SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Sindalagundu post, Dindigul-624 002, Tamilnadu. Ph: 0451-2448800
(Approved by AICTE, Affiliated to Anna University, Chennai Accredited by NAAC)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Technology Training Programme on Industrial Robotics

2022-23 (Even Semester) III & IV Year EEE

(06.03.2023 to 11.03.2023)

Trained by

Axis Global Automation, Coimbatore

From

Dr.G.MohanBabu,
Professor & Head,
Department of Electrical and Electronics Engineering,
SSM Institute of Engineering and Technology,
Dindigul-02

To
The Principal,
SSM Institute of Engineering and Technology,
Dindigul-02

Respected Sir,
Sub: Requesting Approval of conducting **Technological Teaching** for III and IV Year EEE Students-Reg

The **Department of EEE** has planned to conduct Technological Teaching for Third and Final year Students on "Industrial Robotics" which is scheduled in March 2023. The quotation details, syllabus and Training Schedule are attached with this letter. Kindly do the needful sir.

Technological Training	Name of the Company	Total No.of Students	No. of Hours	Duration	Amount	Coordinator/Faculty in Charges
Industrial Robotics	Axis Global Automation, Coimbatore	64	40	06.03.23 to 11.03.23	Rs.1,28,000	D.Manoj,A.P/EEE P.Siva Subramanian,A.P/EEE G.Sathish Kumar,A.P/EEE

Resource Person Details:

1. Er.S.Sudhakar,Sr.Business Development Engineer
2. Er.R.Nagarjun,Application Engineer
3. Er.S.Loganathan ,Application Engineer

Thanking you.

Yours faithfully

(Dr.G.MohanBabu)

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Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS)
Principal
SSM Institute of Engineering and Technology
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Palani Road, Dindigul - 624 002.

SSM Institute of Engineering and technology

Dindigul - Palani Highway, Dindigul - 624002

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NAAC)

Department of Electrical and Electronics Engineering

organizes

six days Technology Training on

" Industrial Robotics "

For III and IV year students of EEE

from 06.03.2023 to 11.03.2023

Trained by

Axis Global Automation, Coimbatore

Co-ordinators	HoD/EEE	Principal
Mr.D.Manoj,AP/EEE Mr .P.Siva subramanian,AP/EEE	Dr.C.Mohanbabu	Dr.D.Senthil kumaran

All are invited

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CIRCULAR

25/02/2023

This is to inform that six days training program on **INDUSTRIAL ROBOTICS** is going to conduct for IV & III year EEE students from 06.03.2023 to 11.03.2023 by Axis global automation, Coimbatore. All the students are informed to attend and enrich your knowledge.

Faculty In-charge

HOD/EEE

SSM Institute of Engineering and Technology * DINDIGUL-624 002 *

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

TECHNOLOGY TRAINING ON "INDUSTRIAL ROBOTICS"

ATTENDANCE SHEET

S. No.	Reg.no.	Student Name	06.03.23		07.03.23		08.03.23		09.03.23		10.03.23		11.03.23	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	922120105001	M.AKASHKUMAR												
2	922120105002	S.A.AMANULLA												
3	922120105003	P.M.BALAJI												
4	922120105005	U.DINESHKUMAR												
5	922120105006	T.GEETHANJALI												
6	922120105007	P.JOTHISELVAM												
7	922120105008	N.KARTHIKEYAN												
8	922120105009	M.MARIARAJ												
9	922120105010	S.MOHAMED ABURAR												
10	9221120105011	S.MOHAMED KASIM												
11	922120105012	M.MONESH												
12	922120105013	S.PREETHI												
13	922120105014	M. PREETHIVIRAJ												
14	922120105015	T.ROHITH												
15	922120105016	S.SADHAM HUSSAIN												
16	922120105017	S.SANGARAPANDI												
17	922120105018	R.SHANMUGAVEL												
18	922120105019	M.SURIYA PRAKASH												
19	922120105020	V.TAMILSELVAN												
20	922120105021	H. THIRSATH DANIEL												
21	922120105301	M.HARIPRASATH												
22	922120105302	R.SHARAN KAILASH												

