



# **SNS COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution)**

**COIMBATORE-35**

**Accredited by NBA-AICTE and Accredited by NAAC – UGC with A++ Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**COURSE NAME: 19EEB210/ELECTRICAL MACHINES  
AND DRIVES**

**Unit I – Classification of Electrical Drives**





# CLASSIFICATION OF ELECTRICAL DRIVES

1. Based on Load and environment condition
2. Based on Mode of operation
3. Based on controlling Action
4. Based on number of Machines

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## 1. Based on Load

- Continuous
- Short time
- Intermittent
- Constant or variable
- Positive or Negative

## 1. Based on Environment

- Temperature proof
- Humidity
- Dust and Dirty proof
- Vibration and Shock proof

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## 2. Based on Mode of operation:

- Continuous duty cycle
- Intermittent duty cycle
- Short time duty cycle

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### 3. Based on Controlling Action

- Manually controlled
- Semi automated controlled
- Fully automatic controlled

### 4. Based on Number of machine

- Individual drive
- Group drive
- Multi motor drive

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# INDIVIDUAL DRIVE SYSTEM

Only one load is carried with single electrical drive





## Advantages:

- Does not depend on other drives
- Better efficiency
- Neat appearance, Cleanliness and safety

## Disadvantages:

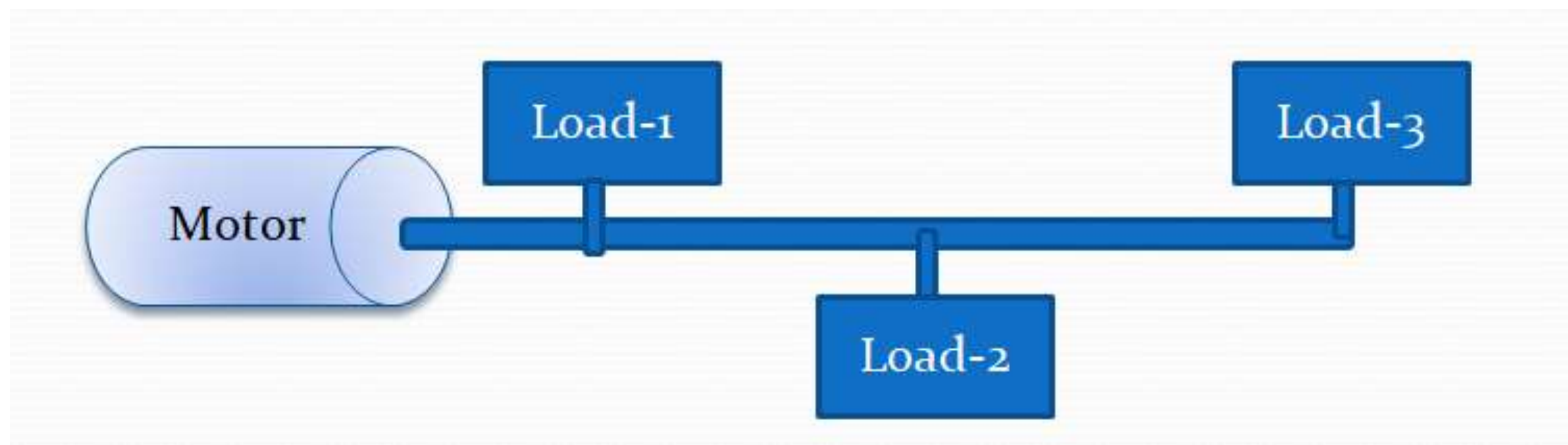
- More Cost

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# GROUP DRIVE SYSTEM

More than one load is carried with single electrical drive







## Advantages:

- Single drive enough to drive multiple load
- So installation cost and cost of one single large motor will be much less than a number of smaller motors totalling the capacity.

