TUTORIAL CLASS

Tutorial classes in B.Tech education offer supplemental learning opportunities to students beyond traditional lectures. Here are a few words highlighting their significance:

1. **Enhanced Understanding:** Tutorial classes provide a smaller group setting where students can delve deeper into complex topics, ask questions, and seek clarification on concepts covered in lectures. This fosters a better understanding of the subject matter.
2. **Interactive Learning:** Tutorials often involve more interactive sessions, discussions, and problem-solving activities. This active engagement encourages students to participate actively and reinforces their learning.
3. **Personalized Attention:** With fewer students in tutorial groups, instructors can provide more personalized attention to individual students. This allows for tailored guidance, addressing specific learning needs and concerns.
4. **Supplementary Support:** Tutorial classes complement lectures by reinforcing key concepts, offering additional explanations, and providing extra practice exercises or examples to solidify understanding.
5. **Peer Learning:** Collaborative learning is often encouraged in tutorials. Students can learn from their peers, exchange ideas, and work together on problem-solving tasks, enhancing their overall learning experience.
6. **Feedback and Assessment:** Tutorials may offer opportunities for instructors to assess students' progress more closely through quizzes, assignments, or discussions, providing timely feedback to improve learning outcomes.
7. **Improvement of Study Skills:** Tutorial classes can help students develop critical study skills, including analytical thinking, time management, and effective study habits, which are beneficial throughout their academic journey.

In essence, tutorial classes play a vital role in reinforcing knowledge, fostering a deeper understanding of topics, and providing a supportive environment for students to excel in their B.Tech studies.

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

TUTORIAL LOG REGISTER 2021-2025 ADMISSIONS (S1)

Sl. No	Date	Time	Name of Faculty Member	Batch	Topic	Signature of Faculty Member	Absentees	Proof Material Folder Link
1	12-10-2021	9.00 am to 10.00 am	SIJI.P	Full Class	Chain rule		Nil	https://drive.google.com/file/d/1CU8ODmAlEhc46Ca8LOwjSUWzmeu2Re8U/view?usp=sharing
2	14/1/2022	9.00 am to 10.00 am	SIJI.P	Full Class	Cartesian coordinates		Nil	https://drive.google.com/file/d/1CU8ODmAlEhc46Ca8LOwjSUWzmeu2Re8U/view?usp=sharing
3	28/1/2022	9.00 am to 10.00 am	SIJI.P	Full Class	Geometric series		4,18	https://drive.google.com/file/d/1Hi_BcxbjPWHWRxT8Bki3WG-llFhItFvb/view?usp=sharing
4	02-11-2022	9.00 am to 10.00 am	SIJI.P	Full Class	Taylor series		14,18,20,24	https://drive.google.com/file/d/1yYK0E54ZkKmQmes6FPnH0GeURt0mjjk4/view?usp=sharing
5	25/2/2022	9.00 am to 10.00 am	SIJI.P	Full Class	Fourier series		Nil	https://drive.google.com/file/d/1yYK0E54ZkKmQmes6FPnH0GeURt0mjjk4/view?usp=sharing
6	03-04-2022	9.00 am to 10.00 am	SIJI.P	Full Class	Fourier series		3,16,17	https://drive.google.com/file/d/1yYK0E54ZkKmQmes6FPnH0GeURt0mjjk4/view?usp=sharing

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Sl. No	Date	Time	Name of Faculty Member	Batch	Topic	Signature of Faculty Member	Absentees	Proof Material Folder Link
1	08-12-2021	12.10 - 1.10 PM	Soumya John	Full Class	Laws of vibration		Nil	https://drive.google.com/file/d/1hoA2Pt4VXgi8ULK0H99N-4IAtuE6XYfP/view?usp=sharing
2	06-01-2022	12.10 - 1.10 PM	Soumya John	Full Class	Resolving & dispersive power		12,14,15,28,30,31	https://drive.google.com/file/d/1-zAtoYrQN79UT6EqarNnB1g5KrKtgAAd/view?usp=sharing
3	27-01-2022	12.10 - 1.10 PM	Soumya John	Full Class	Nanotechnology		Nil	https://drive.google.com/file/d/15EizyBi5RI8gFtGFrobmhJW3aMXnrVix/view?usp=sharing
4	03-02-2022	12.10 - 1.10 PM	Soumya John	Full Class	Types of superconductors, BCS theory		Nil	https://drive.google.com/file/d/14W21WVfoOmtIaFYh50o8E4nmRuIEkLjN/view?usp=sharing
5	17-02-2022	12.10 - 1.10 PM	Soumya John	Full Class	Optic fibre sensors		Nil	https://drive.google.com/file/d/14W21WVfoOmtIaFYh50o8E4nmRuIEkLjN/view?usp=sharing

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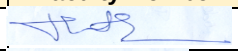
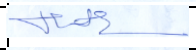
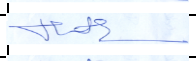
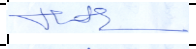
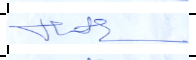
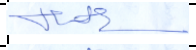
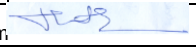
Sl. No	Date	Time	Name of Faculty Member	Batch	Topic	Signature of Faculty Member	Absentees	Proof Material Folder Link
1	03.12.2021	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	equilibrium equations problems		5	
3	17.12.2021	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	Varignon's Theorem of moments problems		Nil	
5	14.01.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	ladder Problem		Nil	
6	21.01.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	resultant and equilibrium equations Problems		Nil	
7	28.01.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	Centroid of composite areas problems		Nil	
8	04.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	moment of inertia problems		Nil	
9	11.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	Forces in space problems		Nil	
10	18.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	D'Alembert's principle problems		Nil	https://drive.google.com/file/d/1vuhXjoewz3ClRHbZhASSg1dQfO-DUAL-/view?usp=sharing
11	25.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	projectile motion problem		Nil	
12	04.03.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh	Full Class	Simple harmonic motion problem		Nil	

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VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF ELECTRICAL & ELECTRONICS

TUTORIAL LOG REGISTER 2021-2025 ADMISSIONS (S1)

Sl. No	Date	Time	Name of Faculty Member	ato	Topic	Signature of Faculty Member	sente	Proof Material Folder Link
1	03.12.2021	11.10-12.10	Dr.S.Christopher Ezhil Singh		equilibrium equations problems		5	
3	17.12.2021	11.10-12.10	Dr.S.Christopher Ezhil Singh		Varignon's Theorem of moments problems		Nil	
5	14.01.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		ladder Problem		Nil	
6	21.01.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		resultant and equilibrium equations Problems		Nil	
7	28.01.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		Centroid of composite areas problems		Nil	
8	04.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		moment of inertia problems		Nil	
9	11.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		Forces in space problems		Nil	
10	18.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		D'Alembert's principle problems		Nil	
11	25.02.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		projectile motion problem		Nil	
12	04.03.2022	11.10-12.10	Dr.S.Christopher Ezhil Singh		Simple harmonic motion problem		Nil	

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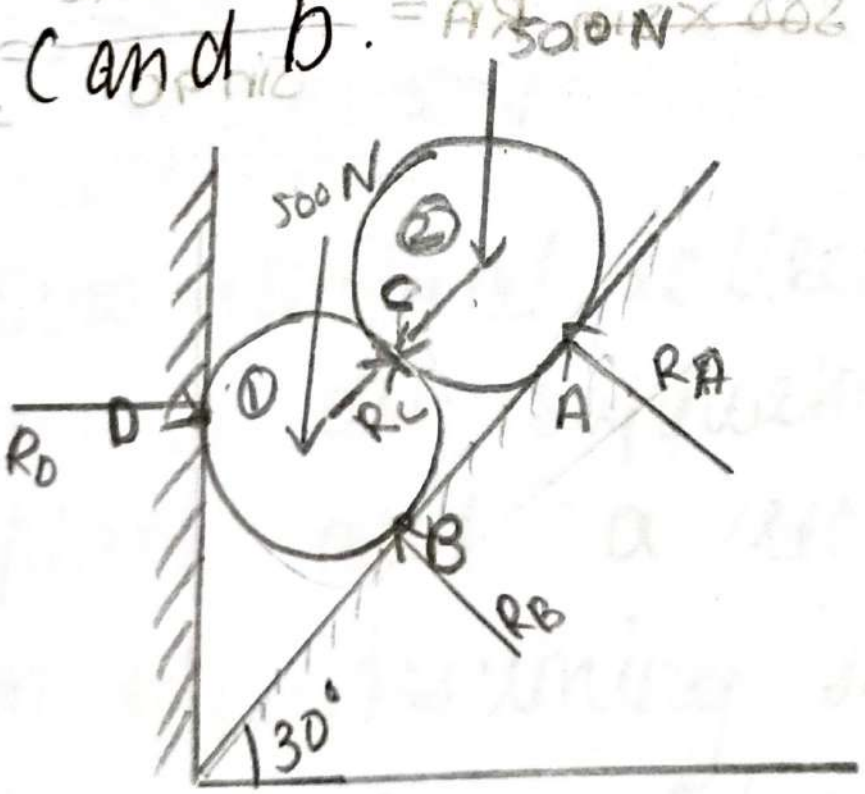
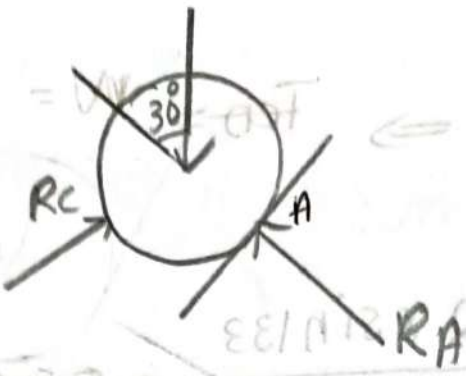
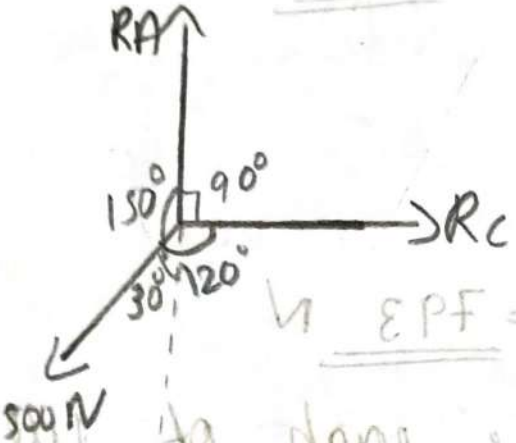
SIR 133

* Two identical rollers each of weight 500 N are supported by an inclined plane and a vertical wall as shown in fig. Assuming smooth surfaces. Find the reactions induced at the points A, B, C and D.



Roller ②



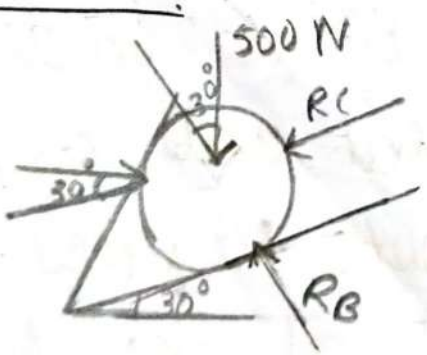


$$\frac{500}{\sin 90} = \frac{R_C}{\sin 150} = \frac{R_A}{\sin 120}$$

$$\frac{500}{\sin 90} = \frac{R_C}{\sin 150} \Rightarrow R_C = \frac{500 \times \sin 150}{\sin 90} = 250\ N$$

$$\frac{500}{\sin 90} = \frac{R_A}{\sin 120} \Rightarrow R_A = \frac{500 \times \sin 120}{\sin 90} = 433\ N$$

Roller - ①



Equilibrium conditions for coplanar concurrent forces

$\Sigma f_x = 0$

$\Sigma f_y = 0$

Consider the forces ⊥ to the plane.

$-R_C - 500 \sin 30^\circ + R_D \cos 30^\circ = 0 \rightarrow (1)$

Consider the forces Normal to the plane (→)

$R_B - 500 \cos 30^\circ - R_D \sin 30^\circ = 0 \rightarrow (2)$

~~$-250 - 500$~~ substitute the value of RC in eq. (1)

$-250 - 500 \sin 30^\circ + R_D \cos 30^\circ = 0$

~~$R_D = -577\ N$~~ $\quad R_D = 577\ N$

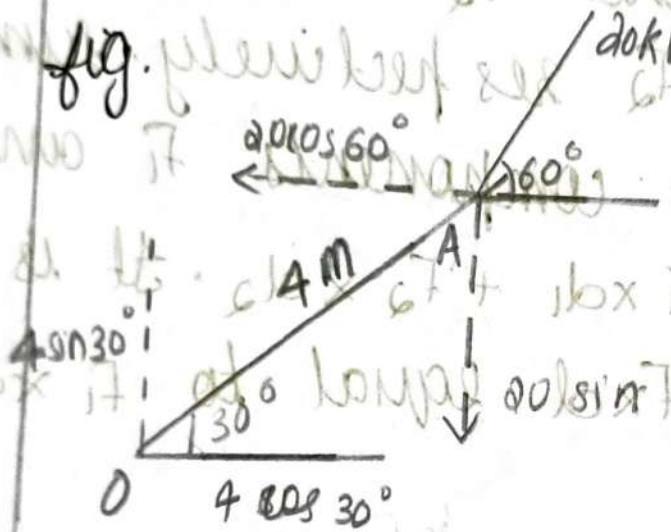
Value of R_D in eq. (2)

$R_B - 500 \cos 30^\circ - 577 \sin 30^\circ = 0$

$R_B = 500 \cos 30^\circ + 577 \sin 30^\circ$

$R_B = 721.5\ N$

* Calculate the moment of the given force F 20 kN about point O as shown in fig.



