Total harmonic distortion THD $THD\% = \frac{P_h}{P_1} \cdot 100$
Modulation index

Lab measurements | not true speed

1. ~~[illegible]~~ 1400 rpm   curr
2. 700 rpm   curr
3. ~~1400~~ 700 rpm   voltage
4 ~~[illegible]~~
4ALL 1400 i/V

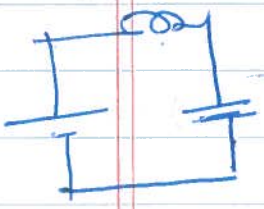
Set 2

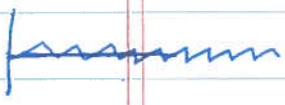
All.csv   ~~700~~ rpm   current voltage
1all.csv   1400 rpm   -"-

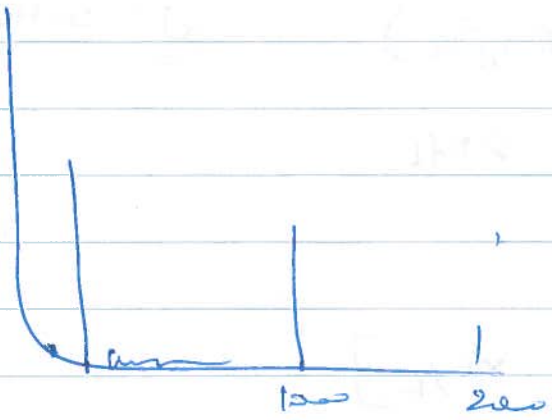
not measured
18.05.20

m = 0.1 to 1 THD V_p I

Modulation Index [DC] link Current







$V_{dc} = 100V$ $L = 5e^{-6}$ $R = 8\Omega$

$= 5mF$

P.f = ?

$m \cdot V_{dc} = V_{ac}$ $m = 0$ to 1

$= 0.1$ to 1

Rated : $m = 1$ $V_{dc} = 100$

$$V_{dc} \times 1 = V_{ac}$$

$V_{ac} = 1 \times 100 = 100V$

$V = IZ$

$= I \times (R + jX_L)$ $f = 50Hz$

$X_L = 2\pi fL$

$I = ?$

$\phi = \tan^{-1}[X_L/R]$

$P.f = \cos\phi$

$V_{dc} = 100V$ $f = 50Hz$, $L = 5e^{-6}$

$R = 8\Omega$ $(f_{sw} = 5kHz)$

P.f = ?

