

EMBEDDED SYSTEM DESIGN LABORATORY

III B.Tech. II Semester

Course Code: A226491

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COURSE OUTCOMES:

At the end of the course the student should be able to

1. Code the ARM cortex M0+ processor instruction set.
2. Articulate the concept of interfacing I/O devices with FRDM kit.
3. Simulate I/O Devices with Arduino using Tinkercad
4. Simulate sensors with Arduino using Tinkercad
5. Formulate a system design using Embedded technologies

Perform any 10 Experiments:

Note: perform below experiments using FRDM Boards/Tinkercad Simulation.

1. Study of FRDM Development Board
2. Blinking of LED using FRDM Kit
3. Breath out 2 LEDs using FRDM Kit
4. Color Circle using FRDM Kit
5. Interface to Accelerometer sensor using FRDM kit
6. LED intensity control using touch sensor using FRDM kit
7. Simulate Potentiometer with Arduino using Tinkercad.
8. Simulate servomotor with Arduino using Tinkercad.
9. Simulate Ultrasonic sensor with Arduino using Tinkercad.
10. Simulate LDR with Arduino using Tinkercad.
11. Simulate 2-wire LCD with Arduino using Tinkercad.
12. Simulate SPI LCD with Arduino using Tinkercad.