

$F = V \cdot I \cdot \cos \phi$  |  $Q = V \cdot I \cdot \sin \phi$

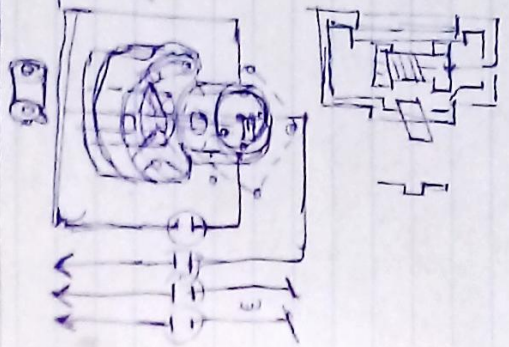
$V_{eff} = V \cos(\omega t)$   
 $I_{eff} = I \cos(\omega t)$

$P = V_{eff} \cdot I_{eff} \cos(\omega t)$   
 $P = V \cdot I \cdot \cos^2(\omega t)$

$I_{eff} = I \cos(\omega t)$

Angle Conversion

$\frac{1}{\sqrt{2}} \times \sqrt{2} \cos(\omega t) \times \sqrt{2} \cos(\omega t) \times \cos$   
 $V_{eff} \cdot I_{eff} \cdot \cos \phi$   
 $E = V \cdot I \cdot \cos \phi$



Resistor Power  
 $P = I^2 R$   
 $P = \frac{V^2}{R}$

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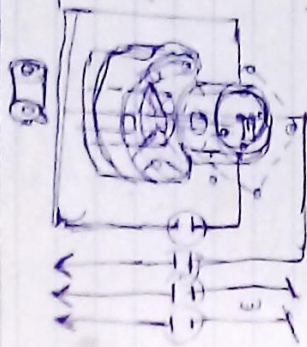
$P = I^2 R$   
 $P = \frac{V^2}{R}$

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 $P = \frac{V^2}{R}$



$P_1 = \frac{V_1 I_1}{2} \cos \phi$   
 $P_2 = \frac{V_2 I_2}{2} \cos \phi$

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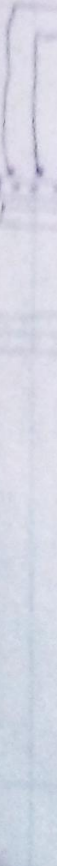
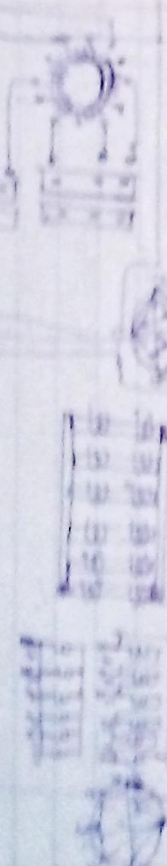
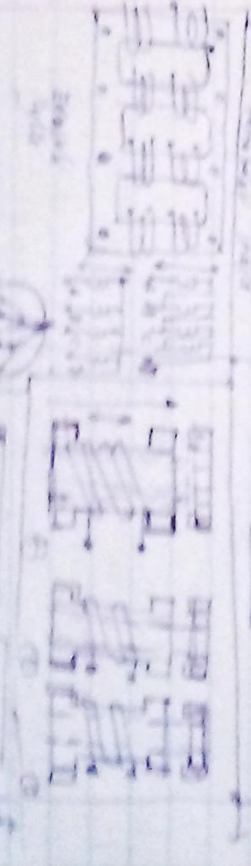
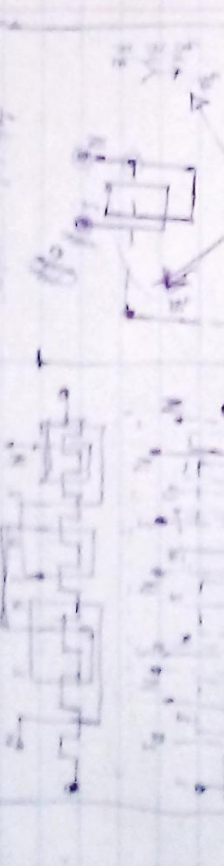
$P_1 = \frac{V_1 I_1}{2} \cos \phi$   
 $P_2 = \frac{V_2 I_2}{2} \cos \phi$

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$$\frac{d^2 y}{dt^2} = -\omega^2 y$$

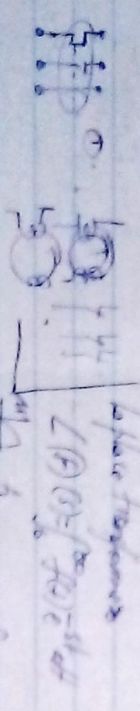
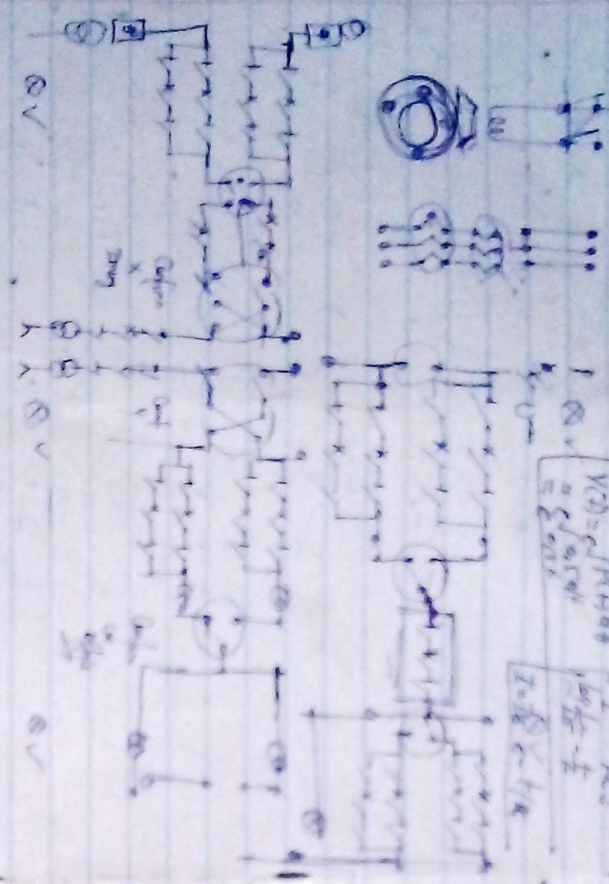
$$y(t) = A \cos(\omega t + \phi)$$

