

Table of Content

Sl. No	Contents
1	Cover Page
2	Event Proposal
3	Course Outcomes
4	Student Attendance
5	Course Impact Report
6	Sample Question Paper
7	Sample Answer Sheet
8	Sample Certificate

2019-2023 Batch

③

Placement Training PLC, SCADA, HMI

**DEPARTMENT OF ELECTRICAL & ELECTRONICS
ENGINEERING**

VIMAL JYOTHI ENGINEERING COLLEGE,

CHEMPERI, KANNUR



S8 EEE (2019-23' BATCH)

Report on Value Added Course

**“TRAINING ON PLC, SCADA AND
HMI”**

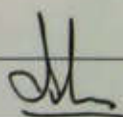
By

Wartens PLC SCADA Training institute

Bangalore



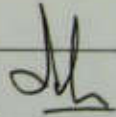
Event Proposal Form

1	Event Type and Name	● Placement training
2	Date and Time	25th - 27th October 2022
3	Participants/ Audience	S7 EEE
4	Venue	Software Lab - EEE
5	Objectives	1. to familiarize industrial automation tools like PLC, SCADA, HMI and recall various types of switches, relays, contactors and logic gates
6	Expected Outcomes	1. After the completion of the course the student will be able to Analyze industrial automation tools like PLC, SCADA, HMI and recall various types of switches, relays, contactors and logic gates
7	Connected PEOs/POs /COs	PO 4 - 12
8	Resource Requirements	System with installed software
9	Any other Relevant information	Nil
10	Responsible Persons	Ms. <u>Shelma George</u> EEE Proposal prepared by Ms. Laly James Recommended By 





Event Proposal Form

1	Event Type and Name	Placement training
2	Date and Time	22 nd - 28th February 2022
3	Participants/ Audience	S7 EEE
4	Venue	Software Lab - EEE
5	Objectives	1. to familiarize industrial automation tools like PLC, SCADA, HMI and recall various types of switches, relays, contactors and logic gates
6	Expected Outcomes	1. After the completion of the course the student will be able to Analyze industrial automation tools like PLC, SCADA, HMI and recall various types of switches, relays, contactors and logic gates
7	Connected PEOs/POs/COs	PO 1 - 12
8	Resource Requirements	System with installed software
9	Any other Relevant information	Nil
10	Responsible Persons	Ms. <u>Shelma George</u> EEE Proposal prepared by Ms. Laly James Recommended By 

Handwritten signature and initials in green ink.

COURSE OUTCOMES

After the completion of the course the student will be able to:

1. Analyze industrial automation tools like PLC, SCADA, HMI and recall various types of switches, relays, contactors and logic gates
2. Develop simulations using DELTA - WPLSoft V2.12
3. Design projects using OMRON CX PROGRAMMER
4. Design and construct Control Panel Wiring
5. Develop projects using Siemens TIA Portal
6. Develop projects using SIEMENS TIA HMI WinCC
7. Design and develop projects using SIEMENS WinCC SCADA
8. Evaluate LC, SCADA projects using real time controller

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	1	1	2	2	2	2	2	3	2	1
CO2	3	3	3	3	1	3	2	2	2	2	2	3	2	1
CO3	3	3	3	3	1	3	2	2	2	2	2	3	2	1
CO4	3	3	3	3	1	3	2	2	2	2	2	3	2	1
CO5	3	3	3	3	1	3	2	2	2	2	2	3	2	1
CO6	3	3	3	3	1	3	2	2	2	2	2	3	2	1
CO7	3	3	3	3	1	3	2	2	2	2	2	3	2	1
CO8	3	3	3	3	1	3	2	2	2	2	2	3	2	1


 LAILI JAME
 FACULTY IN CHARGE

Student Attendance for 16 Feb 2023

Course name : Fundamentals in Python programming

Sl#	Name :	USN	FN	AN
1	Abhishek K	VML20EE001	<i>Abhis</i>	<i>Abhis</i>
2	Abishek Vinod M	VML20EE002	<i>Abishek</i>	<i>Abishek</i>
3	Agil Mathews Antony	VML20EE003	<i>Agil</i>	<i>Agil</i>
4	Aiswarya C	VML20EE004	<i>Aiswarya</i>	<i>Aiswarya</i>
5	Akshath Ashokan V	VML20EE005	<i>Akshath</i>	<i>Akshath</i>
6	Albin James	VML20EE006	<i>Albin</i>	<i>Albin</i>
7	Aleena K Shibu	VML20EE007	<i>Aleena</i>	<i>Aleena</i>
8	Alen Jose Benny	VML20EE008	<i>Alen</i>	<i>Alen</i>
9	Amal Raj K	VML20EE009	<i>Amal</i>	<i>Amal</i>
10	Amar Pradeep	VML20EE010	<i>Amar</i>	<i>Amar</i>
11	Amrith Raj M V	VML20EE011	<i>Amrith</i>	<i>Amrith</i>
12	Ananthu M Thambi	VML20EE012	absent	absent
13	Anfas P	VML20EE013	<i>Anfas</i>	<i>Anfas</i>
14	Antony Thomas	VML20EE014	<i>Antony</i>	<i>Antony</i>
15	Arjun Lal	VML20EE015	<i>Arjun</i>	<i>Arjun</i>
16	Aswin Raj	VML20EE016	<i>Aswin</i>	<i>Aswin</i>
17	Deno Baby	VML20EE017	absent	absent
18	Ebin John	VML20EE018	<i>Ebin</i>	<i>Ebin</i>
19	Ivin Denny	VML20EE020	absent	absent
20	Mohamed Shibili Keelath P	VML20EE021	absent	absent
21	Rahana Haridas	VML20EE022	<i>Rahana</i>	<i>Rahana</i>
22	Relvin Roshan	VML20EE023	<i>Relvin</i>	<i>Relvin</i>
23	Rohan K V	VML20EE024	<i>Rohan</i>	<i>Rohan</i>
24	Ronith Sajeev	VML20EE025	<i>Ronith</i>	<i>Ronith</i>
25	Sandra S Baiju	VML20EE027	<i>Sandra</i>	<i>Sandra</i>
26	Sebin Ms	VML20EE028	<i>Sebin</i>	<i>Sebin</i>
27	Sreelakshmi Rajeev	VML20EE030	<i>Sreelakshmi</i>	<i>Sreelakshmi</i>
28	Vaibhav O	VML20EE031	<i>Vaibhav</i>	<i>Vaibhav</i>
29	Vaishnav E	VML20EE032	<i>Vaishnav</i>	<i>Vaishnav</i>
30	Varada Anil	VML20EE033	<i>Varada</i>	<i>Varada</i>
31	Vyshnav M K	VML20EE034	<i>Vyshnav</i>	<i>Vyshnav</i>



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value added course IMPACT REPORT

Name of Program: Fundamentals in Python Programming

Type of Course: Hands on Training

Date: From 16th Feb 2023

to 20th Feb 2023

Semester and academic year: S6, 2022-23

Duration (no of days):5

Batch: S6, EEE

a. Knowledge acquired (knowledge you gained through your training experience and relate this knowledge to what you learned in specific courses at the college)

The training on “Fundamentals in Python Programming” helped the students to acquire knowledge in one of the modern tool “Python” and helped to build the programming skills. The session provides an overview of programming to the laboratory course Power systems and power electronics.

b. Skills learned: (skills and any career-specific abilities that you gained during your internship like technical skills, problem analysis, etc. Discuss any of the skills that you learned as part of courses at the college)

Programming skills

c. Impact analysis: Compare the **knowledge and skills sets** that you gained (mentioned as per para a & b above) before and after your training

Use scale from 1 to 5

Poor = 1 fair = 2, good = 3, very good = 4 and excellent = 5

Sl. No	Knowledge/Skills	Before	After
1	Modern tool usage	1	3
2	Programming skills	1	3
3	Team activity involvement	2	3

d). Connected POs & PSOs Attainment

(Select relevant POs /PSOs and rate the same for the Training undergone)

Use scale from 1 to 3

1 -Poor, 2-Medim, 3- High

POs	Rating			POs	Rating			PSOs	Rating		
	3	2	1		3	2	1		3	2	1
PO 1		2		PO 7				PSO 1			1
PO 2		2		PO 8			1	PSO 2			1
PO 3		2		PO 9		2					
PO 4			1	PO 10			1				
PO 5		2		PO 11		2					
PO 6		2		PO 12		2					

| Program Outcomes (POs)

Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

| Program Specific Outcomes (PSOs)

Apply the knowledge of electrical fundamentals, control design, control engineering, analog & digital electronics to the field of electrical & electronics systems in industry.

Develop technical knowledge, skill, and competence to identify, comprehend and solve problems in research and academic related to power system engineering, industrial drives & control.

| Program Educational Objectives (PEOs)

Graduates will achieve broad and in-depth knowledge of Electrical & Electronics Engineering relating to industrial practices and research to analyze the practical problems and think creatively to generate innovative solutions using appropriate technologies.

Graduates will make valid judgment, synthesize information from a range of sources and communicate them in sound ways appropriate to the discipline.

Graduates will sustain intellectual curiosity and pursue lifelong learning not only in areas that are relevant to Electrical & Electronics Engineering, but also that are important to society.


Graduates will adapt to different roles and demonstrate leaderships in global working environment by respecting diversity, professionalism and ethical practices.

Vision

To evolve as a centre of excellence, to train students in contemporary technologies, to meet the needs of global industry and to develop them into skillful engineers instilled with human values and professional ethics.

Mission

To produce competent and disciplined Electrical & Electronics Engineers through delivery of quality education to meet the ongoing global challenges in alignment with technical education system and society.


Tutor's Signature

Question CO Mapping	
Fundamentals On Python Programming	
1	CO2
2	CO3
3	CO1,CO3
4	CO1,CO3
5	CO1,CO3
6	CO3
7	CO2, CO3
8	CO4
9	CO5
10	CO1,CO4
11	CO3
12	CO5
13	CO4
14	CO5
15	CO4
16	CO5
17	CO3
18	CO3,CO2
19	CO4
20	CO1,CO3

J. James
 JALY JAMES
 MOD EEE, V. 2020

NAME	CO1					CO2					CO3					CO4					CO5										
	Q3	Q4	Q5	Q10	Q20	total	Q1	Q7	Q16	total	Q2	Q3	Q4	Q5	Q6	Q7	Q11	Q17	Q18	Q20	total	Q8	Q10	Q13	Q15	total	Q9	Q12	Q14	Q16	total
Abhishek K	1	1	1	1	1	5	1	0	0	1	1	1	1	1	1	1	1	1	0	1	8	1	1	1	1	4	1	1	1	4	
Aiswarya C	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Albin James	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Aleena K Shibu	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Alen Jose Benny	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	0	2	1	1	1	4	
Amal Raj K	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Amar Pradeep	1	0	1	1	1	4	1	0	1	2	1	1	0	1	1	0	1	1	1	1	8	1	1	1	1	4	1	1	1	4	
Amrith Raj MV	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Anfas P	1	1	1	1	1	5	1	0	0	1	1	1	1	1	1	0	1	0	0	1	7	1	1	1	0	3	1	1	1	4	
Antony Thomas	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Ebin John	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Rahana Haridas	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Relvin Roshan	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Rohan K V	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Sandra S Baiju	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Sreelakshmi Rajeev	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Vyshnav E	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Varada Anil	1	1	1	1	1	5	1	1	1	3	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	4	1	1	1	4	
Vyshnav M K	1	1	0	1	1	4	1	1	0	2	1	1	1	0	1	1	0	1	0	1	7	1	1	1	0	3	1	1	1	4	


