

NPTEL LINKS

Sem:-VII (EEE)

Subject: Microcontroller and Embedded Systems(EEE-413-F)

Section	Topics covered	NPTEL LINK
A	Different types of microcontrollers, Embedded Microcontrollers, Processor Architectures: Harvard V/S Princeton , CISC V/S RISC; microcontrollers memory types; microcontrollers features :	http://nptel.ac.in/courses/108102045/ http://nptel.ac.in/courses/108102045/1 http://nptel.ac.in/courses/106108100/5
B	Introduction to PIC microcontrollers, Architecture and pipelining, program memory considerations, Addressing modes, CPU registers, Instruction set, simple operations	http://nptel.ac.in/courses/108102045 http://nptel.ac.in/courses/108102045/3 http://nptel.ac.in/courses/108102045/4
C	Microcontroller 8051- Architecture, Pin Diagram, I/O Ports, Internal RAM and Registers, Interrupts, Addressing Modes, Memory Organization and External Addressing, Instruction Set, Assembly Language Programming	http://nptel.ac.in/courses/108102045 http://nptel.ac.in/courses/106108100/6 http://nptel.ac.in/courses/106108100/7
D	Classification, Processors, Hardware Units, Software Embedded into System, Applications and Products of Embedded Systems, Structural Units in Processor, Memory Devices, I/O Devices, Buses, Interfacing of Processor Memory and I/O Devices	http://nptel.ac.in/courses/108102045/28 http://nptel.ac.in/courses/108102045 http://nptel.ac.in/courses/108102045/ http://nptel.ac.in/courses/108102045/29 http://nptel.ac.in/courses/108102045/30 http://nptel.ac.in/courses/108102045/31 http://nptel.ac.in/courses/108102045/35