

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING

Date: 3/1/2019

CIRCULAR

All the students of department of ECE are informed to express their interest by enrolling their name for the One week Certificate course on 'Industrial Automation' starting from 28/1/2019 to 2/2/2019 .

The detailed syllabus for the course is attached for your information and the enrolled students will be certified accordingly based upon the test conducted at the end of the course.

Concerned Class In charges are instructed to submit the list of the students enrolled within two days to the undersigned. For further information, you can contact the Course Coordinator or the Head of the Department.



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SYLLABUS FOR INDUSTRIAL AUTOMATION

S.No.	Name of the Topic	Scheduled Hours
1	Nature of Industrial Process	3
2	Introduction to Process Control Philosophies	3
3	Introduction to Programmable Logic Controllers	3
4	PLC programming methodologies	6
5	PLC functions	6
6	PLC Data Handling	6
7	PLC arithmetic and logical functions	3
8	PLC program control and interrupts	3
9	Analog value processing	3

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DEPARTMENT OF ECE

LIST OF STUDENTS ENROLLED FOR INDUSTRIAL AUTOMATION IN 2018-19

Sl.No.	Roll No.	Name of the student	Year	Dept.
1	15831A0412	B SACHIN	IV	ECE
2	15831A0413	BACHU SRUJAN KUMAR	IV	ECE
3	15831A0415	BONTHA VENU GOPAL	IV	ECE
4	15831A0416	BOTTU VIJAY KUMAR	IV	ECE
5	15831A0424	DESHAM HARIKA	IV	ECE
6	15831A0425	DHARAVATH NAGA RAJU	IV	ECE
7	15831A0426	DHEERAVATH SWAPNA	IV	ECE
8	15831A0481	PRIYA MISHRA	IV	ECE
9	15831A0483	PULIPATI BINDU	IV	ECE
10	15831A0484	PULIPATI PADMA TEJASWI	IV	ECE
11	15831A0485	PULLURI AKHIL	IV	ECE
12	15831A0486	PURANIK VISHRUTH	IV	ECE
13	15831A0499	SAMA DIVYA	IV	ECE
14	15831A04B6	VALLABHANENI AKHIL	IV	ECE
15	15831A04B7	VEDANTHAM KRISHNA SAI BHARADWAJ	IV	ECE
16	15831A04B8	VEMAVARAPU ARPITHA	IV	ECE
17	15831A04C0	YEDLA VAIBHAV	IV	ECE
18	15AG1A04B4	PREETHI CHOLLETI	IV	ECE
19	16835A0412	BOINI SANDHYA	IV	ECE
20	16835A0413	CHAKALI NARSIMULU	IV	ECE
21	16835A0415	ENAGANTI HARISH	IV	ECE
22	16835A0419	JELLA SUDHAKAR	IV	ECE
23	16835A0421	KOTHAKONDA PRAVALIKA	IV	ECE
24	15831A0409	ANURAG SANDEEP CHANDURI	IV	ECE

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TEST PAPER On INDUSTRIAL AUTOMATION

Name of the student: P. PadmaTeja Sree

H.T.No: 15831A0484

Answer all the questions and Tick the Correct answers:

1. Wrist motion of y involves [C] ✓
 a) right to left rotation of the object
 b) up and down rotation of the object
 c) twisting of the object about the arm axis
 d) none of the mentioned
2. Robots are specified by [d] ✓
 a) pay load
 b) dimension of work envelope
 c) degree of freedom
 d) all of the mentioned
3. Hydraulic drives are used for a robot when [d] ✓
 a) high torque is required
 b) high power is required
 c) rapid motion of robot arm
 d) all of the mentioned
4. The following type of robot is most suitable for pick and place operations [C] ✓
 a) rectangular
 b) cylindrical
 c) spherical
 d) jointed arm type
5. A computer program that contains expertise in a particular domain is called an [C] ✓
 a) automatic processor
 b) intelligent planner
 c) expert system processor
 d) operations symbolizer
6. The knowledge base of an expert system includes both facts and [b] ✓
 a) theories
 b) heuristics
 c) algorithms
 d) analysis
7. A robot's arm is also known as its [b] ✓
 a) actuator
 b) end effector
 c) manipulator
 d) servomechanism

[Signature]

