

REGISTRATION**ELIGIBILITY:-**

For all UG-PG students of
EEE.

No registration fee.

HOW TO REGISTER:-

Interested participants should send their duly completed registration form through their respective Head of Departments to Er. Pankaj Kumar Gutam, Asstt. Prof. EEE for registering their names as a participant in the value added course on "Making & Maintenance of Electrical Appliances" organized by department of Electrical & Electronics Engineering, SITE, SVSU, Meerut, the participants need to submit individual entry form.

IMPORTANT DATES:

Last date of receipt of
applications: 16/08/2021

Last date for acceptance of
notification:
20/08/2021

VENUE:

Lab no. 7,8, Ground floor,
Subharti Institute of
engineering and
Technology, SVSU,
Meerut.

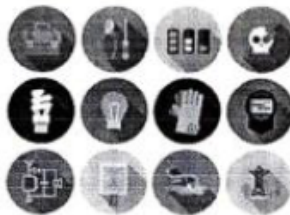
PATRON:-

Dr. ManojKapil
Principal, SITE, SVSU,
Meerut.

Er. P.K.Kaushal
HOD, EEE

CO-ORDINATOR

Er. Pankaj Kumar Gautam
Asstt. Prof., EEE, SITE.
Email:-
pankaj27gautam@yahoo.c
o.in

**A**

VALUE ADDED
COURSE

ON

Making & Maintenance
of Electrical Appliances

(From 23 Aug-2021 to 30
Aug-2021)

Organized by:
Department of
Electrical & Electronics
Engineering,
Subharti Institute of
Technology and
Engineering, SVSU,
Meerut,



SWAMI VIVEKANAND
SUBHARTI
UNIVERSITY (U.P.)


Registrar
Swami Vivekanand
Subharti University
MEERUT

REAMBLE

Electrical Maintenance Plan in 8 Steps:-

There is no doubt that electrical maintenance prevents complex and costly breakdowns. Still, most industrial maintenance plans put emphasize preventive maintenance for mechanical breakdowns and counter electrical breakdowns with reactive maintenance. The litmus test is the lack of stock to solve electrical malfunctions.

Another common symptom of lack of electrical maintenance is the absence of scheduled downtime days. Since this type of testing commonly requires turning off the electrical board (or phases of the board), it needs to be scheduled so as not to affect production. If there is no stock or scheduled downtime, then electrical maintenance becomes what we call "putting out fires".

COURSE OBJECTIVE

As the name implies, electrical maintenance encompasses all electrical components of the infrastructure. It is indispensable for industry, public buildings, and residential buildings. Some examples of tasks included in industrial and building maintenance:

- Electrical and electromechanical machines;
- Air conditioners or electric water accumulators;
- Electric showers;
- Review of power outlets and electrical connections;
- Review of the electrical board and circuit breakers;
- Measure the system voltage and amperage;
- Lighting system and common use electrical appliances;
- Monitor components' wear and corrosion;
- Repair of electrical damage.

COURSE CONTENT

Electrical maintenance techniques

Most of the electrical maintenance is based on monitoring the condition of the equipment, performing condition-based maintenance and, occasionally, predictive maintenance. These are some techniques that you can apply:

- **Preventive maintenance** – includes tests of the relay, circuit breaker, alternating current (AC), high voltage direct current (DC), and battery charge, among others.
- **Predictive maintenance** – namely infrared tests, to analyze emissivity and reflectivity, and temperature analysis.
- **Failure finding maintenance** – maintenance to try to find flaws in safety and backup systems, such as generators.
- **Reactive (or corrective) maintenance** – indicated for random breakdowns, especially in low criticality assets.

COURSE DURATION- 16 HOURS

SUBHARTI INSTITUTE OF
TECHNOLOGY AND
ENGINEERING, SWAMIVIVEKANAND
SUBHARTI UNIVERSITY

NH-58, Delhi-Haridwar Bypass Road
Subhartipuram, Meerut, Uttar
Pradesh, 250005

VALUE ADDED

COURSE ON

Making & Maintenance of Electrical Appliances

Organized By

Electrical & Electronics Engineering

From 23 Aug-2021 to 30 Aug-2021

REGISTRATION FORM

1. Name of Participant: _____

2. Department: _____

3. Year & Sem: _____

4. Phone Number: _____

I undertake to abide by the rules and regulations of the competition imposed by the organizing Department and will participate with utmost discipline for the same.

Date:

Signature of Applicant


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VALUE ADDED COURSE OF EEE DEPARTMENT

CODE: EEE VAC-01

NAME OF COURSE: MAKING & MAINTENANCE OF ELECTRICAL APPLIANCES

TOTAL DURATION OF THE COURSE: 16 Hrs

COURSE LEARNING OBJECTIVES:

1. To prevent minor faults from developing into major breakdown.
2. To reduce breakdown period.
3. To keep the machine in good working condition by reducing.

How to make an electrical maintenance plan step by step

Making an electrical maintenance plan is not much different from making a preventive maintenance plan, but it does have some nuances. If this is your first attempt, follow these 8 steps to prepare an electrical maintenance plan.

MODULE 1:- Asset criticality analysis

02Hrs

The first step is to perform a criticality analysis of the assets. Realize which equipment is a priority and which has a more alarming history. In general:

- critical assets must be reviewed every year;
- the building's electrical schematics must be reviewed every year (hand-made schematics don't count!);
- less critical assets should be reviewed every 24 months.

