

7. Brief list of topics to be covered

- Difference between a microprocessor, a microcontroller and a DSP (1 lecture)
- Microprocessor internal architecture – realization of a basic board (4 lectures)
- PIC 18F2520 internal architecture – program memory, data memory – special registers – addressing modes (3 lectures)
- Inputs/outputs – Applications on addressing modes and inputs/outputs (+ simulation using Proteus) (3 lectures)
- Interrupts – Applications on interrupts (+ simulation using Proteus) (2 lectures)
- Timers – Applications on timers (+ simulation using Proteus) (2 lectures)
- Analog to digital converters – Applications on analog to digital converters (+ simulation using Proteus) (2 lectures)
- Asynchronous serial port – Applications on asynchronous serial port (+ simulation using Proteus) (2 lectures)
- Read from program memory – Applications on program memory (+ simulation using Proteus) (2 lectures)
- Comparators – Applications on comparators (+ simulation using Proteus) (2 lectures)
- Watchdog – sleep mode – Applications on watchdog and sleep mode (+ simulation using Proteus) (2 lectures)
- Low Voltage Detect – oscillator – configuration words (2 lectures)
- Course summary; Q&A session (1 lecture)