

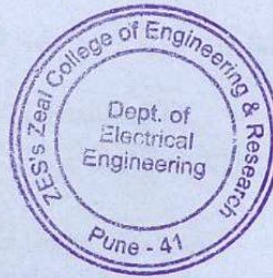


ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA
DEPARTMENT OF ELECTRICAL ENGINEERING



INDEX

3.2.2 Number of workshops/seminars/conference including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during a year 2018-19			
Sr. No.	Name of the workshop/ seminar/ conference	Number of Participants	Date From- To
1	Automation : PLC & SCADA	119	13/08/2018 to 19/08/2018 And 20/08/2018 to 25/09/2018



Head of Department

ZES ZCOER
Department of Electrical Engineering

Zeal Education Society's
Zeal College of Engineering and Research, Narhe, Pune



Department of Electrical Engineering

A
Report on
Hands-on session

“Automation - PLC SCADA”

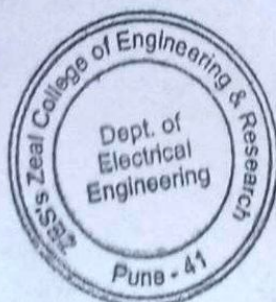
Organized by,
Department of Electrical Engineering, ZCOER, Pune

Resource Person : Mr. Jotindar Nath Chaudhari
MPTA Education Ltd, Pune

About the Hands-on session : This hands-on session is intended for B.E. students for their skill development in automation field. It doesn't matter how much natural talent an engineer has, he can still improve in a skill by practicing that is one of the advantage of hands on training. Training programs are more beneficial when they provide many opportunities for practicing skills. This hands-on session covers basic concepts, Design aspects, material selection and market survey and its assembly, testing & its applications in various areas.

Objective of Hands-on session : Hands on Practical on
Relay Logic And
Other Hardware's
(3 Days)

- NO/NC Concept
- Different Buttons & Switches
- Multi-meter
- Relay Based Designs
- Latching Interlocking
- Mutual Interlocking
- Timer Based Designs



ZES ZCOER
Department of Electrical Engineering

Allen Bradley PLC
(1 ½ Days)

- Flasher Circuit
- Traffic Light Control Circuit
- Contactor
- Counter Based Designs

Hardware-

Allen Bradley Micrologix / SLC Series

Software: RS Logix, RS Linx & etc.

- Hardware detailing & Input/output Addressing
- General & technical specifications of PLC
- PLC cabling
- Programming steps
- Ladder Diagram Programming,
- Driver configuration
- Basic programming functions
- Timer & Counter
- Compare, Move, logical instructions
- Compute/Math Instructions, Timers & counters, design problems using these instructions

Advance Instructions

- COP, FLL
- SQL, SQO
- FIFO, LIFO
- SCP
- Program Control instructions

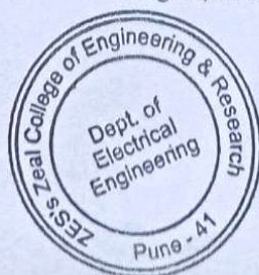
SCADA concepts, necessity, applications, features & latest trends, communication Protocols.

Push button entry, switch entry, Lamp entry, timer pre-set value & elapse time entry in picture file & its animations.

- Dynamic Animation
- Script
- Trends – Real Time & Historical
- Alarm
- Security
- Excel Linking
- PLC Communication

Practice on SCADA

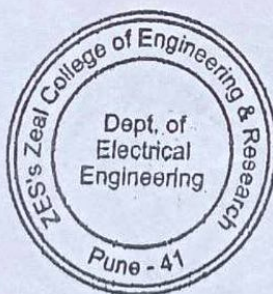
The Department of Electrical Engineering of ZES, ZCOER has organized a hands-on training on "PLC SCADA", dated on 13th and 19th August, 2018 for BE-A & 20th Aug. to 25nd August, 2018 for BE-B students



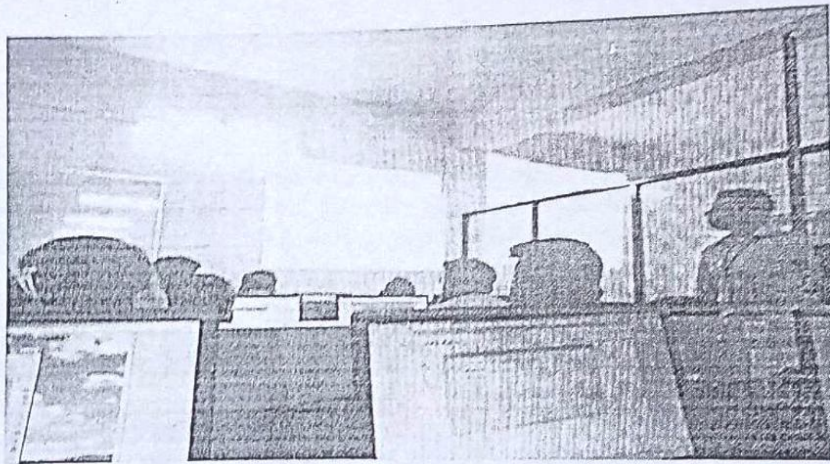
ZES ZCOER
Department of Electrical Engineering