LALY JAMES
 HOD EEE, VJEC

CO ATTAINMENT

Level 1 : $\geq 40\%$ of students has to get 50% marks

Level 2 : $\geq 60\%$ of students has to get 50% marks

Level 3 : $\geq 80\%$ of students has to get 50% marks

Sl.No	Name	CO1 TOTAL(5)	CO2 TOTAL(3)	CO3 TOTAL(10)	CO4 TOTAL(4)	CO5 TOTAL(4)
1	Abhishek K	5	1	8	4	4
2	Aiswarya C	5	3	10	4	4
3	Albin James	5	3	10	4	4
4	Aleena K Shibu	5	3	10	4	4
5	Alen Jose Benny	5	3	10	2	4
6	Amal Raj K	5	3	10	4	4
7	Amar Pradeep	4	2	8	4	4
8	Amritth Raj MV	5	3	10	4	4
9	Anfas P	5	1	7	3	4
10	Antony Thomas	5	3	10	4	4
11	Ebin John	5	3	10	4	4
12	Rahana Haridas	5	3	10	4	4
13	Relvin Roshan	5	3	10	4	4
14	Rohan K V	5	3	10	4	4
15	Sandra S Baiju	5	3	10	4	4
16	Sreelakshmi Rajee	5	3	10	4	4
17	Vyshnav E	5	3	10	4	4
18	Varada Anil	5	3	10	4	4
19	Vyshnav M K	4	2	7	3	4
than 50% marks		19.0	17	19	19	19
% of students with more than 50% mark		100	89.47368	100	100	100
Attained Level		3	3	3	3	3


LALY JAMES
 HOD EEE, VJEC

PO ATTAINMENT

CO	ATTAINM	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2				3				3	2		3	2	2
CO2	3	3	2		3					3	2		3	2	2
CO3	3	3	2		3					3	2		3	2	2
CO4	3	3	3		3					3	2	3	3	2	2
CO5	3					3				3	2		3	2	2
PO ATTAINMENT		2.75	2.66667	2.5	2.5	3	3		3	3	2	3	3	2	2


 LALY JAMES
 HOD EEE, VJEC

Add-on Course on Python: Examination

Department of Electrical and Electronics Engineering

Vimal Jyothi Engineering College, Chemperi

Name: Rohan.K.V

Semester: SG

1. Which of the following is a valid Python expression to create an empty list?

- (a) [] / (b) {} (c) {} (d) <>

2. What will be the output of the following code?

```
tuple1 = (1, 2, 3)
```

```
tuple2 = (4, 5, 6)
```

```
result = tuple1 + tuple2
```

```
print(len(result))
```

- (a) 3 (b) 6 / (c) 9 (d) error

3. Which of the following statements about dictionaries in Python is correct?

- (a) Dictionaries are ordered collections of elements.
(b) Dictionary elements are accessed using numerical indices.
(c) Dictionary elements are stored in a specific sequence.
/ (d) Dictionaries store key-value pairs.

4. What is the purpose of the 'in' keyword in Python?

- (a) It is used to define a loop.
(b) It is used to check if a variable is defined.
(c) It is used to iterate over elements in a sequence.
/ (d) It is used to check if a value is present in a sequence.

5. Which of the following statements about tuples in Python is true?

- (a) Tuples are mutable.
/ (b) Tuples can store elements of different data types.
(c) Tuples are enclosed in square brackets.

(d) Tuples preserve the order of elements.

6. What will be the output of the following code?

```
my_tuple = ("apple", "banana", "cherry")
```

```
print(my_tuple[1])
```

- (a) "apple" (b) / "banana"
(c) "cherry" (d) Error

7. Which of the following is a valid way to remove an element from a list in Python?

- / (a) list.remove(element)
(b) list.pop(element)
(c) list.delete(element)
(d) list.clear(element)

8. In Python, what is the purpose of the split() method for strings?

- / (a) It splits a string into a list of substrings.
(b) It removes all spaces from a string.
(c) It converts a string to uppercase.
(d) It checks if a string contains a substring.

9. What will be the value of y after executing the following code?

```
x = (1, 2, 3)
```

```
y = x.append(4)
```

- (a) (1, 2, 3) (b) (1, 2, 3, 4)
(c) 4 / (d) Error

10. Which of the following is the correct way to open a file named "data.txt" in Python for reading?

- (a) file = open("data.txt", "r")
- (b) file = open("data.txt", "w")
- (c) file = open("data.txt", "a")
- (d) file = open("data.txt", "x")

11. Which of the following data types is mutable in Python?

- (a) Tuple
- (b) String
- (c) Integer
- (d) List

12. What is the output of the following code?

```
mylist = [1, 2, 3, 4, 5]
```

```
print(mylist[-3:])
```

- (a) [3, 4, 5]
- (b) [2, 3, 4]
- (c) [1, 2, 3]
- (d) [4, 5]

13. What does the sort() method do for a list in Python?

- (a) Reverses the order of elements in the list.
- (b) Sorts the list in descending order.
- (c) Sorts the list in ascending order.
- (d) Removes duplicates from the list.

14. What will be the output of the following code?

```
mydict = {"apple": 1, "banana": 2, "cherry": 3}
```

```
print(len(mydict))
```

- (a) 0
- (b) 1
- (c) 2
- (d) 3

15. What is the purpose of the lambda keyword in Python?

- (a) To define a variable with a constant value. (b) To declare a function with a single expression.
- (c) To create an anonymous function.
- (d) To import external modules.

16. What will be the output of the following code?

```
my_string = "Hello, world!"
```

```
print(my_string[::-1])
```

- (a) "dlrow ,olleH"
- (b) "Hello, world!"
- (c) "dlrow ,olleH"
- (d) "world! ,Hello"

17. Which of the following is a correct way to check if a key exists in a dictionary?

- (a) key in dictionary
- (b) key.exists(dictionary)
- (c) dictionary[key]
- (d) key.contains(dictionary)

18. What is the difference between a set and a list in Python?

- (a) Sets preserve the order of elements, while lists do not.
- (b) Sets allow duplicate elements, while lists do not.
- (c) Lists are mutable, while sets are immutable.
- (d) Sets are enclosed in square brackets, while lists are enclosed in curly braces

19. What does the strip() method do for strings in Python?

- (a) Removes all whitespace characters from both ends of the string.
- (b) Replaces specific characters in the string with a given substring.
- (c) Splits the string into a list of substrings.
- (d) Returns the length of the string.

20. Which of the following is the correct way to comment a single line in Python?

- (a) # This is a comment
- (b) /* This is a comment */
- (c) <!-- This is a comment -->
- (d) // This is a comment

Add-on Course on Python: Examination

Department of Electrical and Electronics Engineering

Vimal Jyothi Engineering College, Chemperi

Name : Rohan . K . V

Semester : SG

1. Which of the following is a valid Python expression to create an empty list?

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2. What will be the output of the following code?

```
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```
tuple2 = (4, 5, 6)
```

```
result = tuple1 + tuple2
```

```
print(len(result))
```

- (a) 3 (b) 6 / (c) 9 (d) error

3. Which of the following statements about dictionaries in Python is correct?

(a) Dictionaries are ordered collections of elements.

(b) Dictionary elements are accessed using numerical indices.

(c) Dictionary elements are stored in a specific sequence.

/ (d) Dictionaries store key-value pairs.

4. What is the purpose of the 'in' keyword in Python?

(a) It is used to define a loop.

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/ (d) It is used to check if a value is present in a sequence.

5. Which of the following statements about tuples in Python is true?

(a) Tuples are mutable.

/ (b) Tuples can store elements of different data types.

(c) Tuples are enclosed in square brackets.

(d) Tuples preserve the order of elements.

6. What will be the output of the following code?

```
my tuple = ("apple", "banana", "cherry")
```

```
print(my tuple[1])
```

(a) "apple"

(b) "banana" /

(c) "cherry"

(d) Error

7. Which of the following is a valid way to remove an element from a list in Python?

/ (a) list.remove(element)

(b) list.pop(element)

(c) list.delete(element)

(d) list.clear(element)

8. In Python, what is the purpose of the split() method for strings?

/ (a) It splits a string into a list of substrings.

(b) It removes all spaces from a string.

(c) It converts a string to uppercase.

(d) It checks if a string contains a substring.

9. What will be the value of y after executing the following code?

```
x = (1, 2, 3)
```

```
y = x.append(4)
```

(a) (1, 2, 3)

(b) (1, 2, 3, 4)

(c) 4

/ (d) Error

10. Which of the following is the correct way to open a file named "data.txt" in Python for reading?

- (a) file = open("data.txt", "r")
- (b) file = open("data.txt", "w")
- (c) file = open("data.txt", "a")
- (d) file = open("data.txt", "x")

11. Which of the following data types is mutable in Python?

- (a) Tuple
- (b) String
- (c) Integer
- (d) List

12. What is the output of the following code?

```
mylist = [1, 2, 3, 4, 5]
```

```
print(mylist[-3:])
```

- (a) [3, 4, 5]
- (b) [2, 3, 4]
- (c) [1, 2, 3]
- (d) [4, 5]

13. What does the sort() method do for a list in Python?

- (a) Reverses the order of elements in the list.
- (b) Sorts the list in descending order.
- (c) Sorts the list in ascending order.
- (d) Removes duplicates from the list.

14. What will be the output of the following code?

```
mydict = {"apple": 1, "banana": 2, "cherry": 3}
```

```
print(len(mydict))
```

- (a) 0
- (b) 1
- (c) 2
- (d) 3

15. What is the purpose of the lambda keyword in Python?

- (a) To define a variable with a constant value. (b) To declare a function with a single expression.
- (c) To create an anonymous function.
- (d) To import external modules.

16. What will be the output of the following code?

```
my_string = "Hello, world!"
```

```
print(my_string[::-1])
```

a) "dlrow ,olleH" b) "Hello, world!"

c) "dlrow ,olleH!" d) "world! ,Hello"

17. Which of the following is a correct way to check if a key exists in a dictionary?

- (a) key in dictionary
- (b) key.exists(dictionary)
- (c) dictionary[key]
- (d) key.contains(dictionary)

18. What is the difference between a set and a list in Python?

- (a) Sets preserve the order of elements, while lists do not.
- (b) Sets allow duplicate elements, while lists do not.
- (c) Lists are mutable, while sets are immutable.
- (d) Sets are enclosed in square brackets, while lists are enclosed in curly braces

19. What does the strip() method do for strings in Python?

- (a) Removes all whitespace characters from both ends of the string.
- (b) Replaces specific characters in the string with a given substring.
- (c) Splits the string into a list of substrings.
- (d) Returns the length of the string.

20. Which of the following is the correct way to comment a single line in Python?

- (a) # This is a comment
- (b) /* This is a comment */
- (c) <| - - This is a comment - - >
- (d) // This is a comment

- 1Ans] Both a and b
- 2Ans] input scan.
- 3Ans] Relays
- 4Ans] FBD, ladder logic
- 5Ans] All of the above
- 6Ans] All of the above.
- 7Ans] electromechanical components.
- 8Ans] electrical devices.
- 9Ans] HMI
- 10Ans] Both a and b.
- 11Ans] Field sensors.
- 12Ans] Pressure Transmitter.
- 13Ans] control valve.
- 14Ans] power supply.
- 15Ans] Read only memory.

65.5
100

~~Defin~~

SCADA :- supervisory control and data Acquisition

LVDT :- Linear Variable differential Transducer.

DCS:- Distributor control system.

RTD:- Resistance temperature Dedector.

SMPS:- Switching mode power supply.

1a.
Ans

Advantages:-

- * Industrial automation help to reduce the human involve in the job.
- * And Also reduce the errors. in case of humans the chance of occurance of errors are more, by replacing humans with machines, help to reduce such errors.
- * Able to complete the work perfectly.
- * While Automation help to make the process more accurate and speed.
- * Easy maintainance
- * Reliability is high
- * Able to reduce the workers in a company, so company doesnot want to afford more labours.
- * Frequent inspection is not required.

