



Indra Ganesan

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION – 1

CURRICULAR ASPECTS

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

INDRA GANESAN COLLEGE OF ENGINEERING





DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

ACADEMIC YEAR 2021-2022 / EVEN SEMESTER

1.2 Academic Flexibility (30)

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

AND

1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

VAC Title:	Automation using PLC and SCADA				
Resource Person:	Dr.M.Aravith, Design Engineer, Sri Sai Software.				
Date of conduct from:	01.08.2022	To:	05.08.2022	Duration:	30 Hours
Organized Department:	ELECTRICAL AND ELECTRONIC ENGINEERING				
Participant Year:	EEE- IV, III, II	Semester:	EVEN	No. of Students Registered:	38
Venue:	EEE III yr Classroom, IGCE.				

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Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli - 620 012
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Department of Electrical and Electronics Engineering

Academic Year 2021-2022 –Even Semester

27.07.2022

DEPARTMENT CIRCULAR

Department of Electrical and Electronics Engineering and IQAC of IGCE in association with Sri Sai Software is going to organize Value Added Course for all Second, Third and Final year students on “Automation using PLC and SCADA” from 01.08.2022 to 05.08.2022. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus.

Resource Person Detail	1. Dr.M.Aravith, Design Engineer, Sri Sai Software.
Venue	EEE III yr Classroom, IGCE

G. Ma Lathi
HOD/EEE

[Signature]
Principal

Cc:

- Principal office
- IQAC Co-Ordinator
- Class In charges - II, III & IV-Year
- II, III & IV-Year EEE Students
- Office File
- Notice Board

[Signature]
Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



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Value Added Course


“Automation using PLC and SCADA”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction to PLC	3	01.08.2022
2	Architecture PLC Block diagram	3	01.08.2022
3	PLC Hardware	3	02.08.2022
4	Interfacing Instruction set, Ladder logic for applications	3	02.08.2022
5	PLC programming and applications	3	03.08.2022
6	Timer, counter, Arithmetic operations, Data handling instructions.	3	03.08.2022
7	Introduction to SCADA	3	04.08.2022
8	Architecture, Block diagram of SCADA.	3	04.08.2022
9	Types and Application of SCADA.	3	05.08.2022
10	Interfacing of SCADA with PLC.	3	05.08.2022
11	Exam	1	05.08.2022
Total Hours(Excluding Exam)		30	-


VAC Coordinator


HOD/EEE


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



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Value Added Course

"Automation using PLC and SCADA"

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering

IG Valley, Madurai Main Road

Manikandam, Trichy-620 012.

STUDENTS PARTICIPATION LIST

S.NO	REGISTER NUMBER	NAME	DEPARTMENT
1	811218105001	ARUN PRAVEEN RAJ A	IV/EEE
2	811218105002	HARIHARAN M	IV/EEE
3	811218105003	INBARAJ A	IV/EEE
4	811218105004	JEYA STEPHEN S	IV/EEE
5	811218105005	MANIKANDAN N	IV/EEE
6	811218105006	PADMANABAN A	IV/EEE
7	811218105007	SASIKUMAR R	IV/EEE
8	811218105008	SIVAKUMAR P	IV/EEE
9	811218105009	VEERA RAGAVAN A	IV/EEE
10	811218105010	YUVARAJ S	IV/EEE
11	811219105002	M.BARATH	III/EEE
12	811219105003	A.MANIKANDAN	III/EEE
13	811219105005	C.PONNALAGU	III/EEE
14	811219105006	A.SALAMON	III/EEE
15	811219105007	M.SARAVANAKUMAR	III/EEE
16	811219105008	K.SOLAIMATHI	III/EEE
17	813919105001	P.DHEVENTHIRAN	III/EEE
18	811219105301	A. VENKATRAMAN	III/EEE
19	811220105001	ABINESH T	II/EEE
20	811220105002	ALEX IMMANVEL S	II/EEE
21	811220105006	BALAMURUGAN A	II/EEE



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S.NO	REGISTER NUMBER	NAME	DEPARTMENT
22	811220105011	DIVYA B	II/EEE
23	811220105013	GAYATHRI M	II/EEE
24	811220105017	KARTHIK D	II/EEE
25	811220105019	LATCHIYA K	II/EEE
26	811220105022	MANIKANDAN K	II/EEE
27	811220105023	MOHANDOSS S	II/EEE
28	811220105024	NAVEEN R	II/EEE
29	811220105031	SANDURU K	II/EEE
30	811220105032	SANTHIYA A	II/EEE
31	811220105035	SHANMUGAM S	II/EEE
32	811220105037	SNEKA T	II/EEE
33	811220105038	SOPHIYA K	II/EEE
34	811220105301	AARTHI S	II/EEE
35	811220105303	THIRUNAVUKARASU M	II/EEE
36	811220105305	VENKATESHWARAN.A	II/EEE
37	811220105306	DIVYA BHARATHI	II/EEE
38	811220105307	SATHEESH KUMAR	II/EEE