Faculty Incharge

HoD

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Principal

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			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	922119105001	ABINAYA S S	Abi	Abi	Abi	Abi	Abi	Abi	Abi	Abi	Abi	Abi	Abi	Abi
2	922119105002	ANIESH ANGEL A	A	A	A	A	A	A	A	A	A	A	A	A
3	922119105003	ARUL NITHISH KUMAR R	Arul	Arul	Arul	Arul	Arul	Arul	Arul	Arul	Arul	Arul	Arul	Arul
4	922119105004	BEBINA RITHIKA J	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
5	922119105005	BRUMMA THAMO THARAN M	Baru	Baru	Baru	Baru	Baru	Baru	Baru	Baru	Baru	Baru	Baru	Baru
6	922119105006	DHEEPAN KUMAR G	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
7	922119105007	DHILIP LAKSHMAN V	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi	V.Dhi
8	922119105008	ESHWAR J	Esh	Esh	Esh	Esh	Esh	Esh	Esh	Esh	Esh	Esh	Esh	Esh
9	922119105009	GNANA AROCKYA AMALI B	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana	Gnana
10	922119105010	GOKULA PANDIYAN A	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul
11	922119105011	HARINI M	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari	M.Hari
12	922119105012	HARIPRASATH S	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari	S.Hari
13	922119105013	HEMALATHA S	H	H	H	H	H	H	H	H	H	H	H	H
14	922119105014	KARTHIKEYAN B	K	K	K	K	K	K	K	K	K	K	K	K
15	922119105016	KRISHNA LEELA S	Kh	Kh	Kh	Kh	Kh	Kh	Kh	Kh	Kh	Kh	Kh	Kh
16	922119105017	MANJULA S	May	May	May	May	May	May	May	May	May	May	May	May
17	922119105018	MANOJ KUMAR A	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
18	922119105019	MOHAMMED HAFEES A												
19	922119105020	MOHAMMED JAVITH S												
20	922119105021	MOUNA JOTHI M												
21	922119105022	MUTHUKUMAR R												
22	922119105023	NAGARANI M												
23	922119105024	NASEER HUSSAIN S												
24	922119105025	PRAKASH T												
25	922119105026	PREETHIKA J												
26	922119105027	PUNITHA VIJAYASRI P												
27	922119105028	RAJESH MANI K												
28	922119105029	RESHMA P												
29	922119105030	RISHIKARAN												
30	922119105031	ROBIN NICHOLAS S												
31	922119105032	SANGAVI SRI M												
32	922119105033	SARAVANAN R												
33	922119105034	SHAGIL P												
34	922119105035	SHALINI T												
35	922119105036	SIVASUBRAMANI S												
36	922119105037	SRI VARSHAN K												
37	922119105038	SURIYA SELVAM I												
38	922119105039	VAISHNAVI C												
39	922119105040	VINITH PRAVEEN KUMAR V												
40	922119105041	VINOTH KUMAR S												
41	922119105042	VISWAA J												
42	922119105301	AKASH A												
43	922119105302	BAVADHARANI U												
44	922119105303	BHARATHKUMAR K												

FACULTY IN-CHARGE

HOD/HEE

PRINCIPAL

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AGIIT AXIS GLOBAL INSTITUTE OF INDUSTRIAL TRAINING

Asia's Advanced Automation & Robotics Institute

OFFER No: AGIIT/VAP/CBE/22-23/115 **OFFER DATE:22.02.2023**

CUSTOMER : SSM Institute of Engineering and Technology

KIND ATTEN :Mr.MANOJ

TRAINING PROGRAM: VALUE ADDED PROGRAM (VAP)

CONTENTS:

1. INTRODUCTION

   RESEARCH & DEVELOPMENT TEAM

2. TRAINING METHODOLOGY
3. TRAINING HIGHLIGHTS
4. TRAINING BENEFITS
5. SPECIFIC AREAS OF EXCELLENCE
6. OUR GLOBAL PRESENCE
7. OUR TRAINING BRANDS
8. OUR CLIENTS
9. TERMS & CONDITIONS

