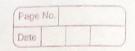
	Page No. Date
	Subject Name - Basic Mechanical Engineering Subject Code - MEE LOSB Name - Shreerang Mhatre Division - 11 Roll no - 111056 Batch - K3
	Experiment No-5
*	Name of the experiment-permonstration of robot assisted automatic conveyor system.
*	Aim-To study the conveyor systems and Robot-assisted material systems
*	objective- To understand the different parts and working of robot-assisted conveyor system.

Summary

piece of mechanical handling equipment that moves materials from one location to another conveyors are especially useful in applications involving the transport of heavy or bulky material conveyor systems allow quick and efficient transport fora wide variety of material, which make them very popular in the material handling and packaging industries. They also have popular consumer applications, as they are often found in supermarkels and airports, constituting the final leg bfitem / bag divery to costomers. There are drain conveyors which consist of onclosed tracks, I-Boam, towline, power & free, and hand pushed trolleys. There are also Roller conveyor for carton transport in the appearelindustry.

* Advantages of conveyor systems-

- O conveyor systems are used widegoread across a range of industries due to the numerous benefits they provide.
- 2 conveyors are able to safely transport materials from one level to another, which when done by human labor would be strenuous and expensive.



- 3 They can be installed almost anywhore, and are much safer than using a forklift or other machine to move materials.
 - They can move box loads of all shapes, sizes and weights. Also, many have advanced safety footuves that help prevent accidents
 - There are a variety of options available for running conveying systems, including the hydraulic, mechanical and folly automated systems, which are equipped to fit individual needs.
 - * Design and selection of conveyor Systems

Conveyors can be linked together with other machinery to become an integral component of a processing or packaging line. All components within an assembly automation application, including conveyors, should work together to best augment the overall operation. Answering those questions will help to take a critical look at the conveyor system to determine where improvements in product flow and handling can be made.

* Industry Applications

conveyor eystems are commonly used in many industries, Including the Minings automotive, agricultural, computer, electronic, food processing, aerospace, pharmoceutical, chemical, bottling and canning, print finishing and packaging. Although a wide variety of materials can be conveyed, some of the most common include food items such as beans and nuts, bottles and cans, automotive components, exap metal, pills and powders, wood and furniture and grain and animal feed. Conveyors are with to required specifications to improve efficiency and output of production line.

* latest Trends in Conveyor Systems.

(1) Conveyors for Flexible Assembly lines Modern production facilities show a
growing trend of Acxible assembly lines
Assembly lines need to be Plexible to
accompodate different applications.

2) conveyors are continuing to play a greater role in robotic applications. Robotic movements are precise and exact-conveyors need to operate to that same level of accuracy.

	Page No.
*	Robotic Material Handling and Tending -
	Robotic material handling and tending eystems are common place in the industrial coctor. Material handling refers to robotic arms moving production parts, typically on or off a conveyor belt or to hold a part in place for production. Machine tending is similar, but more spain, referring to a robotic arm to load and unload a stationary production machine.
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TO !	auestions over a
	acate days
31)	what are the advantages of robot assisted conveyor system over normal conveyor
	conveyor system over normal conveyor
	system? " andost like water a
	2884 10
>	The advantages are -
0	convoin systems are used widespread
	across a range of industries due to the
	numerous benefits they provide.
2	conveyors are able to safely transport
	materials from one level to another,
	which when done by human labor would
	be strenuous and expensive.
3	They can be installed almost anywhere
	and are much safer than using a
300	forklift or other machine to move materials
(4)	They can move loads of all shapes,
	sizes and weights. Also, many have
Lub	advanced safety features that help
	prevent accidents of a hora do a so
E	There are a variety of options available
	for running convoying systems including
	the hydraulic, mechanical and fully automated
10	systems, which are equipped to fit
	individual needs.
	al appropriate to select a conveyor le

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Date	

(32) Name two vendors for robotic conveyor system.

> vendors for Robotic Conveyor System ove-

@ mitsubishi Electric

3 Omron Adept Technologies

G FANUC Robotics

5 yaskawa.

(3) what are the applications of robotic conveyor system?

> The applications are -

O conveyors are continuing to play a greater role in robotic applications.

(2) Robotic movements are preserve and and

2) Robotic movements are precise and exactconveyors need to operate to that came level of accuracy.

(3) Robotic applications often require product to be in an exact spot on the conveyor at the right time.

(a) But to do that suressfully requires a conveyor system that's officient reliable and engineered to work in conjunction with robotics

@ It's important to solet a conveyor to perfectly match the application requirements.