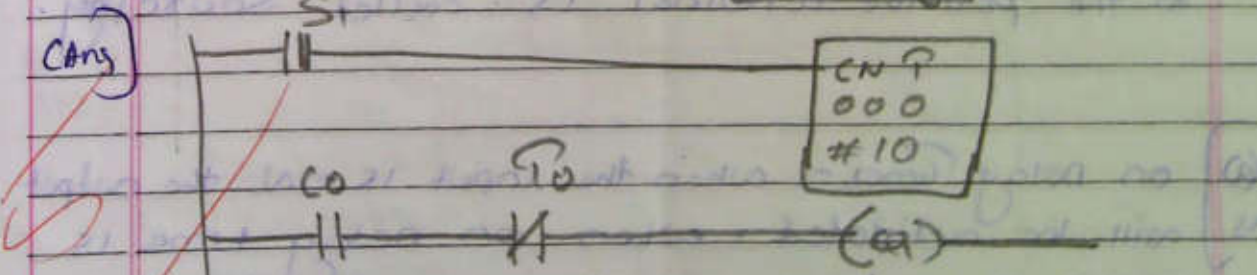
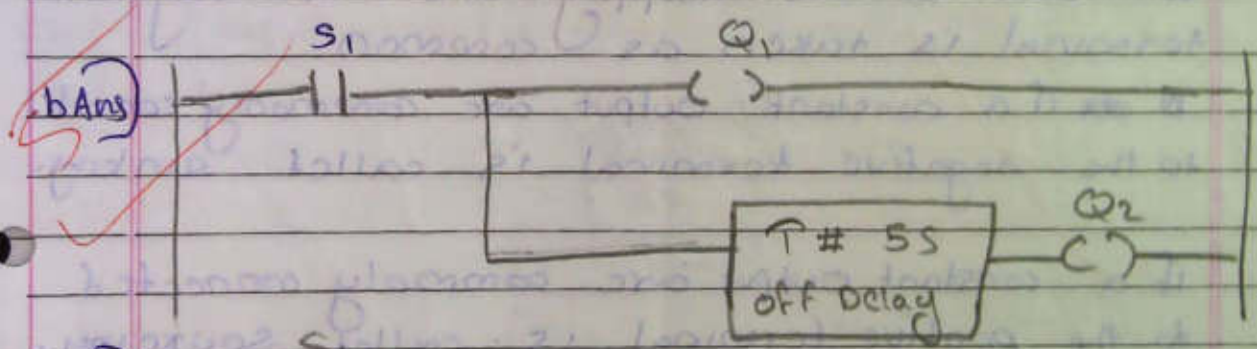
Disadvantage:-

- * worker Displacement.

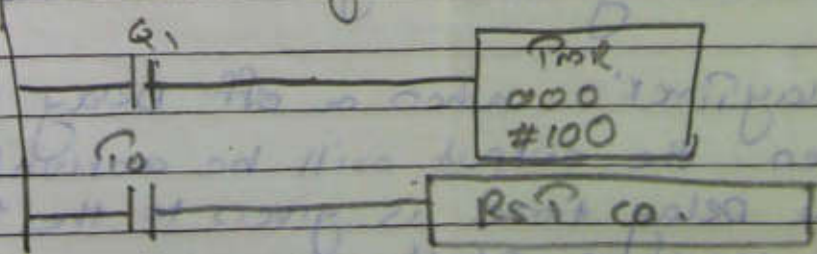
- * More workers will lost their job.
- * employment rate will decrease.
- * Since in automation is handled by machines so if small error occurs entire work will be delayed.
- * higher capital investment.
- * higher unemployment rate.
- * Prevent maintenance is required.

control system:-

- * Distributor control system.
- * Boundary system.



Assuming Robotic Arm works for 10sec.



4a
Ans

Ladder Logic Diagram Programming

- In these language we use ladder logic.
- It has 2 vertical line called power line and a horizontal line in between it is called Ring.

- The element are placed in the ring.
- The input are connected to the power line to left side.
- output are connect to the ring to the right side.

4b) Sinking and sourcing

in case of sinking The positive side is connected to the supply and The negative terminal is taken as common.

if a constant output are commonly connected to the negative terminal is called sinking.

if a constant output are commonly connected to the positive terminal is called sourcing.

5 (a)
Ans

on Delay Timer:- when the input is ON the output will be activated. when on delay time is given the output will become deactivated after the delay second given to timer.

off Delay Timer:- when an off Delay Timer is given the output will be activated. after the delay time is given to the timer once the input is start on.

Single pulse:-

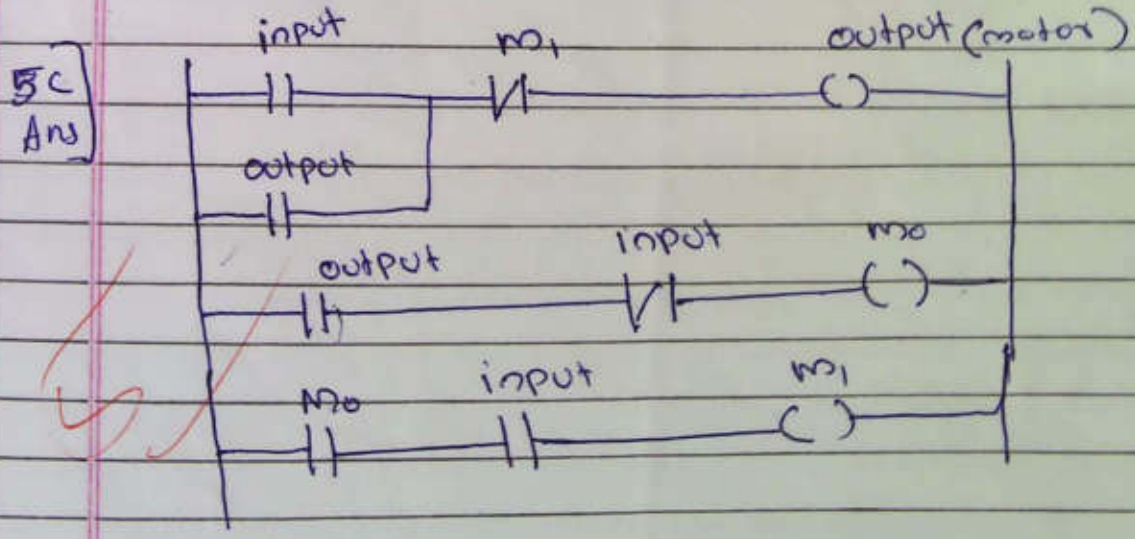
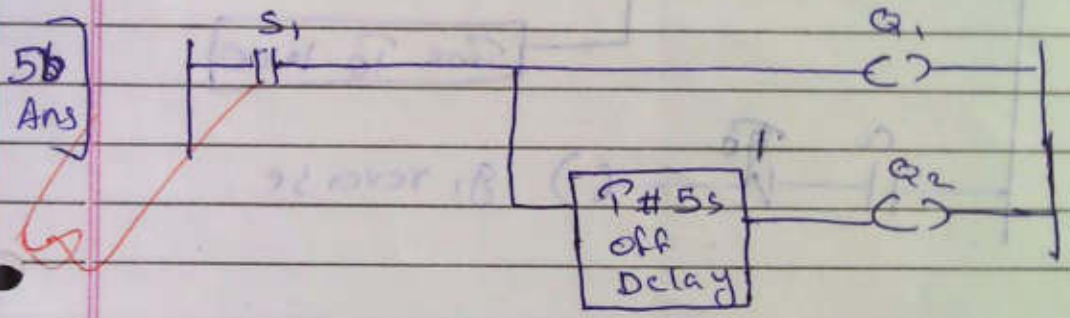
when the input is on, output will be on for the given time and will turn off once the time exhausted.

Retentive timer:-

In these, there will be a cause when input is on for a given time, when the output will be deactivated for same time. and again it will be activated and process will be repeated.

Flashing Timer :-

when the input is activated, output will ~~blinking~~ blink for given time.



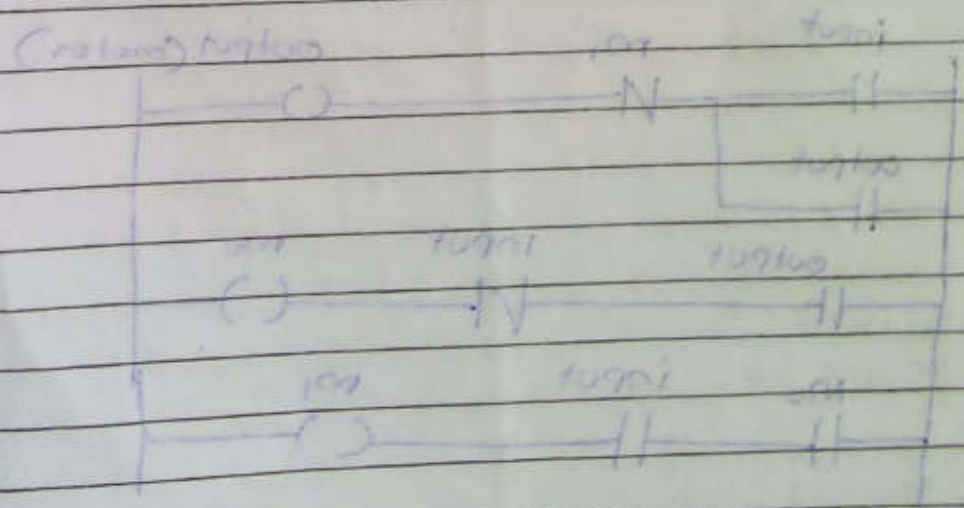
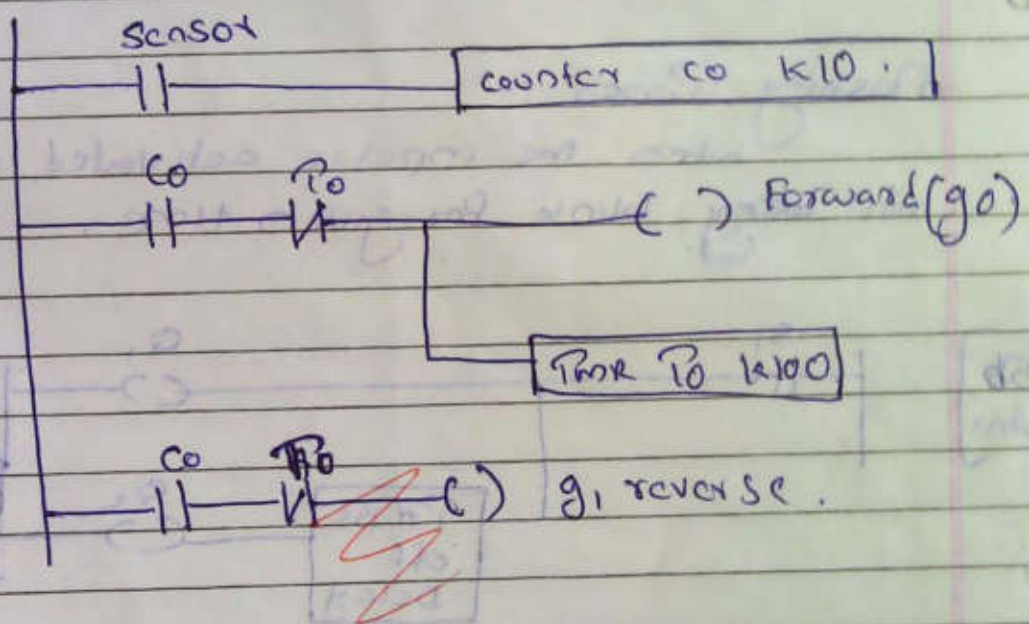
8a) Different types of input

- input
- switch
- push button
- sensor.

