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| **logoUniversity of Management & Technology**School of Science & TechnologyDepartment 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 ShoaibAbuBakar siddiqueNeaha MahamHussain Ahmad Raza chaudharyAyesha Iqbal | **Contact** | Muhammad.shoaib@umt.edu.pkAbubakar@umt.edu.pkNeaha.maham@umt.edu.pkHussain.raza@umt.edu.pkAyesha.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.
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| **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.
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| **Grading Policy** | * Lab Sessional 40%, Final 60% (Viva- 40% Project-20%)
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**Course Schedule**

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| EE-112 WORKSHOP PRACTICE LABList 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 |