**Energy and Power**

Energy is the ability to do work.

Power is the energy per unit time is called Power.

Otherwise we say that power is a work done per unit time.

Power satisfied change in energy is called Power.

Taking Integration on both sides, we calculate Energy

So Energy is the Integral of Power

If we want to check energy at specific interval of time, we use limit

**Basic Formula of Power**

Instantaneous Power

**General Expression for Power**

We used general expression for power, because in one equation power is the square current and other equation power is the square of voltage. So we generalized in terms of square of x (t). Also take a modulus, because energy is never in negative, so we use modulus.

**Energy Signals**

**Energy is the ability to do work.**

**Energy signal having finite energy. Energy signal means in between 0 and infinity. Otherwise we say that Energy value is greater than zero and less than infinity.**