Different types of output.

- lamp
- motor
- control valve.

4d
Ans



IMPACT OF TRAINING ON PLC ,SCADA AND HMI

Objective

- To familiarize industrial automation tools like PLC, SCADA, HMI and recall various types of switches, relays, contactors and logic gates.
- To get a practical exposure in industry
- To enhance placement in Core industries

After attending Placement oriented industrial based **training on PLC ,SCADA and HMI** offered by WARTENS technologies ,Banglore

- many of the students got chance to attend placement interview offered by different companies
- Placement assistance will be continued for one year.
- Got 103 hours industrial oriented training certificate to all students.
- 4 of the students got placement in automation Company. Name and details of placed students through this training is as below.

Name of the student	Company name	Designation
Abhilash Joseph	Synergy Systems & Solutions,Banglore	Trainee Engineer
Aswanth Ramesh	Synergy Systems & Solutions,Chennai	Trainee Engineer
Joel Jacob	Industrial Automation Solutions ,Banglore	PLC programmer Trainee
Noyal	Industrial Automation Solutions ,Banglore	PLC programmer Trainee


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List of students attended Placement

SL	Name	Locations
1	Aswanth Ramesh	bangalore, Chennai
2	Abhilash Joseph	bangalore, chennai
3	Ajith Saji	bangalore, chennai
4	Ajin Mathew Joseph	bangalore, chennai
5	Aswin K	bangalore, Chennai, Thiripur
6	john tomy	bangalore, chennai, thiripur
7	Aswin Suresh MS	bangalore, chennai
8	Muhammed Zijah TK	Bangalore, Chennai, Guntur, AP
9	Nakul Ganesh	Bangalore, chennai, Guntur, Thiripur
10	Akhil George	bangalore, Chennai, Guntur, thiripur
11	Dilna Maria Shibu	bangalore, Chennai
12	Gokul Ariyil	bangalore, Chennai, Guntur, thiripur
13	Joel M Jacob	bangalore, Chennai
14	Kiran joseph	bangalore, Chennai
15	Noyal jose	Bangalore, Chennai, Guntur, AP
16	Elttin Joy	Bangalore, Chennai, Guntur
17	Muhammed Hanan	bangalore, Chennai
18	Vishnu Sreekumar K M	bangalore, Chennai, Thiripur


LALY JAMES
HOD EEE, VJEC

Subject: Interview Schedule - Bangalore

message

From: **Abhilash Joseph** <abhilashjoseph.993@gmail.com>
To: tintugeorge@vjec.ac.in

Wed, May 24, 2023 at 9:37 PM

----- Forwarded message -----

From: **zaara ali** <zaara_ali@s3india.com>

Date: Mon, 15 May, 2023, 12:35 pm

Subject: Interview Schedule - Bangalore

To: <narahari_sanjay@s3india.com>, <abhilashjoseph.993@gmail.com>

Cc: WARTENS TECHNOLOGIES <info@wartens.com>, <faraz_zaidi@s3india.com>, nayan_tirkey <nayan_tirkey@s3india.com>

Dear Sir,

As we have discussed, please find below the interview schedule for the following candidate and for reference his resume attached.

1. Mr. Abhilash Joseph - Post 10.00 AM on 16.5.2023

Location - Bangalore

Job Description

- Maintenance of RTUs.
- Maintenance of all SCADA related Hardware / Software in control room.
- Visit to various sites for preventive maintenance trips
- Attending to faults after office hours in case of emergency.
- Keeping track of faults, ensuring their timely rectification, and maintaining record of all faults along with action taken.
- Periodic reporting to head office and liaison with head office technical team for any assistance required in rectification of faults.
- Installation of software patches made available from head office.
- Maintaining spares at site
- Sending faulty spares to head office for rectification.
- Minor modifications in SCADA Software, PLC configuration / logics.
- Active participation in clearing of bills, completing necessary paperwork for the same.
- Commissioning of new RTU/PLC , integration of any additional equipment installed at site by the customer into the SCADA System.
- Providing training to the customer.

Job Specification

B. tech -EEE & E&C , E&I (fresher)

Completed course on PLC and SCADA


LALITHA JAMES
VJEC

Thanks & Regards

Zaara Ali

Assistant Manager - HR

(HR keeps Commitment)

Description: Description: Description: Description: cid:0.28869225360.1245579772226675234.174729fa5e4__inline__img__src

Synergy Systems & Solutions,

A-1526, Green Fields Colony,

Faridabad, Haryana - 121001,

India

Ph +91 129 2510502,3

Mobile: +91 8130671671


Fax +91 129 2510399


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3 attachments

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 abhilash_resume (2).pdf
116K



Subject: Intent for Job Offer- Bangalore Location

messages

Abhilash Joseph <abhilashjoseph.993@gmail.com>
 To: tintugeorge@vjec.ac.in

Wed, May 24, 2023 at 9:02 PM

----- Forwarded message -----

From: **zaara ali** <zaara_ali@s3india.com>

Date: Wed, 17 May, 2023, 12:44 pm

Subject: Intent for Job Offer- Bangalore Location

To: <abhilashjoseph.993@gmail.com>

Cc: nayan_tirkey <nayan_tirkey@s3india.com>, <faraz_zaidi@s3india.com>, gulam rian <gulamrian786@gmail.com>, <n_srivathsan@s3india.com>, WARTENS TECHNOLOGIES <info@wartens.com>

Mr. Abhilash,

Congratulations!!!

You have been selected as a "Trainee Engineer". Your initial joining location would be **Bangalore – Karnataka**, and you joining date will be **14-June-2023**.

For more details kindly contact **Mr. Gulam Rian – 8851675348,9034474895**.

First year Your Monthly Gross Salary will be **INR 17,000/-** + 3000/- accommodation allowances**.

Second year Your monthly Gross Salary will be **INR 20,000/-** + 3000/- accommodation allowances**.

** Employee contribution of PF and ESIC monthly will be applicable

Benefits – Performance Reward, Diwali Bonus (Post completion of 1st FY year), 10 Lacs of Accidental insurance, 3 Lacs of mediclaim and 25 Lacs of term life insurance

Following Documents required for joining

- Updated Resume
- Photograph-passport size
- Bank Details
- PAN card
- Adhaar Card Copy
- Vaccination certificate
- Current Address proof
- Copies of Education Qualification

You have to courier documents on the following address as discussed:

Synergy Systems & Solutions**A1526, Green Fields Colony,****Faridabad, Haryana – 121001****Contact Person- 8130671671**

Also find enclosed following formats which you need to fill the required details in soft copy and mail us across:

> Joining Kit- Soft copy (with scan copy of your signature)

> One jpg image of your passport photo

> One soft copy scan copy with signature


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Cancelled Cheque of your bank- Signature (incase non personalized cheque) or copy of passbook first page (account details)

> PF statement file incase PF is getting deducted in current/last employment

> Covid Vaccination certificate

Please note for first week from the date of joining you will be getting a temporary accommodation from our side.

Thanks & Regards,

Thanks & Regards

Zaara Ali

Assistant Manager - HR

(HR Keeps Commitment)

Description: Description: cid:0.28869225360.1245579772226675234.174729fa5e4__inline__img__src
Synergy Systems & Solutions,
A-1526, Green Fields Colony,
Faridabad, Haryana - 121001,
India

+91 129 2510502,3

Mobile: +91 8130671671

www.s3india.com

9 attachments



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Form F.pdf
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Joining Kit final V3.doc
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PF form 2 (1).pdf
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Mrs. Tintu George . SMIEEE
Associate Professor,
Department Of EEE,
VJMAL JYOTHI ENGINEERING COLLEGE
CHEMPERI P.O., KANNUR(DT), KERALA, INDIA.
ph: +919048166112

Vision of the EEE Department

To evolve as a centre of excellence, to train students in contemporary technologies, to meet the needs of global industry and to develop them into skillful engineers instilled with human values and professional ethics

Mission of the EEE Department

To produce competent and disciplined Electrical and Electronics Engineers through delivery of quality education to meet the ongoing global challenges in alignment with technical education system and society

9 attachments



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esic_form.pdf
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Form F.pdf
56K



Joining Kit final V3.doc
115K



NDA (2).docx
25K



PF form 2 (1).pdf
17K


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HOD EEE, VJEC

Subject: Intent for Job Offer- Chennai Location

messages

From: swanath Ramesh <aswanthramesh21@gmail.com>
To: Tintu George T <tintugeorge@vjec.ac.in>

Wed, May 24, 2023 at 8:57 f

----- Forwarded message -----

From: zaara ali <zaara_all@s3india.com>

Date: Tue, 23 May, 2023, 2:57 pm

Subject: Intent for Job Offer- Chennai Location

To: <aswanthramesh21@gmail.com>

Cc: <faraz_zaidi@s3india.com>, <info@wartens.com>, <n_srivathsan@s3india.com>, nayan_tirkey <nayan_tirkey@s3india.com>

Mr. Aswanth,

Congratulations!!!

You have been selected as a "Trainee Engineer". Your initial joining location would be Chennai - Tamilnadu, and you joining date will be before 15 June-2023.

For more details kindly contact Mr. N. Srivathsan – 9840769511.

First year Your Monthly Gross Salary will be INR 17,000/-** + 3000/- accommodation allowances.

Second year Your monthly Gross Salary will be INR 20,000/-** + 3000/- accommodation allowances.

** Employee contribution of PF and ESIC monthly will be applicable

Benefits – Performance Reward, Diwali Bonus (Post completion of 1st FY year), 10 Lacs of Accidental insurance, 3 Lacs of mediclaim and 25 Lacs of term life insurance

Following Documents required for joining

- Updated Resume
- Photograph-passport size
- Bank Details
- PAN card
- Adhaar Card Copy
- Vaccination certificate
- Current Address proof
- Copies of Education Qualification

You have to courier documents on the following address as discussed:

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A1526, Green Fields Colony,

Faridabad, Haryana – 121001

Contact Person- 8130671671

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Cancelled Cheque of your bank- Signature (incase non personalized cheque) or copy of passbook first page (account details)

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Thanks & Regards,

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Assistant Manager - HR

(HR Keeps Commitment)

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
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
Ph +91 129 2510502,3

Mobile: +91 8130671671

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2 attachments

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SYNERGY 2K
Systems & Solutions

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SYNERGY 2K
Systems & Solutions

George T <tintugeorge@vjec.ac.in>
o: Tinu Francis EEE <tinufancis@vjec.ac.in>

Sun, Jun 11, 2023 at 11:24 F

[Quoted text hidden]

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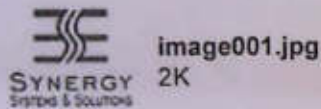
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To evolve as a centre of excellence, to train students in contemporary technologies, to meet the needs of global industry and to develop them into skillful engineers instilled with human values and professional ethics

Mission of the EEE Department

To produce competent and disciplined Electrical and Electronics Engineers through delivery of quality education to meet the ongoing global challenges in alignment with technical education system and society

2 attachments





Date: 10th June 2023

Location: Bangalore

PRIVATE AND CONFIDENTIAL

Employment Offer Letter and Terms and Conditions of Employment,

Dear Mr. Noyal Jose

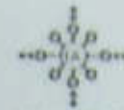
We are pleased to offer you to do employment at SP Leak Test & Automation Pvt Ltd, as a **PLC Programmer Trainee**, at our Peenya, Bangalore office. Your work location will be Bangalore. You will be notified about the person you will be reporting to shortly after you have accepted this offer. Reporting lines and location are subject to change depending on business requirements.