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1. INTRODUCTION

Axis Global Automation Group of Companies is one of India's leading Industrial Automation and Robotics Engineering Solution provider. The company provides complete turnkey solutions for the automation needs of all industries. The company has a dedicated manufacturing unit for control panels. The company is the industry channel partner for Yaskawa Motoman in India. Key industries catered to include automotive industries, manufacturing and process industries, food & beverage industries, oil & gas, chemical, biotechnology and pharmaceutical industries.

Our Services include:

- Engineering & Consulting in Automation – Controls – Robotics
- Installation & Commissioning Services
- Maintenance & Field Services
- New Product Development
- Control Panel Manufacturing
- Special Purpose Machines (Laser Cutting Machines etc.)
- Machine Tending Services (Automated and Robotics Systems)
- Retrofit Projects

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Axis Global Automation today is a multi-faceted business group with interests in two business domains including:

1. Industrial Automation & Robotics System Integration
2. New Product Development (Special Purpose Machines, Customized Robotic Solutions, etc.)
3. Technical Training

Axis Global Institute of Industrial Training (AGIIT) is the leading Industrial Automation

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& Robotics technical training campus in India. We offer real-time, hands-on industry oriented training in technologies such as PLC, SCADA, DCS, HMI, VFD, Servo as well as Robotics. We are the exclusive training partner for Yaskawa Motoman Japan and also have strategic training partnerships with OEMs such as Horner, Siemens, and Wago

Research & Development Team

The industrial experts from Axis Global Automation run a R&D unit that is responsible for ensuring that our industrial solutions meet global standards and enable our clients achieve operational excellence. Our R&D unit is also responsible for constantly upgrading our technical training content to ensure that we stay abreast with the development in the automation and robotics sector.

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2. TRAINING METHODOLOGY:

- Hands-On practical training
- Live Demonstrations
- Work on real-time industrial projects
- Industry Expert Lectures & Seminars for Learning the current technology trends
- Case Studies for conceptual training

3. TRAINING HIGHLIGHTS:

- Fully Equipped Advanced Lab
- Mobile Training Unit for Training Off-Campus
- Hands-on, Practical, Industry Oriented Training
- Case Studies For Various Processes

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- Individual Focus
- Industry Experts as trainers
- Real Time Projects
- On-site Industrial Training

4. TRAINING BENEFITS:

- Understand the need and application of automation in industries
- Comprehensive programming, designing and troubleshooting knowledge on automation and robotics tools and technologies
- Enable selection, deployment and maintenance of automation and robotics tools in the industries
- Practical training that enables candidates to be deployed immediately on-the-job

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5. SPECIFIC AREAS OF EXCELLENCE:

Oil & Gas

Food & Beverages

Machine Builder Solutions (OEM)

Metals, Mining, Cement

Packaging & Publishing

Power and Electricity

Automotive & Transportation

Pharmaceuticals

Building Management Systems

Paper, Pulp and Sugar Printing,

Textile & Fiber

Water, Waste-water Plants

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value added Course Summary (2022-2023)

Course Name : Industrial Robotics

Course Duration : 40 Hours

Year offered : III & IV year students -2022-2023

Course Instructors : Mr. D. Manoj
Assistant professor /EEE

Course Outcome: The student gained knowledge about industrial robotics key factor and Configuration. Students assembling outer components of robot such as wrist, arm and body

Course Type : Self Framed / Collaboration with Industry

Assessment Mode

Attendance : 40 Hours

Number of participants : 64

Scheme of Exam : MCQ offline

Course Coordinator

HoD

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Summary Report

The department of Electrical and Electronics Engineering, SSM Institute of Engineering and Technology conducted **Technology training on Industrial Robotics** from 6th March 2023 to 11th March 2023. The course covered topics the anatomy of industrial robots deals with the assembling of outer components of a robot such as wrist, arm and body. Before jumping into robot configurations, here are some of the key facts about robot anatomy. (a) Joints and Links (b) Common Robot Configurations. Students have attended assessment tests at the end of the course and certificates were issued. The students from third and final year EEE attended the course and got benefitted.

