



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

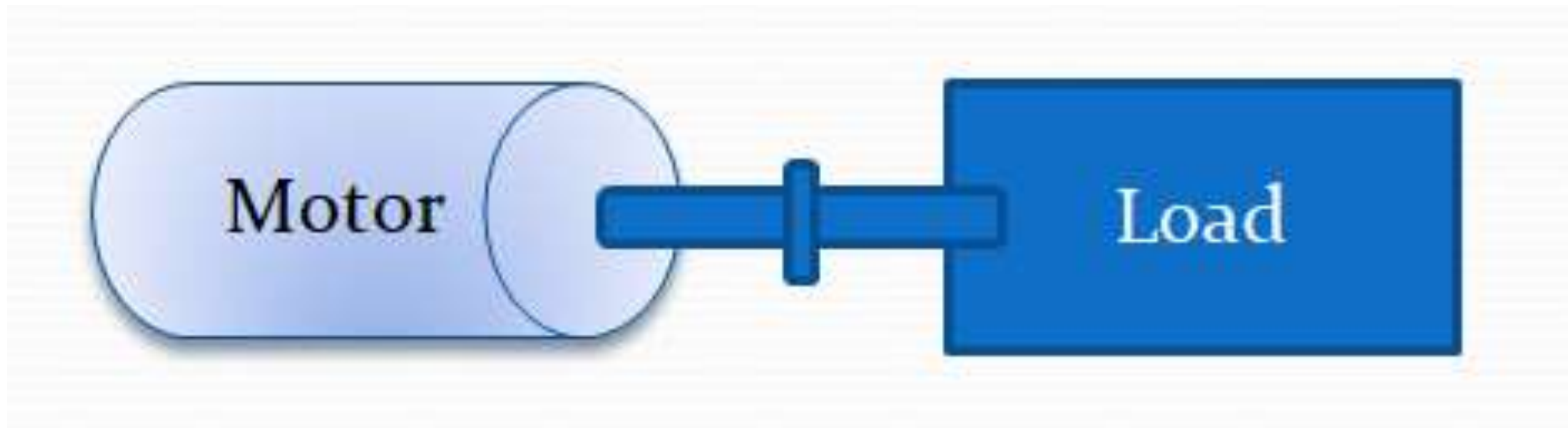
- Individual drive
- Group drive
- Multi motor drive

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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:

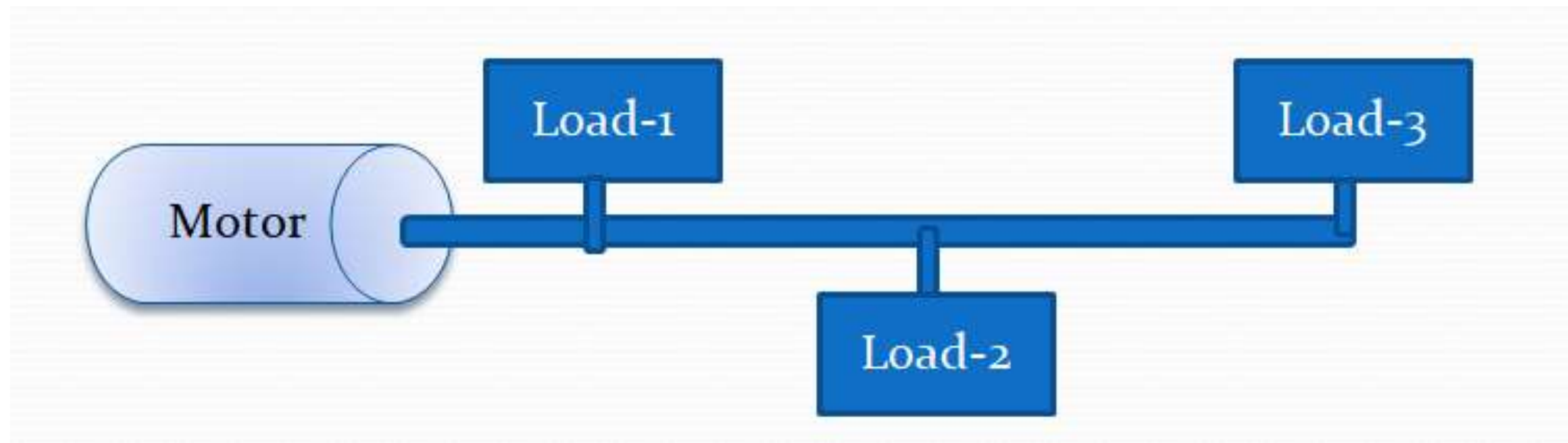
- More Cost

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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.

