**PES University**

**Electronic City Campus**

**Department of Electronics and Communication**

**Skill Enhancement Course**

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| Lecturer Number | Topic |
| 1 | Introduction to Course |
| 2 | Introduction to Embedded System and system Control Registers of LPC1768 |
| 3 | General Purpose Input and Output (GPIOs) and it’s register configuration |
| 4 | Using GPIOs to interface IO devices like switches, LEDs, Buzzer, Relay and LCD |
| 5 | Analog to Digital Converter – Programming on-chip ADC of LPC1768 to use analog Inputs (LM35 Sensor) |
| 6 | Timer / Counter – Using on-chip Timer/Counters of LPC1768  Example: Ultrasonic Sensor Interface |
| 7 | Interrupts: Understanding Hardware Interrupts of LPC1768  Programming examples to use hardware interrupts |
| 8 | Serial Communication Protocols: Basic terminologies, Introduction UART and Programming on-chip UARTs of LPC1768 |
| 9 | Serial communication Protocols: Introduction to SPI and Programming on-chip SPI of LPC1768 |
| 10 | Serial communication Protocols: Introduction Controller Area Network (CAN) and Programming on-chip CAN of LPC1768 |