~~Moment about the point O~~

clockwise direction moment = +

anticlockwise direction moment = −

Moment about point O.

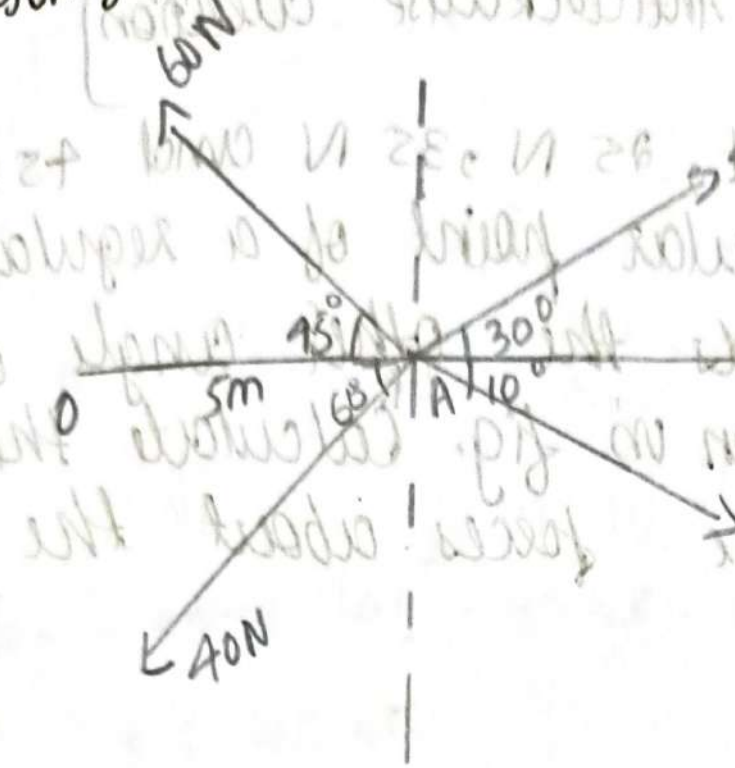
$M_O = [20 \sin 60^\circ \times 4 \cos 30^\circ] - [20 \cos 60^\circ \times 4 \sin 30^\circ]$

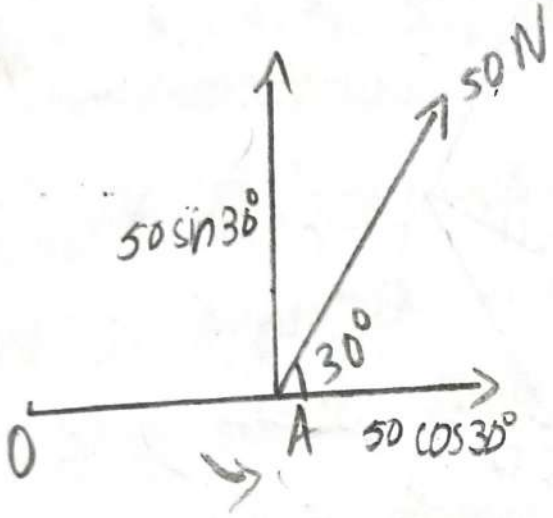
$= 60 - 20$

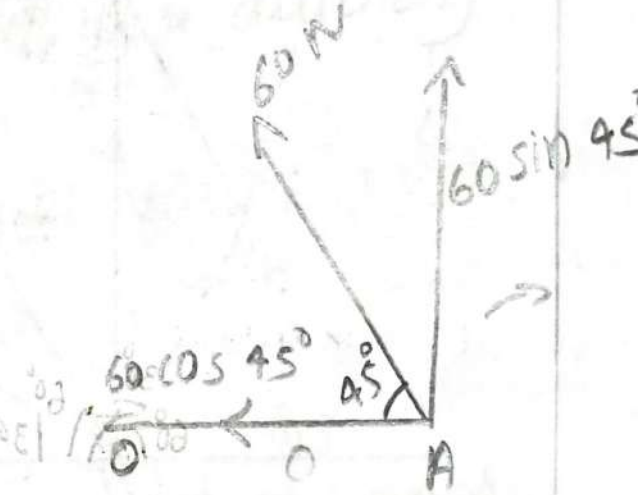
~~$M_O = 40$~~ $M_O = 40$ kNm (clockwise direction)

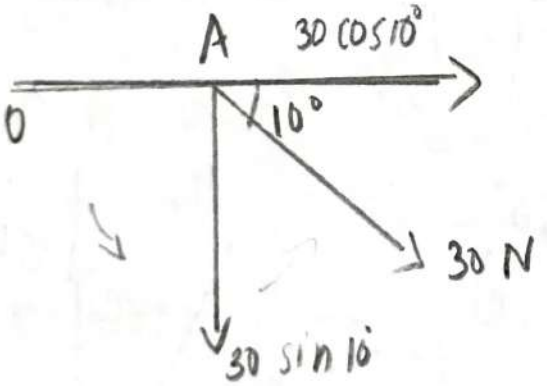
* Calculate the moment of the force system shown in fig about the point

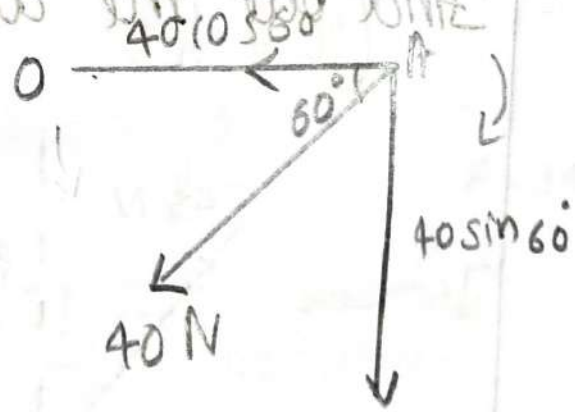
using varignon's theorem









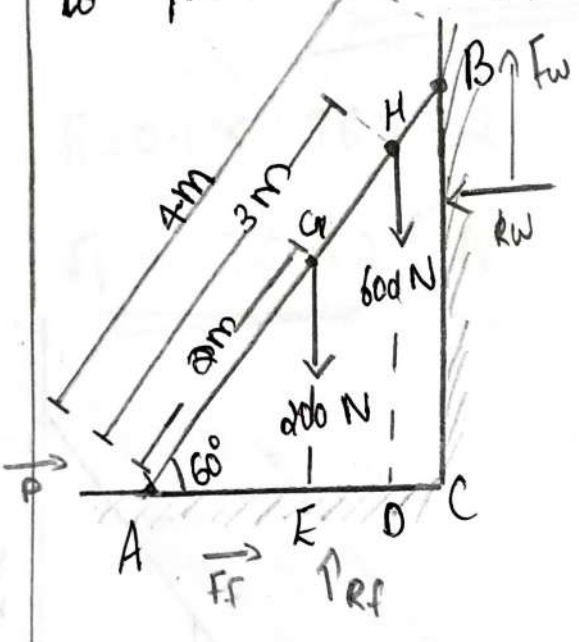


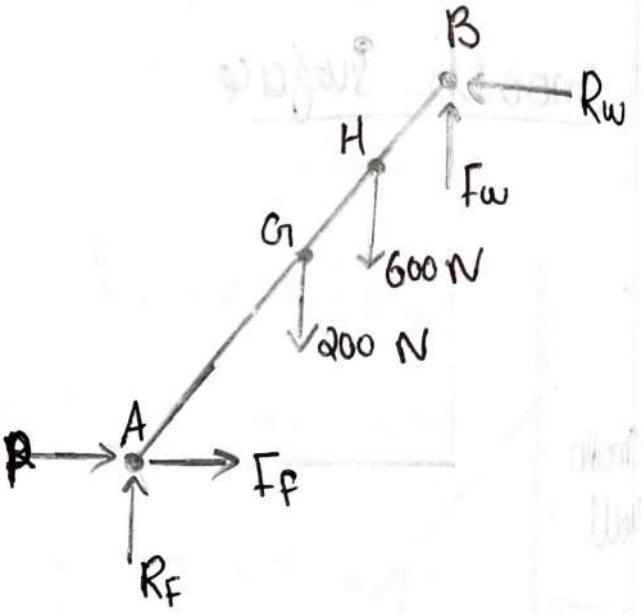
$M_O = -50 \sin 30° \times 5 + 30 \sin 10° \times 5 + 60 \sin 45° \times 5$

$+ 40 \sin 60° \times 5$

$M_0 = -137.8$ Nm (Anticlockwise direction)

* A ladder of length 4 m weight 200 N is placed against a vertical wall as shown in fig. μ blw the wall & the ladder is 0.2 and that blw floor & the ladder is 0.3. In addition to self weight the ladder has to support a man of weight 600 N at a distance of 3 m from A. Calculate the minimum horizontal force to be applied at A to prevents slipping.





$\cos\theta = A/H$, $\sin\theta = O/H$

ΔAGE,

$\cos 60° = \frac{AE}{2}$

$AE = 2 \times \cos 60°$

$AE = 1\ m$

ΔADH

$\cos 60° = \frac{AD}{3}$

$AD = 3 \times \cos 60°$

$AD = 1.5\ m$

$\cos 60° = \frac{AC}{4}$

$AC = 4 \times \cos 60°$

$AC = 2m$

ΔABC

$\sin 60° = \frac{BC}{4} \Rightarrow BC = 4 \times \sin 60°$

$BC = 3.464\ m$

Moment about point A

$200 \times 1 + 600 \times 1.5 - F_w \times 2 - R_w \times 3.46 = 0$

$F_w = \mu R_w = 0.2 R_w$

$1100 - (\quad 0.4 R_w - 3.46 R_w = 0$

$1100 - 3.86 R_w = 0$

$1100 = 3.86 R_w$

$R_w = \frac{1100}{3.86}$

$R_w = 284.97$

Equilibrium condition

$\Sigma H = 0$

$F_f + P - R_w = 0$

$\Sigma V = 0$

$\therefore \quad R_F - 200 - 600 + F_w = 0$

$R_F - 200 - 600 + [0.2 R_w] = 0$

$R_F - 200 - 600 + 56.99 = 0$

$R_F - 800 + 56.99 = 0$

$R_F - 743.01 = 0$

$R_F = 743.01 \text{ N}$

$F_f = 0.3 \times R_f$

$[0.3 \times 743.01] = F_f$

$F_f = 222.90 \text{ N}$

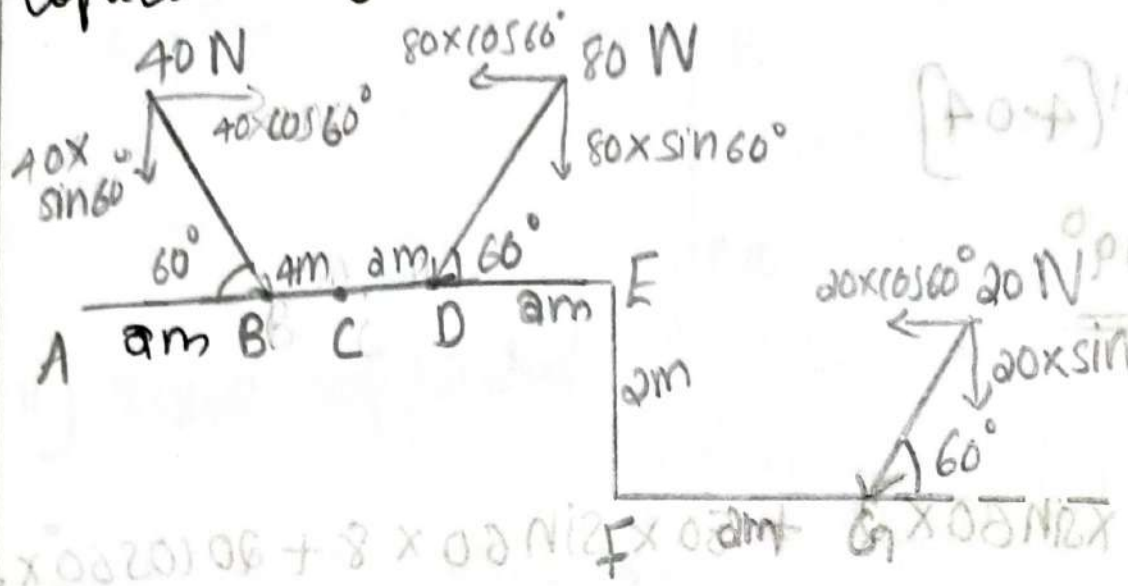
$F_f + P - R_w = 0$

$222.9 + P - 284.97 = 0$

$P = 284.97 - 222.9$

$P = 62 \text{ N}$

* Determine the resultant of a set of coplanar forces as shown in fig.