VAC Coordinator


G. Ma lathu
HOD/EEE


Dr. G. Balakrishnan, M.E., Ph.D.,
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Department of Electrical and Electronics Engineering

Academic Year 2021-2022 – Even Semester

STUDENTS ATTENDANCE LIST

Value Added Course

“Automation using PLC and SCADA”


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
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IG Valley, Madurai Main Road
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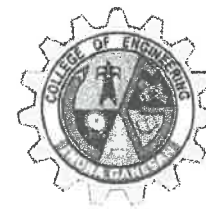
S.NO	Register Number	NAME	YEAR/ BRANCH	01.08.2022		02.08.2022		03.08.2022		04.08.2022		05.08.2022		NO OF SESSIONS ATTENDED	SIGN OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	811218105001	ARUN PRAVEEN RAJ A	IV/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	A Arun Raj
2	811218105002	HARIHARAN M	IV/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	M. Hariharan
3	811218105003	INBARAJ A	IV/EEE	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	Inbaraj
4	811218105004	JEYA STEPHEN S	IV/EEE	✓	✓	✓	✓	✓	a	✓	✓	✓	✓	9	S. Jeya Stephen
5	811218105005	MANIKANDAN N	IV/EEE	✓	✓	✓	✓	✓	✓	✓	a	✓	✓	9	N. Manikandan
6	811218105006	PADMANABAN A	IV/EEE	✓	a	✓	✓	✓	✓	✓	✓	✓	✓	9	A. Padmanaban
7	811218105007	SASIKUMAR R	IV/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	R. Sasikumar
8	811218105008	SIVAKUMAR P	IV/EEE	a	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	P. Sivakumar
9	811218105009	VEERA RAGAVAN A	IV/EEE	✓	✓	✓	✓	✓	a	✓	✓	✓	✓	9	A. Veeragavan
10	811218105010	YUVARAJ S	IV/EEE	✓	✓	✓	a	✓	✓	✓	✓	✓	✓	9	S. Yuvaraj
11	811219105002	M.BARATH	III/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	M. Barath



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S.NO	Register Number	NAME	YEAR/ BRANCH	01.08.2022		02.08.2022		03.08.2022		04.08.2022		05.08.2022		NO OF SESSIONS ATTENDED	SIGN OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
12	811219105003	A.MANIKANDAN	III/EEE	✓	✓	✓	✓	✓	a	✓	✓	✓	✓	9	A. Manikandan
13	811219105005	C.PONNALAGU	III/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	C. Ponnalagu
14	811219105006	A.SALAMON	III/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	A. Salamon
15	811219105007	M.SARAVANAKUMAR	III/EEE	✓	✓	✓	a	✓	✓	✓	✓	✓	✓	9	M. Saravanan
16	811219105008	K.SOLAIMATHI	III/EEE	✓	✓	✓	✓	a	a	✓	✓	✓	✓	8	K. Solaimathi
17	813919105001	P.DHEVENTHIRAN	III/EEE	✓	✓	✓	✓	✓	✓	a	a	✓	✓	8	P. Dheventhiran
18	811219105301	A. VENKATRAMAN	III/EEE	✓	a	✓	✓	✓	✓	✓	✓	✓	✓	9	A. Venkatraman
19	811220105001	ABINESH T	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	T. Abinesh
20	811220105002	ALEX IMMANVEL S	II/EEE	✓	✓	✓	✓	✓	✓	✓	a	✓	✓	9	A. Immanuel
21	811220105006	BALAMURUGAN A	II/EEE	a	a	✓	✓	✓	✓	✓	✓	✓	✓	8	B. Balamurugan
22	811220105011	DIVYA B	II/EEE	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	B. Divya
23	811220105013	GAYATHRI M	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	G. Gayathri
24	811220105017	KARTHIK D	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	D. Karthik
25	811220105019	LATCHIYA K	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	K. Latchiya
26	811220105022	MANIKANDAN K	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	K. Manikandan