- Send Mr. your curriculum
>

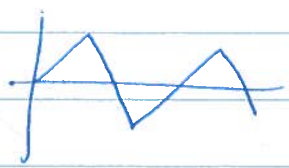
FFT
DFT

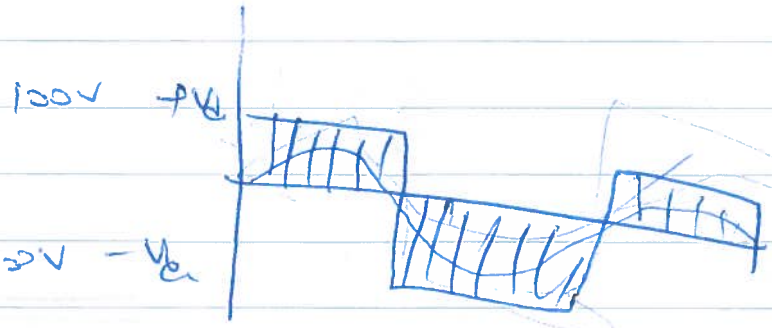
Friday morning
9^00 Office

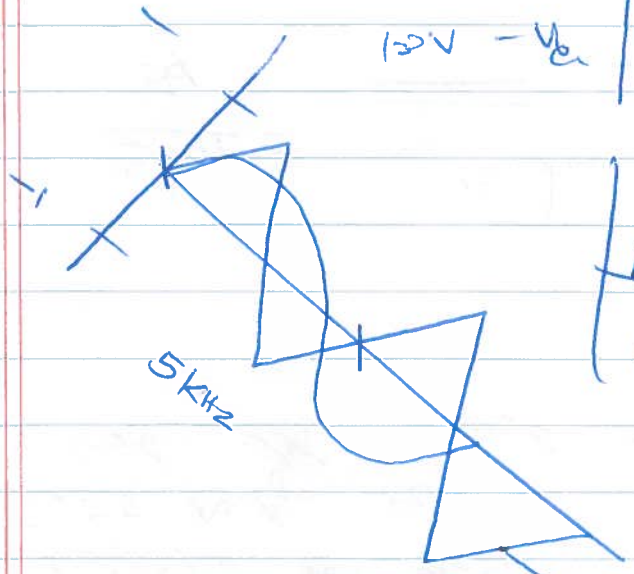
Analysis project

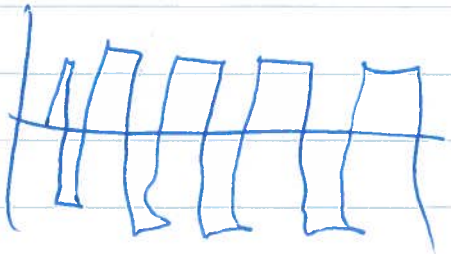
- CSV excel from scope
- FFT Analysis, Harmonics
- Capture [illegible] two cycles do [illegible]

$\frac{5000}{50}$ = 100th harm.

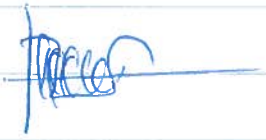


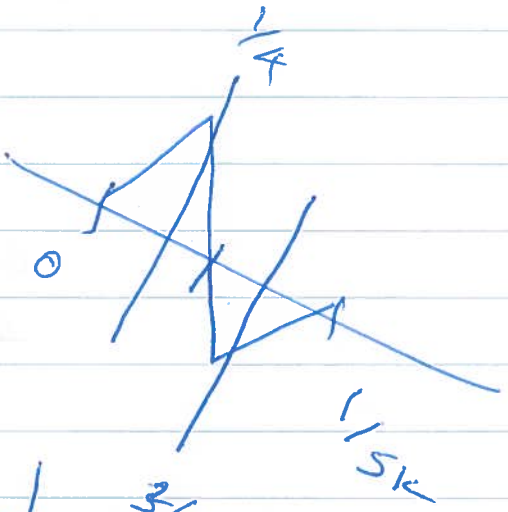


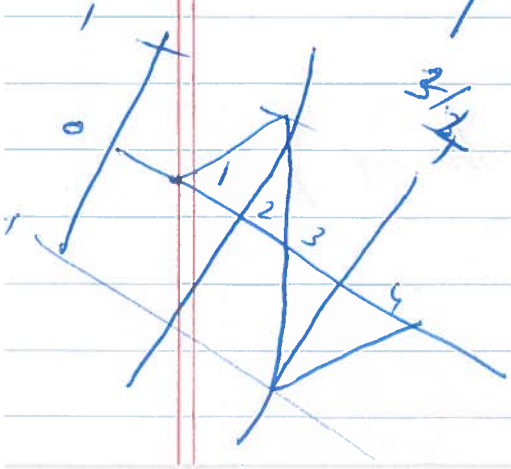




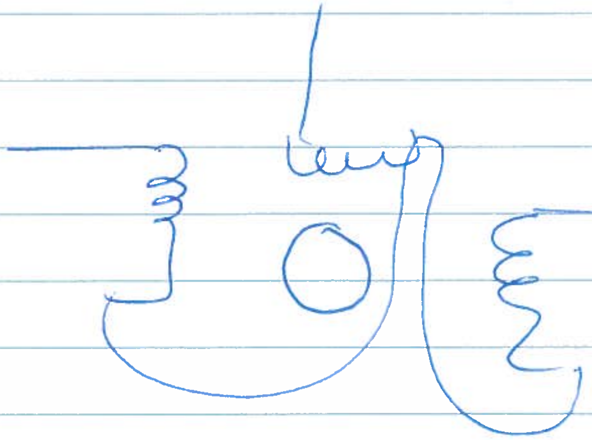
5 × 0.2 / 0.02 =







5 KHz



$V/f = k$

$\frac{120f}{P}$