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Department of Electrical and Electronics Engineering

TECHNOLOGY TRAINING PROGRAMME ON INDUSTRIAL ROBOTICS

ROBOTICS MULTIPLE CHOICE QUESTION

Name of the student:
Year/Sem:
Date:

1. A place where power, information, or a result leaves a system
1. chassis
2. output
3. sensor
4. troubleshooting

Answer: output

2. Which of the following describes the use of technology or machinery, specifically involving gases?
1. Pneumatics
2. Hydraulics
3. Actuation
4. Carbonation

3. The position or alignment relative to points of the compass or other specific directions.
1. Loops
2. Sensor
3. Chassis
4. Orientation

4.A A mechanism having its motive power so concealed that it appears to move spontaneously
1. Automatic
2. Clock Jack
3. Robot
4. Automata

5. The the branch of technology that deals with dimensions of microscopic proportion, is known as?
1. Nanny technology
2. Nanotechnology
3. Micro technology
4. Micro machinery

6. Which of the following is not an advantage of Robots?

1. They can assist humans with disabilities
2. They can replace jobs
3. They can be used in dangerous environment
4. They don't get tired or require a break

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7. The Hummingbird _____require extra power to be able to work.

1. Sensors
2. LEDs
3. Motors
4. Tri-Color LEDs

8. The branch of technology that deals with the design, construction, operation, and application of robots_____–

1. levers
2. robotics
3. creative power
4. Science CSF

9. When working in a group for robotics, students should_____–

1. stay on task but don't work with other group members
2. Socialize with group members outside of your group and then work alone
3. Socialize with other group members and don't help your group
4. stay on task and work with other group members appropriately

10. A rigid external covering for the body in some invertebrate animals but also robots.

1. Exoskeleton
2. Armor
3. Endoskeleton
4. Hardware

11. The 3rd law of robotics Spirit Isaac Asimov first announced the 3 laws of robotics in 1942.

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm
2. A robot can't go to school
3. A robot must obey orders given it by human beings except where such orders would conflict with the First law
4. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law

12. How many systems does a robot have?

1. 2
2. 6
3. 4
4. 3

13. Engines and joints belong to what system?

1. Digestive system
2. Sensory system
3. Electric system
4. Mechanic system

14. How many types of robots are there?

1. 7
2. 10
3. 6
4. 8

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15. What are the components of the electric system?

1. Electric joints and cables
2. Batteries and electric wiring
3. Engines and joints
4. thunder and lightning

16. How many components does the control system have?

1. 4
2. 1
3. 2
4. 5

17. The processor belongs to the

1. Sensory system
2. Mechanic system
3. Electric system
4. Control system

18. One of these is NOT a type of robot

1. Medical
2. Industrial
3 Household
4.Apologetic

19. The small mobile robot base used in the Robot Educator. This robot is able to perform some but not all of the tasks in the Robotics Engineering activities

1. Light sensor
2. Lego Mindstorms Education Software
3. Robot
4. Robot Educator Model (REM)

20. A block is the basic unit of programming in the NXT programming Software. Blocks perform their operations in order along the Sequence Beam

1. Touch Sensor
2. Block (programming)
3. Ports
4. Behaviors

21. The primary source of physical motion in the Mindstorms NXT system.

1. Interactive Servo Motor
2. Behaviors
3. Light Sensor
4. Touch Sensor

22.A machine that is able to interact with and respond to its environment. characterized by three central capabilities: the ability to Sense, the ability to Plan, and the ability to Act_

1. Code
2. Taskbot
3. Robots
4. Ports

23.The three characteristic capabilities that define a robot_____

1. Comment
2. Sensor
3. Sense-Plan-Act
4. NXT Brick

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24.When working in a group for robotics, students should_____

