

<b>Samrat Ashok Technological Institute, Vidisha</b>			
<i>Department of Mechanical Engineering</i>			
<b>Lecture Plan</b>			
<b>Course Code:</b>	ME-1875	<b>Year/Semester :</b>	BE 7 <sup>TH</sup> Semester
<b>Course Name:</b>	INDUSTRIAL AUTOMATION	<b>Academic Year :</b>	August-2022 / ODD
<b>L – P:</b>	3- 0	<b>Credit :</b>	3
<b>Course Detail :</b>	Theory Elective	<b>Term Start Date :</b>	24-07-2023
<b>Course Coordinator:</b>	Dr R.Mohan	<b>Term End Date :</b>	

**Samrat Ashok Technological Institute, Vidisha**  
**Department of Mechanical Engineering**

**Teaching Plan and Teachers Diary**

<b>Academic Year: 2022 2023</b>				<b>Semester and Batch: 7<sup>th</sup> A&amp; B</b>		
<b>Name of Teacher: Dr R.Mohan</b>				<b>Name of Department: Mechanical Engineering</b>		
<b>Subject: ME-1875 INDUSTRIAL AUTOMATION</b>				<b>Hrs./Week :3hr/week/BATCH</b>		
<b>Theory/Tutorial: Theory</b>				<b>Days:</b>		
<b>Sr. No.</b>	<b>Name Of Unit/Topics</b>	<b>Planned Hrs.</b>	<b>Actual Hrs.</b>	<b>Topics Covered</b>	<b>Teaching Aid Code</b>	<b>Remarks</b>
<b>01</b>	<i>Unit: 1- Principles and Strategies of Automation</i>					
	Principles and Strategies of Automation	2	2	Principles and Strategies of Automation	1,2	
	Power to Accomplish the Automated Processprogram of Instruction, Control System	2	1	Power to Accomplish the Automated Processprogram of Instruction, Control System	1,2	
	Advanced automation Functions: safety Monitoring	1	1	Advanced automation Functions	1,2	
	maintenance and repair Diagnostics, error Detection	2		maintenanc	1,2	

	and Recovery			e and repair Diagnostic s, error Detection and Recovery		
	levels of automation Merits and Demerits of automation.	2	1	levels of automation , Merits and Demerits of automation .	1,2	
<b>02</b>	<b><i>Unit: 2- Material Handling systems and Design</i></b>					
	Material Handling systems and Design	1	1	Material Handling systems and Design	1,2	
	Material Transport Equipment	1		Material Transport Equipment	1,2	
	analysis of Material Transport Systems	2	1	analysis of Material Transport Systems	1,2	
	Conventional Storage Methods and Equipment,, Storage systems Performance and Location Strategies	2	1	Conventio al Storage Methods and Equipment ,, Storage systems Performanc e and Location Strategies	1,2	
	Automation Storage Systems, Engineering Analysis of Storage Systems	2		Automatio n Storage Systems, Engineerin g Analysis of Storage Systems	1,2	

	<b><i>Unit: 3- Automatic identification methods</i></b>					
<b>03</b>	Overview of Automatic Identification Methods	1		Overview of Automatic Identification Methods	1,2	
	Bar Code Technology	1		Bar Code Technology	1,2	
	Radio Frequency Identification	2	1	Radio Frequency Identification	1,2	
	Other AIDCTechnologies	2	1	Other AIDCTechnologies	1,2	
	<b><i>Unit: 4-Industrial control systems</i></b>					
<b>04</b>	Process Industries Vs Discrete Manufacturing Industries	2		Process Industries Vs Discrete Manufacturing Industries		
	Levels of Automation in the two industries, Variables and Parameters in the two industries.	2				
	Continuous Vs Discrete control-Continuous Control System, Discrete Control System	2				
	Control system components, sensors actuators, Actuators, Analog-to-Digital Convertors,	2	1	Control system components, sensors actuators, Actuators, Analog-to-Digital Convertors ,	1,2	
	Digital to-Analog Convertors, Input/output Devices for Discrete Data	2	1	Digital to-Analog Convertors , Input/output Devices for Discrete Data	1,2	

<b>05</b>	<b>Unit: 5-Industry 4.0</b>					
	Introduction, IoT Techniques	2	1	Introduction, IoT Techniques	1,2	
	Cloud computing and machine learning	2		Cloud computing and machine learning	1,2	
	Digital Twin	1		Digital Twin	1,2	
<b>Teaching Aid Code:</b>			Sign of Faculty : _____			
1	L.C.D PROJECTOR					
2	PPT & VIDEO					
<b>* Remark column should cover any slippages and remedial action planned</b>						
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