Date	Timings	BE-A Class
13 th Aug 2018	09:00 to 4.00	43
14 th Aug 2018	09:00 to 4.00	43
15 th Aug 2018	09:00 to 4.00	44
16 th Aug 2018	09:00 to 4.00	43
17 th Aug 2018	09:00 to 4.00	43
18 st Aug 2018	09:00 to 4.00	44
19 st Aug 2018	09:00 to 4.00	44
Date	Timings	BE-B Class
20 th Aug 2018	09:00 to 4.00	52
21 th Aug 2018	09:00 to 4.00	52
22 th Aug 2018	09:00 to 4.00	50
23 rd Aug 2018	09:00 to 4.00	52
24 th Aug 2018	09:00 to 4.00	51
25 th Aug 2018	09:00 to 4.00	52

The session was inaugurated by Dr.A A Khandekar Head of Department, Electrical Engineering. Mrs. Kunal joshi gave introduction regarding the overview of content to be covered. First three days of the workshop covered Relay Logic & Hardware. Students divided in group of six and completed the task given like DOL starter, Timer operation, traffic light control etc. Next first and half days covered Allen Bradely PLC and advanced instructions of PLC. Last first and half days covered SCADA Wonderware Intouch 9.5, interfacing of PLC & SCADA. Shubham Jain & Moresh Narkhede from B.E.(A) & Sarvrsh Tambe from B.E.(B) gave the feedback from students.

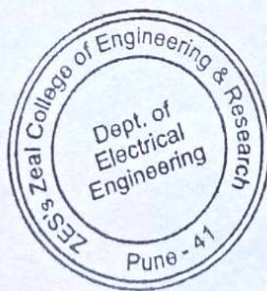
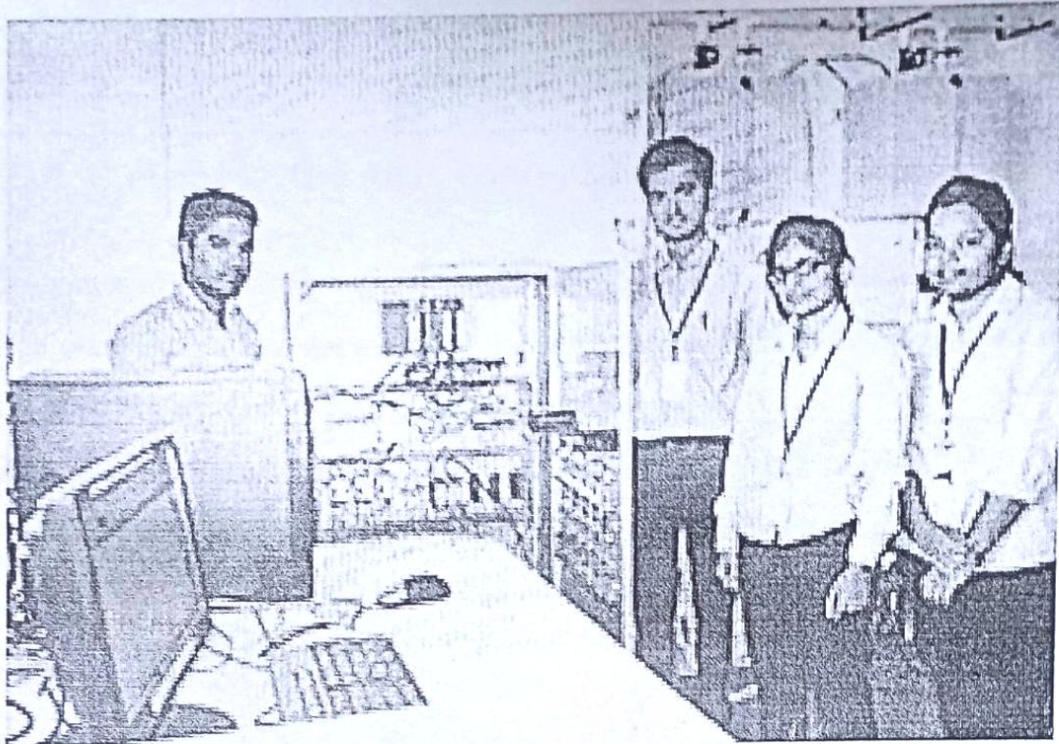


ZES ZCOEP
Department of Electrical Engineering



Handson Session- SCADA - by Mr. Jotindar Nath Chaudhari







Zeal Education Society's
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE - 41 | INDIA
DEPARTMENT OF ELECTRICAL ENGINEERING (SHIFT-I/II)

NOTICE

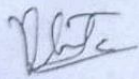
Date: 02/08/2018

All B.E. students are hereby informed that we are organizing Training program on PLC and SCADA Application. This will be one week training program during 13th Aug. to 19th Aug. 2018 for B.E. A Division and 20th Aug. to 25th Aug. 2018 for B.E. B Division. Course will be conducted by MPTA Education Pune. Student will get certificate for participation in this program. Fee for this training is Rs. 1000/- (Rs One Thousand only). This will be borned by the students.

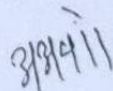
Note: Training program is compulsory to all students.

Venue :- Computer Lab & PLC & SCADA Lab

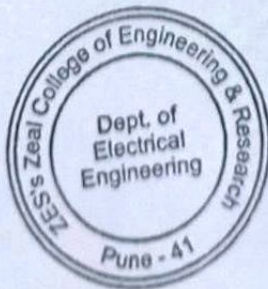
Time :- 9 am to 4 pm.