## Disadvantages:

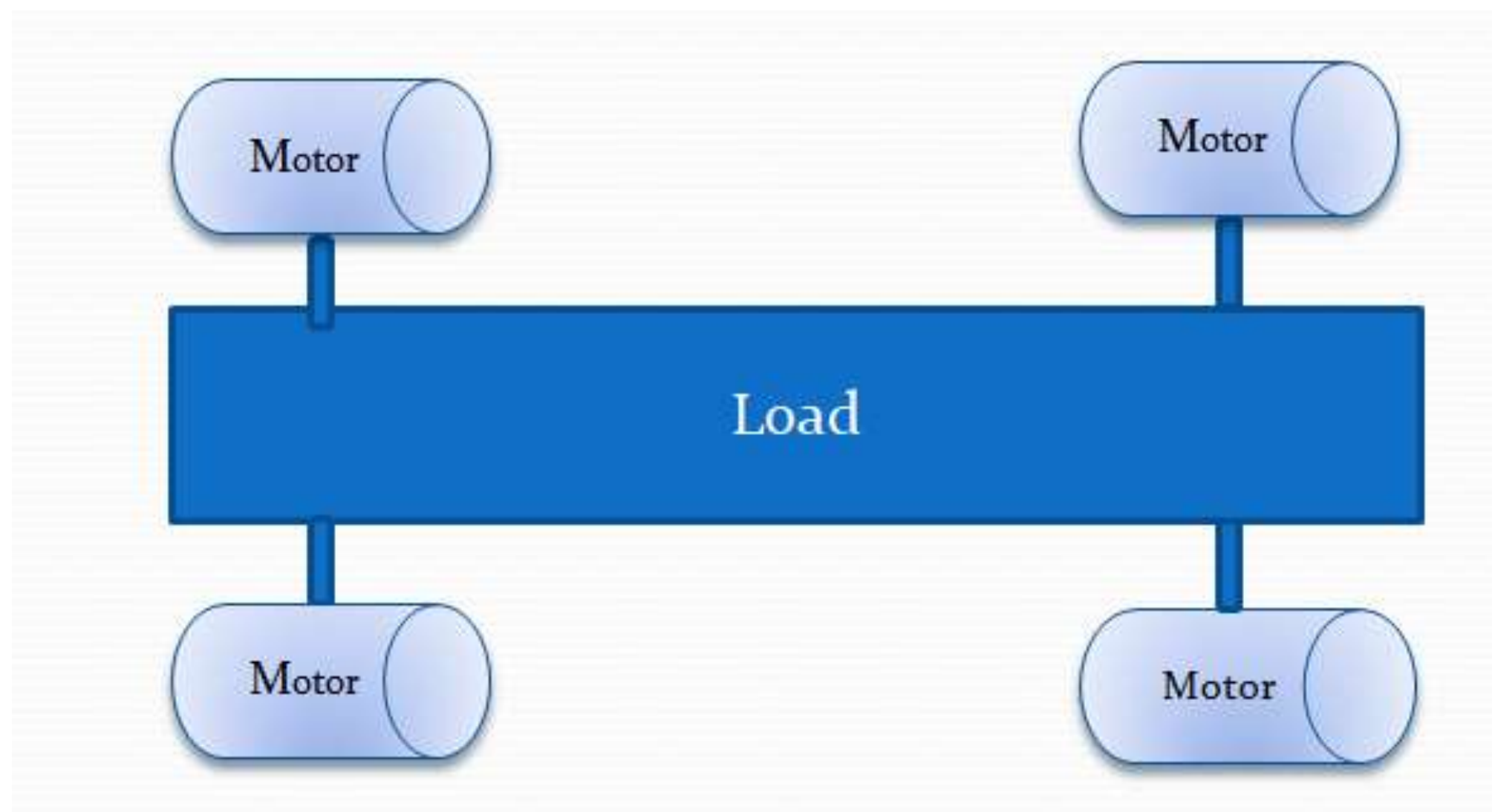
- Less Efficiency
- Less power factor
- During fault condition, problem rectification is difficult

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# MULTI MOTOR DRIVE SYSTEM

More than one motor is carried with single load





# Advantages:

- Simple in construction
- More in economical
- More convenient
- More Flexible
- Easily controllable
- Less Noisy

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KEEP  
LEARNING..  
**Thank u**

SEE YOU IN NEXT CLASS

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