If you accept this offer, your commencement date with us will be **05th July 2023**

• Remuneration Package:

1. **Annual Compensation:** You are being offered a total annual compensation of **Rs. 2,16,000 (CTC)** (Rupees: Two Lakh Sixteen Thousand Only). You will be on 1-year probation period. The details of the Annual Compensation being offered to you are as follows:


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Benefits: In addition to the annual cash compensation, you will be eligible for company sponsored India specific benefit programs such as gratuity, provident fund, medical insurance for the employee and his/her family and accident insurance for the employee. (Applicable for all depending upon the number of employees in the company).

Bonus program: In addition to the Total Annual Compensation as mentioned above, you also may be eligible for bonuses from time to time, as may be set forth in incentive compensation programs applicable to your position.

Other Terms:

Please read the following terms and contact us with any questions that you may have.

The overall CTC offered to you is **Rs. 18,000 per month.**

CTC - Allowances, Gratuity, Taxes, Insurance

*The CTC agreed upon by this contract will be inclusive of your PF, allowances, gratuity, insurance and any associated components. You will have the option to discuss the percentages of these components with the Company.

1. **Employment Agreement:** Once you accept this offer, you will be required to sign Employment agreement the format of which is attached to this Employment Letter. Your employment with the company will be on the terms of this Employment Letter and the Employment Agreement until the end of your Employment with the Company in accordance with the Employment Agreement.

2. **Working Hours:** The normal expected standard working hours are 9.00 am to 6.30 pm from Monday to Saturday. However, there may be occasions where you may be required to work beyond these hours and you are expected to cooperate accordingly. Your salary includes compensation for any such additional hours.

3. **Promotion and Salary Review:** You will be eligible to participate in the promotion and salary review (Increment) as per discussion in interview time.



4. **Taxation:** Your remuneration and benefits have been stated gross of tax. You will be responsible for all Indian salaries tax on your remuneration, allowance and benefits, where applicable. In the event that you have sources of income or expense outside of your employment with the Company, you are responsible for ensuring adherence to the tax laws on those matters as well.

5. **Travel, Assignments or Secondment:**

Expenses and Reimbursement

You will be reimbursed necessary and reasonable out-of-pocket expenses incurred by you as part of delivering your responsibilities subject to submission of bills/tickets or associated documents and approval of the same by the Company.

Travel

You may also be required to travel as part of your employment. You will be intimated ahead of time to give you sufficient time to prepare for this

- a. Within India: You are required to work on any project to which you are assigned, unless there is good reason not to do so.
- b. Outside India: While based in India you may be required to travel and stay to work on projects outside India.

6. **Termination Notice:**

(a) The Company may terminate your Employment for any of the following conduct on your behalf effective immediately upon written notice to your address on the Company's records:

- (I) Acts of fraud, dishonesty or misconduct involving moral turpitude;
- (ii) Commission or conviction of any, criminal offense



- (iii) Engagement in any activity that you know or should know could harm the business or reputation of the Company;
 - (iv) Material failure to adhere to the Company's corporate codes, policies or procedures;
 - (v) Continued failure to meet performance standards as determined by the Company over two consecutive performance review periods; SPLTA may also terminate your employment for reasons other than cause or for no reason, effective upon at least 6 months written notice or payment of the salary you are entitled to in lieu less any required deductions or withholdings as required by law.
 - (vi) A breach or threatened breach of any material provision of this Employment Offer Letter or the Employment Agreement if it is not cured to the Company's satisfaction within a reasonable period after the Company provides you with notice to your address on the Company's records of the breach; provided that no notice and cure period will be required if the breach cannot be cured;
 - (vii) Violation of any statutory, contractual, or common law duty or obligation to the Company, including without limitation the duty of loyalty.
- (b) The Company may also terminate your Employment for reasons other than those specified above or for no reason, effective upon a prior written notice of at least 3 months.
- (c) You agree to provide the Company with a prior written notice of at least 3 months of your resignation, which shall be effective at the end of the notice period unless agreed otherwise or the payment of 3 months' salary as compensation by you.
- (d) You're in 3-month notice period there is no sick leave or casual leave.

7. Leave:

- (a) In training period up to 6 month No sick leave or casual leave.
- (b) You are eligible for 1.25 paid leaves per month and 6 sick leaves per annum after completing 6-month training period.



(a) General

- For the purpose of calculating leave accounts, "year" shall mean the calendar year commencing on the first day of January and ending on the last day of December of the next year.
- Every employee in shops and establishments in Karnataka is entitled for annual leave with wages, calculated at the rate of one day for every twenty days' work performed by him
- Submission of medical certificates of sickness as well as fitness will be required in case of sick leave exceeding three days.
- An employee may take sick leave keeping the immediate supervisor informed. The day the employee reports back to work, leave records need to be updated
- Leave, other than maternity leave, cannot be claimed as a matter of right. Discretion is reserved with the authority empowered to sanction leave, to refuse or revoke leave at any time, depending on exigencies of the company's work.
- All leave must be applied for at least 2 days prior for approval to immediate manager, with the exception of sick leave, which may be intimated verbally and post facto approval sought upon resumption of work. In case of emergency type of leave they have to submit the leave application from within one day of their rejoin, otherwise that will be grant as unofficial leave and applicable as LOP (loss of pay)
- Leave records are being maintained on the common share. It will be the employee's responsibility to enter their leave for the month and keep the record updated.
- In case employees are found not maintaining regular leave records in system, by default the employee's leave balance at the end of the year will be assumed as zero.
- There is a provision at this time to carry forward any unused casual leave into the next year.

In case of termination on account of any of the above reasons you will only be entitled to earned and unpaid gross salary and accrued leave (if any) through the effective termination date.

8. Return of Property: Upon termination of employment, you will be required to return all property (including not limited to keys, records, notes, data, computer discs or tapes, memoranda, business cards, security passes, ID Card and equipment) which is held in your



possession, custody or under your control, belonging to or relating to business affairs of the Company

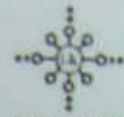
9. Acknowledgement: You acknowledge that you're joining the Company will not breach any agreement relating to Employment or the provision of services to which you are or have been a party.

10. Arbitration: Any dispute between you and SPLTA shall be resolved by arbitration in Bengaluru or any other mutually agreeable location in India. Arbitral dispute includes without limitation employment, employment termination claims and claims by you for employment discrimination, harassment, retaliation and wrongful termination.

The courts at Bengaluru or any court of competent jurisdiction in any other state will have jurisdiction over any proceedings relating to arbitration, and may enter judgment on any arbitration award rendered or grant judicial recognition of the award or an order of enforcement

The Company may amend or discontinue any of its plans, programs, policies and procedures at any time for any or no reason with or without notice to the extent permitted by law.

Mr. Noyal Jose we are excited about having you join us. On behalf of the SP Leak Test & Automation Pvt. Ltd. team, we hope you find these terms and conditions suitable. If you have any questions about the contents of this letter, please do not hesitate to contact with Ms. Parvathi In order to confirm your acceptance of this offer of Employment, please sign and return the copy of this Employment Offer Letter.



Industrial Automation Solutions
Maximizes Productivity

Yours truly,

Authorized Signatory

Industrial Automation Solutions

I accept the offer and terms of Employment as detailed in this letter and the attached Employment Agreement,

Employee's Signature:

Date:

PLACE-BANGALORE

Date: 10.06.2023

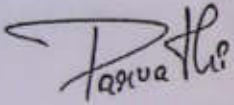
To Whom it may concern

This letter is to confirm that Mr. Noyal Jose has been employed on full time with our company & is working as an PLC Programmer Trainee.

As per discussion his next 3 years salary details mentioned below.

1. 1st year salary – 18k CTC (No ESI / PF)
2. 2nd year salary – 21k CTC (No ESI / PF)
3. 3rd year salary – 25k CTC (No ESI / PF)

Yours's truly,



Authorized Signatory
Industrial Automation Solutions



Date: 05th June 2023

Location: Bangalore

PRIVATE AND CONFIDENTIAL

Employment Offer Letter and Terms and Conditions of Employment,

Dear Mr. Joel M Jacob

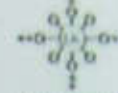
We are pleased to offer you to do employment at SP Leak Test & Automation Pvt Ltd, as a **PLC Programmer Trainee**, at our Peenya, Bangalore office. Your work location will be Bangalore. You will be notified about the person you will be reporting to shortly after you have accepted this offer. Reporting lines and location are subject to change depending on business requirements.

If you accept this offer, your commencement date with us will be **01st July 2023**

• Remuneration Package:

1. Annual Compensation: You are being offered a total annual compensation of **Rs. 2,16,000 (CTC)** (Rupees: Two Lakh Sixteen Thousand Only). You will be on 1-year probation period. The details of the Annual Compensation being offered to you are as follows:


LALY JAMES
HOD EEE, VJEC



Benefits: In addition to the annual cash compensation, you will be eligible for company sponsored India specific benefit programs such as gratuity, provident fund, medical insurance for the employee and his/her family and accident insurance for the employee. (Applicable for all depending upon the number of employees in the company).

Bonus program: In addition to the Total Annual Compensation as mentioned above, you also may be eligible for bonuses from time to time, as may be set forth in incentive compensation programs applicable to your position.

Other Terms:

Please read the following terms and contact us with any questions that you may have.

The overall CTC offered to you is **Rs. 18,000 per month.**

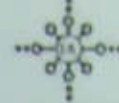
CTC - Allowances, Gratuity, Taxes, Insurance

*The CTC agreed upon by this contract will be inclusive of your PF, allowances, gratuity, insurance and any associated components. You will have the option to discuss the percentages of these components with the Company.

1. Employment Agreement: Once you accept this offer, you will be required to sign Employment agreement the format of which is attached to this Employment Letter. Your employment with the company will be on the terms of this Employment Letter and the Employment Agreement until the end of your Employment with the Company in accordance with the Employment Agreement.

2. Working Hours: The normal expected standard working hours are 9.00 am to 6.30 pm from Monday to Saturday. However, there may be occasions where you may be required to work beyond these hours and you are expected to cooperate accordingly. Your salary includes compensation for any such additional hours.

3. Promotion and Salary Review: You will be eligible to participate in the promotion and salary review (Increment) as per discussion in interview time.



4. **Taxation:** Your remuneration and benefits have been stated gross of tax. You will be responsible for all Indian salaries tax on your remuneration, allowance and benefits, where applicable. In the event that you have sources of income or expense outside of your employment with the Company, you are responsible for ensuring adherence to the tax laws on those matters as well.

5. **Travel, Assignments or Secondment:**

Expenses and Reimbursement

You will be reimbursed necessary and reasonable out-of-pocket expenses incurred by you as part of delivering your responsibilities subject to submission of bills/tickets or associated documents and approval of the same by the Company.

Travel

You may also be required to travel as part of your employment. You will be intimated ahead of time to give you sufficient time to prepare for this

- a. Within India: You are required to work on any project to which you are assigned, unless there is good reason not to do so.
- b. Outside India: While based in India you may be required to travel and stay to work on projects outside India.

6. **Termination Notice:**

(a) The Company may terminate your Employment for any of the following conduct on your behalf effective immediately upon written notice to your address on the Company's records:

- (I) Acts of fraud, dishonesty or misconduct involving moral turpitude;
- (ii) Commission or conviction of any, criminal offense



(iii) Engagement in any activity that you know or should know could harm the business or reputation of the Company;

(iv) Material failure to adhere to the Company's corporate codes, policies or procedures;

(v) Continued failure to meet performance standards as determined by the Company over two consecutive performance review periods; SPLTA may also terminate your employment for reasons other than cause or for no reason, effective upon at least 6 months written notice or payment of the salary you are entitled to in lieu less any required deductions or withholdings as required by law.