Prof. Kunal K. Joshi

Subject in charge


Dr. A. A. Khandekar

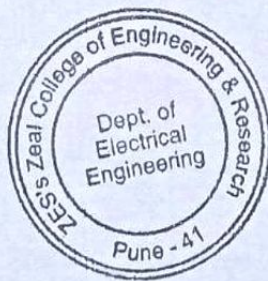
H.O.D



Assessment Procedure

The certificate is given to student only if they fulfill the criteria

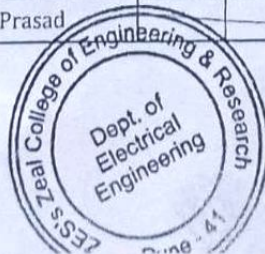
- 1) Attendance is $\geq 75\%$
- 2) If they pass the test conducted by MPTA at the end of hands on session.



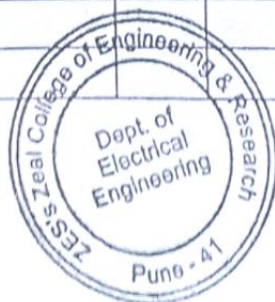
KKS
course coordinator

ZES's Zeal College of Engineering, Narhe, Pune
Department of Electrical Engineering
PLC & SCADA TRAINING (14/8/2018 - 19/8/2018)
Attendance Sheet - B. E. Electrical - A DIV (SEM-I A.Y. 18-19)

Sr. N	Roll No.	Name of Student	SIGNATURE						
			13/8/18	14/08/18	15/08/18	16/08/18	17/08/18	18/08/18	19/08/18
1	B61001	Aaiwale Ajay Ramesh	Ajay	Ajay	Ajay	Ajay	Ajay	Ajay	A
2	B61002	Abitkar Yogesh Rajendra	Yogesh	Yogesh	A	Yogesh	Yogesh	Yogesh	Yogesh
3	B61003	Apet Omkar Dashrath	Omkar	Omkar	Omkar	Omkar	Omkar	Omkar	Omkar
4	B61004	Awachar Neha Manojrao	Neha	A	Neha	Neha	Neha	Neha	Neha
5	B61006	Bhagwat Nilesh Rameshwar	Nilesh	Nilesh	Nilesh	Nilesh	Nilesh	Nilesh	Nilesh
6	B61008	Bhat Shubham Rajendra	Shubham	Shubham	Shubham	Shubham	Shubham	Shubham	Shubham
7	B61009	Bhoi Snehal Arun	Snehal	A	Snehal	Snehal	Snehal	Snehal	Snehal
8	B61010	Bhong Namrata Hanumant	Namrata	Namrata	Namrata	Namrata	Namrata	Namrata	Namrata
9	B61011	Bidre Shailesh Shivaji	Shailesh	A	Shailesh	Shailesh	Shailesh	Shailesh	Shailesh
10	B61013	Borde Pragati Ashok	Pragati	Pragati	Pragati	Pragati	Pragati	Pragati	Pragati
11	B61014	Chhajed Nikhil Ratanlal	Nikhil	Nikhil	Nikhil	A	Nikhil	Nikhil	Nikhil
12	B61017	Dhumal Abhishek Suresh	Abhishek	Abhishek	A	Abhishek	Abhishek	Abhishek	Abhishek
13	B61018	Divekar Roshan R	Roshan	Roshan	Roshan	Roshan	Roshan	Roshan	Roshan
14	B61019	Fegade Harshada Mohan	Harshada	Harshada	Harshada	Harshada	Harshada	Harshada	Harshada
15	B61023	Gaikwad Satypal Namdev	Satypal	Satypal	Satypal	Satypal	Satypal	Satypal	Satypal
16	B61024	Ghadge Kiran Shankar	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran
17	B61026	Giri Rupali Jagjivan	Rupali	Rupali	Rupali	Rupali	Rupali	Rupali	Rupali
18	B61029	Indore Tanuja Rohidas	Tanuja	Tanuja	Tanuja	Tanuja	Tanuja	Tanuja	Tanuja
19	B61030	Ingale Komal Vilas	Komal	Komal	Komal	Komal	Komal	Komal	Komal
20	B61031	Jarag Avdhut Krishnat	Avdhut	Avdhut	Avdhut	Avdhut	Avdhut	Avdhut	Avdhut
21	B61032	Jaurat Shubham Vishwanath	Shubham	Shubham	Shubham	A	Shubham	Shubham	Shubham
22	B61033	Kadam Nikhil Satyajit	Nikhil	Nikhil	Nikhil	Nikhil	Nikhil	Nikhil	Nikhil
23	B61034	Kale Vishal Bhagwat	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal
24	B61035	Kamble Bhavik Baban	Bhavik	Bhavik	A	Bhavik	Bhavik	Bhavik	Bhavik
25	B61036	Kamble Mayur Sadashiv	Mayur	Mayur	Mayur	Mayur	Mayur	Mayur	Mayur
26	B61037	Kamble Sarita Ganpat	Sarita	A	Sarita	Sarita	Sarita	Sarita	Sarita
27	B61038	Kanade Ajinkya Siddheshwar	Ajinkya	Ajinkya	Ajinkya	Ajinkya	Ajinkya	Ajinkya	Ajinkya
28	B61040	Kankate Satish Maruti	Satish	Satish	Satish	Satish	A	Satish	Satish
29	B61041	Kashid Shubham Devidas	Shubham	Shubham	Shubham	Shubham	Shubham	Shubham	Shubham
30	B61042	Katta Kapil Kisan	Kapil	Kapil	Kapil	Kapil	Kapil	Kapil	Kapil
31	B61043	Katti Yogita Raju	Yogita	Yogita	Yogita	Yogita	Yogita	Yogita	A
32	B61044	Kaware Gaurav Digamber	Gaurav	Gaurav	Gaurav	Gaurav	A	Gaurav	Gaurav
33	B61045	Khopkar Kartiki Subhash	Kartiki	Kartiki	Kartiki	Kartiki	Kartiki	Kartiki	Kartiki
34	B61046	Kulkarni Akshada Prasad	Akshada	Akshada	Akshada	Akshada	Akshada	Akshada	Akshada

