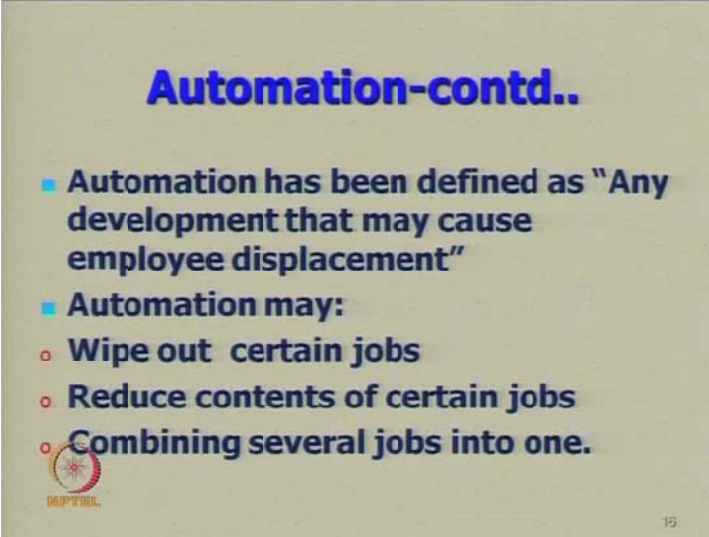


Organization Management
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Module No. # 03
Lecture No. # 34
Issues of Mechanisation, Automation
and Computerisation (Contd.)

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Automation-contd..

- **Automation has been defined as "Any development that may cause employee displacement"**
- **Automation may:**
 - **Wipe out certain jobs**
 - **Reduce contents of certain jobs**
 - **Combining several jobs into one.**

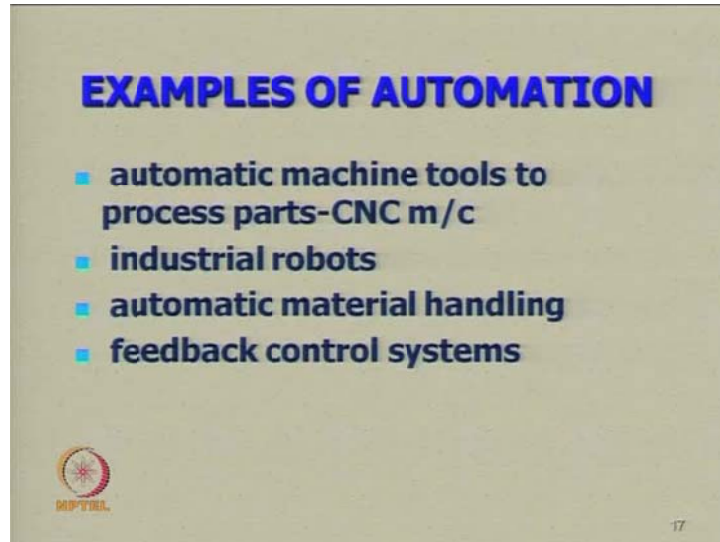
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We were talking of automation. And to carry the conversation forward, let us get to the fundamentals of automation. Like any other thing, it is important to realize that automation can be defined as any development that may cause employee displacement. The reason why I chose this definition is because this is a popular definition. The popular definition does not necessarily make it a correct definition.

Automation is any development which transfers the essential trigger command to certain pre-defined conditions; that is automation - which transfers the trigger command to certain predefined criteria. The moment that criteria are met, the next sequential target is initiated as a pursuit target **that it may wipe out certain jobs is a popular misconception.** In fact, there is a very little empirical evidence to prove that automation cause layoffs; because, automation alters the character of the jobs; therefore, it causes redeployment. What is more in certain? **Other sectors more jobs are created;** So there is no conclusive evidence on this. There has been no conclusive evidence that it wipes out jobs **is perhaps**

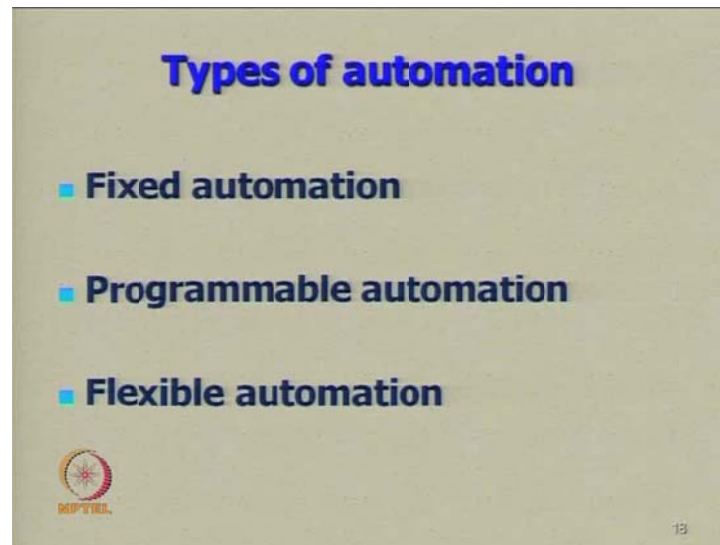
true only to the extent that replies to the word - certain jobs. Yes, certain jobs are wiped out but other jobs may be created.

