

1.2.2 Number of Add on /Certificate programs offered during the last five years (10)

1.2.3 Average percentage of students enrolled in Add-on/Certificate programs as against the total number of students during the last five years (10)

**REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: MECHANICAL DEPARTMENT (2015-16)**

Name of Add on /Certificate programs offered	Add on Training/ Certificate	No. of students	Duration of course	Number of students enrolled	Number of students enrolled	Course Outcome
<b>Automation Technologies- Basic Level</b>	External	1	2 Weeks (40 Hrs)	15	15	Manufacturing excellence through relevant automation • Controller programming and use of actuators in automation and selection criteria • Industrial control system, PLC Programming, use of function blocks, Multi tasking • Human-mechanic-interface design
<b>Automation Technologies- Intermediate Level</b>	External	1	4 Weeks (80 Hrs)	14	14	Described the working of various blocks of basic industrial automation system • Connects the peripherals with the PLC • Use various PLC functions and develop small application programs using sensors and actuators. • Summarize Electro Hydraulic and Electro Pneumatic systems • Use various industrial sensors for the Industrial Automation
<b>Certification in Basic Industrial Robotics Training (CBIRT)</b>	External	1	2 Weeks (30 Hrs)	16	16	Covered the most common applications of industrial robots. • The importance of maintenance, as well as the various approaches and methods used by maintenance workers today to keep industrial robots performing optimally.
<b>Advanced Diploma in Industrial Robotics Training (ADIRT)</b>	External	1	40 Days (240Hrs)	16	16	Covered different methods of protecting workers from industrial robot accidents. • Covered the functions and characteristics of the different components of an industrial robot. • Covered the function of structured programming, their methodology & conceptualization. • Covered the fundamental concepts of Variables, subprograms, function, Data list & Data manipulation in the depth of robotic programming • Described the various types of end effectors and their uses. It also explains the issue of compliance and describes how to maintain end effectors.
<b>KUKA- Basic Robot Programming(AKGEC)</b>	External	1	2 Weeks (40 Hrs)	10	10	Covered the classifications, characteristics, and functions of industrial robots as well as basic safety precautions for working with robots. • Covered the fundamental concepts required for programming of industrial robots • Described the various types of end effectors and their uses. It also explains the issue of compliance and describes how to maintain end effectors. • Described the most common robot axes. Explained how to understand these axes, and how they are used to control robot movement. • Introduced to the troubleshooting process and gone through to identify problems and their causes.

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**REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: MECHANICAL DEPARTMENT (2016-17)**

Name of Add on /Certificate programs offered	Add on Training/ Certificate	No. of times	Duration of course	Number of students	Number of students	Course Outcome
KUKA- Basic Robot Programming	External	1	2 Weeks (40 Hrs)	5	5	Covered the classifications, characteristics, and functions of industrial robots as well as basic safety precautions for working with robots. • Covered the fundamental concepts required for programming of industrial robots • Described the various types of end effectors and their uses. It also explains the issue of compliance and describes how to maintain end effectors. • Described the most common robot axes. Explained how to understand these axes, and how they are used to control robot movement. • Introduced to the troubleshooting process and gone through to identify problems and their
Automation Technologies- Basic Level	External	1	2 Weeks (40 Hrs)	11	11	Manufacturing excellence through relevant automation • Controller programming and use of actuators in automation and selection criteria • Industrial control system, PLC Programming, use of function blocks, Multi tasking • Human-mechanic-interface design
Automation Technologies- Intermediate Level	External	1	4 Weeks (80 Hrs)	11	11	Described the working of various blocks of basic industrial automation system • Connects the peripherals with the PLC • Use various PLC functions and develop small application programs using sensors and actuators. • Summarize Electro Hydraulic and Electro Pneumatic systems • Use various industrial sensors for the Industrial Automation
Automation Technologies- Basic Level	External	1	2 Weeks (40 Hrs)	16	16	Manufacturing excellence through relevant automation • Controller programming and use of actuators in automation and selection criteria • Industrial control system, PLC Programming, use of function blocks, Multi tasking • Human-mechanic-interface design



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**ART ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: MECHANICAL DEPARTMENT (201**

