EMBEDDED PROGRAMMING LANGUAGES (ELECTIVE – II)
(EC513)

Objective of the Course :
Introduces the programming languages used in embedded systems , like Embedded C and Embedded Linux.

UNIT – 1
Embedded C – I : Introduction, Getting to know the Hardware, your first Embedded program, Compiling, Linking and Locating, Downloading and Debugging.

UNIT – II
Embedded C – II : Memory, Peripherals, Interrupts, Putting it all together.

UNIT - III
Embedded LINUX – I : The Embedded and Real time space, Introducing LINUX, The Host Developing Environment, Configuring and Building the Kernel, Blue cat LINUX.

UNIT - IV
Embedded LINUX – II : Debugging Embedded Software, Kernel Modules and Device Drivers, Embedded Networking, Introduction to Real Time Programming.

UNIT - V
Embedded LINUX – III : LINUX and Real Time, The RTAI Environment, POSix Threads.

TEXT BOOKS:

1. Michel Barr, Anthony Massa, "Programming Embedded Systems (with C and GNU development tools)"- O'REILLY

2. Jonathan W. Valvano, "Developing Embedded Software in C"

3. **Mazidi**, Muhammad Ali, "8051 **MICROCONTROLLER** AND EMBEDDED SYSTEMS", Prentice Hall

4. Dough Abbott, "LINUX for EMBEDDED AND REAL TIME applications", 2nd edition, Newnes

5. Jhon Lombardo "EMBEDDED LINUX", New Riders.