$$v(t) = -A\omega \sin(\omega t + \phi)$$

$$a(t) = -A\omega^2 \cos(\omega t + \phi)$$

$$v_{rms} = \frac{A\omega}{\sqrt{2}}$$

$$a_{rms} = \frac{A\omega^2}{\sqrt{2}}$$



•  $V_L = L \frac{di}{dt}$

$V_C = \frac{1}{C} \int i dt$

$V_R = iR$

$i = \frac{V_m}{Z} \cos(\omega t + \phi)$

$Z = \sqrt{R^2 + (X_L - X_C)^2}$

$X_L = \omega L$

$X_C = \frac{1}{\omega C}$

$\phi = \tan^{-1} \frac{X_L - X_C}{R}$

$i = \frac{V_m}{Z} \cos(\omega t + \phi)$

$v = iZ \cos(\omega t + \phi)$

Impedance

$Z = \sqrt{R^2 + (X_L - X_C)^2}$

$\phi = \tan^{-1} \frac{X_L - X_C}{R}$

$\frac{d^2 y}{dt^2} = -\omega^2 y$

$y(t) = A \cos(\omega t + \phi)$

$v(t) = -A\omega \sin(\omega t + \phi)$

$a(t) = -A\omega^2 \cos(\omega t + \phi)$

$v_{rms} = \frac{A\omega}{\sqrt{2}}$

$a_{rms} = \frac{A\omega^2}{\sqrt{2}}$

Impedance

$Z = \sqrt{R^2 + (X_L - X_C)^2}$

$\phi = \tan^{-1} \frac{X_L - X_C}{R}$

$P(t) = \frac{1}{2} V_m I_m \cos(2\omega t + 2\phi)$

$P_{avg} = \frac{1}{2} V_{rms} I_{rms}$

$Q = V_{rms} I_{rms} \sin \phi$

$S = V_{rms} I_{rms}$



$i = \int_{-\infty}^{\infty} f(x) \delta(x-a) dx = f(a)$

$\delta(x) = \frac{1}{x}$

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$\delta(x) = \frac{1}{x}$

$I_1 + I_2 = A_1 \cos(\omega t + \phi_1) + A_2 \cos(\omega t + \phi_2)$

$I = A \cos(\omega t + \phi)$

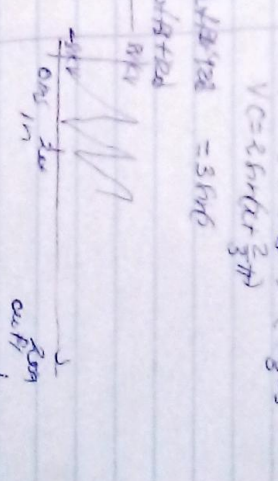
$A^2 = A_1^2 + A_2^2 + 2A_1 A_2 \cos(\phi_2 - \phi_1)$

$V_a = V_m \cos(\omega t)$

$V_b = V_m \cos(\omega t + \phi)$

$V_c = V_m \cos(\omega t + 2\phi)$

$V_d = V_m \cos(\omega t + 3\phi)$



$I_1 + I_2 + I_3 = A_1 \cos(\omega t + \phi_1) + A_2 \cos(\omega t + \phi_2) + A_3 \cos(\omega t + \phi_3)$

$I = A \cos(\omega t + \phi)$

$A^2 = A_1^2 + A_2^2 + A_3^2 + 2A_1 A_2 \cos(\phi_2 - \phi_1) + 2A_1 A_3 \cos(\phi_3 - \phi_1) + 2A_2 A_3 \cos(\phi_3 - \phi_2)$







[illegible]

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TFK

Far

$$E_m \propto E = \beta L^4$$

$$f_{em} = f_{me}$$

Power. Control

### 2. type of JFET

Continue: to

IP:- Indices - 7 no

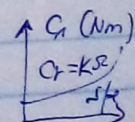
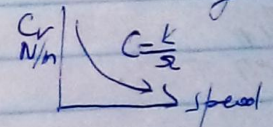
Plaque & Plak

- Power: 158 kW

Course, 7, 5 IAs  
nominal feed

 $3\phi H_s \cdot f_c \cdot \max$ 

Grass. 24kg



- Reductor : rot  
 Motor speed rot  
 Gear axle d = 2
- work. whl  

$$Q_{\text{pump}} = \frac{Q_{\text{rot}}}{4}$$

$$W_{\text{out}} = Q_{\text{pump}} \times h \rightarrow$$