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: 23EEB210 / Electrical Machines and Drives

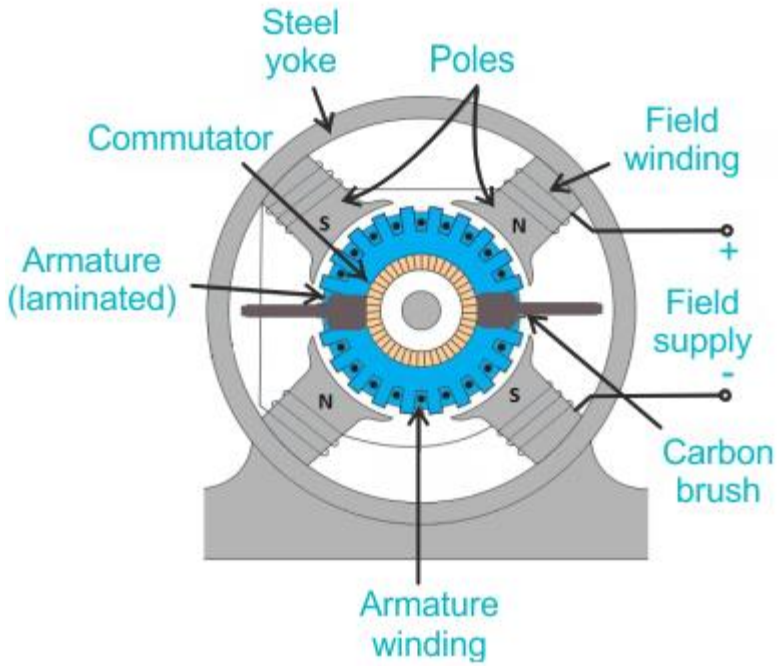
II YEAR / IV SEMESTER

Unit II – ELECTRICAL MOTORS

Topic : DC MOTOR

DC MOTOR

CONSTRUCTION:



WORKING PRINCIPLE:

DC MOTOR

A DC motor converts electrical energy into mechanical energy using direct current (DC). It has two main parts: a stationary stator and a rotating rotor.

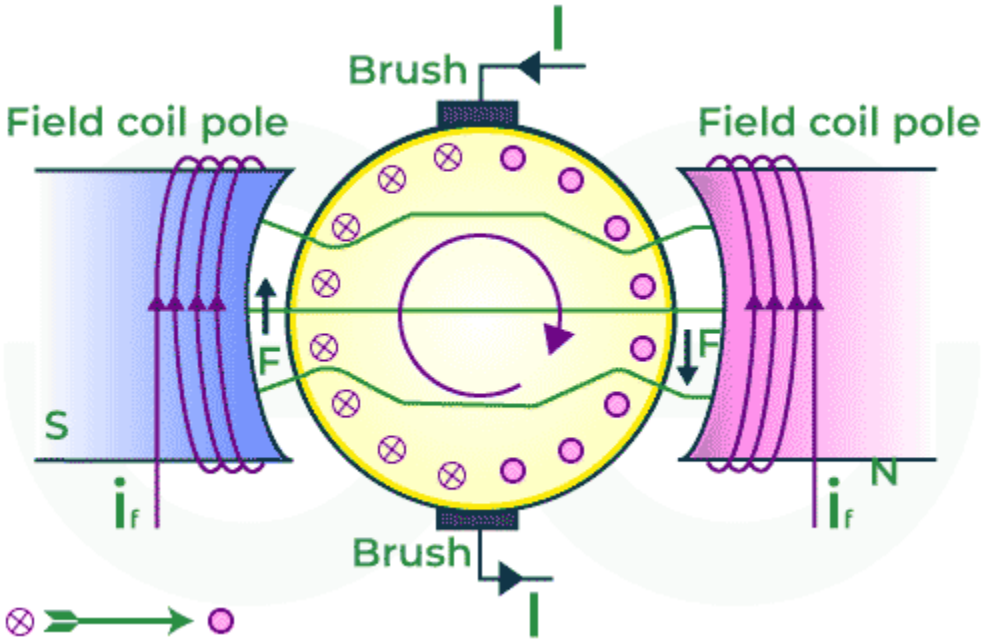
Construction

- **Stator**: Creates a magnetic field
- **Rotor**: The armature coil, which is the carrying conductor that rotates within the stator's magnetic field
- **Brushes**: Transfer the current from the rotating part of the motor to the stationary external load
- **Commutator**: Converts the AC induced in the armature into DC

Working principle

- When a current-carrying conductor is placed in a magnetic field, it experiences a force
- This force creates a motion which can be used for various tasks
- The armature coil is connected to the DC supply
- The armature places between the north and south pole of the permanent or electromagnet
- The magnetic field created by the armature interacts with the magnetic field of the stationary magnet to apply a torque on the armature, causing it to rotate

WORKING OF DC MOTOR



KEEP
LEARNING.

Thank u

SEE YOU IN NEXT CLASS