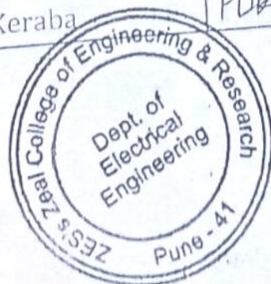


Sr. N	Roll No.	Name of Student	SIGNATURE						
			13/8/18	14/8/18	15/8/18	16/8/18	17/8/18	18/8/18	19/8/18
35	B61047	Kulkarni Akshay Padmakar			A				A
36	B61048	Kumbhar Ashwini Shankar	Ashwini	Ashwini	Ashwini	Ashwini	Ashwini	Ashwini	Ashwini
37	B61049	Lohar Shital Shivaji	Shital	Shital	Shital	Shital	Shital	Shital	Shital
38	B61050	Lokhande Suraj Parshuram	Suraj	Suraj	Suraj	Suraj	Suraj	Suraj	Suraj
39	B61051	Magdum Ninad Kiran	Ninad	Ninad	Ninad	Ninad	Ninad	Ninad	Ninad
40	B61053	Mangaonkar Sushant Mohan							A
41	B61054	Mengade Amol Dnyanoba	A		A			A	
42	B61055	Mestry Rahul Ravindra	Rahul	Rahul	Rahul	A	Rahul	Rahul	Rahul
43	B61056	Mhatre Prajakta Namdev							A
44	B61058	More Viraj Vilas	Viraj	Viraj	A	Viraj	Viraj	Viraj	Viraj
45	B61059	Mujawar Rumana Kabir		A					
46	B61060	Narute Rajkumar Babasaheb				A			
47	B61061	Oza Siddhesh Ramesh	Siddhesh	Siddhesh	Siddhesh	Siddhesh	A	Siddhesh	Siddhesh
48	B61062	Pakale Ankita Rakesh	Ankita	Ankita	A	Ankita	Ankita	Ankita	Ankita
49	B61063	Pandharpure Chaitanya Suhas	Chaitanya	Chaitanya	Chaitanya	Chaitanya	Chaitanya	Chaitanya	Chaitanya
50	B61065	Patil Asmita Dattatraya	Asmita						A
51	B61067	Patil Kunal Anil	A	Kunal	Kunal	Kunal	Kunal	Kunal	Kunal
52	B61069	Patil Monika Tatyasaheb							
53	B61070	Patil Pooja Balaso	Pooja	Pooja	Pooja	Pooja	Pooja	A	Pooja
54	B61072	Patsute Swapnil Sunil							
55	B61073	Pawar Shweta Sudhakar	Shweta	Shweta	Shweta	Shweta	Shweta	Shweta	Shweta
56	B61075	Shejal Abhijit Shankar	Shejal	Shejal	Shejal	Shejal	Shejal	Shejal	Shejal
57	B61076	Shinde Pratiksha Suresh	A						
58	B61079	Suryawanshi Sagar Dnyanoba	Sagar	Sagar	A	Sagar	Sagar	Sagar	Sagar
59	B61080	Tathe Sagar Laxman					A		
60	B61083	Veer Akshay Suresh	Akshay	Akshay	Akshay	Akshay	Akshay	Akshay	Akshay
61	B61084	Wadkar Sneha Manik	Sneha	Sneha	Sneha	Sneha	Sneha	Sneha	A
62	B61086	Yadav Vivek Mahadev	Vivek	Vivek	Vivek	A	Vivek	Vivek	Vivek
63	B61087	Zende Akash Anil	A						
64	B61090	Awate Pratyusha Bhaskar							
65	B62053	Thanedar Piyusha Pratap	Pratap	Pratap	A	Pratap	Pratap	A	Pratap
66				A					
67									
68									
69									
70									
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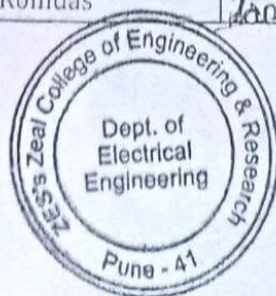
ZES's, Zeal College of Engineering and Research, Narhe, Pune 411041
BE-Electrical - B Division (Second Shift)