1. Socialize instead of work and then work alone
2. Stay on task and don't work with your group
3. Work alone and don't socialize with group members
4. stay on task and work with group members appropriately

25.General term for any command or group of commands in a program. In the NXT Programming Software, this is one or more blocks_____

1. Comment
2. Code
3. Ports
4. Robot

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

TECHNOLOGY TRAINING ON "INDUSTRIAL ROBOTICS

MARK STATEMENT

S. No.	Reg.no.	Student Name	MARK
1	922119105001	ABINAYA S S	24
2	922119105002	ANIESH ANGEL A	20
3	922119105003	ARUL NITHISH KUMAR R	18
4	922119105004	BEBINA RITHIKA J	6
5	922119105005	BRUMMA THAMO THARAN M	12
6	922119105006	DHEEPAN KUMAR G	6
7	922119105007	DHILIP LAKSHMAN V	8
8	922119105008	ESHWAR J	16
9	922119105009	GNANA AROCKYA AMALI B	11
10	922119105010	GOKULA PANDIYAN A	20
11	922119105011	HARINI M	22
12	922119105012	HARIPRASATH S	12
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15	922119105016	KRISHNA LEELA S	9
16	922119105017	MANJULA S	12
17	922119105018	MANOJ KUMAR A	5

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20	922119105021	MOUNA JOTHI M	13
21	922119105022	MUTHUKUMAR R	16
22	922119105023	NAGARANI M	8
23	922119105024	NASEER HUSSAIN S	12
24	922119105025	PRAKASH T	13
25	922119105026	PREETHIKA J	21
26	922119105027	PUNITHA VIJAYASRI P	15
27	922119105028	RAJESH MANI K	18
28	922119105029	RESHMA P	23
29	922119105030	RISHIKARAN	16
30	922119105031	ROBIN NICHOLAS S	18
31	922119105032	SANGAVI SRI M	21
32	922119105033	SARAVANAN R	06
33	922119105034	SHAGIL P	10
34	922119105035	SHALINI T	21
35	922119105036	SIVASUBRAMANI S	16
36	922119105037	SRI VARSHAN K	18
37	922119105038	SURIYA SELVAM I	5
38	922119105039	VAISHNAVI C	10
39	922119105040	VINITH PRAVEEN KUMAR V	12
40	922119105041	VINOTH KUMAR S	8
41	922119105042	VISWAA J	10
42	922119105301	AKASH A	14
43	922119105302	BAVADHARANI U	13
44	922119105303	BHARATHKUMAR K	17

FACULTY IN-CHARGE

HOD/EEE

PRINCIPAL

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Principal
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Sindalagundu post, Dindigul-624002, Tamilnadu.Ph:0451-2448800

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

TECHNOLOGY TRAINING ON "INDUSTRIAL ROBOTICS"

MARK SHEET

S. No.	Reg.no.	Student Name	MARK
1	922120105001	M.AKASHKUMAR	11
2	922120105002	S.A.AMANULLA	06
3	922120105003	P.M.BALAJI	18
4	922120105005	U.DINESHKUMAR	17
5	922120105006	T.GEETHANJALI	21
6	922120105007	P.JOTHISELVAM	16
7	922120105008	N.KARTHIKEYAN	21
8	922120105009	M.MARIARAJ	20
9	922120105010	S.MOHAMED ABURAR	13
10	9221120105011	S.MOHAMED KASIM	10
11	922120105012	M.MONESH	08
12	922120105013	S.PREETHI	12
13	922120105014	M. PREETHIVIRAJ	14
14	922120105015	T.ROHITH	18
15	922120105016	S.SADHAM HUSSAIN	10
16	922120105017	S.SANGARAPANDI	20
17	922120105018	R.SHANMUGAVEL	16
18	922120105019	M.SURIYA PRAKASH	08
19	922120105020	V.TAMILSELVAN	21
20	922120105021	H. THIRSATH DANIEL	23
21	922120105301	M.HARIPRASATH	08
22	922120105302	R.SHARAN KAILASH	12

