



## SILIGURI INSTITUTE OF TECHNOLOGY ELECTRICAL ENGINEERING

### **Brief Report of “Training on PLC & SCADA” for 5<sup>th</sup> semester, 2022 pass out Electrical Engineering students, duration: 02/11/2020 to 12/11/2020**

Industrial automation is the use of control systems, such as computers or robots, and information technologies for handling different processes and machineries in an industry to replace a human being. It is the second step beyond mechanization in the scope of industrialization. High productivity High Quality High flexibility High Information Accuracy High safety High Initial cost are some of the advantages of industrial automation. A programmable logic controller (PLC), or programmable controller is an industrial digital computer which has been ruggedized and adapted for the control of manufacturing processes, such as assembly lines, or robotic devices, or any activity that requires high reliability control and ease of programming and process fault diagnosis. They were first developed in the automobile industry to provide flexible, ruggedized and easily programmable controllers to replace hard-wired relays, timers and sequencers. Since then they have been widely adopted as high-reliability automation controllers suitable for harsh environments. A PLC is an example of a "hard" real-time system since output results must be produced in response to input conditions within a limited time. Supervisory control and data acquisition (SCADA) is a control system architecture that uses computers, networked data communications and graphical user interfaces for high-level process supervisory management, but uses other peripheral devices such as programmable logic controllers and discrete PID controllers to interface with the process plant or machinery. The operator interfaces which enable monitoring and the issuing of process commands, such as controller set point changes, are handled through the SCADA computer system. However, the real-time control logic or controller calculations are performed by networked modules which connect to the field sensors and actuators.

**Objective of the training:** Students will be explored to the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this training is to inculcate give the basic fundamentals of automation .

#### **Outcome of the program:**

Students will be able to:

- understand the basic concept of PLC and SCADA and their uses.
- able to realize the application of PLC and SCADA in industrial automation
- Gain skills on making projects with the application on PLC and SCADA.

*The program details are as below:*

**Title of program:** Training on PLC Automation

**Resource Organization:** Shikharthy

**Date:** 02/11/2020 to 12/11/2020

**Venue:** Online, [https://www.gotomeet.me/DeepayanPal/sipl\\_sit\\_plc](https://www.gotomeet.me/DeepayanPal/sipl_sit_plc)

**Participant Batch Year:** 2021 pass out batch, 5<sup>th</sup> semester EE

#### **Summary of the program:**

The following points can be noted from the program

---

#### **VISION OF THE DEPARTMENT:**

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

#### **MISSION OF THE DEPARTMENT:**

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.



## SILIGURI INSTITUTE OF TECHNOLOGY ELECTRICAL ENGINEERING

- At the beginning of the program an introductory and welcome speech has been delivered by Head of the Department, Department of Electrical Engineering, SIT, Siliguri.
- In the very fast 1st day trainer has explained the detailed theoretical concept of Industrial automation, PLC , SCADA and its use in present days in industries.
- From the day 2 , trainer took the students into the control system lab for introduction to PLC hardware, General PLC theory and concept, architecture of PLC, PLC components , Programming language introduction, introduction of PLC software, SCADA applications, features of SCADA etc. Students listened and learned in the entire session with accuracy.
- During the interactive session some students raised their queries and they motivated to start some basic projects based on PLC programming.
- The students are sometimes given scopes to explain their idea on board in front of other students.
- The attendance record of the students throughout the session was satisfactory.
- At the end of training the trainer took an exam .
- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and this kind of training program may be for longer period in future for such better output.
- Students The program continued with 46 students from 3rd year of Electrical Engineering Department.