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8. Which type of actuator generates a good deal of power but tends to be messy?
a) electric
b) hydraulic
c) pneumatic
d) none of the mentioned
9. If a robot can alter its own trajectory in response to external conditions, it is considered to be
a) intelligent
b) mobile
c) non servo
d) open loop
10. Programming a robot by physically moving it through the trajectory you want it to follow is called
a) contact sensing control
b) continuous path control
c) pick and place control
d) robot vision control
11. Reasoning from a goal state towards an initial state is called
a) backward chaining
b) bidirectional
c) breadth first
d) heuristic
12. Which device is mostly associated with automation?
a) flexible manufacturing
b) robots
c) computer graphics workstation
d) NC machine
13. Choose the basic element for an automated machine tool
a) logic
b) NC tape programming
c) software
d) workstation
14. Choose the robot component from the following
a) micro computer
b) coaxial cable
c) arm
d) software
15. A configuration for a robot is
a) octagonal
b) oblong
c) square
d) spherical

(b)

o

(a)

o

(b)

✓

(c)

✓

(b)

o

(c)

✓

(c)

o

(d)

o

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MARKS SHEET FOR INDUSTRIAL AUTOMATION

Sl.No.	Roll No.	Name of the student	Year	Dept.	Marks
1	15831A0412	B SACHIN	IV	ECE	10
2	15831A0413	BACHU SRUJAN KUMAR	IV	ECE	9
3	15831A0415	BONTHA VENU GOPAL	IV	ECE	9
4	15831A0416	BOTTU VIJAY KUMAR	IV	ECE	9
5	15831A0424	DESHAM HARIKA	IV	ECE	10
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REPORT ON ONE WEEK CERTIFICATE COURSE ON 'INDUSTRIAL AUTOMATION'

Date: 4/2/2019

The Course entitled One week Certificate course on 'Industrial Automation' has been successfully conducted from 28/01/2019 to 2/2/2019 in the department of ECE, GNIT. The total number of students who have successfully completed the course are 24 .

After the successful completion of the course, the students are able to achieve the following outcomes:

- describe and identify the parts, to choose the functions and operations of a PLC based industrial automation system and draw up specifications.
- explain the operation of a smart home and building automation system and to assess performance.
- Have a proven critical ability so they can compare and evaluate different smart home and building automation systems.
- Perceive, interpret and clearly explain issues related to smart home and building automation systems, to generalize the problem, to correctly appreciate in order to make right conclusions.
- compose and organize new applications using a smart home and building automation system.
- Implement quality improvement techniques and support smart home and building automation systems.

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SOFCON CERTIFICATE



This is to certify that Mr./Ms. Pulpari Bindu has attended the following certificate course organized by SOFCON INDIA PVT. LTD. from 28-01-2019 to 02-02-2019 at Guru Nanak Institute of Technology, Hyderabad.

- Industrial Automation
- Building Automation System
- VLSI
- Embedded System & Robotics
- MATLAB



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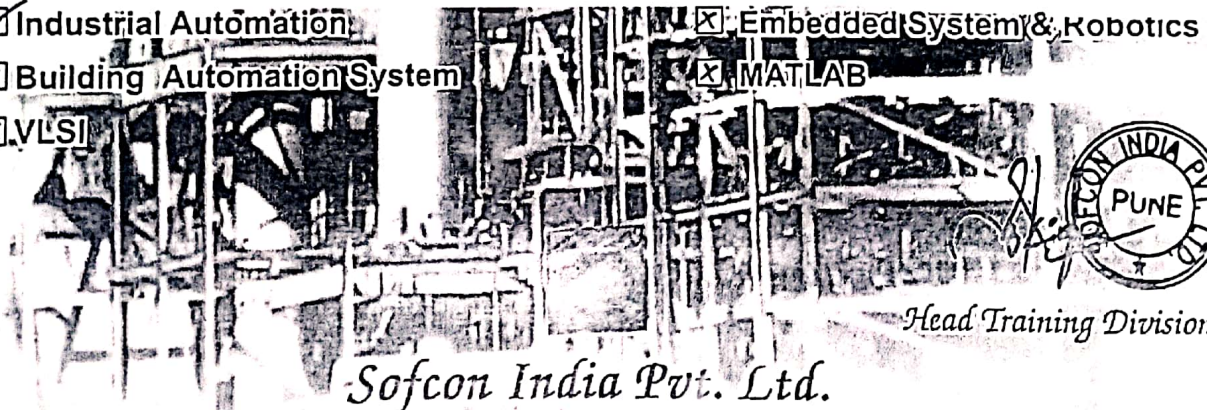
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This is to certify that Mr./Ms. Jella Sudhakar has attended the following certificate course organized by SOFCON INDIA PVT. LTD. from 28-01-2019 to 02-02-2019 at Guru Nanak Institute of Technology, Hyderabad.

- Industrial Automation
- Building Automation System
- VLSI
- Embedded System & Robotics
- MATLAB



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