EMBEDDED SYSTEMS COURSE CURRICULUM

01 **Induction Class (Optional)**

1 Hour

02 **Introduction to Embedded systems (History, Evolution, Applications)**

1 Hour + 15 Min Doubts

03 **Overview of Architechture of 8051- Processor core and Functional Block Diagram.**

1 Hour + 15 Min Doubts

04 **Memory organisation and Special Function registers(SFRs)**

1 Hour + 15 Min Doubts

05 **Addressing Modes and Instruction set**

1 Hour + 15 Min Doubts

06 **Developing, Building and Debugging ALP's and (Assembly level programming)**

1 Hour + 15 Min Doubts

07 **Embedded C and I/O functionalities -Interfacing LED'S and SWITCHES**

1 Hour + 15 Min Doubts

08   **Interfacing LCD with 8051**   1 Hour + 15 Min Doubts

09   **Interfacing keypad matrix with 8051**   1 Hour + 15 Min Doubts

10   **Timers and Counters + Minor Project**   1 Hour + 15 Min Doubts

11   **Serial Communication with UART Protocal**   1 Hour + 15 Min Doubts

12   **Interrupt programming and Priority management**   1 Hour + 15 Min Doubts

13   **Communcation Protocols (I2C, Spi)**   1 Hour + 15 Min Doubts

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15	**Introduction to Advanced controllers - ARM cortex**	1 Hour + 15 Min Doubts
16	**Programming with embedded C**	1 Hour + 15 Min Doubts
17	**I/O functionalities -Interfacing Leds and Switches, LCD with ARM controller**	1 Hour + 15 Min Doubts