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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
27	811220105023	MOHANDOSS S	II/EEE	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	Mohandoss
28	811220105024	NAVEEN R	II/EEE	✓	✓	✓	a	✓	✓	✓	✓	✓	✓	9	Naveen R
29	811220105031	SANDURU K	II/EEE	✓	✓	✓	✓	✓	a	✓	✓	✓	✓	9	Sanduru
30	811220105032	SANTHIYA A	II/EEE	✓	a	✓	✓	✓	✓	✓	✓	✓	✓	9	Santhiya
31	811220105035	SHANMUGAM S	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Shanmugam
32	811220105037	SNEKA T	II/EEE	✓	✓	✓	✓	a	✓	✓	✓	✓	✓	9	Sneka T
33	811220105038	SOPHIYA K	II/EEE	a	a	✓	✓	✓	✓	✓	✓	✓	✓	8	K. Sophiya
34	811220105301	AARTHI S	II/EEE	✓	✓	✓	✓	✓	a	✓	✓	✓	✓	9	Aarthi S
35	811220105303	THIRUNAVUKARASU M	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	M. Thirunavukarasu
36	811220105305	VENKATESHWARAN.A	II/EEE	✓	✓	a	✓	✓	✓	✓	✓	✓	✓	9	A. Venkateshwaran
37	811220105306	DIVYA BHARATHI	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Divya Bharathi
38	811220105307	SATHEESH KUMAR	II/EEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Satheesh Kumar


VAC Coordinator


Dr. G. Balakrishnan, M.E., Ph.D.,
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Manikandam, Trichy-620 012.


HoD/EEE



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Name of the Student:

Year/Sem:

AU Register Number:

Value Added Course

“Automation using PLC and SCADA”

MULTIPLE CHOICE QUESTIONS (25X1 = 25 Marks)

- 1) Which is the first PLC model?
1. PLC 086 2. PLC 085 3. PLC 084 4. None
- 2) How many operation steps does the programmable logic controller have?
1. Two 2. One 3. Four 4. Three
- 3) In PLC operation _____ checks the status at the input side
1. Program scan 2. Output scan 3. Input scan 4. None
- 4) The components that make PLC works can be divided into _____ core areas
1. Two 2. One 3. Four 4. Three
- 5) In PLC operation _____ retrieves the data into an output module
1. Output scan 2. Input scan 3. Program scan 4. None of the above
- 6) Before PLC's was created many industries used _____
1. Capacitors 2. Relays 3. Resistors 4. None of the above
- 7) What are the types of programmable logic controllers?
1. Modular, uniform PLC 2. Fixed and Modular PLC
3. Fixed, uniform PLC 4. None of the above
- 8) Who invented the Programmable Logic Controller (PLC)?
1. Dick Morley 2. Jonas Wenstrom
3. Thomas Davenport 4. None of the above
- 9) In modular programmable logic controller _____
1. Output is fixed 2. Input is fixed
3. All of above 4. None of above


Dr. G. Balakrishnan, M.E., Ph.D.,
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10) CCTV cameras is an example for _____ automation

1. Office automation
2. Scientific automation
3. Industrial automation
4. Building automation

11) The PLC's can be programmed in _____

1. Instruction list, Functional block diagram
2. Ladder logic, structured text
3. Sequential function chart
4. All of the above

12) The programmable logic controllers are used in _____

1. Cement manufacturing
2. Process automation plants
3. Glass and paper industry
4. All of the above

13) The sequences are classified into _____

1. One
2. Two
3. Three
4. Four

14) In modular type PLC, the PLC's are classified into _____

1. Transistor output PLC
2. Relay output PLC
2. Triac output PLC
4. All of the above

15) In fixed programmable logic controller _____

1. Output is fixed
2. Input is fixed
3. None of the above
4. All of above

16) The advantages of PLC are _____

1. Reliability is high
2. Small in size
3. Easy maintenance
4. All of the above

17) The visual programming language also called as _____

1. Ladder logic
2. Relay logic
2. All of the above
4. Controller logic

18) The PLC internally operates, stores, and calculates the value in _____

1. Decimal format
2. Octal format
3. Binary format
4. None


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19) What are the components that make the programmable logic controller work?

1. Power supply
2. CPU
3. Input and output module
4. All of the above

20) The control in SCADA is _____

1. Online control
2. Direct control
3. Supervisory control
4. Automatic control

21) When did the SCADA start?

1. 1980s
2. 1990s
3. 1970s
4. 1960s

22) Which of the following is an example of the SCADA system?

