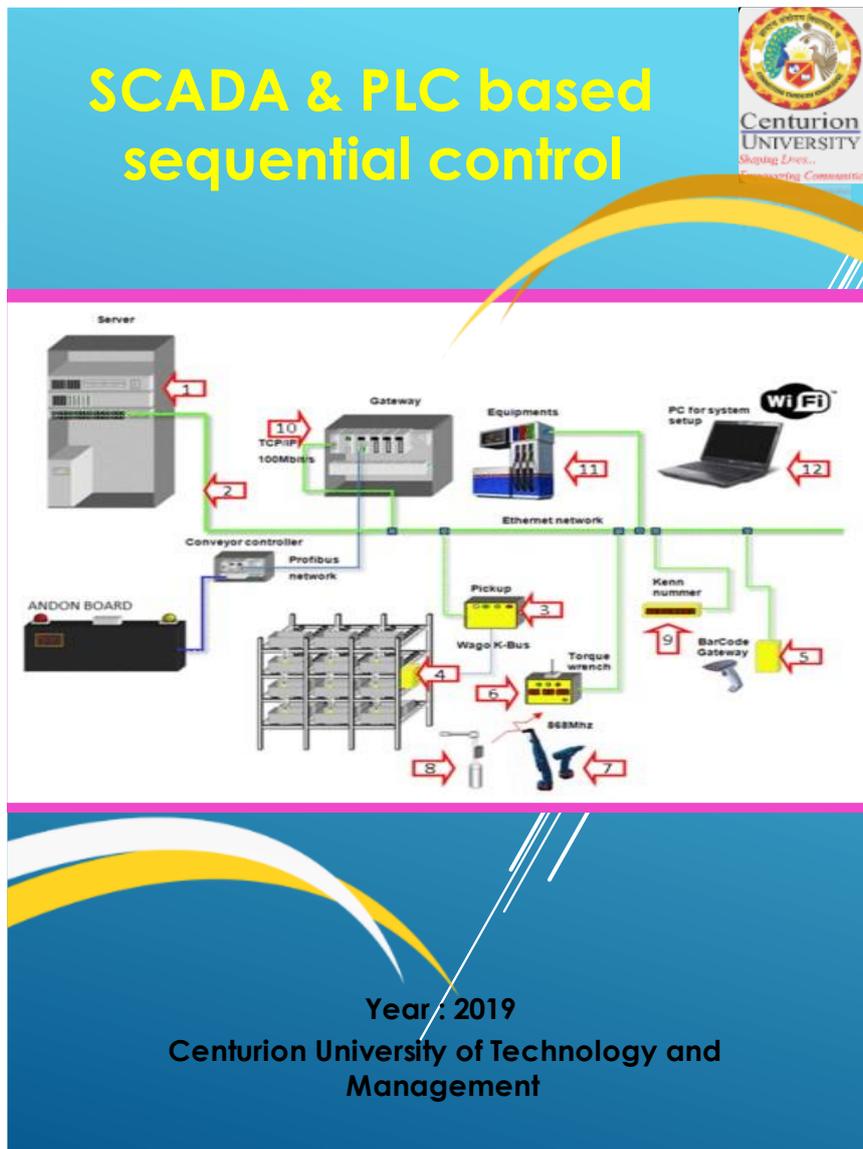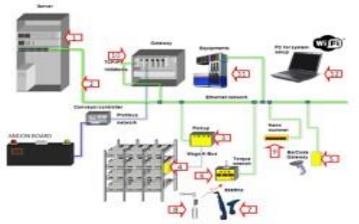# SCADA & PLC based sequential control

Year:2019-20

Event Description:

This SCADA & PLC based sequential control webinar was organized on the year of 2019-20 By Centurion University of Technology and Management

Course Objectives:
- To upgrade knowledge levels needed for modern industries
- Process & sequential control logic of industry.
- Project based training

Learning Outcomes:
- Gain knowledge on advanced industrial automation
- Understand different types of Devices to which PLC input and output modules are connected
- Provide the knowledge about understand various types of mobile applications.
- Industry based project & advanced learning.

