1.1.2 Percentage of programmes where syllabus revision was carried out =(1/3)\*100=33%

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented (20)=(2/3)\*100=67%

Programme Code	Programme Name	Year of Introduction	Status of implementation of CBCS / Elective Course System (ECS)	Year of implemetation of CBCS / Elective Course System (ECS)	Year of revision (if any)	If revision has been carried out in the syllabus during 2021-2022 Percentage of content added or replaced	Link to the relevan documents
		4.	CBCS : Yes/No ECS: Yes/No	CBCS:Yes/No ECS:Yes/No	CBCS:Yes/No ECS:Yes/No	CBCS:Yes/No ECS:Yes/No	CBCS:Yes/No ECS:Yes/No
UG019	B.Tech (EE)	2015	CBCS:Yes	CBCS: 2018	CBCS: 2018	14.91%	https://www.sbbsunive rsity.ac.in/syllabus- electrical- engineering.php
PG017	M.Tech (EE)	2015	CBCS: Yes	CBCS: 2019	CBCS: 2019	NO E	nttps://www.sbbsunive sity.ac.in/syllabus- electrical- engineering.php
PG018	M.Tech (EE) P	2015	CBCS: Yes	CBCS: 2020	NO	NO E	ttps://www.sbbsunive sity.ac.in/syllabus- lectrical- ngineering.php
PhD010	PhD (EE)	2015	NO	NO	NO	NO r	ttps://www.sbbsunive sity.ac.in/research- hd-syllabus.php



	Depart	ment of Electrical Engineering	
List of		roduced in M.Tech (EE) during the last five y	ears
1	EE 515	Engineering Optimization	2019
2	EE515	PWM Converter and Applications	2019
3	EE517	Electric Power distribution System	2019
4	EE519	SCADA System and its applications	2019
5	EE521	Optimal and adaptive control	2019
6	EE523	Power System Steady State Analysis Lab	2019
7	EE505	Power System Dynamics Lab	2019
8	EE507	Advanced Digital Signal Processing	2019
9	EE512	Smart grids	2019
10	EE516	Industrial Load Modeling & Control	2019
11	EE524	Power Electronics Applications to Power Systems Lab	2019
12	EE526	Smart Grids Lab	2019
13	EE528	Artificial Intelligence Lab	2019
14	EE530	Waste to Energy Technology	2019
15	EE611	Dynamics of Linear Systems	2019
16	EE605	Renewable Energy Systems.	2019
17	EE503	Power system dynamic-I	2019
18	MAT524	Research Methodology and IPR	2019
19	EEA501	English for Research Paper Writing	2019
20	EEA502	Disaster Management	2019
21	EEA504	Value Education	2019
22	EEA505	Constitution of India	2019
23	EEA506	Pedagogy Studies	2019
24	EE516	Smart Grids	2019
25	EE609	Dissertation-I	2019
26	EE401	Electronic Design Laboratory	2019
27	EE408	Electrical and Hybrid Vehicles	2019