Faculty Incharge

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HoD/EEE

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Department of Electrical and Electronics Engineering

TECHNOLOGY TRAINING PROGRAMME ON INDUSTRIAL ROBOTICS

22

ROBOTICS MULTIPLE CHOICE QUESTION

Name of the student: Harini. M
Year/Sem: IV
Date: 11-03-23

1. A place where power, information, or a result leaves a system

1. chassis
2. output
3. sensor
4. troubleshooting

Answer: output

2. Which of the following describes the use of technology or machinery, specifically involving gases?

1. Pneumatics
2. Hydraulics
3. Actuation
4. Carbonation

3. The position or alignment relative to points of the compass or other specific directions.

1. Loops
2. Sensor
3. Chassis
4. Orientation

4.A A mechanism having its motive power so concealed that it appears to move spontaneously

1. Automatic
2. Clock Jack
3. Robot
4. Automata

5. The the branch of technology that deals with dimensions of microscopic proportion, is known as?

1. Nanny technology
2. Nanotechnology
3. Micro technology
4. Micro machinery

6. Which of the following is not an advantage of Robots?

1. They can assist humans with disabilities
2. They can replace jobs
3. They can be used in dangerous environment
4. They don't get tired or require a break

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7. The Hummingbird _____require extra power to be able to work.

1. Sensors
2. LEDs
3. Motors
4. Tri-Color LEDs

8. The branch of technology that deals with the design, construction, operation, and application of robots_____–

1. levers
2. robotics
3. creative power
4. Science CSF

9. When working in a group for robotics, students should_____–

1. stay on task but don't work with other group members
2. Socialize with group members outside of your group and then work alone
3. Socialize with other group members and don't help your group
4. stay on task and work with other group members appropriately

10. A rigid external covering for the body in some invertebrate animals but also robots.

1. Exoskeleton
2. Armor
3. Endoskeleton
4. Hardware

11. The 3rd law of robotics Spirit Isaac Asimov first announced the 3 laws of robotics in 1942.

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm
2. A robot can't go to school
3. A robot must obey orders given it by human beings except where such orders would conflict with the First law
4. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law

12. How many systems does a robot have?

1. 2
2. 6
3. 4
4. 3

13. Engines and joints belong to what system?

1. Digestive system
2. Sensory system
3. Electric system
4. Mechanic system

14. How many types of robots are there?

1. 7
2. 10
3. 6
4. 8

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15. What are the components of the electric system?

1. Electric joints and cables
2. Batteries and electric wiring
3. Engines and joints
4. thunder and lightning

16. How many components does the control system have?

1. 4
2. 1
3. 2
4. 5

17. The processor belongs to the

1. Sensory system
2. Mechanic system
3. Electric system
4. Control system

18. One of these is NOT a type of robot

1. Medical
2. Industrial
3 Household
4.Apologetic

19. The small mobile robot base used in the Robot Educator. This robot is able to perform some but not all of the tasks in the Robotics Engineering activities

1. Light sensor
2. Lego Mindstorms Education Software
3. Robot
4. Robot Educator Model (REM)

20. A block is the basic unit of programming in the NXT programming Software. Blocks perform their operations in order along the Sequence Beam

1. Touch Sensor
2. Block (programming)
3. Ports
4. Behaviors

21. The primary source of physical motion in the Mindstorms NXT system.

1. Interactive Servo Motor
2. Behaviors
3. Light Sensor
4. Touch Sensor

22.A machine that is able to interact with and respond to its environment. characterized by three central capabilities: the ability to Sense, the ability to Plan, and the ability to Act_

1. Code
2. Taskbot
3. Robots
4. Ports

23.The three characteristic capabilities that define a robot_____

1. Comment
2. Sensor
3. Sense-Plan-Act
4. NXT Brick

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24.When working in a group for robotics, students should_____

1. Socialize instead of work and then work alone
2. Stay on task and don't work with your group
3. Work alone and don't socialize with group members
4. stay on task and work with group members appropriately

25.General term for any command or group of commands in a program. In the NXT Programming Software, this is one or more blocks_____