→ ~~$\Sigma V = 0$~~

$\Sigma H = 0$

$\Sigma H = 40 \times \cos 60^\circ - 80 \times \cos 60^\circ - 20 \times \cos 60^\circ$

$= 20 - 40 - 10$

$\Sigma H = -30$

$\Sigma V = 0$

$\Sigma V = -40 \times \sin 60^\circ - 80 \times \sin 60^\circ - 20 \times \sin 60^\circ$

$= -34.64 - 69.28 - 17.32$

$\Sigma V = -121.24$

$R = \sqrt{\Sigma H^2 + \Sigma V^2} = \sqrt{(-30)^2 + (-121.24)^2}$

$R = 124.89$ N

$$\tan\theta = \frac{\Sigma V}{\Sigma H} = \frac{121.24}{30}$$

$$\theta = \tan^{-1}[4.04]$$

$$\theta = 76.09^{\circ}$$

$$\Sigma M_A = 0$$

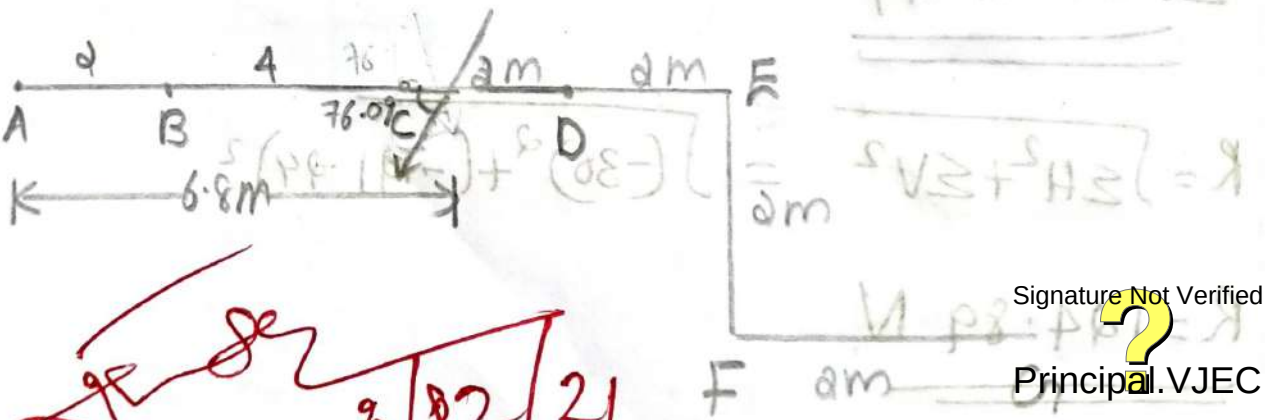
$$\Sigma M_A = 40 \times \sin 60 \times 2 + 80 \times \sin 60 \times 8 + 20 \cos 60^{\circ} \times 2 + 20 \sin 60 \times 12$$

$$= 69.28 + 554.25 + 20 + 207.84$$

$$\Sigma M_A = 851.37 \text{ kNm [clockwise]}$$

$$\Sigma M_A = R_y \times X$$

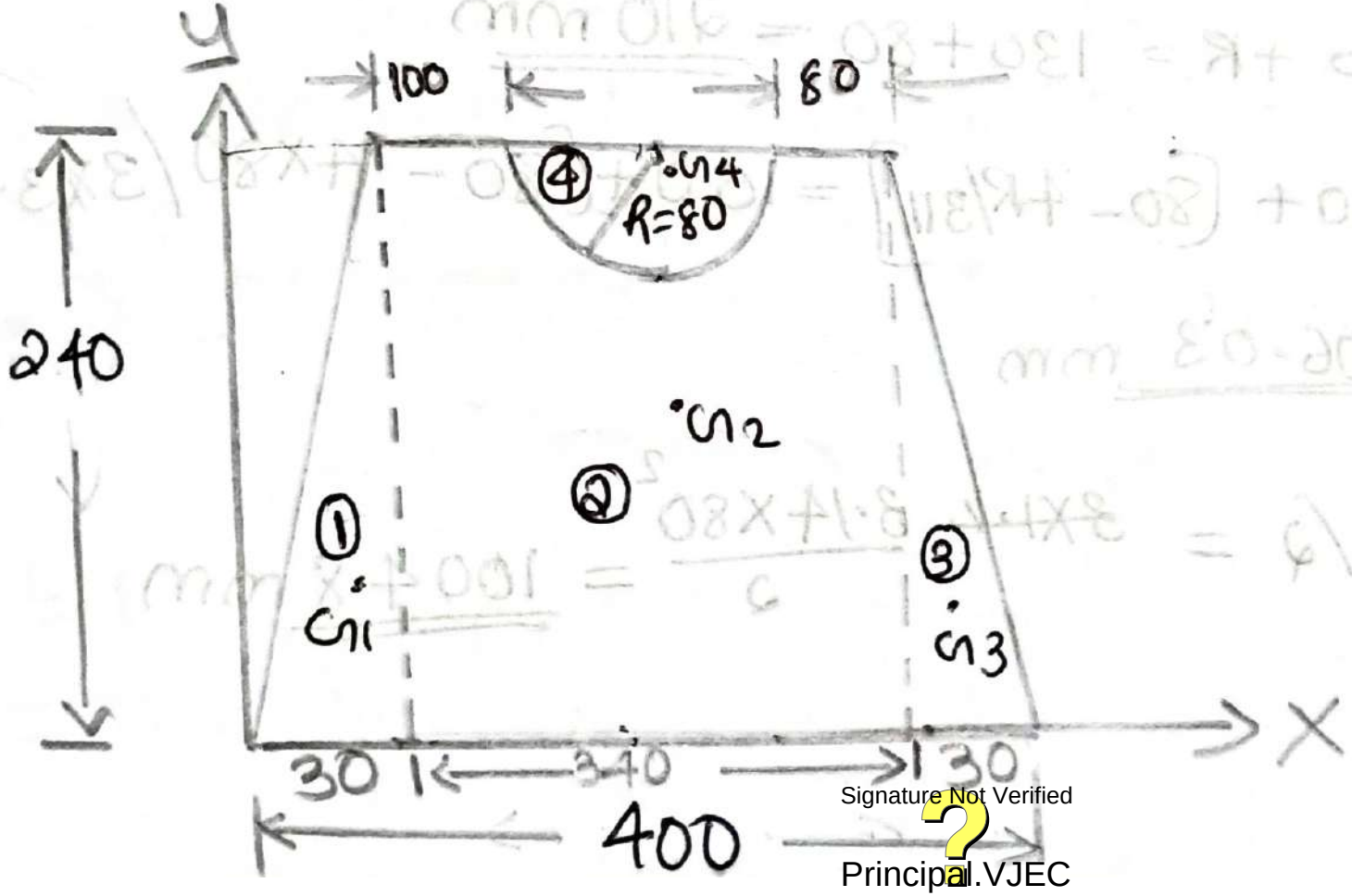
$$X = \frac{\Sigma M_A}{R_y} = \frac{851.37}{121.24} = 6.8\text{m}$$



28/12/24

H1

* Locate the centeroid for the figure shown.



100+80+160
=340

400-340=60

60/2 = 30

Section-1

$x_1 = \frac{2b}{3} = \frac{2}{3} \times 30 = 20$ mm

$y_1 = \frac{h}{3} = \frac{240}{3} = 80$ mm

$a_1 = \frac{bh}{2} = \frac{30 \times 240}{2} = 3600$ mm

Section-2

$x_2 = 30 + b/2 = 30 + 340/2 = 200$ mm

$y_2 = h/2 = 240/2 = 120$ mm

$a_2 = bh = 340 \times 240 = 81600$ mm

Section-3

$x_3 = 370 + b/3 = 370 + 30/3 = 380$ mm

$y_3 = h/3 = 240/3 = 80$ mm

$a_3 = bh/2 = \frac{30 \times 240}{2} = 3600$ mm

Section-4

$x_4 = 130 + R = 130 + 80 = 210$ mm

$y_4 = 160 + [80 - 4R/3\pi] = 160 + [80 - 4 \times 80 / 3 \times 3.14]$

$= 206.03$ mm

$a_4 = \pi R^2/2 = \frac{3.14 \times 80^2}{2} = 10048$ mm

$$\bar{x} = \frac{a_1x_1 + a_2x_2 + a_3x_3 - a_4x_4}{a_1 + a_2 + a_3 - a_4}$$

$$= \frac{[3600 \times 20] + [81600 \times 200] + [3600 \times 380] - [10048 \times 210]}{3600 + 81600 + 3600 - 10048}$$

$$= \frac{72000 + 16320000 + 1368000 - 2110080}{78752}$$

$$= \frac{15649920}{78752}$$

$$\bar{x} = 198.72 \text{ mm}$$

$$\bar{y} = \frac{a_1y_1 + a_2y_2 + a_3y_3 - a_4y_4}{a_1 + a_2 + a_3 - a_4}$$

$$= \frac{[3600 \times 80] + [81600 \times 120] + [3600 \times 80] - [10048 \times 206.63]}{78752}$$

$$= \frac{8297810.56}{78752}$$

$$\bar{y} = 105.36 \text{ mm}$$

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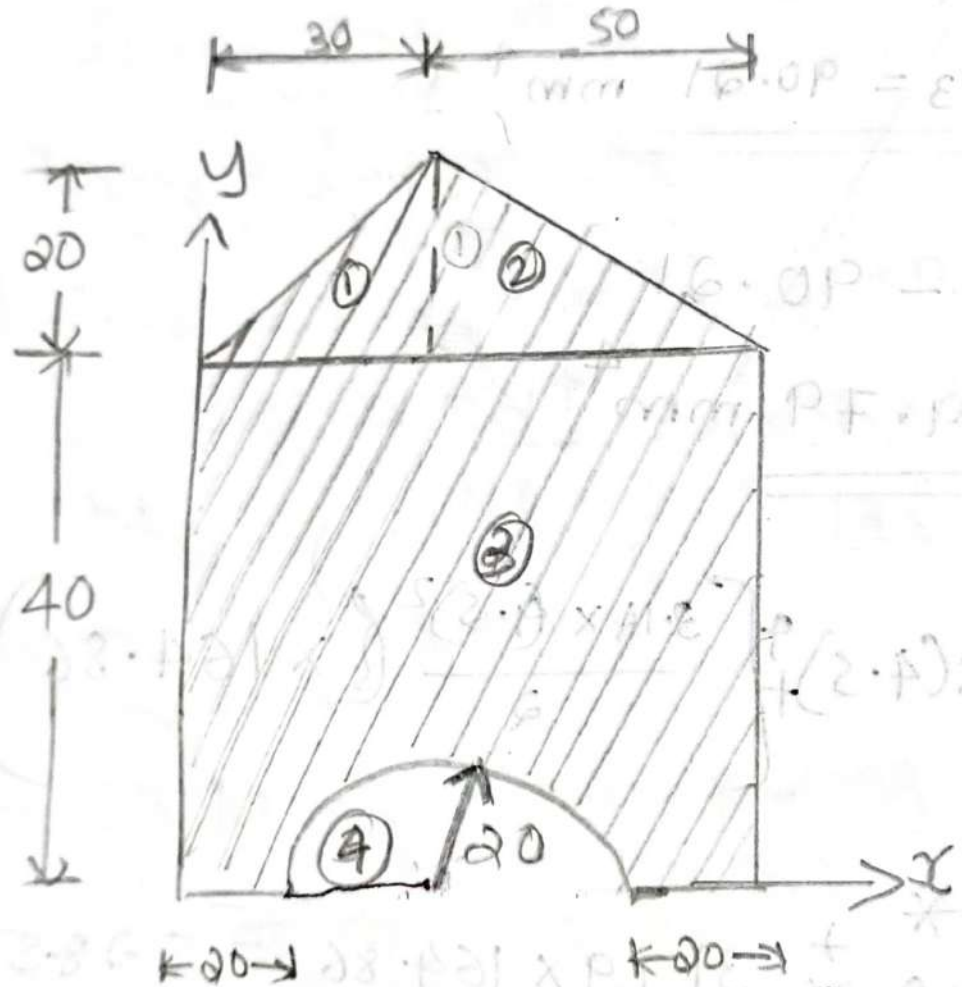
* Find the moment of inertia of the shaded portion.



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Section-1

$x_1 = \frac{2b}{3} = \frac{2 \times 30}{3} = 20\ mm$

$y_1 = \frac{h}{3} + 40 = \frac{20}{3} + 40 = 46.66\ mm$

$a_1 = \frac{bh}{2} = \frac{20 \times 30}{2} = \frac{600}{2} = 300\ mm^2$

Section-2

$x_2 = 30 + 50/3 = 46.66\ mm$

$y_2 = h/3 + 40 = 20/3 + 40 = 46.66\ mm$

$a_2 = bh/2 = 20 \times 50/2 = 500\ mm^2$

Section-3

$x_3 = l/2 = 80/2 = 40mm$

$y_3 = h/2 = 40/2 = 20\ mm$

$a_3 = l \times h = 80 \times 40 = 3200\ mm^2$

Section-4

$x_4 = 40\ mm$

$y_4 = \frac{4R}{3\pi} = \frac{4 \times 20}{3 \times 3.14} = 8.492\ mm$

$a_4 = \frac{\pi R^2}{2} = \frac{3.14 \times 20^2}{2} = 628\ mm^2$

$$\bar{x} = \frac{a_3x_3 - a_4x_4 + a_1x_1 + a_2x_2}{a_3 - a_4 + a_1 + a_2}$$

$$= \frac{[3200 \times 40] - [628 \times 40] + [300 \times 20] + [500 \times 46.66]}{3200 - 628 + 300 + 500}$$

$$\bar{x} = 39.20 \text{ mm}$$

$$\bar{y} = \frac{a_3y_3 - a_4y_4 + a_1y_1 + a_2y_2}{a_3 - a_4 + a_1 + a_2}$$

$$= \frac{[3200 \times 20] - [628 \times 8.49] + [300 \times 46.66] + [500 \times 46.66]}{3200 - 628 + 300 + 500}$$

$$\bar{y} = 28.46 \text{ mm}$$

$$I_{cnxx} = I_{cnxx_3} - I_{cnxx_4} + I_{cnxx_1} + I_{cnxx_2}$$

$$I_{cnxx_3} = \frac{bd^3}{12} + A_3h_3^2$$

$$h_3 = \bar{y} \simeq y_3$$

$$= 28\ 47 - 20$$

$$h_3 = 8.470 \text{ mm}$$

$$I_{cnxx3} = \frac{bd^3}{12} + lxb \times (8.47)^2$$

$$= \frac{80 \times 40^3}{12} + 40 \times 80 \times (8.47)^2$$

$$= 656237.5 \text{ mm}^4$$

$$I_{cnxx4} = 0.11R^4 + A_4 h_4^2$$

$$h_4 = \bar{y} \simeq y_2$$

$$= 28.468 - 8.49$$

$$= 19.978 \text{ mm}$$

$$I_{cnxx4} = 0.11(20)^4 + \left[\frac{\pi R^2}{2} \times 19.978^2\right]$$

$$268247.664$$

$$= 30146.184 \text{ mm}^4$$

$$I_{cnxx1} = 2x\frac{bd^3}{12} + A_1 h_1^2$$

$$h_1 = \bar{y} \simeq y_2$$

$$= 46.66 - 28.47 = 18.19 \text{ mm}$$

$$I_{cnxx1} = \frac{80 \times (60)^3}{36} + \left[\frac{1}{2} 80 \times 60\right] \times 18.19^2$$

$$= 105929.43 \text{ mm}^4$$

$$I_{cnxx2} = \frac{bd^3}{12} + A_2 h_2^2$$

$$= \frac{50 \times 20)^3}{36} \times 1/2 \times 50 \times 20 \times 18.19^2$$

$$= 176549.16 \text{ mm}^4$$

$$I_{cxx} = 656237.5 - 268247.664 + 105929.43 + 176549.16$$

$$I_{cxx} = 670468.426 \text{ mm}^4$$

IMP

* Forces 30 kN, 20 kN, 25 kN, 40 kN are concurrent at origin and are directed through the points A = (2, 1, 6), B = (4, -2, 5), C = (-3, -2, 1), D = (5, 1, -2). Determine the resultant forces.

