**19EE22P1-ELECTRICAL WORKSHOP**

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| **Course Category:** | Professional core | **Credits:** | 1.5 |
| **Course Type:** | Laboratory | **Lecture-Tutorial-Practical:** | 0-0-3 |
| **Pre-requisite:** | Basic electric laws | **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 energy 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 | Understand about personal protection equipment and safety. |
| CO3 | Perform domestic and godown wiring procedures practically. |
| CO4 | Perform soldering, battery charging and testing. |
| CO5 | Understand dismantling, assembling, repairing and testing of home appliances. |
| CO6 | Perform energy measurement and 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. Measurement of energy using single phase energy meter  5. Earth resistance measurement and earthing process  6. Connection of ceiling fan with regulator  7. Soldering  8. Godown wiring  9. 12V battery charging and testing  10. Dismantling, repairing, assembling and testing of domestic appliances  11. 16A metal clad socket, MCB connection  12. To study circuit and working of home inverter.  13. To make a switch board containing at least two switches, one fan regulator and one 5A plug point  14. 5 in 1socket-(16A & 5A), switch, fuse and indicator connection  15. Armature winding of ceiling fan | |