Pre-requisites: Nil
Course Type : Audit (Workshop)
Duration : 30 Hours

Module	Contents	Duration
Module-1	**SCADA & PLC BASED SEQUENTIAL CONTROL** • Script • Networking • Device connectivity. • Practice : • Script • Networking • Device connectivity	10 hours
Module-2	**SCADA BASED ADVANCED FEATURES** • Alarms • Trends, Data base connectivity & Report generation • Recipe management • Security. • Practice : • - Data fetching and representing on graph and excel • - Advanced controlling of industry by using SCADA	10 hours
Module-3	**ADVANCED PROGRAMMING & CONTROL BLOCKS OF PLC** • CPT, ADD, SUB, MUL, DIV, SQR, NEG, TOD, FRD • MOV,MVM , AND, OR, XOR, NOT. CLR. • BSL, BSR, SQC, SQL,SQO, FFL,FFU ,LFL,LFU • JMP,LBL,JSR,MCR • Connecting PLC software with SCADA software • Practice • - Comparison of industry based analog signals . • - Detecting different product output of an industry • - Sequential control of an industry by using advanced blocks. • - Emergency control system of a industry • Connecting PLC software with SCADA software	10 hours
	TOTAL	**30 hours**

Dr. Anita Patra, Registrar, CUTM

Convener

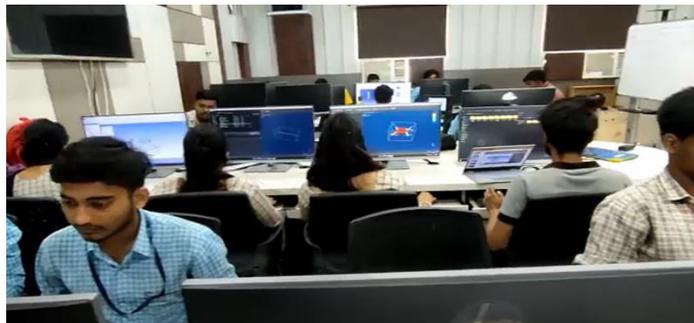# Report on SCADA & PLC based sequential control

Total number of participants: 60

Academic year: 2018-19

Date : 19.11.2019

The program intended to upgrade knowledge levels needed for modern industries and process & sequential control logic of industry. Furthermore, project-based training was extensively discussed in the program.

The training program was based on hands-on experience, where the participantsgained knowledge on advanced industrial automation. Furthermore, learners understood different types of Devices to which PLC input and output modules are connected. Knowledge about understanding various types of mobile applications was also discussed. The program was also linked with Industry based project & advanced learning.

Lecture on SCADA & PLC based sequential control on 19.11.2019

Supervisory control and data acquisition (SCADA) allows a utility operator to monitor and control processes that are distributed among various remote sites.SCADA, is a system for gathering real time data, controlling processes, and monitoring equipment from remote locations. As more companies are

implementing an open SCADA architecture through the Internet to monitor critical infrastructure components such as power plants, oil and gas pipelines,chemical refineries, flood control dams, and waste and water systems, vital systems are becoming increasingly open to attack. This report provides an overview of SCADA, outlines several vulnerabilities of SCADA systems,

presents data on known and possible threats, and provides particular remediationstrategies for protecting these systems.

PLCs are used in many different industries and machines such as packaging and semiconductor machines. Programs to control machine operation are typically stored in battery-backed or non-volatile memory. A programmable logic

controller (PLC) or programmable controller is a digital computer used for automation of electromechanical processes, such as control of machinery on factory assembly lines, amusement rides, or lighting fixtures. PLCs are used inmany industries and machines. Unlike general-purpose computers, the PLC isdesigned for multiple inputs and output arrangements, extended temperature ranges, immunity to electrical noise, and resistance to vibration and impact.