## Department of Electrical Engineering

# List of new courses introduced in B.Tech (EE) during the last five years

S.No	Course Code	Name of the Course	Year of introduction
1	EE 206-18	Signal and System	2018
2	PLS 303-18	Constitution of India	2018
3	EE 313-18	Electrical Energy Conservation & Auditing	2018
4	EE 31518	Industrial Electrical Systems	2018
5	EE317-18	Digital Control System	2018
6	CSE371-18	Basics of Database Design	2018
7	CSE373-18	Fuzzy Logic	2018
8	ME371-18	Total Quality Management	2018
9	ME373-18	Production Planning & Control	2018
10	EE314-18	Electrical Drives	2018
11	EE319-18	Line commutated and active PWM Rectifiers	2018
12	CSE372-18	Communication Networks	2018
13	CSE374-18	Computer Organization	2018
14	ME372-18	Industrial Engineering Management	2018
15	ME374-18	Lean Manufacturing	2018
16	EE372-18	Industrial Electrical System	2018
17	ECE372-18	Analog & Digital Communications	2018
18	CE372-18	Construction of Metro System	2018
19	CE374-18	Traffic Engineering	2018
20	EE407-18	HVDC Transmission Systems	2018
21	EE409-18	Computational Electromagnetics	2018
22	CSE471-18	Concepts of Operating System	2018
23	CSE473-18	Data Warehouse & Data Mining	2018
24	ME471-18	Material Management	2018
25	ME473-18	Mechatronics	2018
26	EE471-18	Wind and Solar energy system	2018
27	EE473-18	Instrumentation Engineering	2018
28	ECE471-18	Biomedical Electronic	2018
29	CE473-18	Waste Water Engineering	2018
30	C\$E472-18	Image Analysis	2018
31	CSE474-18	Concepts of Cloud Computing	2018
32	ME472-18	Production Operation Management	2018
33	ME474-18	Industrial Safety	2018
34	EE472-18	Electrical Materials	2018
35	EE474-18	Electrical & Hybrid Vehicles	2018
36	ECE472-18	Embedded System	2018
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37	ECE474-18	Advanced Optical Communication System	2018
38	CE472-18	Tall Building	
39	EE402		2018
40	EE404	Power System Protection	2018
		Electromagnetic Waves	2018
41	EE406	Power Quality And FACTS	2018
42	EE408	Electrical and Hybrid Vehicles	2018
43	EE410	Advance Electric Drives	2018
44	EE412	Power System Dynamics and Control	2018
45	CSE476	Big Data	2018
46	CSE478	Network Security	
			2018
47	ME476	Supply Chain Management	2018
48	ECE476	Digital System Design	2018
49	CE478	Site investigation	2018
50	EE 403-18	Industrial Training cum Project	2018
51	EE302-18	Power System –II (Operation & Control)	2018
52	EE401-18	Electronic Design Laboratory	2018
53	EE408-18	Electrical and Hybrid Vehicles	2018
54	EE473-18	Instrumentation Engineering	2018
55	EE310-18	Minor Project	2018
56	EE317-18	Digital Control System	2018
57	EE312-18	Electrical Machine Design	2018
58	EE401-18	Electronic Design Laboratory	2018
59	EE410-18	Advance Electric Drives	2018
60	CSE111	Programming for Problem Solving	2021
61	CSE113	Programming for Problem Solving Lab	2021
62	ME221	Engineering Mechanics	2021
63	BOT002	General Biology	
64	SSC007	Universal Human Values: Understanding Harmony	2021
65	EE323	Microprocessor	2021
66	EE329	Microprocessor Laboratory	2021
67	ENG205	Elective Technical Communication Skills	2021
68	EE416	6 Months Industrial Training	The second of th
69	EE342	Control Systems Design	2021
70	EE348	Computer Architecture	2021
71	CE338	Ground Water	2021
72	CE340	Construction Practice	2021
73	EE345	Electric Power Utilization	2021
74	CSE382	Cyber Security	2021
75	CSE384	Adhoc Networks	2021
76	ME372		2021
77	ME374	Environmental Pollution and Abatement	2021
78	ME374 ME376	Management Information System	2021
10	TATES 10	Maintenance and Reliability Engineering	2021