1. Comment
2. Code
3. Ports
4. Robot

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Department of Electrical and Electronics Engineering

TECHNOLOGY TRAINING PROGRAMME ON INDUSTRIAL ROBOTICS

25

ROBOTICS MULTIPLE CHOICE QUESTION

Name of the student: ABINAYA
Year/Sem:
Date:

1. A place where power, information, or a result leaves a system
1. chassis
2. output
3. sensor
4. troubleshooting

Answer: output

2. Which of the following describes the use of technology or machinery, specifically involving gases?
1. Pneumatics
2. Hydraulics
3. Actuation
4. Carbonation

3. The position or alignment relative to points of the compass or other specific directions.
1. Loops
2. Sensor
3. Chassis
4. Orientation

4.A A mechanism having its motive power so concealed that it appears to move spontaneously
1. Automatic
2. Clock Jack
3. Robot
4. Automata

5. The the branch of technology that deals with dimensions of microscopic proportion, is known as?
1. Nanny technology
2. Nanotechnology
3. Micro technology
4. Micro machinery

6. Which of the following is not an advantage of Robots?
1. They can assist humans with disabilities
2. They can replace jobs
3. They can be used in dangerous environment
4. They don't get tired or require a break

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7. The Hummingbird _____require extra power to be able to work.

1. Sensors
2. LEDs
3. Motors
4. Tri-Color LEDs

8. The branch of technology that deals with the design, construction, operation, and application of robots_____–

1. levers
2. robotics
3. creative power
4. Science CSF

9. When working in a group for robotics, students should_____–

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10. A rigid external covering for the body in some invertebrate animals but also robots.

1. Exoskeleton
2. Armor
3. Endoskeleton
4. Hardware

11. The 3rd law of robotics Spirit Isaac Asimov first announced the 3 laws of robotics in 1942.

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm
2. A robot can't go to school
3. A robot must obey orders given it by human beings except where such orders would conflict with the First law
4. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law

12. How many systems does a robot have?

1. 2
2. 6
3. 4
4. 3

13. Engines and joints belong to what system?

1. Digestive system
2. Sensory system
3. Electric system
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14. How many types of robots are there?

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15. **What are the components of the electric system?**
   1. Electric joints and cables
   2. Batteries and electric wiring
   3. Engines and joints
   4. thunder and lightning

16. **How many components does the control system have?**
   1. 4
   2. 1
   3. 2
   4. 5

17. **The processor belongs to the**
   1. Sensory system
   2. Mechanic system
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   4. Control system

18. **One of these is NOT a type of robot**
   1. Medical
   2. Industrial
   3 Household
   4. Apologetic

19. **The small mobile robot base used in the Robot Educator. This robot is able to perform some but not all of the tasks in the Robotics Engineering activities**
   1. Light sensor
   2. Lego Mindstorms Education Software
   3. Robot
   4. Robot Educator Model (REM)

20. **A block is the basic unit of programming in the NXT programming Software. Blocks perform their operations in order along the Sequence Beam**
   1. Touch Sensor
   2. Block (programming)
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   4. Behaviors

21. **The primary source of physical motion in the Mindstorms NXT system.**
   1. Interactive Servo Motor
   2. Behaviors
   3. Light Sensor
   4. Touch Sensor

22. **A machine that is able to interact with and respond to its environment. characterized by three central capabilities: the ability to Sense, the ability to Plan, and the ability to Act_**
   1. Code
   2. Taskbot
   3. Robots
   4. Ports

23. **The three characteristic capabilities that define a robot_____**
   1. Comment
   2. Sensor
   3. Sense-Plan-Act
   4. NXT Brick

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Department of Electrical and Electronics Engineering

TECHNOLOGY TRAINING PROGRAMME ON INDUSTRIAL ROBOTICS

ROBOTICS MULTIPLE CHOICE QUESTION

23

Name of the student: H. Thrishath Daniel
Year/Sem: III
Date: 11/03/2023

1. A place where power, information, or a result leaves a system

1. chassis
2. output
3. sensor
4. troubleshooting

Answer: output

2. Which of the following describes the use of technology or machinery, specifically involving gases?

1. Pneumatics
2. Hydraulics
3. Actuation
4. Carbonation

3. The position or alignment relative to points of the compass or other specific directions.

1. Loops
2. Sensor
3. Chassis
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4.A A mechanism having its motive power so concealed that it appears to move spontaneously

1. Automatic
2. Clock Jack
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5. The the branch of technology that deals with dimensions of microscopic proportion, is known as?

