

# FACULTY OF ENGINEERING & TECHNOLOGY

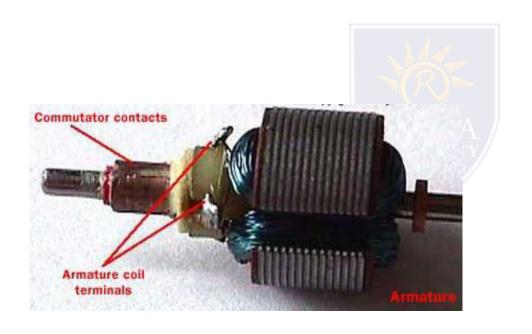
**Electrical Machine-1** 

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## **DC MACHINES**

#### **Motor**

A motor is a machine that converts electrical energy into mechanical energy by supplying a electrical power (voltage and current).

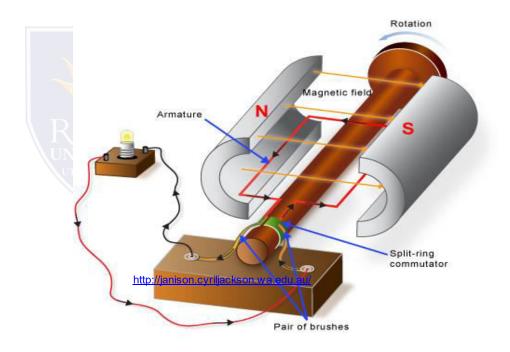




### **DC MACHINES**

#### **Generator**

A generator is a machine that converts mechanical energy into electrical energy by using the principle of magnetic induction.



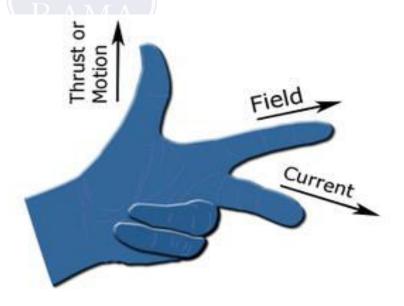
#### **DC MACHINE**

## Fleming Left Hand Rule

It is used to determine the direction of force acting on a current carrying conductor placed in a magnetic field.

The middle finger, the fore finger and thumb of the left hand are kept at right angles to one another.

- The middle finger represent the direction of current
- The fore finger represent the direction of
- magnetic field
- The thumb will indicate the direction of force acting on the conductor
- This rule is used in motors



### **DC MACHINES**

#### Fleming Right Hand Rule

- It is used to determine the direction of emf induced in a Conductor. The middle finger, the fore finger and thumb of the left hand are kept at right angles to each other.
- The fore finger show the direction of magnetic field
- The thumb show the direction of motion of the conductor
- The middle finger will indicate the direction of the inducted emf.
- This rule is used in DC Generators

