

**Lab Handout**  
**BITS-Pilani, Hyderabad Campus: FIRST SEMESTER 2019-2020**  
**INSTR F311 (Lab) – K-125: Electronic Instruments and Instrument**  
**Technology**

**Section-1: Wednesday, 11 am - 1pm, Section-2: Thursday, 3 - 5 pm**

Instructors: Karumbaiah C N (H-225) and Ponnalagu (H-226)

T.As: Sarda Sharma , Samit Kumar Ghosh and Madhusudan B Kulkarni.

Lab Technician: K Venkateshwarlu, and Sreekanth Talloju

**1. LABS**

- I. Experiment 1 Study of effects of measuring instruments - *MULTISIM*
- II. Experiment 2 Electronic Multimeter - *MULTISIM*
- III. Experiment 3 Design of signal conditioning circuit *MULTISIM*
- IV. Experiment 4 Design of ADC and DAC - *MULTISIM*
- V. Experiment 5 Print a Y-Channel with Obstacles using the 3D Printer-*MEMS*
- VI. Experiment 6 Battery level indicator - *Arduino Uno*
- VII. Experiment 7 Seven segment display and LCD interfacing - *Arduino Uno*
- VIII. Experiment 8 Moisture sensor (*Arduino Uno*) and Wheatstone Bridge Measurement (*Trainer Kit*)
- IX. Experiment 9 Piezoelectric sensor and Thermistor (*Arduino Uno*)
- X. Experiment 10 Strain gauge and optical transducer (*Trainer Kit*)

**2. Makeup Policy:** Make-up for Lab (maximum 1 per student) will be given as per Institute policy for students with genuine reasons.