MODULE 2:- Assess which failures are preventable

02Hrs

Despite the benefits of preventive maintenance, not all failures are preventable. Therefore, the second step is to understand which failure modes are random and which ones follow a pattern.

MODULE 3:- Make a situation report with the team

02Hrs

Since most electrical maintenance requires shutting down equipment or panel phases, speak with your team to estimate the downtime required to check each machine.

02Hrs

MODULE 4:- Realise your team's capabilities

To realise your new plan, you need to understand how to use the resources at your disposal. Take advantage of the meeting with your team: can you execute the plan internally or do you need outsourcing?

MODULE 5:- Prepare BOMs (bill of materials)

02Hrs

For each inspection or repair to run smoothly, start preparing BOMs to know the material you need to have in stock and have a list of materials and possible replacements for each task.

MODULE 6:- Insert all documentation in the CMMS (computerized maintenance management system)

02Hrs

Now we just need to make sure that all the information about your electrical equipment (including location, manufacturer, responsible technician), BOMs, and maintenance plan is in your CMMS or, better yet, in your IMMP (Integrated Maintenance Management Program).

MODULE 7:- Train staff

02Hrs

Electrical maintenance carries safety risks, so it is important to establish safety rules. All maintenance technicians need to undergo a training period.


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Always improve. There is always room for improvement, especially if this is the first time that you are preparing an electrical maintenance plan. Evaluate the percentage of compliance, the results of the plan, the reduction of breakdowns and downtime compared to the previous year, and start again.

MODULE 8:- Continuous improvement

02Hrs

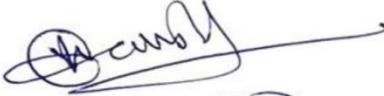
Always improve. There is always room for improvement, especially if this is the first time that you are preparing an electrical maintenance plan. Evaluate the percentage of compliance, the results of the plan, the reduction of breakdowns and downtime compared to the previous year, and start again.

COURSE LEARNING OUTCOMES: -at the end of this course students are able:

1. to understand the finding the faults in the home appliances.
2. To maintenance of some basic operations.
3. To understand the training requirements to apply at appliances at home.

References:-

1. <https://electrical-engineering-portal.com/maintenance-of-electrical-equipment-in-buildings>.
2. <https://electrical-engineering-portal.com/download-center/books-and-guides/electrical-engineering/practical-handbook>.
3. <https://www.licensedelectrician.com/Store/Maintenance.htm>


ACD(EEB)


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VALUE ADDED COURSE REPORT

TITLE NAME: MAKING & MAINTENANCE OF ELECTRICAL APPLIANCES

DURATION: 23/08/2021 to 30/08/2021

The value added course on **Making & Maintenance of Electrical Appliances** held since 23/08/2021 to 30/08/2021 was organized by the Electrical and Electronics engineering department of SITE for B.Tech.(EEE)- 2nd, 3rd, 4th Year & M.Tech (PED) 1st, 2nd year students.

The programme was organized with the following objectives:

1. To create awareness amongst students to basic concept of maintenance of electrical appliances.
2. To familiarize with basic tools and its uses.
3. To ensure the understanding of plan and repairing of various appliances.
4. To enable to make the electrical appliances for domestic purpose by self.
5. To develop technical skills to the students so that they can fulfill the market demand and hence ensure their employability.

The programme was based on presentations and interactive sessions on Making & Maintenance of Electrical Appliances. During the programme a variety of training methods like inspection and maintenance of appliances with presentation by participants were used. The programme was targeted to our students to impart various testing as well as safety measures. There were 19 participants of electrical & electronics engineering department enrolled and the same were completed the programme. The value added program was conducted by Er. Pankaj Kumar Gautam, Assistant Professor of electrical & electronics engineering department with the cooperation of other faculties and especially by the Head of department.


Er. P.K. Kaushal

HOD,EEE,
SITE,SVSU,Meerut


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VALUE ADDED COURSES

SESSION: 2020-21

COURSE NAME: Making & Maintenance of Electrical Appliances

COURSE CODE: EEE/VAC/01

LIST OF STUDENTS

S.NO	NAME OF STUDENT	FATHER NAME
1	1901000002183	SAURAV KUMAR
2	1901000002251	MD RAJJA AZAD
3	1901000002185	AMITESH KUMAR YADAV
4	1901000002186	RAJAT KUMAR SINGH
5	1901000002252	PREM KUMAR
6	1901000002253	ABHISHEK PANDEY
7	P-27916	SHAJID MAHTAB ALAM KHAN
8	1901000002966	SHAILESH KUMAR
9	1901000002432	BISWAJEET KUMAR
10	1801000020701	ANOJ PRADHAN
11	1701010001368	VIPUL MALIK
12	1701010002251	AADESH KUMAR
13	1701010000213	SHEIKH RIZWAN AHMAD
14	1801000020693	PRASHANT CHOUDHARY
15	1801000020694	NISHIKA KARDAM
16	9918010021671	VISHAL KUMAR
17	1901000002236	NIKITA RAI
18	1901000002237	KUSHKETU KUNDAN SRIVASTAVA
19	2001000033932	SACHIN KUMAR


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EEE VAC-01: Making & Maintenance of Electrical Appliances





What is innovation?

• Innovation refers to a 'new way of doing things'

• It may refer to incremental or radical changes in thinking, products, processes, or services.

Examples - Creativity + Vision + Execution

Handwritten notes on a whiteboard, including a diagram with three interconnected circles.