**LESSION PLAN**

**NAME OF THE FACULTY** : - SHARMILA

**DISCIPLINE** : - ECE

**SEMESTER** : - III

**SUBJECT** : - Electronic Design & Simulation

**LESSON PLAN DURATION** : - 15 weeks (from 01.09.2023 to 15.12.2023)

**WORK LOAD (PRACTICAL) PER WEEK (IN HOURS)**:- 04 Hours per group

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| **WEEK** | **PRACTICAL** | |
| **PRACTICAL DAY** | **TOPIC** |
| 1st | 1st | Electronic Design  1.1 Selection and use of commonly used active and passive components  1.2 Testing of active and passive components |
| 2nd | Electronic Design  1.1 Selection and use of commonly used active and passive components  1.2 Testing of active and passive component |
| 2nd | 3rd | 1.3 Develop skills in assembly of components, soldering, and soldering techniques  1.4 Procedure for Cabinet Making |
| 4th | 1.3 Develop skills in assembly of components, soldering, and soldering techniques  1.4 Procedure for Cabinet Making |
| 3rd | 5th | ALLOTMENT OF PROJECTS  TO STUDENTS |
| 6th | ALLOTMENT OF PROJECTS  TO STUDENTS |
| 4th | 7th | Fabrication Techniques  2.1 Printed Circuit Boards (PCBs):  a) PCB board materials, their characteristics and plating, corrosion and its prevention.  b) Photo processing, screen printing, etching, high speed drilling, buffing, surface treatment  and protection from harsh environments, plated through holes, double sided and  Multilayer PCBs. |
| 8th | Fabrication Techniques  2.1 Printed Circuit Boards (PCBs):  a) PCB board materials, their characteristics and plating, corrosion and its prevention.  b) Photo processing, screen printing, etching, high speed drilling, buffing, surface treatment  and protection from harsh environments, plated through holes, double sided and  Multilayer PCBs. |
| 5th | 9th | c) Assembly of circuits on PCB, soldering techniques, role of tinning, flow and wave  Soldering, solder ability, composition of solder. Edge connector. |
| 10th | c) Assembly of circuits on PCB, soldering techniques, role of tinning, flow and wave  Soldering, solder ability, composition of solder. |
| 6th | 11th | LAB VIEW SIMULATION OF   * ANALOG CKTS * DIGITAL CKTS * POWER ELECTRONIC CKTS |
| 12th | LAB VIEW SIMULATION OF   * ANALOG CKTS * DIGITAL CKTS * POWER ELECTRONIC CKTS |
| 13th | Project guidance to students |
| 14th | MULTISIM SIMULATION OF   * ANALOG CKTS * DIGITAL CKTS * POWER ELECTRONICCKTS |

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| 8th | 15th | MULTISIM SIMULATION OF   * ANALOG CKTS * DIGITAL CKTS * POWER ELECTRONICCKTS |
| 16th | ORCAD SIMULATION OF   * ANALOG CKTS * DIGITAL CKTS * POWER ELECTRONICCKTS |
| 9th | 17th | ORCAD SIMULATION OF   * ANALOG CKTS * DIGITAL CKTS * POWER ELECTRONICCKTS |
| 18th | Introduction to log books and history sheets |
| 10th | 19th | Project review |
| 20th | Project review |
| 11th | 21th | PCB Layout Design:-  Practice in designing PCB layout using softwares like EDA/ORCAD |
| 22th | PCB Layout Design:-  Practice in designing PCB layout using softwares like EDA/ORCAD |
| 12th | 23th | Project review |
| 24th | Project review |
| 13th | 25th | Project review |
| 26th | Project review |
| 14th | 27th | Project review |
| 28th | Project review |
| 15th | 29th | **SUBMISSION OF PROJECT** |
| 30th | **SUBMISSION OF PROJECT** |