

Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada

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| **BLOCK :**  | E BLOCK |
| **FLOOR :**  | THIRD FLOOR |
| **ROOM NO:**  | 301 |
| **ROOM SIZE (in Sq. mtrs):** | 33.3 |
| **LAB NAME:** | M.TECH LAB |
| **FANS :**  | 0 |
| **TUBE LIGHTS :**  | 2 |
| **CHAIRS :**  | 9 |
| **STAFF TABLES :**  | 0 |
| **EXPERIMENT TABLES :**  | 12 |
| **CLOSED IRON RACKS :**  | 1 |
| **WOODEN CLOSED RACKS :** | 0 |
| **Others:** | IRON CLOSED RACK:1, DUSTBIN:1, NOTICE BOARD:1, STOOLS:5, WINDOW CURTONS:8, VISSION MISSION BOARDS:1, CAMERA:1, WALL CLOCK:1 |

**EQUIPMENT DETAILS**

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| **S.NO** | **EQUIPMENT PARTICULARS** | **QUANTITY** | **VENDOR** |
|
| 1 | EMBEDDED 8051 DEV BOARD | 3 | SS. LAB EQUIPMENTS |
| 2 | EMBEDDED DEV ARM LPC2148 " jem-201-machu" BOARD | 2 | SS. LAB EQUIPMENTS |
| 3 | ARM 926 BOARD | 2 | SS. LAB EQUIPMENTS |
| 4 | ARM CORTEX BOARD | 3 | SS. LAB EQUIPMENTS |

**LAB SPECIFICATIONS**

**EMBEDDED C LAB (SEM 1)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | LED Blinking. | The development kits of 8051/ ARM processor | AVAILABLE |
| 2 | ASCII to Decimal vice versa conversion | The development kits of 8051/ ARM processor | AVAILABLE |
| 3 | PWM(Motor application) | The development kits of 8051/ ARM processor | AVAILABLE |
| 4 | Serial Communication(USART). | The development kits of 8051/ ARM processor | AVAILABLE |
| 5 | ADC and DAC implementation | The development kits of 8051/ ARM processor | AVAILABLE |
| 6 | Seven segment display interfacing | The development kits of 8051/ ARM processor | AVAILABLE |
| 7 | LCD display interfacing | The development kits of 8051/ ARM processor | AVAILABLE |
| 8 | Temperature sensor/4 way Road control /Elevator | The development kits of 8051/ ARM processor | AVAILABLE |

**EMBEDDED SYSTEMS LAB (SEM 2)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | Register a new command in CLI. | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 2 | Create a new Task | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 3 | Interrupt handling | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 4 | Allocate resource using semaphores | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 5 | Share resource using MUTEX. | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 6 | Avoid deadlock using BANKER’S algorithm | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 7 | Implement the interfacing of display with the ARM- CORTEX processor | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |
| 8 | Interface ADC and DAC ports with the Input and Output sensitive devices | The development kits of ARM-926 Developer Kits and ARM-Cortex Boards | AVAILABLE |