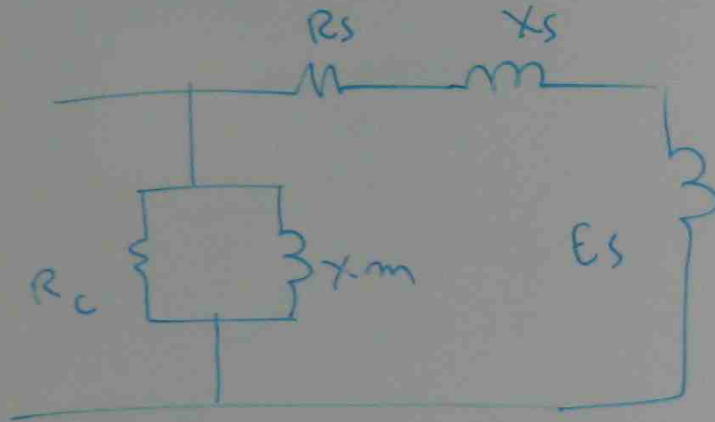
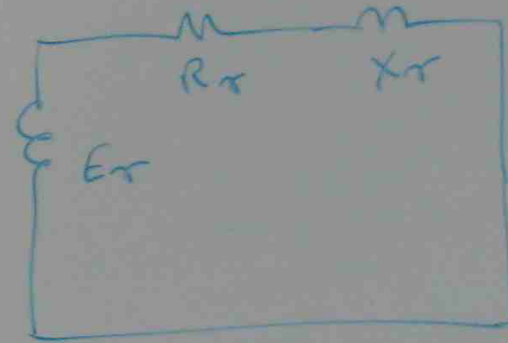


EQUIVALENT CIRCUIT OF INDUCTION MOTOR

IMD STILL



STATOR



R_r = ROTOR WINDING RESISTANCE

X_r = ROTOR WINDING INDUCTIVE REACTANCE

R_c = CORE RESISTANCE

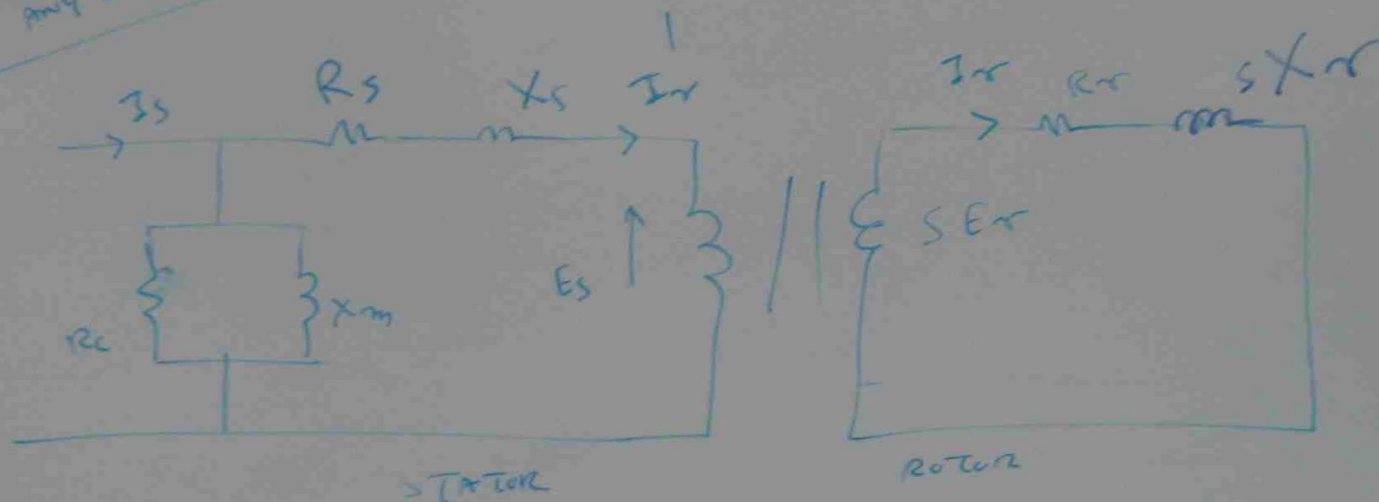
X_m = CORE INDUCTIVE REACTANCE

E_s = STATOR VOLTAGE

R_s = STATOR WINDING RESISTANCE

X_s = STATOR WINDING INDUCTIVE REACTANCE

RUNNING AT
ANY SLIP



I_s = STATOR CURRENT

I_r = ROTOR CURRENT

I_r' = ROTOR CURRENT REFLECTED TO STATOR

$$I_r = \frac{sE_r}{R_r + j s X_r} = \frac{sE_r}{\sqrt{R_r^2 + s^2 X_r^2}}$$