1. Emerson Delta V
2. Honeywell Plant Scape
3. Yokogawa CENTUM
4. Power Studio Deluxe

23) How many levels are present in a complex SCADA system?

1. 3 – Levels
2. 5 – Levels
3. 4 – Levels
4. 6 – Levels

24) Which of the following is the heart of a SCADA system?

1. PLC
2. HMI
3. Alarm task
4. I/O task

25) Which of the following is not the component of a SCADA system?

1. Database server
2. I/O system
3. PLC controller
4. Sparger controller

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Value Added Course

Automation using PLC and SCADA”

ANSWER KEY

1	3	6	2	11	2	16	4	21	4
2	4	7	2	12	4	17	1	22	4
3	3	8	1	13	3	18	3	23	3
4	3	9	3	14	4	19	4	24	4
5	1	10	1	15	4	20	3	25	4


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VAC Coordinator



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Name of the Student: Divya bharathi
AU Register Number: 811220105306

Year/Sem: II / VI

Value Added Course

“Automation using PLC and SCADA”

MULTIPLE CHOICE QUESTIONS (25X1 = 25 Marks)

19
25

1) Which is the first PLC model?

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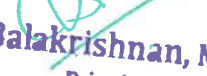
1. Modular, uniform PLC 2. Fixed and Modular PLC
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9) In modular programmable logic controller _____

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17) The visual programming language also called as _____

1. Ladder logic 2. Relay logic
2. All of the above 4. Controller logic

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1. Decimal format 2. Octal format
 3. Binary format 4. None



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19) What are the components that make the programmable logic controller work?

1. Power supply
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1. 1980s
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Principal

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Name of the Student: Somshankar

Year/Sem: III / VI

AU Register Number: 811220105023

21
25

Value Added Course

“Automation using PLC and SCADA”

MULTIPLE CHOICE QUESTIONS (25X1 = 25 Marks)

1) Which is the first PLC model?

1. PLC 086 2. PLC 085 3. PLC 084 4. None

2) How many operation steps does the programmable logic controller have?

1. Two 2. One 3. Four 4. Three

3) In PLC operation _____ checks the status at the input side

1. Program scan 2. Output scan 3. Input scan 4. None

4) The components that make PLC works can be divided into _____ core areas

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5) In PLC operation _____ retrieves the data into an output module

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6) Before PLC's was created many industries used _____

1. Capacitors 2. Relays 3. Resistors 4. None of the above

7) What are the types of programmable logic controllers?

1. Modular, uniform PLC 2. Fixed and Modular PLC
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8) Who invented the Programmable Logic Controller (PLC)?

1. Dick Morley 2. Jonas Wenstrom
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10) CCTV cameras is an example for _____ automation

1. Office automation 2. Scientific automation
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11) The PLC's can be programmed in _____

1. Instruction list, Functional block diagram 2. Ladder logic, structured text
3. Sequential function chart 4. All of the above

12) The programmable logic controllers are used in _____

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14) In modular type PLC, the PLC's are classified into _____

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1. Reliability is high
2. Small in size
3. Easy maintenance
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IG Valley, Madurai Main Road
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Name of the Student: Hariharan.M

Year/Sem: IV / VII

AU Register Number: 811218105002

Value Added Course

“Automation using PLC and SCADA”

MULTIPLE CHOICE QUESTIONS (25X1 = 25 Marks)

19
—
25

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108

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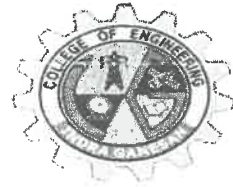
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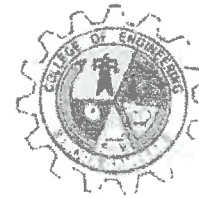
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Department of Electrical and Electronics Engineering

Academic Year 2021-2022 – Even Semester

VALUE ADDED COURSE ASSESMENT SHEET

“Automation using PLC and SCADA”

S.NO	Register Number	NAME	YEAR/ BRANCH	Attendance Details		VAC-MCQ TEST		OVERALL MARK (100)
				No. of Hours Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	(50% of A + 50% of B)
1	811218105001	ARUN PRAVEEN RAJ A	IV/EEE	30	100	20	80	90
2	811218105002	HARIHARAN M	IV/EEE	30	100	19	76	88
3	811218105003	INBARAJ A	IV/EEE	27	90	19	76	83
4	811218105004	JEYA STEPHEN S	IV/EEE	27	90	21	84	87
5	811218105005	MANIKANDAN N	IV/EEE	27	90	20	80	85
6	811218105006	PADMANABAN A	IV/EEE	27	90	19	76	83
7	811218105007	SASIKUMAR R	IV/EEE	30	100	20	80	90
8	811218105008	SIVAKUMAR P	IV/EEE	27	90	20	80	85
9	811218105009	VEERA RAGAVAN A	IV/EEE	27	90	19	76	83
10	811218105010	YUVARAJ S	IV/EEE	27	90	19	76	83