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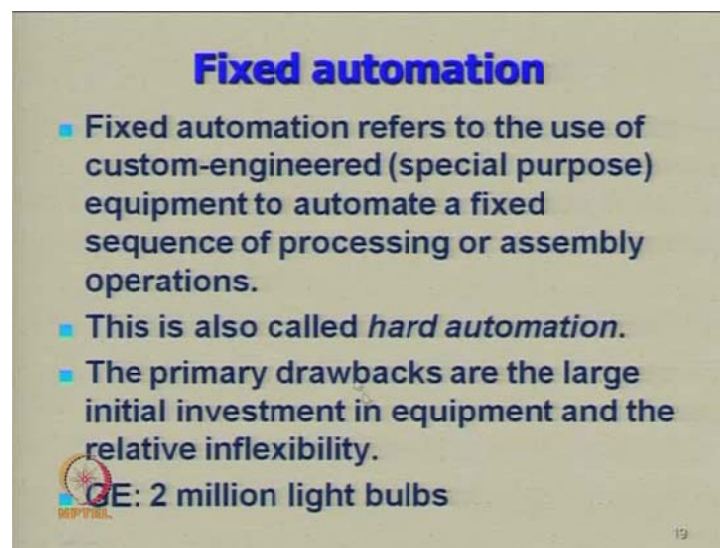


It reduces the contents of certain jobs which is it does. Remember what I told you in the preceding session - the character of job descriptions change. It could also combine several jobs into one. Examples of automation are: automatic machine tools to process parts; that is CNC; industrial robots; automatic material handling; feedback control systems. These examples are fairly self-explanatory and we need not spend time elaborating them.

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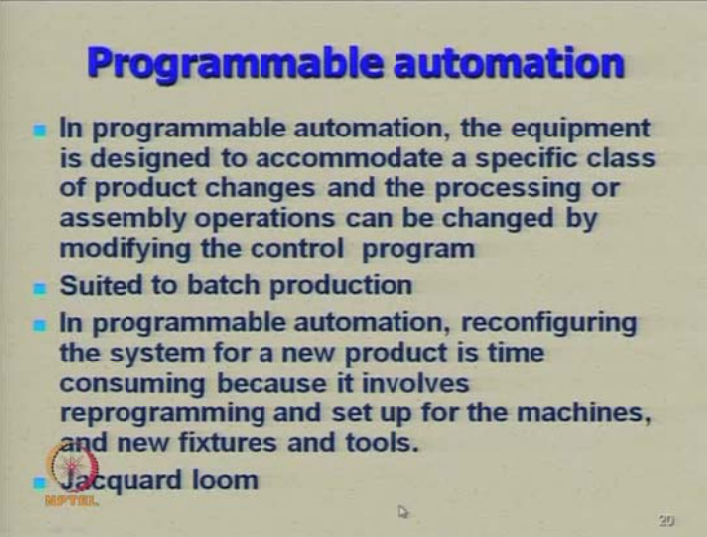


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There are different types of automation: fixed automation, programmable automation, and flexible automation. It is not as if these are the only possible types of automation; there can be other types. Fixed automation refers to the use of custom-engineered; **by that it is meant special purpose equipment to automate a fixed sequence of processing** or assembly of operations; this is also called hard automation.

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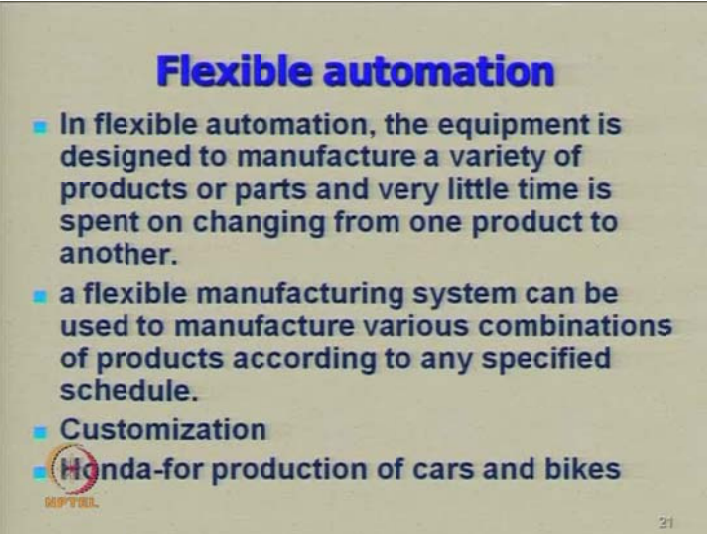
Programmable automation

- In programmable automation, the equipment is designed to accommodate a specific class of product changes and the processing or assembly operations can be changed by modifying the control program
- Suited to batch production
- In programmable automation, reconfiguring the system for a new product is time consuming because it involves reprogramming and set up for the machines, and new fixtures and tools.
- Jacquard loom

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The primary drawbacks are the large initial investments in equipment and the relative inflexibility. GE is 2 million light bulbs. Programmable automation is when the equipment is designed to accommodate a specific class of product changes and the processing or assembly operations can be changed by modifying the control program. There is a technical meaning to programmable automation - just as there is a technical meaning to the other two types of automation.

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Flexible automation

- In flexible automation, the equipment is designed to manufacture a variety of products or parts and very little time is spent on changing from one product to another.
- a flexible manufacturing system can be used to manufacture various combinations of products according to any specified schedule.
- Customization
- Honda-for production of cars and bikes

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