(vi) A breach or threatened breach of any material provision of this Employment Offer Letter or the Employment Agreement if it is not cured to the Company's satisfaction within a reasonable period after the Company provides you with notice to your address on the Company's records of the breach; provided that no notice and cure period will be required if the breach cannot be cured;

(vii) Violation of any statutory, contractual, or common law duty or obligation to the Company, including without limitation the duty of loyalty.

(b) The Company may also terminate your Employment for reasons other than those specified above or for no reason, effective upon a prior written notice of at least 3 months.

(c) You agree to provide the Company with a prior written notice of at least 3 months of your resignation, which shall be effective at the end of the notice period unless agreed otherwise or the payment of 3 months' salary as compensation by you.

(d) You're in 3-month notice period there is no sick leave or casual leave.

7. Leave:

(a) In training period up to 6 month No sick leave or casual leave.

(b) You are eligible for 1.25 paid leaves per month and 6 sick leaves per annum after completing 6-month training period.



(a) General

- For the purpose of calculating leave accounts, "year" shall mean the calendar year commencing on the first day of January and ending on the last day of December of the next year.
- Every employee in shops and establishments in Karnataka is entitled for annual leave with wages, calculated at the rate of one day for every twenty days' work performed by him
- Submission of medical certificates of sickness as well as fitness will be required in case of sick leave exceeding three days.
- An employee may take sick leave keeping the immediate supervisor informed. The day the employee reports back to work, leave records need to be updated
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Industrial Automation Solutions
Maximizes Productivity

Yours truly,

Authorized Signatory

Industrial Automation Solutions

I accept the offer and terms of Employment as detailed in this letter and the attached Employment Agreement,

Employee's Signature:

Date:

PLACE-BANGALORE

Industrial Automation Solutions No. C - 199, 4th Cross, 1st Stage, Peenya Industrial Area, Bangalore-560058, Tel: 080-43706587, E-mail: info@iasolutions.in, Web: www.iasolutions.in

Date: 10.06.2023

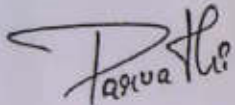
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Yours's truly,



Authorized Signatory
Industrial Automation Solutions



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value added course IMPACT REPORT

Name of Program: Training on PLC SCADA and HMI

Type of Course: Hands on Training

Date:

3 sessions

introduction class - 25th to 27th October 2022

in campus training - 22nd to February 28th February 2023

off campus training from Wartens Company Bangalore - 6th march to 16th march 2023

Semester and academic year : S7,S8- 2022-23

Duration (no of hours) - 103 hours

Knowledge acquired (knowledge you gained through your training experience and relate this knowledge to what you learned in specific courses at the college)

The training on "PLC SCADA and HMI" helped the students to acquire knowledge in industrial used programming language like PLC, SCADA and HMI and helped to build the programming skills. The session helped students to have practical understanding about the SCADA which is in their power system analysis course.

a. Skills learned: (skills and any career-specific abilities that you gained during your internship like technical skills, problem analysis, etc. Discuss any of the skills that you learned as part of courses at the college)

Programming skills

b. Impact analysis: Compare the **knowledge and skills sets** that you gained (mentioned as per para a & b above) before and after your training

Use scale from 1 to 5

Poor = 1 fair = 2, good = 3, very good = 4 and excellent = 5

Sl. No	Knowledge/Skills	Before	After
1	Modern tool usage	1	3
2	Programming skills	1	4
3	Team activity involvement	2	4

d). Connected POs & PSOs Attainment

(Select relevant POs /PSOs and rate the same for the Training undergone)

Use scale from 1 to 3

1 -Poor, 2-Medim, 3- High

POs	Rating			POs	Rating			PSOs	Rating		
	3	2	1		3	2	1		3	2	1
PO 1				PO 7		2		PSO 1			
PO 2				PO 8		2		PSO 2		2	
PO 3	3			PO 9		2					
PO 4				PO 10		2					
PO 5	3			PO 11							3
PO 6		2		PO 12							3

| Program Outcomes (POs)

Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and Sustainability: Understand the impact of the professional engineering solutions on societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **Individual and Team Work:** Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
- **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

| Program Specific Outcomes (PSOs)

- Apply the knowledge of electrical fundamentals, circuit design, control engineering, analog & digital electronics to the field of electrical & electronics systems in industry.
- Develop technical knowledge, skill, and competence to identify, comprehend and solve problems in research and academic related to power system, industrial drives & control.

| Program Educational Objectives (PEOs)

- Graduates will achieve broad and in-depth knowledge of Electrical & Electronics Engineering relating to industrial practices and research to analyze the practical problems and think creatively to generate innovative solutions using appropriate technologies.
- Graduates will make valid judgment, synthesize information from a range of sources and communicate them in sound ways appropriate to the discipline.
- Graduates will sustain intellectual curiosity and pursue lifelong learning not only in areas that are relevant to Electrical & Electronics Engineering, but also that are important to society.
- Graduates will adapt to different roles and demonstrate leaderships in global working environment by respecting diversity, professionalism and ethical practices.

Vision

To evolve as a centre of excellence, to train students in contemporary technologies, to meet the needs of global industry and to develop them into skilful engineers instilled with human values and professional ethics.

Mission

To produce competent and disciplined Electrical & Electronics Engineers through delivery of quality education to meet the ongoing global challenges in alignment with technical education system and society.

Tutor's Signature

CO ATTAINMENT (PLC SCADA & HMI TRAINING WARTENS(2019-23 BATCH))

Name of Student	CO1					CO2					CO3				
	Que.A.1-15	Que.A16	Que.B.1	Que.B.2	Que.B.3	Que.B.4	Que.B.5	Que.B.6	Que.B.7	Que.B.8	Que.B.4	Que.B.5	Que.B.6	Que.B.7	Que.B.8
ABHILASH JOSEPH	9	5	18	NA	18	NA	11	NA	13	NA	16	12	NA	20	20
ABHINAV V	11	5	19	NA	19	NA	10	NA	13	NA	4	14	13	4	14
AJIN MATHEW JOSEPH	7	5	13	NA	13	NA	10	NA	NA	NA	8	5	NA	8	5
AJITH SAJI	13	4	18	NA	18	NA	NA	5	NA	NA	NA	7	5	NA	7
AKHIL GEORGE	14	5	17	NA	17	NA	NA	6	NA	NA	10.5	9.5	6	10.5	9.5
ALBIN SAJI	11	4.5	19	NA	19	NA	NA	5	NA	NA	14	11	5	14	11
ALEENA JAYSON	13	5	13	NA	13	NA	NA	NA	NA	NA	NA	13	NA	NA	13
ALEX VARGHESE	12	5	14	NA	14	NA	NA	2	NA	NA	5	7	2	5	7
AMRITHA P	10	5	17	NA	17	NA	NA	10	NA	NA	NA	13	NA	NA	13
ASHLYN WILSON	12	5	16	NA	16	NA	NA	5	NA	NA	8	7	5	8	7
ASWATH RAMESHAN	13	4.5	20	NA	20	NA	NA	8	NA	NA	16	8	8	16	8
ASWIN K	13	5	13	NA	13	NA	NA	9	NA	NA	5	12	NA	6	12
ASWIN SURESH M S	10	5	19	NA	19	NA	NA	NA	NA	NA	9	6	NA	9	6
DILNA MARIA SHIBU	13	5	19	NA	19	NA	NA	5	NA	NA	NA	15	6	NA	15
DWITI SHIVAKUMAR	13	5	20	NA	20	NA	NA	NA	NA	NA	10	15	6	NA	15
ELTTIN JOY	11	5	16	NA	16	NA	NA	8	NA	NA	10	15	8	10	15
GOKUL ARVIL	13	5	13	NA	13	NA	NA	10	NA	NA	14	10	NA	14	10
HRITHWIK SREEJITH	13	4.5	13	NA	13	NA	NA	10	NA	NA	NA	13	NA	NA	13
JOEL M JACOB	14	5	17.5	NA	17.5	NA	NA	12	NA	NA	NA	11	NA	NA	11
JOHN TOMY	11	5	17	NA	17	NA	NA	8	NA	NA	4	5	NA	4	5
KIRAN JOSEPH	13	5	13	NA	13	NA	NA	8	NA	NA	NA	13	NA	NA	13
MUHAMMED HANAN	12	5	17.5	NA	17.5	NA	5	NA	NA	NA	15.5	9	NA	15.5	9
NAKUL GANESH	13	4.5	14	NA	14	NA	NA	10	NA	NA	16	2	NA	16	2
NOVAL JOSE	13	5	12.5	NA	12.5	NA	NA	10	NA	NA	NA	4	NA	NA	4
PROMA LILLAS	8	5	16	NA	16	NA	NA	10	NA	NA	10.5	11	NA	10.5	11
PRANAV TV	10	5	13	NA	13	NA	NA	10	NA	NA	4	5	NA	4	5
RENITHA RAMAKRISHNAN	9	NA	10	NA	10	NA	NA	10	NA	NA	NA	5	NA	NA	5
SAYODU DEVAN M B	13	4	20	NA	20	NA	NA	3	NA	NA	NA	8	NA	NA	8
SRADHA ALEX	12	4	13	NA	13	NA	NA	10	NA	NA	6	11	NA	6	11
VAISHALI PRABHAKARAN	13	4	19	NA	19	NA	NA	5	NA	NA	16	11	5	16	11
VISHNU SREEKUMAR K M	13	4	11	NA	11	NA	NA	4	NA	NA	10	7	4	10	7
T K MUHAMMED ZIAH	14	5	20	NA	20	NA	NA	9	NA	NA	11	7	5	11	7
target mark(50% of max score)	7.5	2.5	10	10	10	10	10	10	10	10	10	10	10	10	10
Total number of students attended	32	31	32	0	32	0	26	24	24	24	23	32	14	23	32
no of students scored more than 50% of target	31	31	32	0	32	0	11	2	2	2	14	16	2	14	16
attainment percentage	96.9	100.0	100.0	0.0	100.0	0.0	42.3	8.3	8.3	8.3	60.9	50.0	14.3	60.9	50.0
attainment level	3	3	3	0	3	0	2.48	0.56	0.56	0.56	2.04	1.5	0.36	2.04	1.5
CO attainment	3.71														
	1.45														

CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8
2.71	1.45	1.45	3.6	1.64	2.82	3	3

QUESTION -CO MAPPING

PART	QUESTION NUMBER	MAPPED CO
A	QUE.1 TO QUE 15	1
	QUE.16	1
B	1	1,5,6
	2	1,5,6
	3	7,8
	4	2,3,4,5
	5	1,2,3,5
	6	1,5,6
	7	1,5,6
	8	1,2,3,5