O = (0, 0, 0).

unit vector of OA = $\frac{\text{position vector of OA}}{\text{Magnitude of position}}$

$$= \frac{(x_A - x_0)\vec{i} + (y_A - y_0)\vec{j} + (z_A - z_0)\vec{k}}{\sqrt{2^2 + 1^2 + 6^2}}$$

$$= \frac{(2-0)\vec{i} + (1-0)\vec{j} + (6-0)\vec{k}}{\sqrt{41}}$$

$$= \frac{2\vec{i} + 1\vec{j} + 6\vec{k}}{\sqrt{41}} = \frac{2\vec{i} + 1\vec{j} + 6\vec{k}}{6.4} = 0.31\vec{i} + 0.15\vec{j} + 0.93\vec{k}$$

Force vector of $OA = 30 \times \left(\frac{2\vec{i}}{\sqrt{41}} + \frac{1}{\sqrt{41}}\vec{j} + \frac{6}{\sqrt{41}}\vec{k}\right)$

$$= 30 \times (0.31\vec{i} + 0.15\vec{j} + 0.93\vec{k})$$

$$= 9.3\vec{i} + 4.5\vec{j} + 27.9\vec{k}$$

Unit of vector of OB = $\frac{\text{position vector of OB}}{\text{Magnitude of position}}$

$$= \frac{4\vec{i} - 2\vec{j} + 5\vec{k}}{\sqrt{45}} = \frac{4\vec{i}}{6.7} - \frac{2\vec{j}}{6.7} + \frac{5\vec{k}}{6.7}$$

$= 0.59\vec{i} - 0.29\vec{j} + 0.74\vec{k}$

Force vector of $OB = 20 \times (0.59\vec{i} - 0.29\vec{j} + 0.74\vec{k})$

$= 11.8\vec{i} - 5.8\vec{j} + 14.8\vec{k}$

unit vector of $OC = \dfrac{-3\vec{i} - 2\vec{j} + 1\vec{k}}{\sqrt{14}}$

$= \dfrac{-3\vec{i}}{3.74} - \dfrac{2\vec{j}}{3.74} + \dfrac{1\vec{k}}{3.74}$

$= -0.80\vec{i} - 0.53\vec{j} + 0.26\vec{k}$

Force vector of $OC = 25 \times (-0.80\vec{i} - 0.53\vec{j} + 0.26\vec{k})$

$= -20\vec{i} - 13.25\vec{j} + 6.5\vec{k}$

unit vector of $OD = \dfrac{5\vec{i} + 1\vec{j} - 2\vec{k}}{\sqrt{30}}$

$= \dfrac{5\vec{i}}{5.47} + \dfrac{1\vec{j}}{5.47} - \dfrac{2\vec{k}}{5.47}$

$= 0.91\vec{i} + 0.18\vec{j} - 0.36\vec{k}$

Force vector of $OD = 40 \times (0.91\vec{i} + 0.18\vec{j} - 0.36\vec{k})$

$= 36.4\vec{i} + 7.2\vec{j} - 14.4\vec{k}$

$\vec{R} = \vec{F_{OA}} + \vec{F_{OB}} + \vec{F_{OC}} + \vec{F_{OD}}$

$= (9.3\vec{i} + 4.5\vec{j} + 27.9\vec{k}) + (11.8\vec{i} - 5.8\vec{j} + 14.8\vec{k}) + (-20\vec{i} - 13.25\vec{j} + 6.5\vec{k}) + (36.4\vec{i} + 7.2\vec{j} - 14.4\vec{k})$

$= (9.3 + 11.8 - 20 + 36.4)\vec{i} + (4.5 - 5.8 - 13.25 + 7.2)\vec{j} + (27.9 + 14.8 + 6.5 - 14.4)\vec{k}$

$\vec{R} = 37.5\vec{i} - 7.35\vec{j} + 34.8\vec{k}$

Magnitude of $R = \sqrt{(37.5)^2 + (-7.35)^2 + (34.8)^2}$

$= 51.68$ Nm

$\theta_x = \cos^{-1}\left[\frac{R_x}{R}\right] = \cos^{-1}\left[\frac{37.5}{51.68}\right]$

$\theta_x = 43.47^\circ$

$$\theta_y = \frac{R_y}{R} \cos^{-1}\left[\frac{R_y}{R}\right] = \cos^{-1}\left[\frac{-7.35}{51.68}\right]$$

$$\theta_y = 98.17^\circ$$

$$\theta_2 = \cos^{-1}\left[\frac{R_2}{R}\right] = \cos^{-1}\left[\frac{34.8}{51.68}\right]$$

$$\theta_2 = 47.67^\circ$$

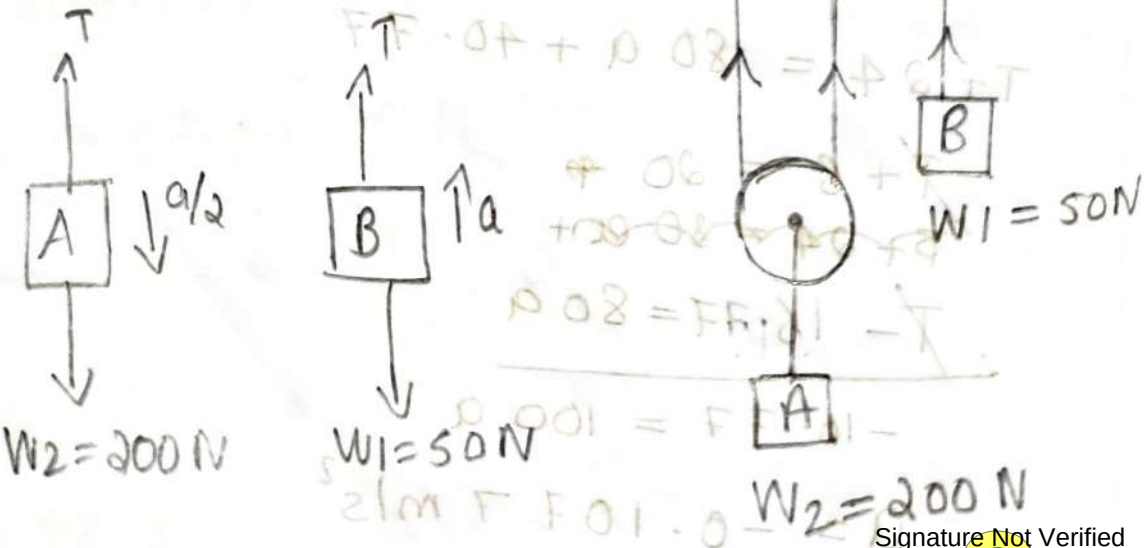
3|2

* A system of frictionless pulleys carries two weights hung by inextensible cords as shown in fig. Make calculations for the tension in the cords and acceleration of the weights.

Proceed to workout the displacement and velocity of weight W_1 after 4 seconds from start. Presume that the system is released from rest.

→ W_1 moves upward

W_2 moves downward



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$T - WB = m_B a_B$

$T - 50 = \frac{50}{9.81} \times a$ [upward motion of block B]

$$T = 50 + \frac{50}{9.81} a \quad \rightarrow (1)$$

$200 - T = \frac{200}{9.81} \times \frac{a}{2}$ [downward motion A]

$$2T = 200 - \frac{100}{9.81} a$$

$$T = 100 - \frac{50}{9.81} a \quad \rightarrow (2)$$

From eq. (1) and (2)

$$50 + \frac{50}{9.81} a = 100 - \frac{50}{9.81} a$$

$$\frac{100}{9.81} a = 50$$

$$a = \frac{50 \times 9.81}{100}$$

$$a = 4.905 \text{ m/s}^2$$

acceleration of $A = \frac{4.905}{2} = 2.4525 \text{ m/s}^2$

acceleration of $B = 4.905 \text{ m/s}^2$

$$T = 50 + \frac{50}{9.81} \times 4.905$$

$$T = 75 \text{ N}$$

$V = u + at$

$V = 0 + (4.905 \times 4)$

$V = 19.62 \text{ m/s}$

$S = ut + \frac{1}{2}at^2$

$S = 0 \times 4 + \frac{1}{2} \times 4.905 \times 4^2$

$S = 39.24 \text{ m}$

* The equation of motion of a particle moving in a straight line is given by $s = 18t + 3t^2 - 2t^3$, where (s) is in metres and (t) is in seconds. Find,

i) velocity and acceleration ~~reaches~~ at start

ii) time, when the particle reaches its maximum velocity

iii) maximum velocity of the particle.

→ $s = 18t + 3t^2 - 2t^3$

i) Differentiating w.r.t t.

$$\frac{ds}{dt} = 18 + 6t - 6t^2$$

substitute $t = 0$, $V = 18 + 6t - 6t^2$

$V = 18 + 6 \times 0 - 6 \times 0$

$V = 18$ m/s

Again differentiate w.r.t t.

$$\frac{d^2s}{dt^2} = 6 - 12t$$, substitute $t = 0$

$a = 6 - 12 \times 0$

$a = 6$ m/s^2

ii) Differentiate velocity equation,

$V = 18 + 6t - 6t^2$

$$\frac{dv}{dt} = 6 - 12t$$

consider $6 - 12t = 0$

$t = 1/2$

$t = 0.5$ seconds

iii) substitute $t = 0.5$ in ~~ds/dt~~ ds/dt

$$\frac{ds}{dt} = 18 + 6t - 6t^2$$

$$v = 18 + (6 \times 0.5) - 6 \times (0.5)^2$$

$v = 19.5$ m/s

* A train, starting from rest, is uniformly accelerated. The acceleration at any instant is $\frac{10}{v+1}$ m/s^2, where (v) is the velocity of the train in m/s at the instant. Find the distance, in which the train will attain a velocity of 35 K.m.p.h.

→ $a = 10/v+1$

Rewriting, $v \cdot \frac{dv}{ds} = \frac{10}{v+1}$ $\quad a = v \cdot \frac{dv}{ds}$

$v(v+1)dv = 10\, ds \longrightarrow (1)$

$[v^2 + v]dv = 10\, ds$

Integrating both sides,

$$\frac{V^3}{3} + \frac{V^2}{2} = 10s + c_1 \rightarrow (2)$$

c_1 - first constant of integration.

substituting the values of $s=0$ and $V=0$ in eq. (2).

substitute $c_1=0$ in eq. (2)

$$\frac{V^3}{3} + \frac{V^2}{2} = 10s$$

$$2V^3 + 3V^2 = 60s \rightarrow (3)$$

Now, distance travelled by the train, substituting $V = 36$ km-p.h or 10 m/s in eq. (3)

$$2 \times (10)^3 + 3(10)^2 = 60s$$

$$2000 + 300 = 60s$$

$$x = \frac{2300}{60}$$

$$\underline{\underline{x = 38.3\,m}}$$

1 hr = 60 min

1 min = 60 sec

$$V = \frac{36 \times 1000}{60 \times 60}$$

$$\underline{\underline{V = 10\,m/s}}$$

* A body moving with SHM as velocity is of 10 m/s and 4 m/s at at 2 and 4 m distance from the mean position. Find the amplitude and time period of the body.

imp

→ $V_1 = 10$ m/s $\quad x_1 = 2$ m $\quad \gamma = ?$

$V_2 = 4$ m/s $\quad x_2 = 4$ m $\quad t_p = ?$

$V_1 = \omega\sqrt{\gamma^2 - x_1^2} \rightarrow (1)$ $\quad V_2 = \omega\sqrt{\gamma^2 - x_2^2} \rightarrow (2)$

Divide (1) ÷ (2)

$$\frac{V_1}{V_2} = \frac{\omega\sqrt{\gamma^2 - x_1^2}}{\omega\sqrt{\gamma^2 - x_2^2}} = \frac{10}{4} = \frac{\sqrt{\gamma^2 - x_1^2}}{\sqrt{\gamma^2 - x_2^2}}$$

$$\frac{100}{16} = \frac{r^2 - x_1^2}{r^2 - x_2^2}$$

$$\frac{100}{16} = \frac{r^2 - 2^2}{r^2 - 4^2}$$

$$\frac{100}{16} = \frac{r^2 - 4}{r^2 - 16}$$

$$(r^2 - 16)100 = (r^2 - 4)16$$

$$100r^2 - 1600 = 16r^2 - 64$$

$$100r^2 - 16r^2 = -64 + 1600$$

$$r^2[100 - 16] = 1536$$

$$r^2 = \frac{1536}{84}$$

$$r = 4.27 \text{ m}$$

$$V_1 = \omega\sqrt{r^2 - x^2} = \omega\sqrt{4.27^2 - 2^2}$$

$$10 = \omega \times 3.77$$

$$\omega = \frac{10}{3.77}$$

$$\omega = 2.65 \text{ rad/s}$$

$$t_p = \frac{2\pi}{\omega} = \frac{2 \times 3.14}{2.65}$$

$t_p = 2.37$ s

* A body is vibrating with SHM of amplitude 150 mm & frequency 3 cps. Calculate the max. velocity & acceleration of the body.

