

## Manufacturing Automation

## Swayam Prabha Course Code – M04

PROFE	ESSOR'S NAME	Prof. Sounak Ku	mar Choudhary	
DEPAF	RTMENT			
		Department of Mechanical Engineering		
INSTIT	UTE			
COURSE OUTLINE		Indian Institute Of Technology Kanpur		
		The course will basically deal with the following topics: Introduction, Detroit type automation, Analysis of automated flow lines, Automated assembly systems &Orientation of parts in automatic assembly.		
COURSE DETAILS				
S. No	Module ID/ Lecture ID		Lecture Title/Topic	
1	M1L1		Introduction to Manufacturing Automation	
2	M1L2		Various aspects of Manufacturing Automation	
3	M1L3		Part Transfer Mechanisms	
4	M1L4		Automated Flow Lines	
5	M1L5		Analysis of Automated Flow Lines	
6	M2L6		Vibratory Bowl Feeder	
7	M2L7		Analysis of Vibratory Bowl Feeder	
8	M2L8		Reciprocating Tube Hopper Feeder	
9	M2L9		Centreboard Hopper Feeder and its analysis	
10	M2L10		Reciprocating fork and External Gate Hopper Feeders	
11	M3L11		Rotary Disc Feeder and Centrifugal Hopper Feeder	
12	M3L12		Bladed Wheel and Tumbling Barrel Hopper Feeders	

13	M3L13	Rotary Centreboard and Magnetic Feeders
14	M3L14	Part Orienting Devices
15	M3L15	Feed Tracks and their analysis
16	M4L16	Powered Feed Track and Escapements
17	M4L17	Various Escapements and Part Placing Mechanisms
18	M4L18	Design for Automatic Assembly
19	M4L19	Performance and Economics of Assembly Systems
20	M4L20	Performance of Indexing and Free Transfer Machines