Microcontroller and DSP Systems	COE305
Prerequisite : COE103 and COE105	(2-1-1-2)

Introduction to microcontroller (Hardware / IDE overview). Introduction to DSP Processors (Hardware / IDE overview). Examples: Blinking LEDs, Fading of LED, Circling of LEDs (FOR loop). Serial monitoring: Controlling of LEDs from computer, Reading analog and digital inputs. Digital inputs: Controlling LED using push button. Switching ON a relay. Analog inputs: Controlling a DC motor (PWM), Changing the brightness of LEDs using potentiometers, LCD displays: Wiring of LCD screen with Arduino, Displaying a message in LCD screen, Screen navigation on LCD, Turn ON a LED by entering the password, Knowing the status of the LED, Scrolling of text, Displaying room temperature using LM 35 temperature sensor. Seven segment display: Simple automatic countdown and count up (FOR loop), Increment or decrement a number by using push button. Servo motors: Indexing of Servo motor, Direction control of Servo Motor.

Practical part: Various applications using Arduino microcontroller.