$2J = 3$ cps (multiply $\times 2\pi = \omega$)

→ $r = 150$ mm

$r = 0.15$ m

$\omega = 2\pi 2J = 2 \times 3.14 \times 3$

$\omega = 18.84$ rad/s

$V_{max} = r\omega = 0.15 \times 18.84$

$V_{max} = 2.83$ m/s

$a_{max} = -r\omega^2$

$a_{max} = -0.15 \times 18.84^2$

$a_{max} = -53.24$ m/s^2

24/2

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

ENGINEERING

TUTORIAL LOG REGISTER 2021-2025 ADMISSIONS (S2)

Sl. No	Date	Time	Name of	Batch	Topic	Signatu	bsentees	Proof Material Folder Link
1	27/04/2022	9- 10	SHIJITH THOMAS	Full class	SPECTR0SCOPY		nil	DgzOTA4OTIwMDc0/m/NDk2ND
2	11-05-2022	9- 10	SHIJITH THOMAS	Full class	DANIEL CELL		nil	DgzOTA4OTIwMDc0/m/NDk2ND
3	18/05/22	9- 10	SHIJITH THOMAS	Full class	EMF MEASUREMENT		nil	DgzOTA4OTIwMDc0/m/NDk2ND
4	25/05/2022	9- 10	SHIJITH THOMAS	Full class	UV VISBLE SPECTRA		nil	DgzOTA4OTIwMDc0/m/NDk2ND

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VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

TUTORIAL LOG REGISTER 2021-2025 ADMISSIONS (S2)

Sl. No	Date	Time	Name of	Batch	Topic	Signature of	Absentees	Proof Material Folder
1	29/4/22	12.10 pm	Ankita Sebastian	Full class	Flowchart & algorithm of linear search and bubble sort		nil	
2	6-5-22	12.10 pm	Ankita Sebastian	Full class	Program to write simple programs		nil	
3	27/5/22	12.10 pm	Ankita Sebastian	Full class	sort		nil	https://drive.google.com/drive/folders/1K5uHFr36g6kf9yASHg2wmXxmyEM6wEul?usp=sharing

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Evaluate $\int_C \frac{\cos \pi z \, dz}{z-2}$ where C is $|z|=3$

$|z|=3$ circle with centre $(0,0)$, $r=3$

$z-2=0$

$z=2$.

(the integrant $\frac{\cos \pi z}{z-2}$ is analyt at all points except at $z=2$.)

$|z| = 3$

$\sqrt{x^2+y^2} = 3$

$x^2+y^2 = 9$.

$\sqrt{x^2+y^2} = 3$

at $z=2$ $|z| = |2|$, $\sqrt{2^2} = 2 < 3$

$\therefore z=2$ lies inside C.

By cauchy integral formula $\int_C \frac{f(z)}{z-a} dz = 2\pi i f(a)$

$\int_C \frac{\cos \pi z}{z-2} dz = 2\pi i f(2)$

$= 2\pi i \cos 2\pi$

$= 2\pi i (1)$

$= 2\pi i$

b) Evaluate $\int_C \frac{e^z}{z+1} dz$, C is $|z+1| = \frac{1}{2}$

$z+1 = 0$

$z = -1$

$|z+1| = \frac{1}{2}$ circle with centre $(-1,0)$ & radius $\frac{1}{2}$

$z=-1$ inside the circle $|z+1| = \frac{1}{2}$

By cauchy integral th

$\therefore \int_C \frac{e^z}{z+1} = 2\pi i f(-1)$

$= 2\pi i e^{-1}$

$= \frac{2\pi i}{e}$

at $z=-1$

$|z+1| = |-1+1| = 0 < \frac{1}{2}$

$\int \frac{f(z)}{(z-a)} dz = 2\pi i f(a)$

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a) Evaluate $\int_C \frac{e^z}{z}\,dz$ where C is $|z|=1$.

$z=0$

at $z=0$ $\quad |z| = |0| = 0 < 1$

$\therefore z=0$ lies inside C

By C.I Theorem

$$\int_C \frac{f(z)}{z-a} = 2\pi i f(a)$$

$$\int_C \frac{e^z}{z} = 2\pi i f(0) = 2\pi i\, e^0 = 2\pi i$$

$|a+ib| = \sqrt{a^2+b^2}$

$|z+2| = |2+i|$

$= \sqrt{2^2+1^2}$

$= \sqrt{5} < 10$

a) Evaluate $\int_C \frac{e^{-2z}}{z+i}\,dz$ where $|z+2| = 10$

$z+i=0$

$z=-i$

at $z=i$

$|z+2| = |-i+2| = |2-i| = \sqrt{4+1} = \sqrt{5} < 10$

$\therefore z=i$ lies inside C

By C.I.f

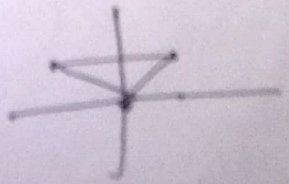
$$\int_C \frac{f(z)}{z-a}\,dz = 2\pi i\, f(a)$$

$$\int_C \frac{e^{-2z}}{z+i}\,dz = 2\pi i\, f(-i) = 2\pi i\, e^{+2i}$$

Q) Evaluate $\int \frac{\tan z}{z-i}\,dz$ where c is a triangle with vertices $0, -1+2i, 1+2i$

$z-i=0$

$z=i$ lies inside c.



$$\int \frac{\tan z}{z-i}\,dz = 2\pi i f(i) = 2\pi i \tan i$$

Q) Evaluate $\int_C \frac{\sin \pi z^2}{z-1} dz$ where C is $|z| = 1/2$

at $z=1$ $\quad z-1=0 \quad z=1$

$|z| = |1| = 1 > 1/2$.

$z=1$ lies out side C

$\therefore$ By cauchy integral form

$$\int_C \frac{\sin \pi z}{z-1} dz = 0$$

Q) Evaluate $\int_C \frac{\cot z}{z+i} dz$ where C is $|z+2|=1$

$z+i=0$

$z=-i$

at $z=-i$

$|z+2| = |-i+2| = |2-i| = \sqrt{4+1} = \sqrt{5} > 1$

$z=-i$ lies outside the circle $|z+2|=1$

$\therefore$ By C.I.T

$$\int_C \frac{\cot z}{z+i} = 0$$

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$$\int_C \frac{\sin \pi z^2}{(z-1)^3} dz = \frac{2\pi i}{2!} f''(1)$$

$$= \pi i \times -2\pi$$

$$= -2\pi^2 i^\circ$$

$f(z) = \sin \pi z^2$

$f'(z) = \cos \pi z^2 \times 2z\pi$

$f''(z) = 2\pi [-\sin \pi z^2 \times 2\pi z \times z + \cos \pi z^2]$

$f''(1) = 2\pi(-\sin \pi \times 2\pi + \cos \pi)$

$2\pi(0-1) = -2\pi$

Q) Evaluate $\int_C \frac{e^z}{z^3} dz$ where C is $|z|=1$.

$z^3 = 0 \Rightarrow z = 0$

$|z| = |0| = 0 < 1$

$z = 0$ inside C

By C.I.f.

$$\int_C \frac{f(z)}{(z-a)^n} dz = \frac{1}{(n-1)!} 2\pi i f^{n-1}(a).$$

$$\int_C \frac{e^z}{z^3} dz = \frac{1}{2!} 2\pi i f''(a)$$

$$= \pi i f''(0)$$

$$= \pi i^\circ$$

$f(z) = e^z$

$f'(z) = e^z$

$f''(z) = e^z$

$f''(0) = e^0 = 1$

Q) Evaluate $\int_C \frac{\cos^2 \pi z}{(z-2)^3} dz$ where C is $|z|=1$

$(z-2)^3 = 0 \Rightarrow z = 2$.

at $z=2$ $|z| = |2| = 2 > 1$

$\therefore z = 2$ lies outside C. By C.I.f

$$\int_C \frac{\cos^2 \pi z}{(z-2)^3} = 0$$

Q) Evaluate $\int_C \frac{e^{2z}}{(z-2)^2} dz$ where C is $|z|=3$.

$(z-2)^2 = 0 \Rightarrow z-2=0$

$\Rightarrow z=2$

$|z| = |2| = 2 < 3$

$z=2$ inside 'C'

$\int_C \frac{e^{2z}}{(z-2)^2} dz =$

$\int_C \frac{f(z)}{(z-a)^n} = \frac{1}{(n-1)!} \frac{d^{n-1}}{dz^{n-1}} (f(a))$

By C.I.F

$\int_C \frac{f(z)}{(z-a)^n} = \frac{2\pi i}{(n-1)!} f^{n-1}(a)$ if 'a' inside

$\int_C \frac{e^{2z}}{(z-2)^n} = \frac{2\pi i}{1!} f'(2)$

$= 2\pi i \, 2e^4$

$= 4\pi i e^4$

$f(z) = e^{2z}$

$f'(z) = 2e^{2z}$

Q) Evaluate $\int_C \frac{\sin \pi z^2}{(z-1)^3} dz$ where C is $|z|=2$

$(z-1)^3 = 0 \Rightarrow (z-1) = 0 \Rightarrow z=1$

at $z=1 \Rightarrow |z| = |1| = 1 < 2$

$\therefore z=1$ lies inside C.

By C.I.F $\int_C \frac{f(z)}{(z-a)^n} dz = \frac{2\pi i}{n!} f^{n-1}(a)$ if a lies in

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S5 AEI

Vimal Jyothi Engineering College, Chemperi, Kannur Dist., Kerala

	1 8:30 - 9:30 AM	2 9:30 - 10:30 AM	3 10:45 - 11:45 AM	4 11:45 AM - 12:45 PM	LB 12:45 - 1:30 PM	5 1:30 - 2:30 PM	6 2:30 - 3:30 PM
Monday	AET301 CONTROL SYSTEMS *Mrs Jinsa Mathew*	AET305 COMPUTER ARCHITECTURE AND EMBEDDED SYSTEMS Tutorial *Mr Shinu MM*	AET303 INDUSTRIAL INSTRUMENTATION *Mrs Reshma KV*	AE331 AIC and Instrumentation lab *Mrs Reshma KV / Mrs Jinsa Mathew*		AE331 AIC and Instrumentation lab *Mrs Reshma KV / Mrs Jinsa Mathew*	
Tuesday	AET303 INDUSTRIAL INSTRUMENTATION *Mrs Reshma KV*	AET305 COMPUTER ARCHITECTURE AND EMBEDDED SYSTEMS *Mr Shinu MM*	AET301 CONTROL SYSTEMS *Mrs Jinsa Mathew*	AEL333 EMBEDDED SYSTEMS LAB *Mr Shinu MM / Mrs Shamya A*		AEL333 EMBEDDED SYSTEMS LAB *Mr Shinu MM / Mrs Shamya A*	
Wednesday	AET305 COMPUTER ARCHITECTURE AND EMBEDDED SYSTEMS *Mr Shinu MM*	HUT310MANAGEMENT FOR ENGINEERS *Ms.Laly James*	AET301 CONTROL SYSTEMS *Mrs Jinsa Mathew*	AET307 ANALOG INTEGRATED CIRCUITS *Mrs Shamya A*		AET303 INDUSTRIAL INSTRUMENTATION *Mrs Reshma KV*	AET307 ANALOG INTEGRATED CIRCUITS *Mrs Shamya A*
Thursday	AET307 ANALOG INTEGRATED CIRCUITS *Mrs Shamya A*	AET303 INDUSTRIAL INSTRUMENTATION Tutorial *Mrs Reshma KV*	AET305 COMPUTER ARCHITECTURE AND EMBEDDED SYSTEMS *Mr Shinu MM*	HUT310MANAGEMENT FOR ENGINEERS *Ms.Laly James*		MCN301 DISASTER MANAGEMENT *Dr.Justin sunil Dhas*	Minor/Honor *Mrs Jinsa Mathew*
Friday	AET307 ANALOG INTEGRATED CIRCUITS Tutorial *Mrs Shamya A*	HUT310MANAGEMENT FOR ENGINEERS *Ms.Laly James*	AET301 CONTROL SYSTEMS Tutorial *Mrs Jinsa Mathew*	MCN301 DISASTER MANAGEMENT *Dr.Justin sunil Dhas*		Minor/Honor	Minor/Honor

Time Table generated by Dr. Jayesh George, Assoc. Prof/ECE

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VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION