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				No. of Hours Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	(50% of A + 50% of B)
11	811219105002	M.BARATH	III/EEE	30	100	21	84	92
12	811219105003	A.MANIKANDAN	III/EEE	27	90	20	80	85
13	811219105005	C.PONNALAGU	III/EEE	30	100	21	84	92
14	811219105006	A.SALAMON	III/EEE	30	100	20	80	90
15	811219105007	M.SARAVANAKUMAR	III/EEE	27	90	19	76	83
16	811219105008	K.SOLAIMATHI	III/EEE	24	80	20	80	80
17	813919105001	P.DHEVENTHIRAN	III/EEE	24	80	21	84	82
18	811219105301	A. VENKATRAMAN	III/EEE	27	90	22	88	89
19	811220105001	ABINESH T	II/EEE	30	100	20	80	90
20	811220105002	ALEX IMMANVEL S	II/EEE	27	90	21	84	87
21	811220105006	BALAMURUGAN A	II/EEE	24	80	20	80	80
22	811220105011	DIVYA B	II/EEE	27	90	21	84	87
23	811220105013	GAYATHRI M	II/EEE	30	100	20	80	90
24	811220105017	KARTHIK D	II/EEE	30	100	16	64	82
25	811220105019	LATCHIYA K	II/EEE	30	100	22	88	94
26	811220105022	MANIKANDAN K	II/EEE	30	100	21	84	92



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27	811220105023	MOHANDOSS S	II/EEE	27	90	21	84	87
28	811220105024	NAVEEN R	II/EEE	27	90	19	76	83
29	811220105031	SANDURU K	II/EEE	27	90	19	76	83
30	811220105032	SANTHIYA A	II/EEE	27	90	20	80	85
31	811220105035	SHANMUGAM S	II/EEE	30	100	21	84	92
32	811220105037	SNEKA T	II/EEE	27	90	19	76	83
33	811220105038	SOPHIYA K	II/EEE	24	80	21	84	82
34	811220105301	AARTHI S	II/EEE	27	90	20	80	85
35	811220105303	THIRUNAVUKARASU M	II/EEE	30	100	21	84	92
36	811220105305	VENKATESHWARAN.A	II/EEE	27	90	20	80	85
37	811220105306	DIVYA BHARATHI	II/EEE	30	100	19	76	88
38	811220105307	SATHEESH KUMAR	II/EEE	30	100	22	88	94

VAC Coordinator


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HoD/EEE



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Report on Value Added Course

Title:	"Automation using PLC and SCADA"				
Resource Person:	Dr.M.Aravith, Design Engineer, Sri Sai Software.				
Date of conduct from :	01.08.2022	To:	05.08.2022	Duration:	30 Hours
Organized Department :	Electrical and Electronics Engineering				
Participant Year:	2,3,4	No. of Students Registered :	38		
Venue:	EEE III yr Classroom				

Outcome of Value Added Course (VAC): At the end of the Course, Students can able to

- Develop block diagram of PLC and explain the working.
- Classify input and output interfacing devices with PLC.
- Develop architecture of SCADA and explain the importance of SCADA in critical infrastructure.
- Execute, debug and test the programs developed for digital and analog operations.
- Describe various SCADA protocols along with their architecture.
- Observe development of various industrial applications using PLC and SCADA

Assessment Process

- Students, who are securing more than 70% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = $(0.5 * \text{Attendance in VAC out of 100 percentage} + 0.5 * \text{Test mark in VAC out of 100 marks})$