Dr. Anita Patra, Registrar, CUTM   **Convener**

List of Participants
SCADA & PLC based sequential control

Organized by: Centurion University of Technology and Management
Date: 19 November 2019

Event Description:

This SCADA & PLC based sequential control webinar was organized in the year of 2019 By Centurion University of Technology and Management.

List of Participants:

S.No.	Name	Reg. No.	Presence/Absent
1	AYAN BISWAS	190301120010	Present
2	ABHISHEK SETHI	190301120011	Present
3	SAGAR DEY	190301120012	Present
4	ASHUTOSH MOHAPATRA	190301120013	Present
5	SOURAV PRAKASH PATRA	190301120014	Present
6	RUDRA MADHAB JENA	190301120015	Present
7	AVIJEET BASTIA	190301120032	Present
8	KALPITA PATRA	190301120033	Present
9	SONALIKA SAPANPRIYA DEHURY	190301120034	Present
10	JISHNU PORE	190301120006	Present
11	ROMIT SWAIN	190301120007	Present
12	SOURAV DHALI	190301120008	Present
13	PRATIK BOSE	190301120009	Present
14	SOHOM GHORAI	190301120001	Present
15	SIDDHARTH PARICHHA	190301120002	Present
16	SRIJAN DAS	190301120003	Present
17	RITAM PATTANAYAK	190301120004	Present
18	ANKIT KUMAR PRADHAN	190301120005	Present
19	ISHAN ROUT	190301120021	Present
20	SANITY SETHY	190301120022	Present
21	PRITEESH KUMAR MOHANTY	190301120026	Present
22	MD SHAMSHER ALAM	190301120028	Present
23	SOBITA DAS	190301120023	Present
24	AYUSH KUMAR PATEL	190301120024	Absent
25	SHUBHAM NAYAK	190301120025	Present
26	ALOK KUMAR	190301120016	Present
27	ARPANA SINHA	190301120017	Present

28	ALISHA DASH	190301120018	Present
29	K LOKESH PATRO	190301120019	Present
30	MIHIR PRADHAN	190301120020	Present
31	RAJAT KUMAR SEN	190301120047	Present
32	SIBA SANKAR LENKA	190301120048	Present
33	BIPLAB KUMAR ROUT	190301120049	Present
34	SANTOSH KUMAR KARAM	190301120040	Present
35	HITISH KUMAR RAY	190301120041	Absent
36	AMAN PATNAIK	190301120042	Present
37	PRAJNA PRATIMA MOHAPATRA	190301120056	Present
38	VIKASH KUMHAR	190301120057	Present
39	AMAR KUMAR NAYAK	190301120058	Present
40	BASUDEV KIRTANIA	190301120059	Present
41	BHAGABAT BISWAL	190301120060	Present
42	SHIVA GIRI	190301120061	Present
43	AUROCHANDAN PRADHAN	190301120029	Present
44	MONALISHA PRUSTY	190301120030	Present
45	BISWAJEET NAYAK	190301120031	Present
46	MUNESH SUTAR	190301120035	Present
47	ARPITA SAHU	190301120036	Present
48	BHABESH DAS	190301120037	Present
49	BAPUN DAS	190301120038	Present
50	AMBEET KUMAR MOHAPATRA	190301120039	Present
51	PRAVEEN KUMAR SAH	190301120043	Present
52	CHIRANJIT SAMADDAR	190301120044	Present
53	PRAKASH SAHOO	190301120045	Present
54	RAKESH KUMAR DAS	190301120046	Present
55	CHANDRA SHEKHAR PALAI	190301120050	Present
56	RANJIT SINGH	190301120051	Present
57	SWASTIK BHUYAN	190301120052	Present
58	AKASH KUMAR ROUT	190301120053	Absent
59	NITISH KUMAR PANIGRAHI	190301120054	Present
60	SUBHALAXMI PATTNAIK	190301120055	Present

Dr. Anita Patra, Registrar, CUTM

Convener