TUTORIAL CLASS DETAILS- S5 AEI

SUBJECT: AET301: Control system

Name of Faculty: Ms. Jinsa Mathew

Sl.No:	Date	Day	Tipics	Details of class work	Link of Recorded Video/Class work	Students Attendance
1	11/26/2021	Friday	Mechanical Translational system modeling	Mechancial Translational system modeling- determine the transfer function	https://drive.google.com/file/d/18Ntz0pSKCNdW0tnCoT_dGzs-Y_QE0uNO/view?usp=sharing	No: of students present: 18
2	12/3/2021	Friday	Block diagram reduction	Finding Trnsfer function by block diagram reduction	https://drive.google.com/file/d/18NRZxP-x0ofefIAha_4euy5bHeIg4Zskj/view?usp=sharing	No: of students present: 19
3	12/6/2021	Friday	Signal Flow Graph	Determination of transfer function by masons formula	https://drive.google.com/file/d/18MBmVT9XAEWUMN-dl83c4Ji07hZjnudu/view?usp=sharing	No: of students present: 19
4	12/17/2021	Friday	Time domain specifications & Static & Dynamic Errors	Determination of time domain specification of given system, determination of static & dynamic errors of the system for a given input	https://drive.google.com/file/d/18MBmVT9XAEWUMN-dl83c4Ji07hZjnudu/view?usp=sharing	No: of students present: 19
5	01/07/2022	Friday	Rowth array	Stability analysis of the system by using RH method	https://drive.google.com/file/d/18a1s5Kpck3XRdCTGAqALlx2dwfol5aR/view?usp=sharing	No: of students present: 17
6	01/14/2022	Friday	Root Locus	Plot the root locus of the given system	https://drive.google.com/file/d/18cK2vU-3BcCcXp3EpKZa7zh9R_Xok/view?usp=sharing	No: of students present: 19
7	01/21/2022	Friday	Bode Plots	Bode plot with frequency analysis and determine gain margin & phase margin	https://drive.google.com/file/d/18cK2vU-3BcCcXp3EpKZa7zh9R_Xok/view?usp=sharing	No: of students present: 17
8	02/04/2022	Friday	State model	State space representaion of electricla system	https://drive.google.com/file/d/1ocSu_9jUTtbY2TnZ9q1NHtmVVtFIp0VY/view?usp=sharing	No: of students present: 18
9	03/02/2022	Tuesday	State space represe	State space representation of a system, from differential equation, from transfer function etc	https://drive.google.com/file/d/18BDcCDrOHon-qXzIEB2x-um9Ko2f-mp3o/view?usp=sharing	No: of students present: 18

Staff: [signature]

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VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI
DEPARTMENT OF ELECTRONICS & INSTRUMENTATION
TUTORIAL CLASS DETAILS- S5 AEI

SUBJECT: AET303 Industrial Instrumentation

Name of Faculty: Ms.RESHMA K V

Sl.No:	Date	Day	Tipics	Details of class work	Link of Recorded Video/Class work	Students Attendance
1	25/11/21	Thursday	Linearization techniques of thermistor	Discussion	https://drive.google.com/drive/folders/12UVdIFI5pjMHObGBanjim0tl-iQgqHad?usp=sharing	No: of students present: 16
2	09/12/21	Thursday	Differential pressure transdecr.flapper nozzle principle	Discussion	https://drive.google.com/drive/folders/1W2b-pCdszJHpC_6I9gdOksqPQF4I6g8j?usp=sharing	No: of students present: 20
3	06/01/22	Thursday	Angular Momentum type, Impeller Turbine Flow meter, twin turbine flow meter	Discussion	https://drive.google.com/drive/folders/1ImhfedTTZ7UIPYDhw-AqXh-FbXE0JXDc?usp=sharing	No: of students present: 19
4	27/1/22	Thursday	Level measurement-revision	Question paper discussion	https://drive.google.com/file/d/1tZntuDfMecVDbTikbkILzyjhdujF7A0e/view?usp=sharing	No: of students present: 20
5	03/02/22	Thursday	flow and Level measurement-revision	Question paper discussion	https://drive.google.com/file/d/1g6ntukqMR6JGMWPaGw5BcJJcUJUGWARB/view?usp=sharing	No: of students present: 20

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DEPARTMENT OF ELECTRONICS & INSTRUMENTATION
TUTORIAL CLASS DETAILS- S5 AEI

SUBJECT: AET305:CAAES

Name of Faculty: Mr. Shinu M M

Sl.No:	Date	Day	Tipics	Details of class wor	Link of Recorded Video/Class work	Students Attendance
1	22/11/2021	MONDAY	Pin configuration	REVISION	https://drive.google.com/file/d/1XoWSgMDY1sQYr6_6e6JTVbF6JDkNDsjm/view?usp=sharing	18
2	29/11/2021	MONDAY	Addressing Modes	REVISION	https://drive.google.com/file/d/1XeGDnx3KO2rKnA34RFxScU_PqWsDnpdt/view?usp=sharing	17
3	07/12/2021	MONDAY	Interfacing of DAC	REVISION	https://drive.google.com/file/d/1h8MySqi6_sprE4JlVCcZh2YxVSj_Vgyq/view?usp=sharing	17
4	13/12/2021	MONDAY	PROGRAMMING	TEST	https://drive.google.com/file/d/14r1rEJWreZAEfeGmn8Mu1uqR7_e30Yvl/view?usp=sharing	17
5	03/01/2022	MONDAY	Functional units of a computer	REVISION	https://drive.google.com/file/d/1bVPPY_FTlYeB3hP2fyc2c7VSj6ZSleW_/view?usp=sharing	18
6	31/01/2022	MONDAY	Use of Pointers	REVISION	https://drive.google.com/file/d/1qyNaMKiafEhVRQiJUtgDm4BTzr2fhnfb/view?usp=sharing	18

Staff:

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DEPARTMENT OF ELECTRONICS & INSTRUMENTATION

TUTORIAL CLASS DETAILS- S5 AEI

SUBJECT: AET307: AIC

Name of Faculty: Ms. Shamya A

Sl.No:	Date	Day	Tipics	Details of class work	Link of Recorded Video/Class work	Students Attendance
1	3/12/2021	FRIDAY	ANALYSIS OF PRACTICAL OP AMP AMPLIFIER	test	https://drive.google.com/file/d/1rTHKO3CH3dsfYS-mGwc8r-aQkbo6caa_/view?usp=sharing	12
2	10/12/2021	FRIDAY	ANALYSIS OF DIDFFERENTIAL AMPLIFIR	test	https://drive.google.com/file/d/1TosLLuflj7Pn0wBCDF5fGq5yo3JlFyBi/view?usp=sharing	14
3	7/1/2022	FRIDAY	DESIGN OF OPAMP AMPLIFIER	test	https://drive.google.com/file/d/113AWEbknPAPE2opMdGnK6if4QAfo4NnV/view?usp=sharing	12
4	14/1/2022	FRIDAY	555 TIMER ANALYSIS AND DESIGN	test	https://drive.google.com/file/d/14pUm-pPNKydN_cvXvUO0gQ6ia6VB3CMo/view?usp=sharing	18
5	21/1/2022	FRIDAY	ANALYSIS OF FILTER	test	https://drive.google.com/file/d/1zQiwvS_r4zjmSJ9GQl6XqePFqwEm6Tau/view?usp=sharing	17

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AY 2021-22 S6 AEI

Vimal Jyothi Engineering College, Chemperi, Kannur Dist., Kerala

	1	2	3	4	5	6
Mo	AET306 Power Electronics TUT *Ms Jyothi Joseph*	AET304 Process Dynamics and Control *Dr.G.Glan Devadhas*	HUT300 INDUSTRIAL ECONOMICS & FOREIGN TRADE *Dr.Justin sunil Dhas*	**AEL332 Power Electronics Lab** *Mr Pratin James / H*		
Tu	AET306 Power Electronics *Ms Jyothi Joseph*	AET302 DIGITAL SIGNAL PROCESSING *Dr.Jayesh George*	AET302 DIGITAL SIGNAL PROCESSING *Dr.Jayesh George*	AET342 Biomedical Instrumentation *Ms.Jinsa Mathew*	AET306 Power Electronics *Ms Jyothi Joseph*	AET308 Comprehensive Course Work *Ms.Jinsa Mathew*
We	AET342 Biomedical Instrumentation *Ms.Jinsa Mathew*	AET304 Process Dynamics and Control *Dr.G.Glan Devadhas*	HUT300 INDUSTRIAL ECONOMICS & FOREIGN TRADE *Dr.Justin sunil Dhas*	**AED334 Miniproject** *Mr.Shinu M M / D*		
Th	HUT300 INDUSTRIAL ECONOMICS & FOREIGN TRADE *Dr.Justin sunil Dhas*	AET302 DIGITAL SIGNAL PROCESSING *Dr.Jayesh George*	AET302 DIGITAL SIGNAL PROCESSING *Dr.Jayesh George*	AET304 Process Dynamics and Control *Dr.G.Glan Devadhas*	AET306 Power Electronics *Ms Jyothi Joseph*	AET342 Biomedical Instrumentation *Ms.Jinsa Mathew*
Fr	AET342 Biomedical Instrumentation *Ms.Jinsa Mathew*	AET306 Power Electronics *Ms Jyothi Joseph*	AET304 Process Dynamics and Control TUT *Dr.G.Glan Devadhas*	AET302 DIGITAL SIGNAL PROCESSING TUT *Dr.Jayesh George*	AET304 Process Dynamics and Control *Dr.G.Glan Devadhas*	HUT300 INDUSTRIAL ECONOMICS & FOREIGN TRADE *Dr.Justin sunil Dhas*
Sa	**Special Timetable**					

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VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI
DEPARTMENT OF ELECTRONICS & INSTRUMENTATION
TUTORIAL CLASS DETAILS- S6 AEI

SUBJECT:		AET302	Digital Signal Processing			
Name of Faculty:		Dr Jayesh George				
SLNo:	**Date**	**Day**	**Topics**	**Details of class work**	**work/proof**	**Students Attendance**
1	29/04/2022	Fri	DFT	Problems on DFT	Class note	20
2	6/5/2022	Fri	DFT	Properties of DFT Problems	Class note	20
3	20/05/2022	Fri	FIR filter	windows	Class note	17
4	24/06/2022	Fri	IIR Filter	Design of IIR filter	Class note	20
5	1/7/2022	Fri	Realization	form II	Class note	18

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DEPARTMENT OF ELECTRONICS & iNSTRUMENTATION
TUTORIAL CLASS DETAILS- S6 AEI

SUBJECT: AET304 IProcess Dynamics and Control

Name of Faculty: Dr. G Glan Devadhas

Sl.No:	Date	Day	Tipics	Details of class work	Link of Recorded Video/Class work/proof	Students Attendance
1	29/04/2022	Fri	Mathematical Modeling	model of level	Class note	20
2	6/5/2022	Fri	Process Characteristics	constant and	Class note	20
3	01/06/2022	Fri	Controller design	P,P+I,P+I+D	Class note	17

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VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI
DEPARTMENT OF ELECTRONICS & INSTRUMENTATION
TUTORIAL CLASS DETAILS- S6 AEI

SUBJECT:	AET342	Biomedical Instrumentation	
Name of Faculty:	Ms. Jinsa Mathew		

Sl.No:	Date	Day	Tipics	Details of class work	Link of Recorded Video/Class work/proof	Students Attendance
	29/04/2022	Friday	Cardio vacular system	Cardio vascular	what-is-the-cardiovascular-system-	20 students present
	5/4/2022	Thursday	Human Respiratory system	Human Respiratory	ct=j&q=&esrc=s&source=video&cd=	20 students present
	13/05/2022	Friday	Electrical system of Heart	functioning of	rct=j&q=&esrc=s&source=video&c	18 students
					https://youtu.be/TnFoJ7Hhi-M	
	20/05/2022	friday	ECG	functioning of ECG	https://youtu.be/FThXJUFWUrw	19 students
	27/05/2022	friday	EMG	machine	https://youtu.be/XMizSSOejg0	18 students
		Staff:				

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VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI
DEPARTMENT OF ELECTRONICS & INSTRUMENTATION
TUTORIAL CLASS DETAILS- S6 AEI

SUBJECT:	AET306:Power Electronics
Name of Faculty	Ms. Jyothi Joseph

Sl.No:	Date	Day	Topic	Details of class work	Link of Recorded Video/Class work/proof	Students Attendance
1	29/04/2022	Friday	dynamic characteristics	class note	https://drive.google.com/file/d/11C0RPZ5GPRpKi5sLGYnyYo8I31b5Aron/view?usp=sharing	17 nos present
2	16/05/2022	Monday	Snubber circuits	class note		13 nos present
3	31/05/2022	Tuesday	Single phase Controlled rectifiers	class note		18 nos present

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TUTORIAL CLASS ATTENDANCE SHEET

DATE & TIME **25/11/21**	***SUBJECT*** **AET303 INDUSTRIAL INSTRUMENTATION**	***FACULTY*** **Reshma k v**

LIST OF STUDENTS

SL NO.	PRN	NAME	Present/Absent
1	VML19AE001	Adwaith Pradeep	A
2	VML19AE003	Aljo John	P
3	VML19AE004	Anamika C	P
4	VML19AE005	Anjo Mathew	P
5	VML19AE006	Anusree K	P
6	VML19AE007	Aswin J Prasad	P
7	VML19AE008	Aswin Thomas	P
8	VML19AE009	Devaprakash	P
9	VML19AE010	Jibin P B	P
10	VML19AE012	Joyel Joseph	P
11	VML19AE013	Justin George	P
12	VML19AE014	Kashyap K	A
13	VML19AE015	Mahesh P G	A
14	VML19AE016	Mohammed Raheel	A
15	VML19AE017	Nashla K P	P
16	VML19AE018	Paulson Edwin Kunnath Parambil	A
17	VML19AE019	Prabin Baby	P
18	VML19AE020	Salvin Jose K	P
19	VML19AE021	Sreehari T V	P
20	VML19AE022	Veda K C	P
21	LVML19AE023	Dileep C	P

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PORTION COVERAGE

Topics covered	**Linearization techniques of thermistor** **https://drive.google.com/file/d/1MN7KV-U5hV9V7MrJlS2o6ooQsIQUJlNW/view?usp=sharing**
Total students present	**16**
List of absentees	Adwaith Pradeep, Mahesh P G, Mohammed Raheel Kashyap K, Paulson Edwin Kunnath Parambil
Signature of faculty	**RESHMA K V**