### List of the enrolled students for the training:

Sl. No.	Roll No.	Name of Student
1	11901618011	Vivek Roy Kayet
2	11901618012	Swapnil Dutta
3	11901618013	Susmita Dutta
4	11901618014	Suman Bera
5	11901618015	Sujan Barman
6	11901618016	Subhankar Das
7	11901618017	Shaswata Sengupta
8	11901618018	Sayan Basak
9	11901618019	Sanyik Nath
10	11901618020	Rajiv Chettri
11	11901618021	Rajdeep Chakraborty
12	11901618022	Payel Majumdar
13	11901618023	Nischal Rai
14	11901618024	Komal Kumari
15	11901618025	Gourav Roy
16	11901618027	Darshan Nath
17	11901618028	Briti Das
18	11901618029	Bipin Kumar
19	11901618030	Bedabrata Dutta
20	11901618031	Barnali Biswas
21	11901618032	Aryan Chettri
22	11901618033	Abhishek Chaurasia
23	11901619001	Arko Bhattacharya
24	11901619002	Srijana Subba

#### VISION OF THE DEPARTMENT:

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

#### MISSION OF THE DEPARTMENT:

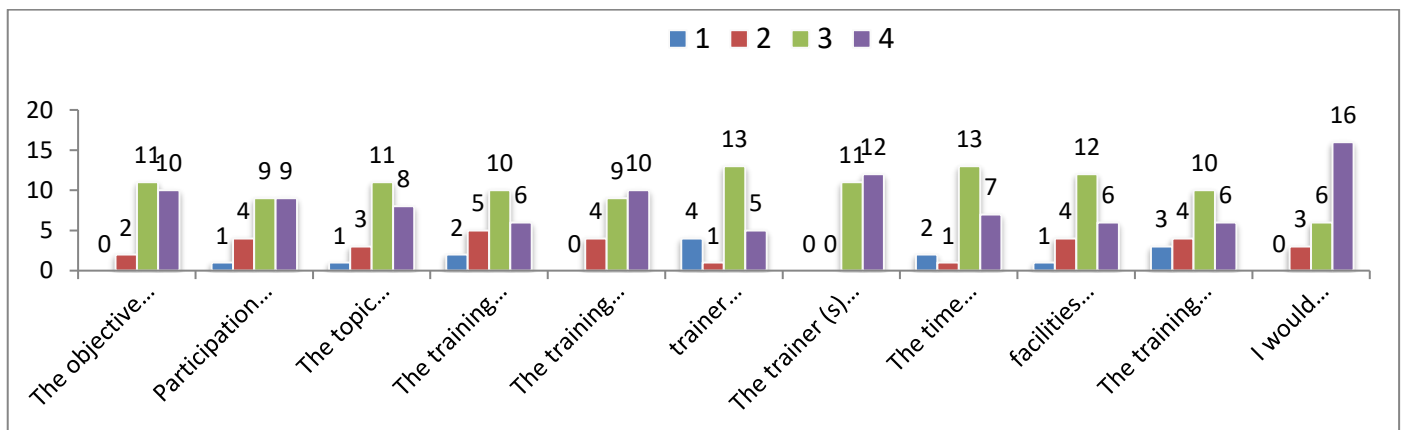
To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.



# SILIGURI INSTITUTE OF TECHNOLOGY ELECTRICAL ENGINEERING

25	11901619003	Jayshree Barman
26	11901619004	Joyram mistry
27	11901619005	Jagrity Saha
28	11901619024	Sachin Bhujel Khawas
29	11901619025	Kamalesh Gurung
30	11901619026	Dipna Thapa
31	11901619027	Shaqlein Ahmed
32	11901619028	Payel Das
33	11901619029	Saumalya Banik
34	11901619030	Pratik Roy
35	11901619031	Shreyasi Dutta
36	11901619032	Pritam Das
37	11901619033	Rohini Singh
38	11901619034	Monika Lama
39	11901619035	Subhadeep Adhikari
40	11901619036	Prakriti Tamang
41	11901619037	Biplab Mandal
42	11901619038	Animesh Singha
43	11901619039	Dipankar Singha
44	11901619040	Rohan Roy
45	11901619041	Sital Pradhan
46	11901619042	Arindam Das

Students feedback:



Head of the Department  
Department of Electrical Engineering,  
Siliguri Institute of Technology

H.O.D

Department of Electrical Engineering

Jt- coordinators

Training and Placement subcommittee,

**VISION OF THE DEPARTMENT:**

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

**MISSION OF THE DEPARTMENT:**

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.



# **SILIGURI INSTITUTE OF TECHNOLOGY**

## **ELECTRICAL ENGINEERING**

---

**VISION OF THE DEPARTMENT:**

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

**MISSION OF THE DEPARTMENT:**

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.