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| **logoUniversity of Management & Technology**  School of Science & Technology  Department of Electrical Engineering | | | |
| EE-112 WORKSHOP PRACTICE LAB | | | |
| **Lab Schedule** | See on SEN website | **Semester** | Fall 2013 |
| **Title** | EE-112 Workshop Practice Lab | **Credit Hours** | 02 |
| **Instructor(s)** | Mr. Muhammad Shoaib  AbuBakar siddique  Neaha Maham  Hussain Ahmad Raza chaudhary  Ayesha Iqbal | **Contact** | [Muhammad.shoaib@umt.edu.pk](mailto:Muhammad.shoaib@umt.edu.pk)  [Abubakar@umt.edu.pk](mailto:Abubakar@umt.edu.pk)  [Neaha.maham@umt.edu.pk](mailto:Neaha.maham@umt.edu.pk)  [Hussain.raza@umt.edu.pk](mailto:Hussain.raza@umt.edu.pk)  [Ayesha.iqbal@umt.edu.pk](mailto:Ayesha.iqbal@umt.edu.pk) |
| **Office** | SEN website | **Office Hours** | SEN website |
| **Lab Work Objectives** | According to objectives listed in HEC guidelines as a, d, e, & f, this Lab includes the basic techniques such as:   * Series and parallel connections of electric wiring * Use of different types of switches * 3 phase circuits * PCB design * Hands on experience of sawing, filling, grinding and drilling operation, which make up the mechanical portion of the lab. | | |
| **Expected Outcomes** | Upon completion of this lab, students would:   * Have good understanding of electric wiring. * Understand one way and two way switches. * Be able to design PCB layouts. * Be able to perform the fundamental mechanical operations. * The course strongly supports expected outcomes a, b, d and i of the HEC Electrical Engineering Curriculum. | | |
| **Grading Policy** | * Lab Sessional 40%, Final 60% (Viva- 40% Project-20%) | | |

**Course Schedule**

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| EE-112 WORKSHOP PRACTICE LAB  List of Experiments | |
| **Week** | **Experiments** |
| **1** | TO CARRY OUT SERIES WIRING USING BULBS |
| **2** | TO CARRY OUT PARALLEL WIRING USING BULBS |
| **3** | USE OF SINGLE WAY SWICHES |
| **4** | USE OF TWO WAY SWICHES |
| **5** | TO CARRY OUT TESTING OF THREE PHASE (DELTA) WIRING SYSTEM |
| **6** | TO CARRY OUT TESTING OF THREE PHASE (WYE) WIRING SYSTEM |
| **7** | INTRODUCTION TO PROTEUS (ISIS) |
| **8** | IMPLEMENTATION OF A SIMPLE CIRCUIT ON PROTEUS (ISIS) |
| **9** | EXPORTING A CIRCUIT TO ARES |
| **10** | DRAWING THE PCB LAYOUT VIA ARES |
| **11** | CIRCUIT IMPLEMENTATION ON PCB (PRINTED CIRCUIT BOARD) |
| **12** | INTRODUCTION TO WORKSHOP TOOLS |
| **13** | TO CARRY OUT SAWING & FILING OPERATION ON A GIVEN WORK PIECE/JOB |
| **14** | TO CARRY OUT THE DRILLING OPERATION ON A WORK PIECE |
| **15** | TO CARRY OUT THE GRINDING OPERATION ON A WORK PIECE |