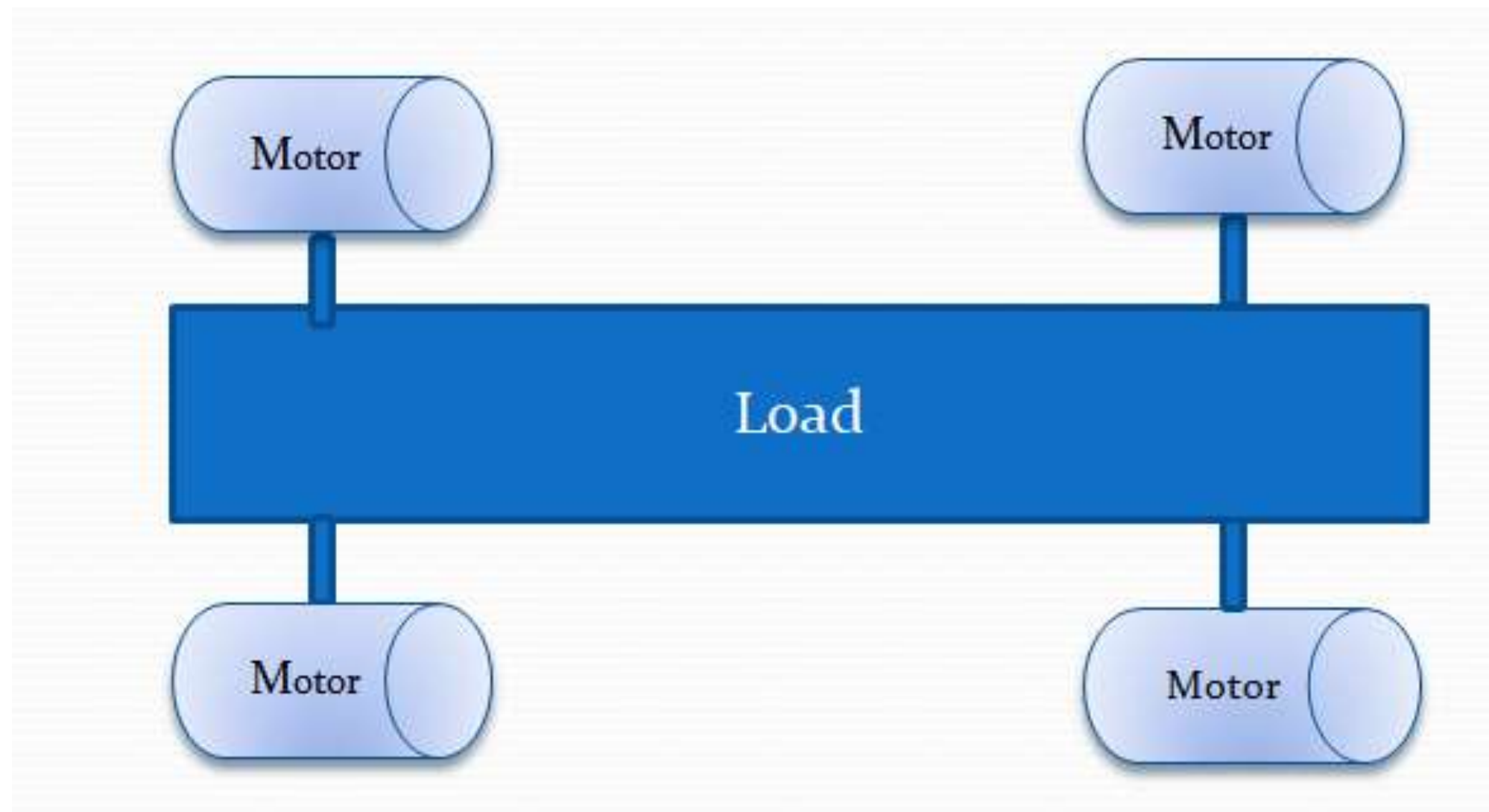
Disadvantages:

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



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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