79 I	EE364	Wavelet Theory and Applications	
80 EE366		Industrial Automation	2021
81 CE421		Metro Systems & F.	2021
82 CE423		Metro Systems & Engineering	2021
	SSC008	Environmental Systems	2021
84	CSE481	Gender Culture and Development	2021
85	ME473	Basics of Database Designs	2021
86	ME475	Production, Planning & Control	2021
	The second of th	Smart Materials and Devices	2021
87	EE439	Electronic Devices	2021
88	EE441	Instrumentation in Power system.	2021
89	CE420	Environmental Laws and Policy	2021
90	CE422	Ecological Engineering	2021
91	CSE482	Software Testing and Quality Management	2021
92	EE445	Computational Intelligence	2021
93	CE424	Air and Noise Pollution Control	2021
94	CE426	Engineering Materials for Sustainability	2021
95	CSE488	Grid Computing	2021
96	ME474	Group Technology and Flexible  Manufacturing System	2021
97	CE428	Solid and Hazardous Waste Management	2021
98	CE430	Rural Water Supply and Onsite Sanitation Systems	2021
99	CSE490	Ecommerce and ERP	2021
100	ME476	Work study and Ergonomics Engineering	2021
101	CE432	Transport of Water and Waste Water	2021
102	CE434	Ground Water Engineering	2021
103	EE324	Biomedical Instrumentation	2022
104	EE372	Electric Generation and Economics	2022
105	EE208	Microprocessor & Interfacing Applications	2022
106	EE214	Microprocessor & Interfacing Applications Laboratory	2022
107	ECE373	Speech Signal & Image Processing	2022
108	ECE371	Mobile Communication	2022



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SANT BABA BHAG SINGH



## Sant Baba Bhag Singh University, Jalandhar University Institute of Engineering & Technology Attendance Record of Value Added Course

Course Name: Basic Electrical Safety
Offered to: B. Tech CSE 6th Sem (2019-23)

Offered by: EE Department Session: Jan'22-June'22

S.No.	Regd. No.	Charles	
1	19002004	Student Name	
2	19002012	Shivani	
3 19002019		Navjot Mehmi	
4	19002019	Shivam Sharma	
5		Sahil	
6	19002021	Akash	
7	19002024	Divya Vijay	
	19002025	Prince Lal	
8	19002029	Sandeep Singh	
9 .	19002033	Priyanka	
10	19002037	Navjot Singh	
11	19002040	Pawanjot Singh	
12	19002047	Geetanjali	
13	19002048	Dimple kumari	
14	19002050	Navjot	
15	19002054	Parminder Singh	
16	19002057	Amandeep Chopra	
17	19002060	Naranjan Singh	
18	19002062	Ritik	
19	19002073	Jograj Singh	
20	19002077	Sahil	
21	19002078	Mohit Jarial	
22	19002084	Sandeep Kaur	
23	19002091	Abantika	
24 .	19002093	Gurminder Singh	
25	19002099	Abhilash	
26	19002095	Seeya Rani	
27	19002103	Anjaali	
28	19002104	Sarbjit Kaur	
29	20107002	Chetan Bhardwaj	
30	20107003	Sourav Mahi	
31	20107006	Manish Kumar	
32	20107007	Dinesh Kumar	

Total Students: 32

Value added course Co-ordinator

Meddy EE HOW



# SANT BABA BHAG SINGH UNIVERSITY

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Approved under the section 2(f) of UGC Act 1956

# WALUE ADDED COURSE

**OFFERED BY** 

0

Department of Electrical Engineering

# "Basic Electrical Safety"

Course Co-Ordinator Er. Mandeep Singh

DESIGNED AT MEDIA CENTER



# Value Added Course

## On

# **Basic Electrical Safety**



Department of Electrical Engineering
University Institute of Engineering & Technology, SBBSU



#### ABOUT THE DEPARTMENT

The department offers a vibrant environment for education in Electrical Engineering. Our mission is to provide a high-quality education and prepare students to design and develop products as well as practical solutions to problems in public and private sectors. Currently, the department of Electrical Engineering offers B. Tech. in Electrical Engineering.

Faculty members in the Electrical Engineering department hold B. Tech/ M. Tech/ PhD degrees from prestigious government institutions. Faculty members have specialization in diverse fields of Electrical Engineering such as Power systems, Electrical Machines, Electrical Drives, High Voltage Engineering, Control systems, Instrumentation, Biomedical Engineering, Signal Processing, and Data Mining.

The faculty members have published significant number of research and review articles in reputed International Journals as well as in the Proceedings of various International and National Seminars, Conferences, Symposia and Workshops. Members of the faculty have also contributed chapters to books published by well-known international publishers.

