**20EE21S1-ELECTRICAL WORKSHOP**

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| **Course Category:** | Professional core | **Credits:** | 2 |
| **Course Type:** | Sill oriented course | **Lecture-Tutorial-Practical:** | 1-0-2 |
| **Pre-requisite:** | Basic concepts of electrical Engineering. | **Sessional Evaluation:**  **External Exam Evaluation:**  **Total Marks:** | 40  60  100 |

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| **Course Objectives:** | Students undergoing this course are expected to learn : | |
| 1. The basic knowledge of tools, electrical materials, symbols and devices.  2. The size and gauge of cables, personal protection equipment and safety.  3. The domestic and godown wiring.  4. The soldering, battery charging and testing.  5. The dismantling, assembling, repairing and testing of home appliances.  6 .The resistance measurement and earthing processes. | |
| **Course Outcomes:** | After completing the course the student will be able to | |
| CO1 | Understand tools, electrical materials, symbols and devices etc. |
| CO2 | Interpret about personal protection equipment and safety. |
| CO3 | Perform domestic and godown wiring procedures practically. |
| CO4 | Demonstrate soldering, battery charging and testing. |
| CO5 | Distinguish dismantling, assembling, repairing and testing of home appliances. |
| CO6 | Illustrate resistance measurement and design earthing processes. |
| **Course Content:** | Minimum of 10 experiments to be conducted out of the following:  **List of Experiments**  1. Introduction of tools, electrical materials, symbols and devices etc.  2. To study the sizes and ratings of cables  3. Study of Personal Protective Equipment and safety.  4. Earth resistance measurement and earthing process  5. Connection of ceiling fan with regulator  6. Soldering  7. Godown wiring  8. 12V battery charging and testing  9. Dismantling, repairing, assembling and testing of domestic appliances  10. 16A metal clad socket, MCB connection  11. To study circuit and working of home inverter.  12. To make a switch board containing at least two switches, one fan regulator and one 5A plug point  13. 5 in 1socket-(16A & 5A), switch, fuse and indicator connection  14. Armature winding of ceiling fan | |