

COURSE CODE	COURSE NAME	L-T-P-C	YEAR OF INTRODUCTION
EC 335	Power Electronics & Instrumentation Lab	0-0-3-1	2015
Prerequisite: EC307 Power Electronics & Instrumentation			
Course objectives:			
<ul style="list-style-type: none">• To design and implement basic power electronic circuits• To study the working of transducers• To train the usage of Digital Instruments			
List of Experiments (8 experiments mandatory):			
<p>Cycle I (Four mandatory)</p> <ol style="list-style-type: none">1. Design and Set up DC-DC converter2. Design and Set up Push pull DC- DC Converter3. Design and Set up Buck DC-DC Converters4. Design and Set up Simple SMPS5. Design and Set up Half bridge and full bridge converters6. Design and Set up basic Inverter Circuits <p>Cycle II (Four mandatory)</p> <ol style="list-style-type: none">7. Transducer measurements using diode thermometer8. Transducer measurements using LVDT9. Transducer measurements using Strain gauge.10. Transducer measurements using Pressure transducer.11. Transducer measurements using Thermocouple & RTDS12. Transducer measurements using Photocells <p>Desired Experiment</p> <ol style="list-style-type: none">13. Study of Digital LCR meter, Frequency synthesizer, Spectrum analyzer and Logic State analyzer application.			
Expected outcome:			
The student should be able to:			
<ol style="list-style-type: none">1. Design and demonstrate basic power electronic circuits.2. Use transducers for application.3. Function effectively as an individual and in a team to accomplish the given task.			