#### SALIENT FEATURES

- > The department's faculty is highly qualified and has extensive teaching experience.
- Excellent teaching methodology with a focus on interactive learning through the use of audio-visual aids.
- Well-equipped and upgraded labs to provide students with hands-on learning opportunities.
- > IIT Delhi's Virtual Labs platform is being used to provide additional Virtual Lab classes.
- > The curriculum is well-balanced, with a good mix of research and industry-oriented courses.
- Students attend regular workshops, seminars, and guest lecturers to learn about the latest Technology and industry practices.
- Mini-projects and in-plant trainings to provide students with hands-on experience.
- > Industrial visits to various renowned companies to expose students to a variety of environments.

#### Value Added Course in Basic Electrical Safety

This Course is introduced with the objective of adding value to the knowledge of students of other streams. This Course is introduced to familiarize the students with basic concepts of electricity, associated hazards and their prevention.

#### VISION

To impart knowledge, develop skills and prepare graduate students in achieving global excellence in Electrical Engineering education, industry and research.

#### MISSION

- a. To prepare engineering graduates with a thorough knowledge of electrical engineering fundamentals.
- b. To train professionals with strong technical skills, a positive attitude, and strong moral standards.
- To encourage creativity and innovation through collaboration with industry, research organizations, and academia.

#### **Eligibility Criteria**

This Course is open for all Undergraduate and Postgraduate Students

#### Credits

This Course will be of Two Credits.

Course Code	EE011		
Course Title	BASIC ELECTRICAL SAFETY		
Type of Course	Value-added Course		
LTP	2:0:0		
Credits	02		
Course Prerequisites	+2/ Diploma Engineering in any stream		
Course Objectives (CO)	To be familiar with the basic concepts of electricity.     To familiarize the students with the Hazards associated		
	with electricity and their prevention.  3. To familiarize the students with the ways to eliminate, remove and prevent electrical hazards.		
Course Outcomes (COs)	At the end of course students will be able to:  1. Explain the objectives of electrical safety.  2. Describe the various electrical safety ways  3. Identifies the presence of electrical hazards and solution to minimize risks  4. Gain familiarity with electrical protective devices		

#### SYLLABUS

UNIT I: THEORY OF ELECTRICITY: Electricity, Elements and Atoms, Electrical Materials, Generating Electricity, Voltage, Current and Resistance. Factors that affect resistance, Direct Current (DC) Circuits, Alternating Current (AC), Circuits, Ohm's Law. Electromagnetism, Capacitance, Capacitive Reactance, Impedance, Extending Ohm's Law to AC Circuits, Low Impedance Circuit.

UNIT II: HAZARDS OF ELECTRICITY: Shock, Burns, Arc-Blast, Explosions, Fires, Primary Hazards Associated with Electricity, and Effects of electricity on the human body.

UNIT III: COMMON WORKPLACE CIRCUITS: Single phase two wire circuits, single phase three wire circuits, Electrical protective device.

UNIT IV: GROUNDING: Types of over current, Fuses, Circuit Breaker, Ground-Fault Circuit-Interrupter, working of Grounding, ground-fault, circuit-interrupters working, types, classes and testing, reversed polarity.

RECOMMENDED BOOKS				
S. No	Name	Author(S)	Publisher	
1	Handbook for Electrical Safety	Ray A. Jones	Cooper Bussmann, Inc.	
2	Electrical Safety, Fire Safety Engineering and Safety Management		KHANNA Publisher	



## **REGISTRATION FORM**

### 2 Credits Value Added

## Course on

# Basic Electrical Safety

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VENUE

Block No:5, Sant Baba Bhag Singh University, Jalandhar, Punjab, India.

**Address for Communication** 

Dr. Gurmanik Kaur Associate Professor & Head, Department of Electrical Engineering Sant Baba Bhag Singh University, Khiala, Padhiana, Jalandhar, Punjab 144030, India