Name of Add on /Certificate programs offered	Add on Training /	No. of times offered	Duration of course	Number of students	Number of students	Course Outcome
Basic Automation Training(PLC & SCADA)	External	1	30 days	16	16	Programmable Logic Controller (PLC) • Supervisory Control & Data Acquisition • Variable Frequency Drive (VFD) • Human Machine Interface (HMI) • Industrial Control Panel (Designing & Maintenance)
Robotics & Industrial Automation( KUKA-CIT)	External	1	2 Weeks	22	22	Covered the classifications, characteristics, and functions of industrial robots as well as basic safety precautions for working with robots. • Covered the fundamental concepts required for programming of industrial robots • Described the various types of end effectors and their uses. It also explains the issue of compliance and describes how to maintain end effectors. • Described the most common robot axes. Explained how to understand these axes, and how they are used to control robot movement. •
Control & Automation (AGIT)	External	1	30 days	22	22	Covered the most common applications of industrial robots. • The importance of maintenance, as well as the various approaches and methods used by maintenance workers today to keep industrial robots performing optimally.

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<b>Advanced Diploma in Industrial Robotics (AGIIT)</b>	External	1	30 days	22	22	Covered different methods of protecting workers from industrial robot accidents. • Covered the functions and characteristics of the different components of an industrial robot. • Covered the function of structured programming, their methodology & conceptualization. • Covered the fundamental concepts of Variables, subprograms, function, Data list & Data manipulation in the
<b>Vehicle Design &amp; Development (Specialized)</b>	External	1	15 Days	25	25	Rollcage/Chassis Design-CAD & PVC model Generation • Suspension & Steering design & Analysis • Braking and subassembly, Engine and transmission, electrical system,
<b>Industrial Training Program(AKGEC)</b>	External	1	6 Weeks	3	3	Manufacturing excellence through relevant automation • Controller programming and use of actuators in automation and selection criteris •Industrial control system, PLC Programming, use of function blocks, Multi tasking • Human-mechanic-interface design

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**REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: MECHANICAL DEPARTMENT (2018-19)**


Name of Add on /Certificate programs offered	Add on Training/ ng/	No. of times offered	Duration of course	Number of students	Number of students	Course Outcome
Robotics & Industrial Automation (KUKA-CIT)	External	1	2 Weeks	16	16	Covered the classifications, characteristics, and functions of industrial robots as well as basic safety precautions for working with robots. • Covered the fundamental concepts required for programming of industrial robots • Described the various types of end effectors and their uses. It also explains the issue of compliance and describes how to maintain end effectors. • Described the most common robot axes. Explained how to understand these axes, and how they are used to control robot movement. • Introduced to the troubleshooting process and gone through to identify problems and their causes.
Power Plant Engineering	External	2	30 Days	(9+9)	18	Understanding of Basic power plant engineering, Working of Rankine cycle in actual power plant . • Types of boiler, accessories and mounting • Coal & Ash handling power plant • Water treatment plant, water to steam path, Auxiliary cooling Water pump system • Mechanical interlock and protection of power plant • Boiler startup (permissive and protection) • Turbine startup (permissive and protection) • Process & instrumentation diagram, Heat mass balance diagram, Turbine Lube Oil System, Key performance & index • Safety and Environment
Industrial Training Program(AKGEC)	External	1	6 Weeks	4	4	Industrial Hydraulics, Pneumatics. • PLCs • Interfacing of pneumatics with PLC • Introduction to SCADA system (win studio) • Hands on with Sensors, Hydraulic System, Pneumatic System, PLC, HMI, SCADA. Etc.

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<p><b>Thermax Limited</b></p>	<p>External</p>	<p>2</p>	<p>30 Days</p>	<p>3</p>	<p>3</p>	<p>Understanding of Basic power plant engineering, Working of Rankine cycle in actual power plant . • Types of boiler, accessories and mounting • Coal &amp; Ash handling power plant • Water treatment plant, water to steam path, Auxiliary cooling Water pump system • Mechanical interlock and protection of power plant • Boiler startup (permissive and protection) • Turbine startup (permissive and protection) • Process &amp; Instrumentation diagram, Heat mass balance diagram, Turbine Lube Oil System, Key performance &amp; index • Safety and Environment</p>
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 Director, Institute of Technology  
 GATEWAY TO KNOWLEDGE



**REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: MECHANICAL DEPARTMENT (2019-20)**

Name of Add on /Certificate programs offered	Add on Training/ Certificate	No. of times offered	Duration of course	Number of student	Number of Students completing the course in the year	Course Outcome
Basic Automation Training (PLC & SCADA)	External	2	30 days	10+5	15	Programmable Logic Controller (PLC) • Supervisory Control & Data Acquisition • Variable Frequency Drive (VFD) • Human Machine Interface (HMI) • Industrial Control Panel (Designing & Maintenance)

  
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