedded Linux Programming with Internal, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it in embedded c, compile, link and execute in PC platform with GNU Linux Tools.

Module 3

- For assessing whether the participant can apply the learned concept of Embedded Real Time software that is required to run embedded systems and VxWorks/RTLinux RTOSes, a theory examination is conducted using moodle software with multiple choice questions where the evaluation is done automatically.
- For assessing whether the participant can apply the learned concept of RTLinux RTOS Programming, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it in embedded c, compile, link and execute in PC platform with RTLinux Tools on VmWare Environment.
- For assessing whether the participant can apply VxWorks RTOS Programming, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it in embedded c, compile, link and execute in PC platform with VxWorks Tornado Tools.

Module 4

- For assessing whether the participant can apply the procedure of Kernel Compilation for ARM and Porting of Open Source Operating Systems on ARM Cortex Microcontrollers, a theory examination is

conducted using moodle software with multiple choice questions where the evaluation is done automatically.

- For assessing whether the participant can apply Porting of Open Source Operating Systems on ARM Cortex Microcontrollers, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it in embedded c, compile, link and port on ARM Coterx M based Hardware.

Module 5

- For assessing whether the participant can apply the learned concept of the IoT Architecture, Layering concepts, IoT Platform hardware/Software and implementation of IoT applications, a theory examination is conducted using moodle software with multiple choice questions where the evaluation is done automatically.
- For assessing whether the participant implement IoT applications on IoT platform, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it and port on IoT Hardware.

Module 6

- For assessing whether the participant can apply the VHDL Programming, Xilinx FPGA Architecture and Implementation of VHDL Code on Xilinx FPGA, a theory examination is conducted using moodle software with multiple choice questions where the evaluation is done automatically.
- For assessing whether the participant can apply VHDL Programming and Implementation of VHDL Code on Xilinx FPGA, a Practical Examination is conducted for 3 hours duration where the student has to solve a problem, code it and port on FPGAs.

Module 7

For assessing whether the participants have understood the quality principles and the product development process, a two pronged methodology is adopted as follows:-

A theory test is conducted covering all topics with multiple choices; fill in the blanks and descriptive questions.

The understanding of the concepts and the participant's ability to practice them is assessed through a mini project executed through team work where a complete product is designed and developed using evaluation board followed by team presentation and project report to evaluate the communication skills.

Module 8

- During this Project Work Module evaluation is done in two phases, initially through project reviews conducted once in every 5 days. Later at the end of project work, live demo of work, oral presentation and viva are conducted.