Sr.No.	Roll No	Student Name	20/08/18	21/08/18	22/08/18	23/08/18	24/08/18
1	B62001	Angaj Omkar Namdev	Om	Om	Om	Om	Om
2	B62002	Aundhakar Avadhut Avinash	Aundh	Aundh	Aundh	Aundh	Aundh
3	B62003	BARKALE SAGAR DILIP	Sagar	Sagar	Sagar	Sagar	Sagar
4	B62004	Bhinge Akshay Shailesh	Akshay	Akshay	Akshay	Akshay	Akshay
5	B62005	Bhingole Prashant Balaji	Prashant	Prashant	Prashant	Prashant	Prashant
6	B62006	Bhojane Milind Kacharoas	Milind	Milind	Milind	Milind	Milind
7	B62007	Borade Namdev Narayan	Namdev	Namdev	Namdev	Namdev	Namdev
8	B62008	Chaudhari Amol Sanjay	Amol	Amol	Amol	Amol	Amol
9	B62009	DIPTE ARTI ANIL	Arti	Arti	Arti	Arti	Arti
10	B62010	Gutte Nilesh Shesherao	Nilesh	Nilesh	Nilesh	Nilesh	Nilesh
11	B62011	HANDE ROHIT DATTATRAY	Rohit	Rohit	Rohit	Rohit	Rohit
12	B62012	Honkalse Manasi Manish	Manasi	Manasi	Manasi	Manasi	Manasi
13	B62013	Jadhav Arvind Gulabrao	Arvind	Arvind	Arvind	Arvind	Arvind
14	B62014	Jadhav Parvati Balaji	Parvati	Parvati	Parvati	Parvati	Parvati
15	B62015	Karande Dhanashri Shrikant	Dhanashri	Dhanashri	Dhanashri	Dhanashri	Dhanashri
16	B62016	Kasalkar Sudheer Shankar	Sudheer	Sudheer	Sudheer	Sudheer	Sudheer
17	B62017	Kashid Shital Sunil	Shital	Shital	Shital	Shital	Shital
18	B62018	Katolkar Gaurao Sudhakar	Gaurao	Gaurao	Gaurao	Gaurao	Gaurao
19	B62019	Kawale Ganesh Narayan	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh
20	B62020	Khambe Mayur Raghunath	Mayur	Mayur	Mayur	Mayur	Mayur
21	B62021	Kodole Komal Dadaso	Komal	Komal	Komal	Komal	Komal
22	B62022	Kunturkar Vedant Nitish	Vedant	Vedant	Vedant	Vedant	Vedant
23	B62023	Kurale Rohan Dhondiram	Rohan	Rohan	Rohan	Rohan	Rohan
24	B62024	Lande Rakshanda Vitthalrao	Rakshanda	Rakshanda	Rakshanda	Rakshanda	Rakshanda
25	B62025	Mali Vaibhav Anil	Vaibhav	Vaibhav	Vaibhav	Vaibhav	Vaibhav
26	B62026	MATHE SANKET ASHOK	Sanket	Sanket	Sanket	Sanket	Sanket
27	B62027	Metakari Sneha Ramchandra	Sneha	Sneha	Sneha	Sneha	Sneha
28	B62028	Moon Diksha Shuddhodhan	Diksha	Diksha	Diksha	Diksha	Diksha
29	B62029	Moreskar Nemraj Balu	Nemraj	Nemraj	Nemraj	Nemraj	Nemraj
30	B62030	Nanavare Sourabh Sanjay	Sourabh	Sourabh	Sourabh	Sourabh	Sourabh
31	B62031	Palekar Dilip Keraba	Dilip	Dilip	Dilip	Dilip	Dilip



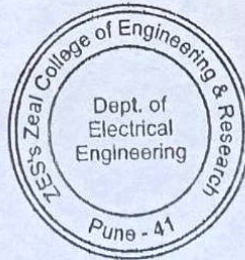
BE-Electrical - B Division (Second Shift)

Sr.No.	Roll No	Student Name	20/08/18	21/08/18	22/08/18	23/08/18	24/08/18	25/08/18
32	B62032	Paliwal Shivam Vishwas	Shivam	Shivam	Shivam	Shivam	Shivam	Shivam
33	B62033	Pardeshi Siddhant Sanjaysing	Siddhant	Siddhant	Siddhant	Siddhant	Siddhant	Siddhant
34	B62034	Patil Harshal Sanjay	Harshal	Harshal	Harshal	Harshal	Harshal	Harshal
35	B62035	Patil Shivprasad Yashwant	Shivprasad	Shivprasad	Shivprasad	Shivprasad	Shivprasad	Shivprasad
36	B62036	Patil Yayati Pandurang	Yayati	Yayati	Yayati	Yayati	Yayati	Yayati
37	B62037	Patole Vijay Narayan	Vijay	Vijay	Vijay	Vijay	Vijay	Vijay
38	B62038	Pawade Rahul Ramesh	Rahul	Rahul	Rahul	Rahul	Rahul	Rahul
39	B62039	Pawar Kiran Ashok	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran
40	B62040	Pawar Shubhangi Shivaji	Shubhangi	Shubhangi	Shubhangi	Shubhangi	Shubhangi	Shubhangi
41	B62041	Rathod Akshay Rangnath	Akshay	Akshay	Akshay	Akshay	Akshay	Akshay
42	B62042	Sakate Swapnil Sanjay	Swapnil	Swapnil	Swapnil	Swapnil	Swapnil	Swapnil
43	B62043	SANAP VISHAL MAHADEO	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal
44	B62044	Savji Veena Vijayrao	Veena	Veena	Veena	Veena	Veena	Veena
45	B62045	Shilamkar Kundan Balu	Kundan	Kundan	Kundan	Kundan	Kundan	Kundan
46	B62046	Shimpi Mahesh Liladhar	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh
47	B62047	Shinde Jaydeep Sambhaji	Jaydeep	Jaydeep	Jaydeep	Jaydeep	Jaydeep	Jaydeep
48	B62048	Shinde Shubham Dhanaji	Shubham	Shubham	Shubham	Shubham	Shubham	Shubham
49	B62049	Shindekar Sourabh Narendra	Sourabh	Sourabh	Sourabh	Sourabh	Sourabh	Sourabh
50	B62050	Srivastava Siddhartha	Siddhartha	Siddhartha	Siddhartha	Siddhartha	Siddhartha	Siddhartha
51	B62051	Suryawanshi Rutuja Prakash	Rutuja	Rutuja	Rutuja	Rutuja	Rutuja	Rutuja
52	B62052	Sutar Sanket Anil	Sanket	Sanket	Sanket	Sanket	Sanket	Sanket
53	B62053	Thanedar Piyusha Pratap	Piyusha	Piyusha	Piyusha	Piyusha	Piyusha	Piyusha
54	B62054	Todkar Yash Anil	Yash	Yash	Yash	Yash	Yash	Yash
55	B62055	Uparwat Vijaya Shravan	Vijaya	Vijaya	Vijaya	Vijaya	Vijaya	Vijaya
56	B62056	Wabale Amol Dhanaji	Amol	Amol	Amol	Amol	Amol	Amol
57	B62057	WAGH BHARAT GANESH	Bharat	Bharat	Bharat	Bharat	Bharat	Bharat
58	B62058	WAGHMARE SANDIP	Sandip	Sandip	Sandip	Sandip	Sandip	Sandip
59	B62059	Wangarwar Ganesh Balaji	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh
60	B62060	Wavare Abaso Chhatrabhuj	Abaso	Abaso	Abaso	Abaso	Abaso	Abaso
61	B61011	Bidre Shailesh Shivaji	Shailesh	Shailesh	Shailesh	Shailesh	Shailesh	Shailesh
62	B61029	Indore Tanuja Rohidas	Tanuja	Tanuja	Tanuja	Tanuja	Tanuja	Tanuja



