

# HOLY SPIRIT UNIVERSITY OF KASLIK

## Electrical and Electronics engineer

### Go Wind



**Safety Related to Renewable Energy**

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Problems in Wind Turbine

Definition: What Are Eddy Current

Electrical Braking System

Future Plan

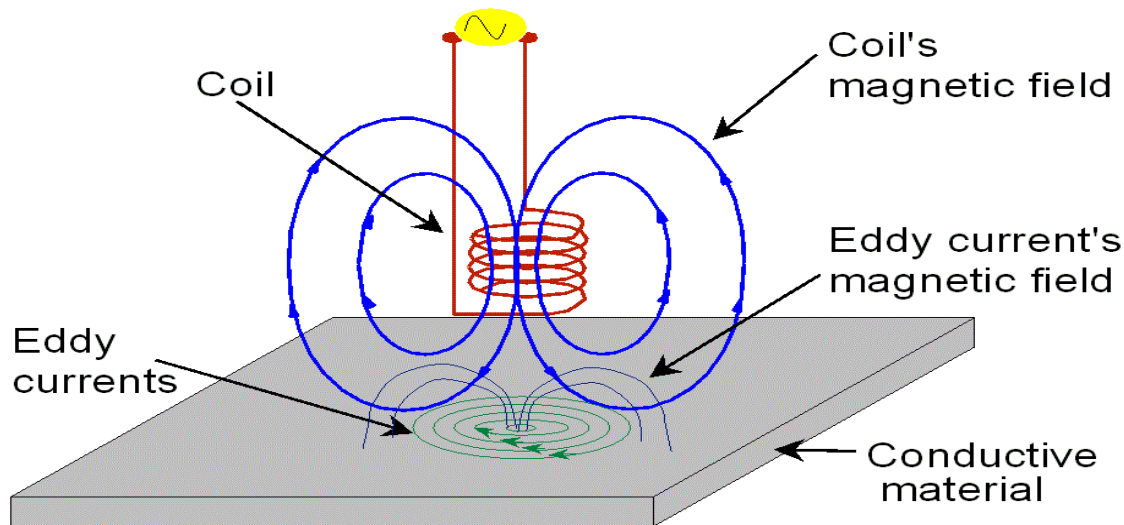
# Problems in Wind Turbine

- High maintenance.
- Fire is the common problem in wind turbines.

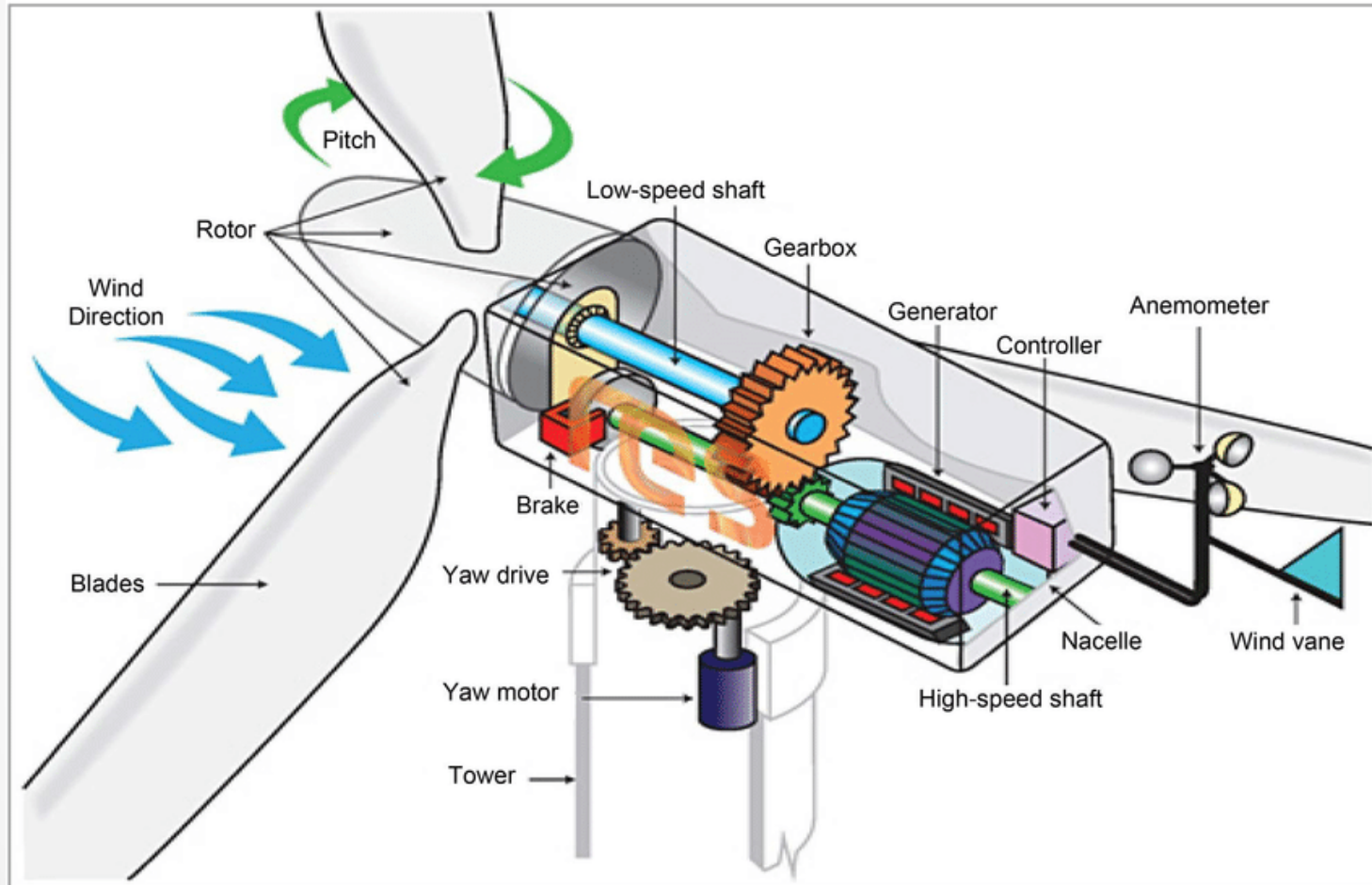


# What are Eddy Currents ?

- Loops of electrical current induced within conductors by a changing magnetic field in it due to Faraday's law of induction.
  - Lenz's law: eddy current creates a magnetic field that opposes the change in the magnetic field that created it
- ➡ Reacts back on the source of the magnetic field.



# Wind Turbine Components



# Electrical Braking System



# Future Plan

- Adding some control to the system like the PID controller and an AVR.