LALY JAMES
 HOD EEE, VJEC

Sl.No	Reg.No	Name of Student	PART A MARKS													15 Total (1-15)	16		
			1	2	3	4	5	6	7	8	9	10	11	12	13			14	
2	VML19EE002	ABHILASH JOSEPH	1	0	0	1	1	1	1	1	0	1	0	0	0	1	1	9	5
3	VML19EE003	ABHINAV V	1	1	1	0	1	1	1	0	0	1	1	1	1	1	0	11	5
4	VML19EE004	AJIN MATHEW JOSEPH	0	0	1	0	1	1	1	1	0	1	0	0	0	1	0	7	5
5	VML19EE005	AJITH SAJI	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	13	4
6	VML19EE006	AKHIL GEORGE	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	14	5
7	VML19EE007	ALBIN SAJI	1	1	1	0	1	1	1	0	0	1	1	1	1	1	0	11	4.5
8	VML19EE008	ALEENA JAISON	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13	5
9	VML19EE009	ALEN VARGHESE	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	5
10	VML19EE010	AMAL BHASKARAN																0	
11	VML19EE011	AMRITHA P	1	0	1	0	1	1	1	1	0	1	0	0	1	1	1	10	5
12	VML19EE012	ASHLYN WILSON SASTHAMPA	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	12	5
13	VML19EE013	ASWANATH RAMESHAN	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	13	4.5
14	VML19EE014	ASWIN K	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	13	5
15	VML19EE015	ASWIN SURESH M S	0	0	1	1	1	1	1	1	1	1	1	0	0	1	0	10	5
16	VML19EE016	DILNA MARIA SHIBU	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	13	5
17	VML19EE017	DIVIN K B																0	
18	VML19EE018	DWITHI SHIVAKUMAR	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	13	5
19	VML19EE019	ELTTIN JOY	1	0	1	1	1	0	1	1	1	1	1	0	1	1	0	11	5
20	VML19EE020	GOKUL ARIYIL	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	13	5
21	VML19EE021	HRITHVIK SREEJITH	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	13	4.5
22	VML19EE022	JOEL M JACOB	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	14	5
23	VML19EE023	JOHN TOMY	1	0	1	1	1	1	1	1	1	1	1	0	0	1	0	11	5
24	VML19EE024	KIRAN JOSEPH	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	13	5
25	VML19EE025	MUHAMMED HANAN FAZAL	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	12	5
26	VML19EE026	NAKUL GANESH	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	13	4.5
27	VML19EE027	NOYAL JOSE	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	13	5
28	VML19EE029	P ROMA ULLAS	1	0	0	1	1	1	0	1	1	0	1	0	0	1	1	8	5
29	VML19EE028	PRANAV TV	1	0	1	0	1	1	0	1	1	1	1	1	0	1	0	10	5
30	VML19EE030	RENITHA RAMAKRISHNAN	1	0	1	0	1	1	1	1	0	1	0	0	0	1	1	9	0
31	VML19EE031	SAYOOJ DEVAN M B	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	13	4
32	VML19EE032	SRADHA ALEX	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	12	4
33	VML19EE033	VAISHALI PRABHAKARAN	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	13	4
34	VML19EE034	VISHNU SREEKUMAR K M	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	4
35	VML19EE035	T K MUHAMMED ZIJAH	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	14	5

PART B MARKS

Sl.No	Reg.No	Name of Student	1(20 marks)			2			
			a	b	c	total	a	b	total
1	VML19EE002	ABHILASH JOSEPH	8	5	5	18	NA	NA	0
2	VML19EE003	ABHINAV V	9	5	5	19	NA	NA	0
3	VML19EE004	AJIN MATHEW JOSEPH	8	5	0	13	NA	NA	0
4	VML19EE005	AJITH SAJI	10	3	5	18	NA	NA	0
5	VML19EE006	AKHIL GEORGE	7	5	5	17	NA	NA	0
6	VML19EE007	ALBIN SAJI	9	5	5	19	NA	NA	0
7	VML19EE008	ALEENA JAISON	10	3	0	13	NA	NA	0
8	VML19EE009	ALEN VARGHESE	7	5	2	14	NA	NA	0
9	VML19EE011	AMRITHA P	10	5	2	17	NA	NA	0
10	VML19EE012	ASHLYN WILSON SASTHAMPADAVIL	8	5	3	16	NA	NA	0
11	VML19EE013	ASWANATH RAMESHAN	10	5	5	20	NA	NA	0
12	VML19EE014	ASWIN K	6	5	2	13	NA	NA	0
13	VML19EE015	ASWIN SURESH M S	10	5	0	15	NA	NA	0
14	VML19EE016	DILNA MARIA SHIBU	10	5	4	19	NA	NA	0
15	VML19EE018	DWITHI SHIVAKUMAR	10	5	5	20	NA	NA	0
16	VML19EE019	ELTTIN JOY	6	5	5	16	NA	NA	0
17	VML19EE020	GOKULARIYIL	10	3	0	13	NA	NA	0
18	VML19EE021	HRITHVIK SREEJITH	9	3	0	12	NA	NA	0
19	VML19EE022	JOEL M JACOB	10	5	2.5	17.5	NA	NA	0
20	VML19EE023	JOHN TOMY	7	5	5	17	NA	NA	0
21	VML19EE024	KIRAN JOSEPH	10	3	0	13	NA	NA	0
22	VML19EE025	MUHAMMED HANAN FAZAL	10	2.5	5	17.5	NA	NA	0
23	VML19EE026	NAKUL GANESH	8	1	5	14	NA	NA	0
24	VML19EE027	NOYAL JOSE	10	0	2.5	12.5	NA	NA	0
25	VML19EE029	P ROMA ULLAS	6	5	5	16	NA	NA	0
26	VML19EE028	PRANAV TV	6	5	2	13	NA	NA	0
27	VML19EE030	RENITHA RAMAKRISHNAN	10	0	0	10	NA	NA	0
28	VML19EE031	SAYOOJ DEVAN M B	10	5	5	20	NA	NA	0
29	VML19EE032	SRADHA ALEX	8	5	2	15	NA	NA	0
30	VML19EE033	VAISHALI PRABHAKARAN	9	5	5	19	NA	NA	0
31	VML19EE034	VISHNU SREEKUMAR K M	10	0	1	11	NA	NA	0
32	VML19EE035	T K MUHAMMED ZIJAH	0	5	5	10	NA	NA	0

Sl.No	Reg.No	Name of Student	3			4			total	
			a	b	total	a	b	c		d
1	VML19EE002	ABHILASH JOSEPH	NA	NA	0	4	2	2	8	16
2	VML19EE003	ABHINAV V	NA	NA	0	2	2	0	0	4
3	VML19EE004	AJIN MATHEW JOSEPH	NA	NA	0	0	8	0	0	8
4	VML19EE005	AJITH SAJI	8	NA	14	NA	NA	NA	NA	0
5	VML19EE006	AKHIL GEORGE	NA	NA	0	2	2	1.5	5	10.5
6	VML19EE007	ALBIN SAJI	NA	NA	0	4	2	0	8	14
7	VML19EE008	ALEENA JAISON	10	4	14	NA	NA	NA	NA	0
8	VML19EE009	ALEN VARGHESE	NA	NA	0	2	1	2	0	5
9	VML19EE011	AMRITHA P	10	0	10	NA	NA	NA	NA	0
10	VML19EE012	ASHLYN WILSON SASTHAMPADAVIL	NA	NA	0	0	0	0	8	8
11	VML19EE013	ASWANTH RAMESHAN	NA	NA	0	2	4	2	8	16
12	VML19EE014	ASWIN K	NA	NA	0	0	5	0	1	6
13	VML19EE015	ASWIN SURESH M S	NA	NA	0	4	4	1	0	9
14	VML19EE016	DILNA MARIA SHIBU	10	8	18	NA	NA	NA	NA	0
15	VML19EE018	DWITHI SHIVAKUMAR	NA	NA	0	4	2	2	2	10
16	VML19EE019	ELTTIN JOY	NA	NA	0	2	2	2	8	14
17	VML19EE020	GOKUL ARIYIL	6	5	11	NA	NA	NA	NA	0
18	VML19EE021	HRITHVIK SREEJITH	5	5	10	NA	NA	NA	NA	0
19	VML19EE022	JOEL M JACOB	NA	NA	0	4	2	2	10	18
20	VML19EE023	JOHN TOMY	NA	NA	0	0	4	0	0	4
21	VML19EE024	KIRAN JOSEPH	8	4	12	NA	NA	NA	NA	0
22	VML19EE025	MUHAMMED HANAN FAZAL	NA	NA	0	2	2	1.5	10	15.5
23	VML19EE026	NAKUL GANESH	NA	NA	0	4	2	2	8	16
24	VML19EE027	NOYAL JOSE	7	0	7	NA	NA	NA	NA	0
25	VML19EE029	P ROMA ULLAS	NA	NA	0	1.5	2	2	5	10.5
26	VML19EE028	PRANAV TV	NA	NA	0	0	4	0	0	4
27	VML19EE030	RENITHA RAMAKRISHNAN	NA	NA	0	NA	NA	NA	NA	0
28	VML19EE031	SAYOOJ DEVAN M B	NA	NA	0	2	4	2	8	16
29	VML19EE032	SRADHA ALEX	NA	NA	0	0	4	2	0	6
30	VML19EE033	VAISHALI PRABHAKARAN	NA	NA	0	4	2	2	8	16
31	VML19EE034	VISHNU SREEKUMAR K M	NA	NA	0	2	2	2	4	10
32	VML19EE035	T K MUHAMMED ZIJAH	NA	NA	0	2	2	2	5	11

Sl.No	Reg.No	Name of Student	5			6			total
			a	b	c	a	b	c	
1	VML19EE002	ABHILASH JOSEPH	6	5	1	12	NA	NA	0
2	VML19EE003	ABHINAV V	4	5	5	14	NA	NA	0
3	VML19EE004	AJIN MATHEW JOSEPH	0	5	0	5	NA	NA	0
4	VML19EE005	AJITH SAJI	7	0	0	7	NA	NA	0
5	VML19EE006	AKHIL GEORGE	2	5	2.5	9.5	NA	NA	0
6	VML19EE007	ALBIN SAJI	4	5	2	11	NA	NA	0
7	VML19EE008	ALEENA JAISON	10	3	0	13	NA	NA	0
8	VML19EE009	ALEN VARGHESE	1	5	1	7	NA	NA	0
9	VML19EE011	AMRITHA P	8	5	0	13	NA	NA	0
10	VML19EE012	ASHLYN WILSON SASTHAMPADAVIL	6	0	1	7	NA	NA	0
11	VML19EE013	ASWANTH RAMESHAN	0	5	3	8	NA	NA	0
12	VML19EE014	ASWIN K	6	5	1	12	NA	NA	0
13	VML19EE015	ASWIN SURESH M S	0	5	1	6	NA	NA	0
14	VML19EE016	DILNA MARIA SHIBU	8	5	2	15	NA	NA	0
15	VML19EE018	DWITHI SHIVAKUMAR	8	5	2	15	NA	NA	0
16	VML19EE019	ELTTIN JOY	0	5	5	10	NA	NA	0
17	VML19EE020	GOKUL ARIYIL	10	3	0	13	NA	NA	0
18	VML19EE021	HRITHWIK SREEJITH	8	3	0	11	NA	NA	0
19	VML19EE022	JOEL M JACOB	2	5	5	12	NA	NA	0
20	VML19EE023	JOHN TOMY	0	5	0	5	NA	NA	0
21	VML19EE024	KIRAN JOSEPH	10	3	0	13	NA	NA	0
22	VML19EE025	MUHAMMED HANAN FAZAL	4	2.5	2.5	9	NA	NA	0
23	VML19EE026	NAKUL GANESH	2	0	0	2	NA	NA	0
24	VML19EE027	NOYAL JOSE	4	0	0	4	NA	NA	0
25	VML19EE029	P ROMA ULLAS	5	5	1	11	NA	NA	0
26	VML19EE028	PRANAV TV	0	5	0	5	NA	NA	0
27	VML19EE030	RENITHA RAMAKRISHNAN	0	5	0	5	NA	NA	0
28	VML19EE031	SAYOOJ DEVAN M B	0	5	3	8	NA	NA	0
29	VML19EE032	SRADHA ALEX	6	5	0	11	NA	NA	0
30	VML19EE033	VAISHALI PRABHAKARAN	6	0	5	11	NA	NA	0
31	VML19EE034	VISHNU SREEKUMAR K M	2	5	0	7	NA	NA	0
32	VML19EE035	T K MUHAMMED ZUAH	2	5	0	7	NA	NA	0