ZES's, Zeal College of Engineering and Research, Narhe, Pune 411041
BE-Electrical - B Division (Second Shift)

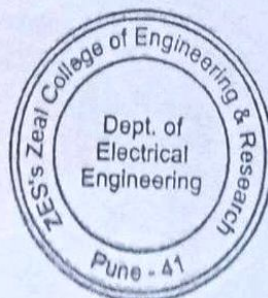
Sr.No.	Roll No	Student Name	20/08/18	21/08/18	22/08/18	23/08/18	24/08/18	25/08/18
63	B61030	Ingale Komal Vilas	Komal	Komal	Komal	Komal	Komal	Komal
64	B61036	Kamble Mayur Sadashiv	Mayur	Mayur	Mayur	Mayur	Mayur	Mayur
65	B61038	Kanade Ajinkya Siddheshwar	Ajinkya	Ajinkya	Ajinkya	Ajinkya	Ajinkya	Ajinkya
67	B61041	Kashid Shubham Devidas	Shubham	Shubham	Shubham	Shubham	Shubham	Shubham
68	B61042	Katta Kapil Kisan	Kapil	Kapil	Kapil	Kapil	Kapil	Kapil
69	B61044	Kaware Gaurav Digamber	Gaurav	Gaurav	Gaurav	Gaurav	Gaurav	Gaurav
70	B61046	Kulkarni Akshada Prasad	Akshada	Akshada	Akshada	Akshada	Akshada	Akshada
71	B61053	Mangaonkar Sushant Mohan	Sushant	Sushant	Sushant	Sushant	Sushant	Sushant
72	B61054	Mengade Amol Dnyanoba	Amol	Amol	Amol	Amol	Amol	Amol
73	B61056	Mhatre Prajakta Namdev	Prajakta	Prajakta	Prajakta	Prajakta	Prajakta	Prajakta
74	B61059	Mujawar Rumana Kabir	Rumana	Rumana	Rumana	Rumana	Rumana	Rumana
75	B61060	Narute Rajkumar Babasaheb	Rajkumar	Rajkumar	Rajkumar	Rajkumar	Rajkumar	Rajkumar
76	B61080	Tathe Sagar Laxman	Sagar	Sagar	Sagar	Sagar	Sagar	Sagar



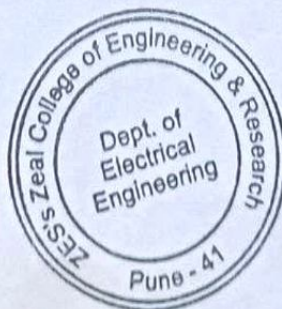
MPTA Education
&
ZES's Zeal College of Engineering & Research, Pune

Test on Automation PLC SCADA (25/08/2018)

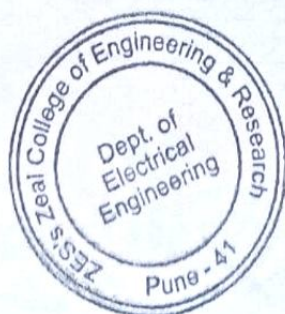
- 1 Which of the following is not the input output specification?
 - A Analog
 - B Discrete
 - C Register
 - D Low speed timer
- 2 The term sourcing refers to
 - A Input module receives current
 - B Input module supplies current
 - C Output device supplies current
 - D Input device supplies current
- 3 Which of the following is the disadvantage of automation?
 - A Increased Productivity
 - B High Volume Production
 - C Increase in Safety
 - D Increased Overhead Costs
- 4 PLCs are housed in a single case with all input and output, power and control connection points located on the single unit is known as
 - A single board PLCs
 - B Compact PLCs
 - C Modular PLC
 - D Open frame PLCs
- 5 Which of the following language is evolution of wiring diagram?
 - A Instruction List
 - B Ladder diagram



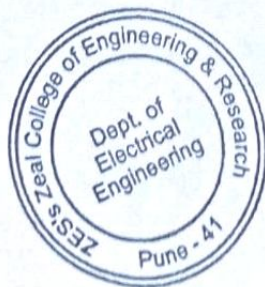
- 11 A B C
- C Structured Text
D Functional Block Diagram
- 6 The vertical lines in Ladder Diagram are known as
- A Input
B Output
C Rung
D Rails
- 7 The switch whose initial state is closed, when activated the switch changes to an open state. The switch is known as
- A Normally open
B Normally closed
C Latch
D Unlatch
- 8 The END rung indicates
- A End the program
B Terminate the program
C Jump the program
D Returns to beginning
- 9 Oscilloscope horizontal time base switch is an example of
- A Push Button
B Rotary switch
C Limit Switch
D Toggle Switch
- 10 Relay is an example of
- A Digital Input
B Digital Output
C Analog Input