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Disadvantages of using RTD

- Low sensitivity
- Higher cost than thermocouple
- No point sensing
- Affected by shock and vibration
- Requires 3 or 4 wire operation

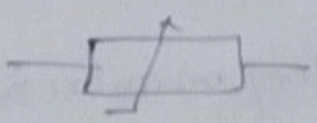
Application

- Air Conditioning and refrigeration servicing
- Food processing
- Stoves and grills
- Textile production
- plastic processing
- petrochemical processing
- Micro electronics
- Air, gas and liquid temp measurement
-

Thermistor (application thermistor thermistor compensation)

Thermistors or thermal resistors are semiconductor type resistance thermometer. They have very high sensitivity but highly nonlinear characteristics

- The resistance of the thermistor decrease with the increase in temp. This is the main principle behind thermistor
- The high sensitivity



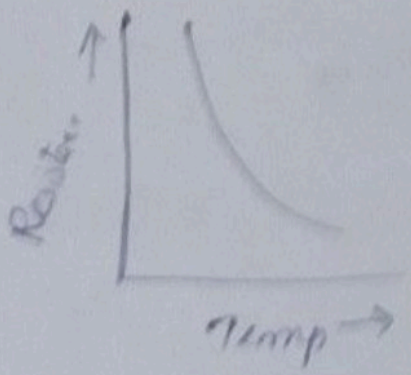
$$R_T = R_0 e^{\beta\left(\frac{1}{T} - \frac{1}{T_0}\right)}$$

R_T – Resistance at temp T (K)
R_0 – Resistance at Temp T_0 (K)
T_0 – Refer temp usually 25°C

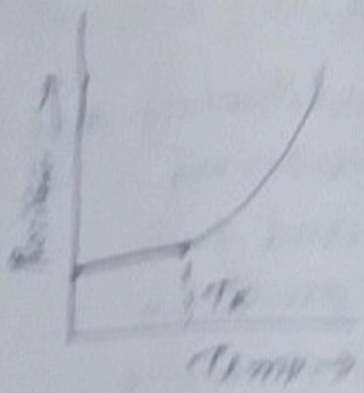
β is constant. Its value is decided by the material, the nominal value is taken 4000

- Thermistors are compound of a Sintered mixture of metal oxides, such as manganese, nickel, cobalt, copper and uranium. Their resistance ranges from 0 to 30M and they are available in wide variety & shapes

Range - 100° to 300°C



NTC Chara



PTC Chara

Volt/Current Characteristics

PTC

- PTC thermistors increase their resistance on the temp rise. The relationship btw resistance and temp is linear

PTC Uses

- PTC thermistors used in fuses for circuit protection
- Timing devices in televisions

NTC

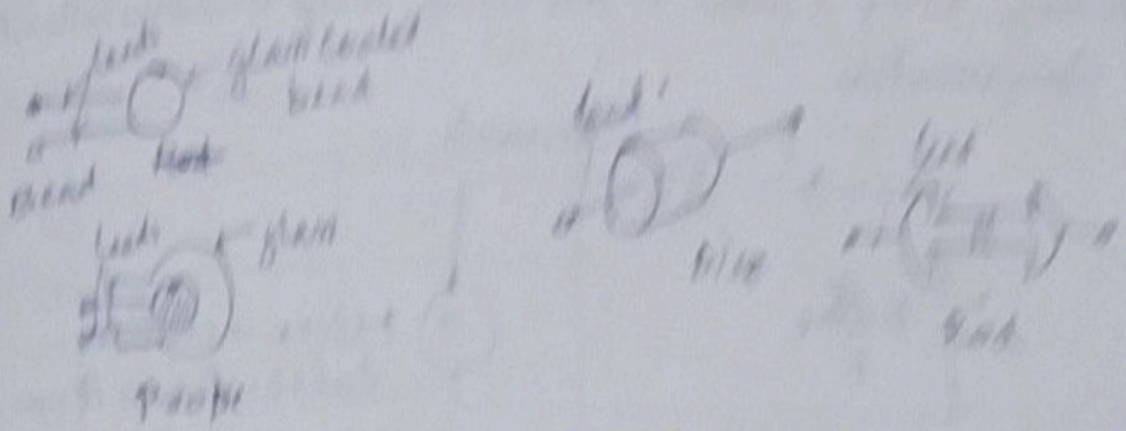
Uses

1. Current limiters and temp monitors in digital thermometers and automobiles

Types

The resistors are available in different forms

1. bead type a) Probe type b) disc c) washer



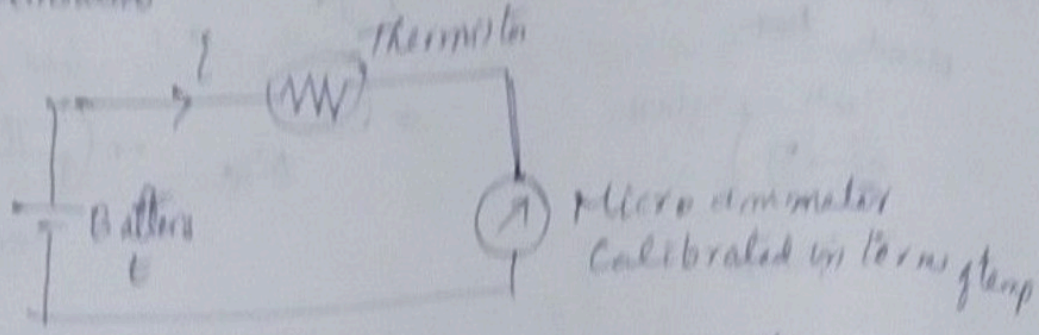
- The small size of the sensing element makes it suitable for measurement of temperature at a point

Construction of thermistor

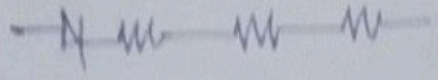
- Basically in thermistor, oxides semiconductor powder are mixed with a binder to form a slurry
- After getting the slurry from the previous process, small drop of that slurry is formed over the lead wires
- For drying process purpose, it has to put into a sintering furnace. During this process that slurry (metallic oxides) will shrink
- Protected metallic oxide is sealed by glass coating

Bead — 0.15mm to 1.25mm
Probe — 2.5mm (about)
Disc — (2.5mm to 25mm)
Rod or washer —

The high sensitivity to temp change makes the thermistor extremely well suited to precision temp measurement, control and compensation

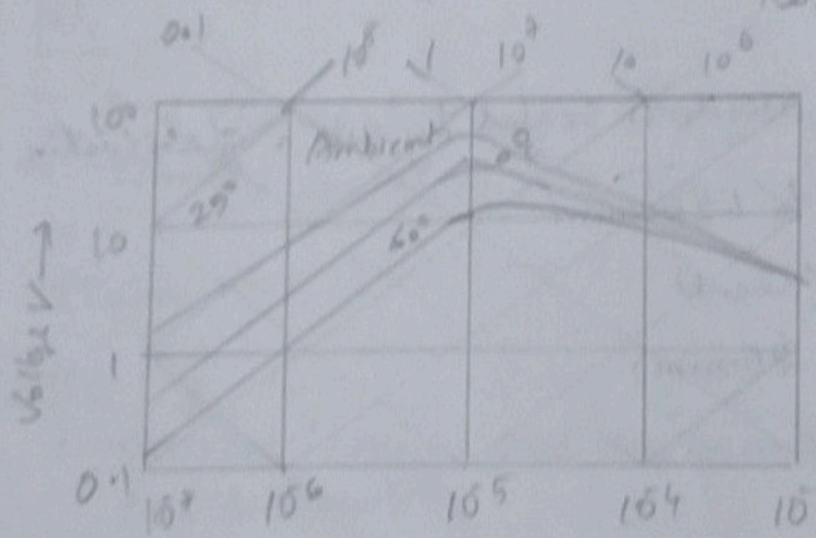


Simple series ckt for measurement of temp using a thermistor



Sensitivity Increased

Voltage Current chara



Resistance (Ω)

negative resist chara

explanation

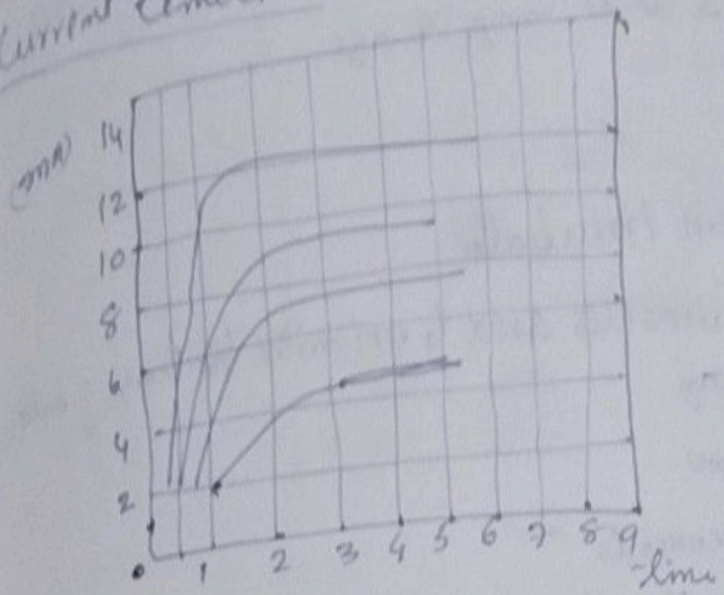
V ↑ I ↑ (dirt)

V ↓ I ↑ (above 60°)

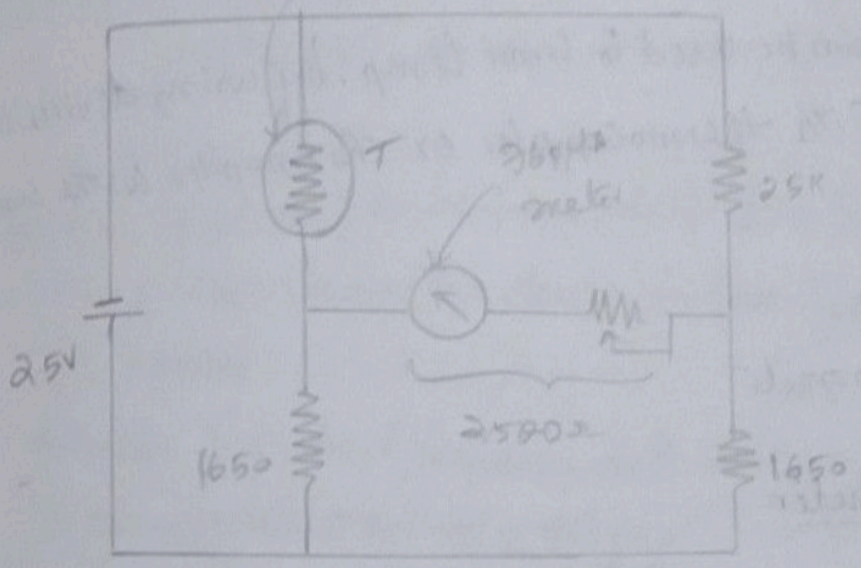
Self heating propert

Small amount of voltage applied when heat supplied and heat dissipated is equal and equilibrium reached

Current temp chara



Linearization technique of thermistor



The series configuration requires a voltage excitation

Advantages of thermistor

- Small size and low cost
- Comparatively large change in resistance for a given change in temp
- Fast response over a narrow temp range

Limitation-thermistor

- The resistance versus temp chara is highly non linear
- Not suitable over a wide temp range

Thermistor Applications

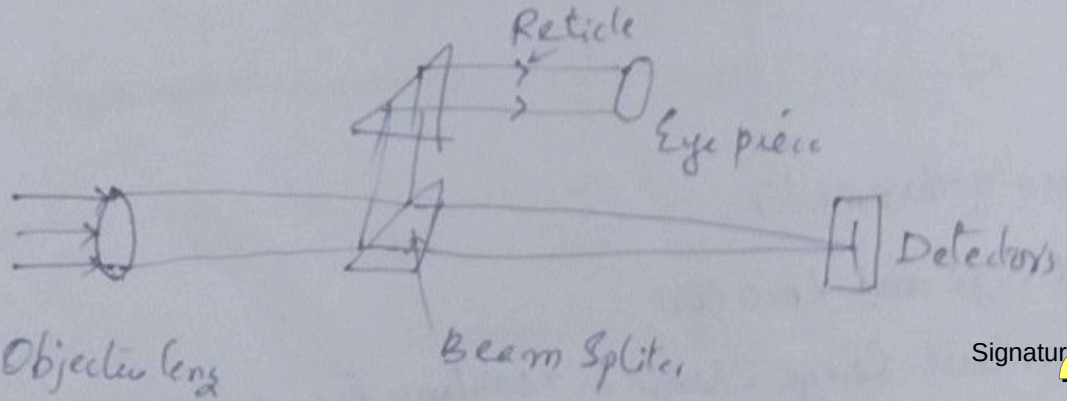
- Monitor the temp of an Incubator
- Modern digital thermostats and to monitor the temp of battery packs while charging
- automotive applications
- loco-temp measurements
- Inrush-Current limiting devices in power supply ckts