CO ATTAINMENT (PLC SCADA & HMI TRAINING WARTENS(2019-23 BATCH))

Name of Student	CO1					CO2					CO3				
	Que.A.1-15	Que.A16	Que.B.1	Que.B.2	Que.B.5	Que.B.6	Que.B.7	Que.B.8	Que.B.4	Que.B.5	Que.B.8	Que.B.4	Que.B.5	Que.B.8	
ABHILASH JOSEPH	15	5	18	NA	18	NA	11	NA	16	12	NA	10	12	NA	
ABHIRAV V		5	19	NA	19	NA	NA	13	4	14	13	4	14	13	
AJIN MATHEW JOSEPH		5	13	NA	13	NA	10	NA	8	5	NA	8	5	NA	
AJITH SAJI		4	18	NA	18	NA	NA	5	NA	7	5	NA	7	5	
AKHIL GEORGE		5	17	NA	17	NA	NA	6	10.5	9.5	6	10.0	9.5	6	
ALBIN SAJI		4.5	19	NA	19	NA	NA	5	14	11	5	14	11	5	
ALEENA JAYSON		5	13	NA	13	NA	10	NA	NA	13	NA	NA	13	NA	
ALEN VARGHESE		5	14	NA	14	NA	NA	2	5	7	2	5	7	2	
AMRITHA P		5	17	NA	17	NA	10	NA	NA	13	NA	NA	13	NA	
ASHLYN WILSON		5	16	NA	16	NA	NA	5	8	7	5	8	7	5	
ASWANTH RAMESHAN		4.5	20	NA	20	NA	NA	8	16	8	8	16	8	8	
ASWIN K		5	13	NA	13	NA	9	NA	8	12	NA	8	12	NA	
ASWIN SURESH M S		5	15	NA	15	NA	10	NA	9	6	NA	9	6	NA	
DILNA MARIA SHIBU		5	19	NA	19	NA	NA	6	NA	15	6	NA	15	6	
DWYTHE SHIVAKUMAR		5	20	NA	20	NA	NA	8	10	15	8	10	15	8	
ELTIN JOY		5	15	NA	15	NA	8	NA	14	10	NA	14	10	NA	
GOKUL ARYIL		5	13	NA	13	NA	10	NA	NA	13	NA	NA	13	NA	
HIRITHWIK SREEJITH		4.5	12	NA	12	NA	10	NA	NA	11	NA	NA	11	NA	
JOEL M JACOB		5	17.5	NA	17.5	NA	NA	12	18	12	12	18	12	12	
JOHN TOMY		5	17	NA	17	NA	8	NA	4	5	NA	4	5	NA	
KIRAN JOSEPH		5	13	NA	13	NA	8	NA	NA	13	NA	NA	13	NA	
MUHAMMED HANAN		5	17.5	NA	17.5	NA	5	NA	15.5	9	NA	15.5	9	NA	
NAKUL GAMESH		4.5	14	NA	14	NA	10	NA	16	2	NA	16	2	NA	
NOYAL JOSE		5	12.5	NA	12.5	NA	NA	NA	NA	4	NA	NA	4	NA	
PROMA LULAS		8	5	16	NA	16	NA	10	10.5	11	NA	10.5	11	NA	
PRANAV TV		5	13	NA	13	NA	10	NA	4	5	NA	4	5	NA	
RENITHA RAMAKRISHNAN		NA	10	NA	10	NA	NA	NA	NA	5	NA	NA	5	NA	
SAYOOJ DEVAN M B		4	20	NA	20	NA	NA	5	16	8	5	16	8	5	
SRADHA ALEX		4	15	NA	15	NA	10	NA	6	11	NA	6	11	NA	
VASHALI PRABHAKARAN		4	19	NA	19	NA	NA	5	16	11	5	16	11	5	
VISHNU SREEKUMAR K M		4	11	NA	11	NA	NA	4	10	7	4	10	7	4	
T K MUHAMMED ZUAH		5	10	NA	10	NA	NA	9	11	7	9	11	7	9	
target mark(50% of max score)	7.5	2.5	10	10	10	10	10	10	10	10	10	10	10	10	
Total number of students attended	32	31	32	0	32	0	16	14	23	32	14	23	32	14	
no. of students scored more than 50% of target	31	31	32	0	32	0	11	2	24	16	2	24	16	2	
attainment percentage	96.9	100.0	100.0	0.0	100.0	0.0	68.8	14.3	80.9	50.0	14.3	80.9	50.0	14.3	
attainment level	3	4	3	0	3	0	2.44	0.36	2.54	1.5	0.36	2.54	1.5	0.36	
CO attainment										1.45			1.45		

CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8
2.71	1.45	1.45	2.6	1.64	2.82	3	3

Name of Student	CO4				CO5				CO6				CO7		COB				
	Que.B.4	Que.B.1	Que.B.2	20	Que.B.4	Que.B.5	Que.B.6	Que.B.7	Que.B.8	Que.B.1	Que.B.2	Que.B.6	Que.B.7	Que.B.3	20	Que.B.3	20		
	16	18	18	20	16	12	12	11	11	18	18	11	11	18	18	11	11		
ABHILASH JOSEPH	4	19	NA	4	14	NA	NA	NA	13	19	NA	NA	11	NA	NA	NA	NA		
AJUN MATHWU JOSEPH	8	13	NA	8	5	NA	10	NA	5	13	NA	NA	10	NA	NA	NA	NA		
AJITH SAJI	NA	18	NA	NA	7	NA	NA	NA	5	18	NA	NA	10	NA	NA	NA	NA		
AKHIL GEORGE	10.5	17	NA	10.5	9.5	NA	NA	NA	6	17	NA	NA	NA	14	NA	NA	NA		
ALBIN SAJI	14	19	NA	14	11	NA	10	NA	5	19	NA	NA	NA	14	NA	NA	NA		
ALEENA JAISON	NA	13	NA	NA	13	NA	10	NA	NA	13	NA	NA	NA	14	NA	NA	NA		
ALEN VARGHESE	5	14	NA	5	7	NA	NA	NA	NA	14	NA	NA	NA	10	NA	NA	NA		
AMRITHA P	NA	17	NA	NA	13	NA	10	NA	NA	17	NA	NA	10	10	NA	NA	NA		
ASHLYN WILSON	8	16	NA	8	7	NA	NA	NA	5	16	NA	NA	NA	10	NA	NA	NA		
ASWANTH RAMESHAR	16	20	NA	16	8	NA	NA	NA	8	20	NA	NA	NA	NA	NA	NA	NA		
ASWIN K	6	13	NA	6	12	NA	5	NA	NA	13	NA	NA	9	NA	NA	NA	NA		
ASWIN SURESH M S	9	15	NA	9	6	NA	10	NA	NA	15	NA	NA	10	NA	NA	NA	NA		
DILNA MARIA SHEBU	NA	18	NA	NA	15	NA	NA	NA	6	18	NA	NA	NA	18	NA	NA	NA		
DWYTH SHIVAKUMAR	10	20	NA	10	15	NA	NA	NA	8	20	NA	NA	NA	18	NA	NA	NA		
ELTTIN JOY	14	16	NA	14	10	NA	NA	NA	8	16	NA	NA	NA	18	NA	NA	NA		
GOKUL ARYIL	NA	13	NA	NA	13	NA	10	NA	NA	13	NA	NA	10	11	NA	NA	NA		
HRIITHWIK SREEJITH	NA	12	NA	NA	11	NA	10	NA	NA	12	NA	NA	10	10	NA	NA	NA		
JOEL M JACOB	18	17.5	NA	18	12	NA	NA	NA	NA	17.5	NA	NA	NA	10	NA	NA	NA		
JOHR TOMY	4	17	NA	4	5	NA	8	NA	8	17	NA	NA	8	NA	NA	NA	NA		
KIRAN JOSEPH	NA	13	NA	NA	13	NA	8	NA	NA	13	NA	NA	8	NA	NA	NA	NA		
MUHAMMED HANAN	10.5	17.5	NA	10.5	9	NA	5	NA	5	17.5	NA	NA	5	NA	NA	NA	NA		
NAKUL GANESH	18	14	NA	18	7	NA	10	NA	NA	14	NA	NA	10	NA	NA	NA	NA		
ROYAL JOSE	NA	12.5	NA	NA	4	NA	NA	NA	NA	12.5	NA	NA	10	NA	NA	NA	NA		
P ROMA LILAS	10.5	16	NA	10.5	11	NA	NA	NA	NA	16	NA	NA	NA	7	NA	NA	NA		
PRANAV TV	4	13	NA	4	5	NA	10	NA	NA	13	NA	NA	10	NA	NA	NA	NA		
RENITHA RAMAKRISHNAN	NA	10	NA	NA	5	NA	NA	NA	NA	10	NA	NA	10	NA	NA	NA	NA		
SAYOOJ DEVAN M B	16	20	NA	16	8	NA	NA	NA	NA	20	NA	NA	10	NA	NA	NA	NA		
SRADHA ALEX	8	15	NA	8	11	NA	10	NA	5	15	NA	NA	NA	NA	NA	NA	NA		
VANSHALI PRABHAKARAN	16	19	NA	16	11	NA	NA	NA	5	19	NA	NA	10	NA	NA	NA	NA		
VISHNU SRIERUMAR K M	10	31	NA	10	7	NA	NA	NA	4	31	NA	NA	NA	NA	NA	NA	NA		
T K MUHAMMED ZUHAIB	11	10	NA	11	7	NA	NA	NA	9	10	NA	NA	NA	NA	NA	NA	NA		
Target mark(50% of max.score)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
Total number of students attended	23	32	0	23	32	0	15	14	14	32	0	0	16	8	8	8	8		
no of students scored more than 50% of target	14	32	0	14	16	0	11	2	2	32	0	0	11	7	7	7	7		
attainment percentage	60.9	100.0	0.0	60.9	50.0	0.0	68.8	14.3	14.3	100.0	0.0	0.0	68.8	87.5	87.5	87.5	87.5		
attainment level	2.04	3	0	2.04	1.5	0	2.44	0.36	0.36	3	0	0	2.44	3	3	3	3		
CO attainment	2.60																2.81		3

PO ATTAINMENT (PLC SCADA & HMI TRAINING WARTENS(2019-23 BATCH))

CO No.	CO attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	FSO1	FSO2
1	2.71	3	3	3	1	1	2	2	2	2	2	2	3	3	2
2	1.45	3	3	3	1	3	2	2	2	2	2	2	3	3	2
3	1.45	3	3	3	1	3	2	2	2	2	2	2	3	3	2
4	2.6	3	3	3	1	3	2	2	2	2	2	2	3	3	2
5	1.64	3	3	3	1	3	2	2	2	2	2	2	3	3	2
6	2.81	3	3	3	1	3	2	2	2	2	2	2	3	3	2
7	3	3	3	3	1	3	2	2	2	2	2	2	3	3	2
8	3	3	3	3	1	3	2	2	2	2	2	2	3	3	2

PO ATTAINMENT	2.33	2.33	2.33	0.78	2.11	1.56	1.56	1.56	1.56	1.56	1.56	2.33	2.33	1.56	0.78
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 LALY JAMES
 HOD EEE, VJEC

WARTENS
SHAPING ENGINEERS TO BUILD TOMORROW

CERTIFICATE

This certify that **PRANAV T V**
has successfully completed

Industrial Automation Training

The course comprised of 40 hours of training in VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI and
60 hours of practical training in WARTENS TECHNOLOGIES, BANGALORE



PRANAV T V
WB23030028



Authorized signatory



TÜVRheinland®
Precisely Right.



VERIFICATION



WARTENS