- D Analog Output
- 11 Proximity detector is used to sense
- A Motion
 - B Pressure
 - C Position
 - D Flow
- 12 The address for input is I:4/7, What is the significance of 4 here?
- A Input
 - B Output
 - C Module Number
 - D Element Number
- 13 Encoder is a device which converts
- A Physical parameter into electrical signal
 - B Physical parameter into analog code
 - C Physical parameter into digital code
 - D Physical parameter into physical parameter
- 14 Which of the following is not a temperature sensor
- A Resistive Temperature Detector
 - B Thermocouple
 - C Bimetallic switch
 - D Float Switch
- 15 Liquid level float switch provides
- A Analog output
 - B Discrete output
 - C Analog Input
 - D Discrete Input
- 16 A SCADA system performs Data Acquisition, Networked data Communication ,..... and

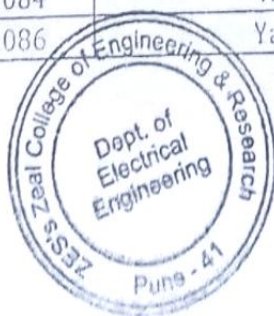


- control
- A Data representation
- B DCS
- C Data manipulation
- D Data deletion
- 17 What is SCADA?
- A Hardware
- B Software
- C Process
- D System
- 18 Which of the following is not a basic element of data acquisition systems
- A Sensors and transducers.
- B Data acquisition hardware
- C Signal conditioning
- D Motors
- 19 A Remote Terminal Unit (RTU) in a telemetry system is used for
- A Providing power to the remote sensors
- B Converting the output of the sensor to digital data and transmit to the base station.
- C Managing the health condition of the sensors
- D Remote control the base station
- 20 Protocol is a set of that entities use to communicate information.
- A Formats
- B Procedure
- C Formats and procedure
- D Bandwidth



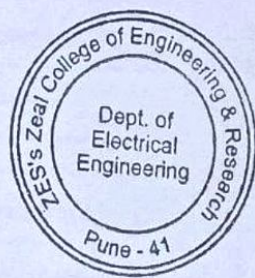
Result of PLC & SCADA (MPTA) course

Sr. No	Roll no.	Name of student	Marks obtained
1	B61001	Aaiwale Ajay Ramesh	16
2	B61002	Abitkar Yogesh Rajendra	19
3	B61003	Apet Omkar Dashrath	11
4	B61004	Awachar Neha Manojrao	11
5	B61006	Bhagwat Nilesh Rameshwar	15
6	B61008	Bhat Shubham Rajendra	9
7	B61009	Bhoi Snehal Arun	16
8	B61010	Bhong Namrata Hanumant	11
9	B61013	Borde Pragati Ashok	19
10	B61014	Chhajed Nikhil Ratanlal	17
11	B61017	Dhumal Abhishek Suresh	19
12	B61018	Divekar Roshan R	16
13	B61019	Fegade Harshada Mohan	19
14	B61023	Gaikwad Satypal Namdev	17
15	B61024	Ghadge Kiran Shankar	13
16	B61026	Giri Rupali Jagjivan	13
17	B61031	Jarag Avdhut Krishnat	12
18	B61032	Jaurat Shubham Vishwanath	11
19	B61033	Kadam Nikhil Satyajit	14
20	B61034	Kale Vishal Bhagwat	15
21	B61035	Kamble Bhavik Baban	15
22	B61037	Kamble Sarita Ganpat	17
23	B61040	Kankate Satish Maruti	19
24	B61043	Katti Yogita Raju	20
25	B61045	Khopkar Kartiki Subhash	10
26	B61048	Kumbhar Ashwini Shankar	13
27	B61049	Lohar Shital Shivaji	14
28	B61050	Lokhande Suraj Parshuram	9
29	B61051	Magdum Ninad Kiran	16
30	B61055	Mestry Rahul Ravindra	20
31	B61058	More Viraj Vilas	13
32	B61061	Oza Siddhesh Ramesh	9
33	B61062	Pakale Ankita Rakesh	14
34	B61063	Pandharpure Chaitanya Suhas	16
35	B61067	Patil Kunal Anil	19
36	B61070	Patil Pooja Balaso	15
37	B61073	Pawar Shweta Sudhakar	11
38	B61075	Shejal Abhijit Shankar	18
39	B61079	Suryawanshi Sagar Dnyanoba	14
40	B61083	Veer Akshay Suresh	11
41	B61084	Wadkar Sneha Manik	18
42	B61086	Yadav Vivek Mahadev	16



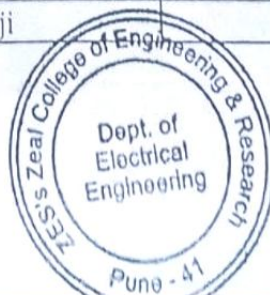
43	B62053	Thanedar Piyusha Pratap	16
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(Signature)
Course coordinator