VAC Coordinator


HOD/EEE


Principal


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

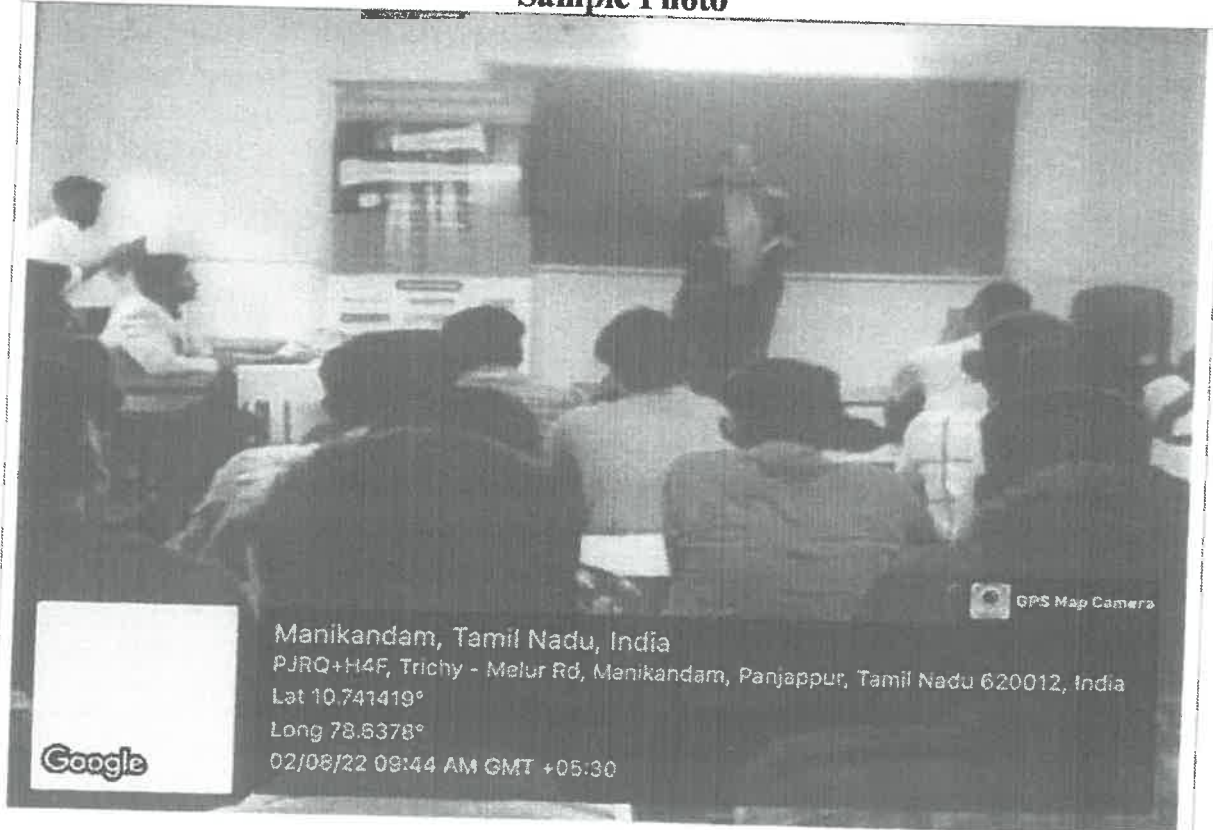
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Sample Photo



VAC Coordinator

Ge. Ma lathu
HOD/EEE

Principal


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IG Valley, Madurai Main Road
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CERTIFICATE OF PARTICIPATION

This is to certify that Mr. HARIHARAN M, IV Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.


Smart Power Care
Mr. C. Sasikumar
Chief Executive Officer.


Dr. G. Balakrishnan, M.A., M.Sc., Ph.D.
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Principal
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Dr. G. Balakrishnan, M.Sc., Ph.D.
Principal
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CERTIFICATE OF PARTICIPATION

This is to certify that Mr.A. VENKATRAMAN, III Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.

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Mr.C.Sasikumar
Chief Executive Officer.

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IGCE

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This is to certify that Mr. M.BARATH, III Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.

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This is to certify that Mr. P.DHEVENTHIRAN, III Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.

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This is to certify that Ms. LATCHIYA K, II Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.


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This is to certify that Mr. ALEX IMMANVEL S, II Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.


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This is to certify that Mr. KARTHIK D, II Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.

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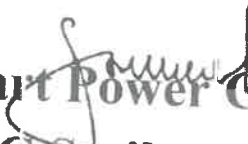
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This is to certify that Mr. NAVEEN R, II Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.


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This is to certify that Mr. VENKATESHWARAN.A, II Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.

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This is to certify that Mr. SATHEESH KUMAR S, II Year, EEE has successfully completed the Value Added Course on “Automation using PLC and SCADA” organized by Department of Electrical & Electronics Engineering and IQAC of our Institution in Association with Sri Sai Software from 1st August 2022 to 5th August 2022 (5days) during the Academic year 2021-2022.

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