S. S. Education Trust 's CET Code: E-175 (UG)/T-942 (PG)

S. G. BALEKUNDRI INSTITUTE OF TECHNOLOGY

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Department of Electrical & Electronics Engineering

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Sl.No	Proposed Course Name	Objectives of the course	Scope of the course	Hard ware/Software Required	Aproximate cost	Proposed Faculty Name
01	Design of Earth Mat for High Voltage Substation	*Understanding substation grounding system *Identifying the conditions of danger * Understanding the selection of grounding conductors and rods * Evaluating ground resistance	Course is primarily concerned with outdoor ac substation, either conventional or gas-insulated. These include distribution, transmission and generating plant Substation.The intent of this course is to provide guidance and information pertinent to safe grounding practices in ac substation design.	CYMGRID	Rs 9,00,000/-	Prof Chetan Kudale
02	Electrical Panel Designing	1. To know about the different types electrical components and how to select components. 2. To design electrical control panel as per the customer requirement.	Electrical control panel designing are center for all industrial automation projects and represent a important element in proper working of the systems	Hardware: Electrical components are required software: autocad	Rs 60,000/-	Prof Basavaraj Hugar
03	Electrical Vehicle Technology	To understand the new technology of battery operated electric vehicles to replace conventional IC engine.	The ever increasing prices of petroleum products and serious environmental pollution problems have accelerated the development of non-polluting electric and hybrid vehicles during last few decades. The new technology of battery operated electric vehicles is likely to +replace conventional IC engine automobile technology soon.	Hard ware : Chesis, Battery, Parts of vehicles Softwre: MATLAB	Rs 1,00,000/-	Prof Mallikarjun B

04	Development of IOT Applications in Electrical Engineering	*Understand the definition and significance of the Internet of Things *Discuss the architecture, operation, and business benefits of an IoT solution *Examine the potential business opportunities that IoT can uncover *Explore the relationship between IoT, cloud computing, and big data *Identify how IoT differs from traditional data collection systems	Internet of Things has emerged as a leading technology around the world. It has gained a lot of popularity in lesser time. Also, the advancements in Artificial Intelligence and Machine Learning have made the automation of IoT devices easy. Basically, AI and ML programs are combined with IoT devices to give them proper automation. Due to this, IoT has also expanded its area of application in various sectors. Here, in this section, we will discuss the applications and the future scope of IoT in healthcare, automotive, and agriculture industries.	Hardware: Boards ,acessoroes	Rs 10,000	Prof . Pasala Naresh
05	C sharp programming for Unity	To develop learning tools using virtual reality with Unity software.	Development of virtual Basic Electrical lab / training	Hardware VR Device	Rs 40000	Dr Supanna. Shirguppe
06	Python basics	Basic knowledge about programming using Python	Python supports multiple programs Chosen Language for Artificial, machine language expert	IDE	0	Prof Manjula Biradar
07	SCADA Management	**Monitoring :** Continuous monitoring of the parameters of voltage , current, etc.. Measurement: Measurement of variables for processing. **Data Acquisition:** Frequent acquisition of data from	*Continuous monitoring of process. *Real time control. *Automation and Protection. *Remote control and operation.	Software : Elipse Hardware : PLC	Rs 1000000	Prof. Shrivatsav M

		RTUs and Data Loggers / Phasor data Concentrators (PDC). **Data Communication:** Transmission andreceiving of large amounts of data from field to control centre's. **Control**: Online real time control for closed loop and open loop processes.				
08	Design of DC Power supply	*To study various power Supply Topologies *To implement power supply for control applications	* To implement power supply for control applications	Software- PSPPICE	RS 2,00,000/-	Prof. Sharnabasav Marihal