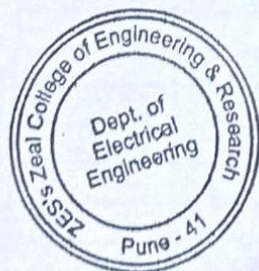


Result of PLC & SCADA (MPTA) Course

Sr.No.	Roll No	Student Name	Marks Obtained
1	B62001	Angaj Omkar Namdev	9
2	B62002	Aundhakar Avadhut Avinash	20
3	B62003	BARKALE SAGAR DILIP	11
4	B62004	Bhinge Akshay Shailesh	12
5	B62005	Bhingole Prashant Balaji	16
6	B62006	Bhojane Milind Kacharoas	9
7	B62007	Borade Namdev Narayan	20
8	B62008	Chaudhari Amol Sanjay	20
9	B62009	DIPTE ARTI ANIL	16
10	B62010	Gutte Nilesh Shesherao	9
11	B62011	HANDE ROHIT DATTATRAY	8
12	B62012	Honkalse Manasi Manish	17
13	B62013	Jadhav Arvind Gulabrao	8
14	B62014	Jadhav Parvati Balaji	16
15	B62015	Karande Dhanashri Shrikant	20
16	B62016	Kasalkar Sudheer Shankar	18
17	B62017	Kashid Shital Sunil	11
18	B62018	Katolkar Gaurao Sudhakar	20
19	B62019	Kawale Ganesh Narayan	10
20	B62020	Khambe Mayur Raghunath	9
21	B62021	Kodole Komal Dadaso	18
22	B62022	Kunturkar Vedant Nitish	13
23	B62023	Kurale Rohan Dhondiram	17
24	B62024	Lande Rakshanda Vitthalrao	13
25	B62025	Mali Vaibhav Anil	18
26	B62026	MATHE SANKET ASHOK	18
27	B62027	Metakari Sneha Ramchandra	20
28	B62028	Moon Diksha Shuddhodhan	9
29	B62029	Moreskar Nemraj Balu	19
30	B62030	Nanavare Sourabh Sanjay	8
31	B62031	Palekar Dilip Keraba	16
32	B62032	Paliwal Shivam Vishwas	16
33	B62033	Pardeshi Siddhant Sanjaysing	19
34	B62034	Patil Harshal Sanjay	16
35	B62035	Patil Shivprasad Yashwant	9
36	B62036	Patil Yayati Pandurang	20
37	B62037	Patole Vijay Narayan	11
38	B62038	Pawade Rahul Ramesh	9
39	B62039	Pawar Kiran Ashok	18
40	B62040	Pawar Shubhangi Shivaji	13



41	B62041	Rathod Akshay Rangnath	12
42	B62042	Sakate Swapnil Sanjay	17
43	B62043	SANAP VISHAL MAHADEO	16
44	B62044	Savji Veena Vijayrao	8
45	B62045	Shilamkar Kundan Balu	13
46	B62046	Shimpi Mahesh Liladhar	19
47	B62047	Shinde Jaydeep Sambhaji	10
48	B62048	Shinde Shubham Dhanaji	9
49	B62049	Shindekar Sourabh Narendra	18
50	B62050	Srivastava Siddhartha Rajeshkumar	15
51	B62051	Suryawanshi Rutuja Prakash	20
52	B62052	Sutar Sanket Anil	8
53	B62053	Thanedar Piyusha Pratap	20
54	B62054	Todkar Yash Anil	13
55	B62055	Uparwat Vijaya Shravan	11
56	B62056	Wabale Amol Dhanaji	8
57	B62057	WAGH BHARAT GANESH	16
58	B62058	WAGHMARE SANDIP KHANDU	18
59	B62059	Wangarwar Ganesh Balaji	15
60	B62060	Wavare Abaso Chhatrabhuj	13
61	B61011	Bidre Shailesh Shivaji	12
62	B61029	Indore Tanuja Rohidas	13
63	B61030	Ingale Komal Vilas	19
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74	B61059	Mujawar Rumana Kabir	10
75	B61060	Narute Rajkumar Babasaheb	20
76	B61080	Tathe Sagar Laxman	9



(Signature)
(Course coordinator)

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- PROGRAMMABLE LOGIC CONTROLLER Allen Brandely (SLC 5/03/ Micrologix 1400) PLC
- SUPERVISORY CONTROL AND DATA ACQUISITION (SCDA) Wonderware Intouch

Conducted from 13th August 2018 to 19th August 2018 in Zeal College Of Engineering & Research Narhe , Pune.



A. Kote
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Abitkar Yogesh Rajendra

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Q. S. P. V.

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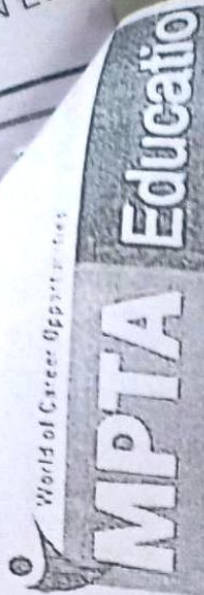
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- PROGRAMMABLE LOGIC CONTROLLER Allen Brandely (SLC 5/03/ Micrologix 1400) PLC
- SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) Wonderware Intouch

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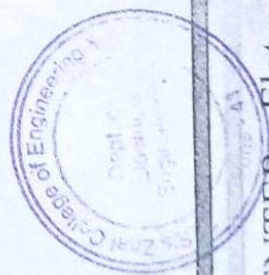
CERTIFICATE

This is to certify that Mr / Miss Aundhakar Avadhut Avinash

has successfully completed the training program on Industrial Automation conducted by MPTA Education Ltd Joint Association with Zeal College Of Engineering & Research Narhe Pune (Department of electrical) It covers

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- **SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)** Wonderware Intouch

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- PROGRAMMABLE LOGIC CONTROLLER Allen Brandely (SLC 5/03/ Micrologix 1400) PLC
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