1. Nanny technology
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6. Which of the following is not an advantage of Robots?

1. They can assist humans with disabilities
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15. What are the components of the electric system?

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4. thunder and lightning

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23. The three characteristic capabilities that define a robot_____

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TECHNOLOGY TRAINING PROGRAMME ON INDUSTRIAL ROBOTICS

13

ROBOTICS MULTIPLE CHOICE QUESTION

Name of the student: S. MOHAMED ABURAR
Year/Sem: III
Date: 17-03-23

1. A place where power, information, or a result leaves a system

1. chassis
2. output
3. sensor
4. troubleshooting

Answer: output

2. Which of the following describes the use of technology or machinery, specifically involving gases?

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1. Comment
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3. Sense-Plan-Act
4. NXT Brick

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Palani Road, Dindigul 624 002.

24.When working in a group for robotics, students should_____

1. Socialize instead of work and then work alone
2. Stay on task and don't work with your group
3. Work alone and don't socialize with group members
4. stay on task and work with group members appropriately

25.General term for any command or group of commands in a program. In the NXT Programming Software, this is one or more blocks_____

1. Comment
2. Code
3. Ports
4. Robot

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Department of Electrical and Electronics Engineering

STUDENT FEEDBACK FORM

Name of the Student: Manjula. S

Year/Sem: IV / VII

Date: 11/3/03

Dear Student,

You are required to give your feedback on the following aspects. Please tick in the respective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development		✓			
3	Motivation		✓			
4	Regularity and punctuality of trainer		✓			
5	Coverage of syllabus	✓				
6	Interaction		✓			
7	Individual attention	✓				
8	Outcome		✓			
9	Other suggestions		–			

Faculty incharge

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STUDENT FEEDBACK FORM

Name of the Student: R. MUTHUKUMAR

Year/Sem: IV / VII

Date: 11/03/23

Dear Student,

You are required to give your feedback on the following aspects. Please tick in the respective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development		✓			
3	Motivation		✓			
4	Regularity and punctuality of trainer		✓			
5	Coverage of syllabus	✓				
6	Interaction		✓			
7	Individual attention	✓				
8	Outcome		✓			
9	Other suggestions		—			

Faculty incharge

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STUDENT FEEDBACK FORM

Name of the Student: Geethanjali . T

Year/Sem: 2023 / VI

Date: 11. 3. 23

Dear Student,

You are required to give your feedback on the following aspects. Please tick in the respective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content		✓			
2	Skill development		✓			
3	Motivation			✓		
4	Regularity and punctuality of trainer			✓		
5	Coverage of syllabus			✓		
6	Interaction		✓			
7	Individual attention		✓			
8	Outcome		✓			
9	Other suggestions			✓		

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STUDENT FEEDBACK FORM

Name of the Student: Easwar J

Year/Sem: IV / VIII

Date: 23/3/23

Dear Student,

You are required to give your feedback on the following aspects. Please tick in the respective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development		✓			
3	Motivation		✓			
4	Regularity and punctuality of trainer		✓			
5	Coverage of syllabus	✓				
6	Interaction		✓			
7	Individual attention	✓				
8	Outcome		✓			
9	Other suggestions	—	—			

Faculty incharge

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This is to certify that Mr. /Ms **M.HARIPRASATH** has successfully completed the six days training program on Basics of **"Industrial Robotics – Yaskawa Motoman"**. During the period from 06.03.2023-11.03.2023 conducted at SSM Institute of Engineering & Technology

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