Pyrometers

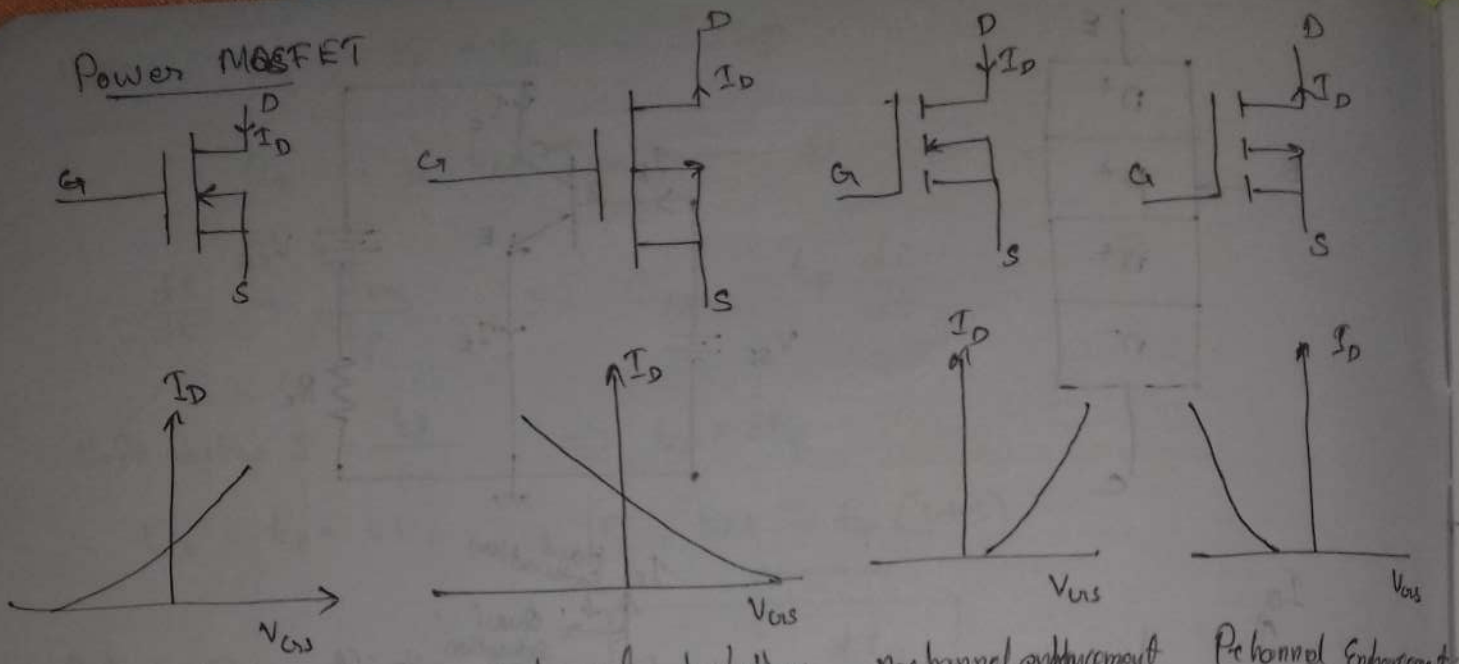
- Radiation can be used to sense temp, by using devices called Pyrometer, with thermocouples or thermopiles as the sensing element

- Radiation
- Optical pyrometer

Radiation pyrometer



Power MOSFET

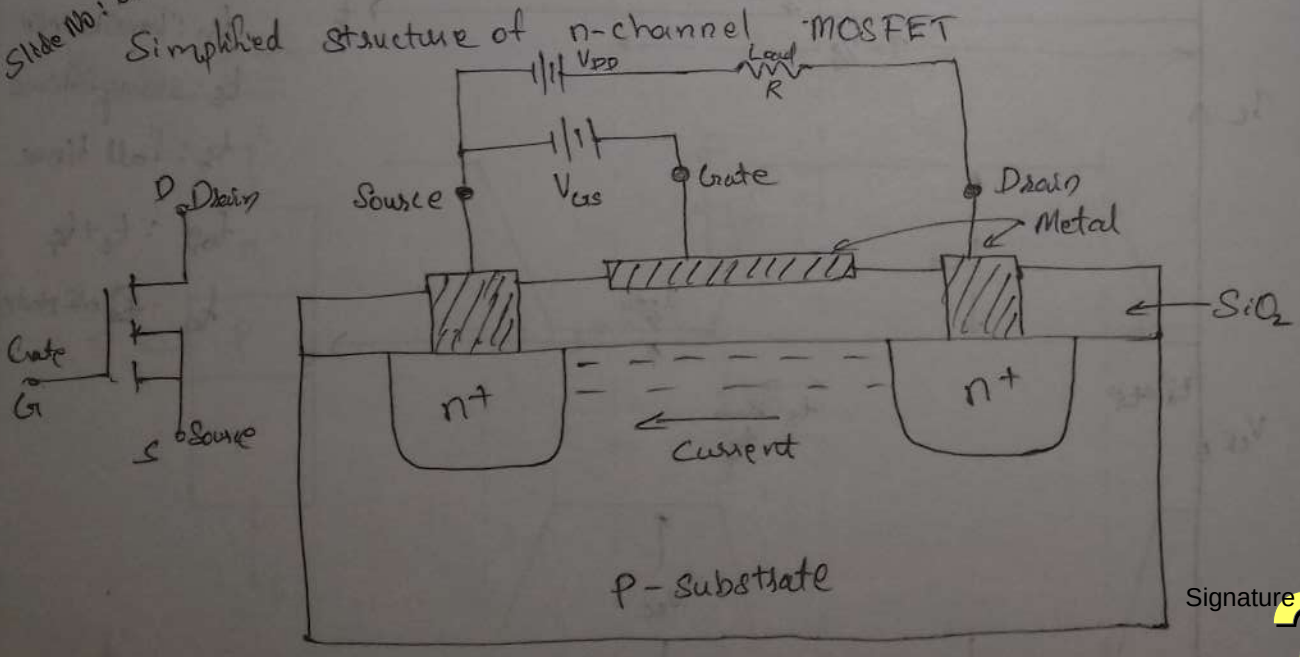


n-channel depletion p-channel depletion n-channel enhancement P-channel Enhancement

- Arrow indicates the direction of electron flow
- Voltage controlled device
- Unipolar device
- n-channel enhancement type is commonly use due to higher mobility of electron.
- Low power high frequency application

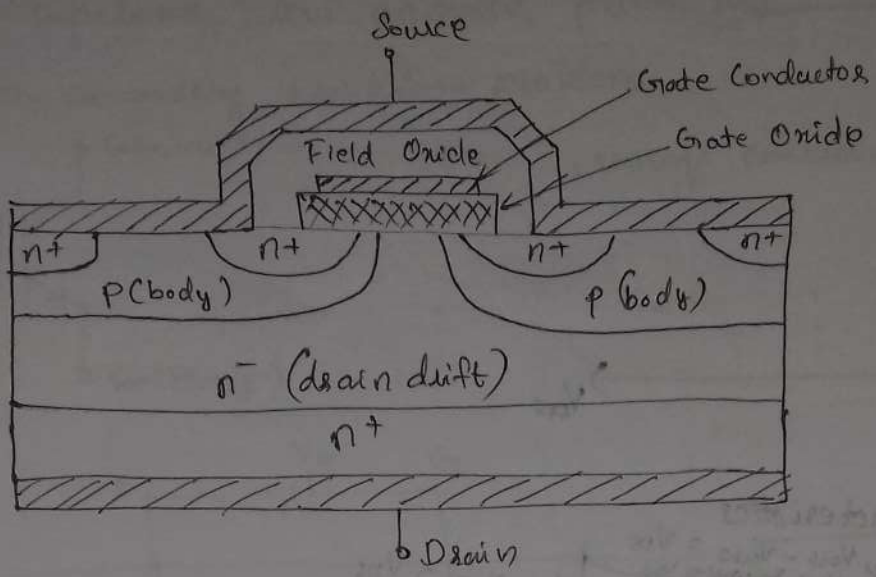
Slide No: 68

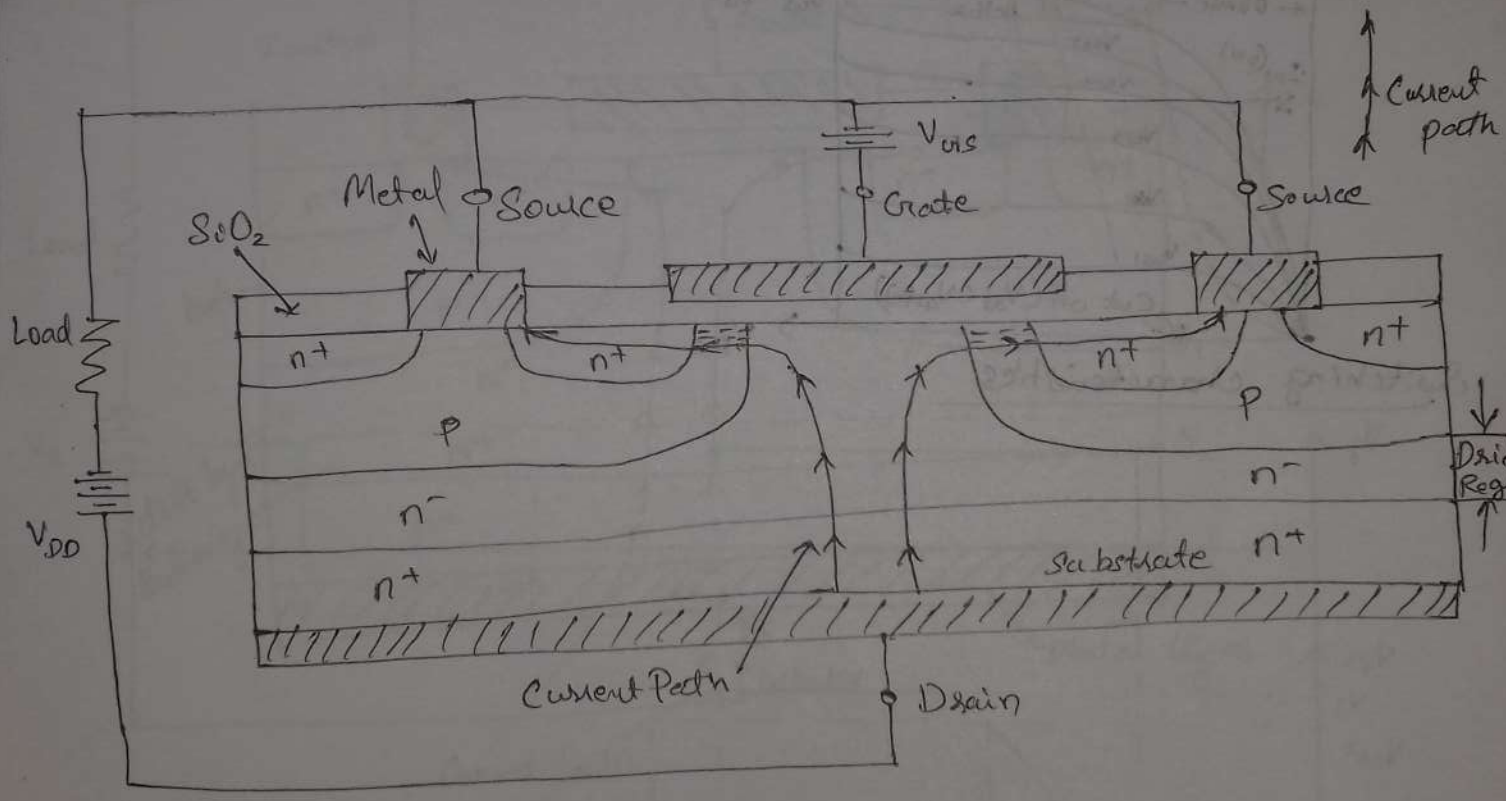
Simplified structure of n-channel MOSFET



28/04/2022

n-channel diffused mos power MOSFET



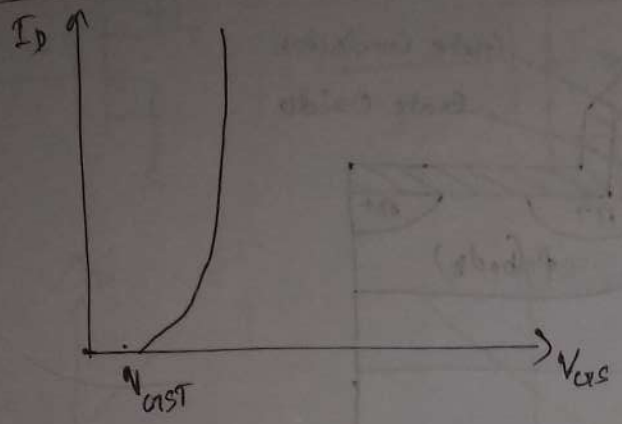


Characteristics

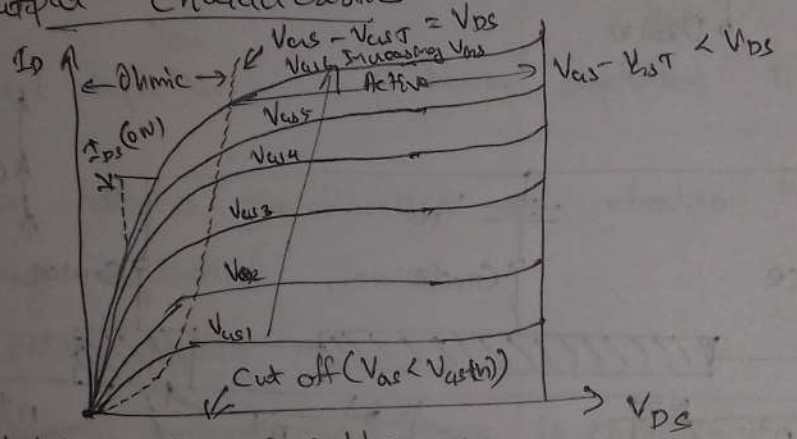
Static Characteristics 1) Transfer Characteristics
2) Output Characteristics

Dynamic characteristics - Switching Characteristics (Turn on/Turn off)

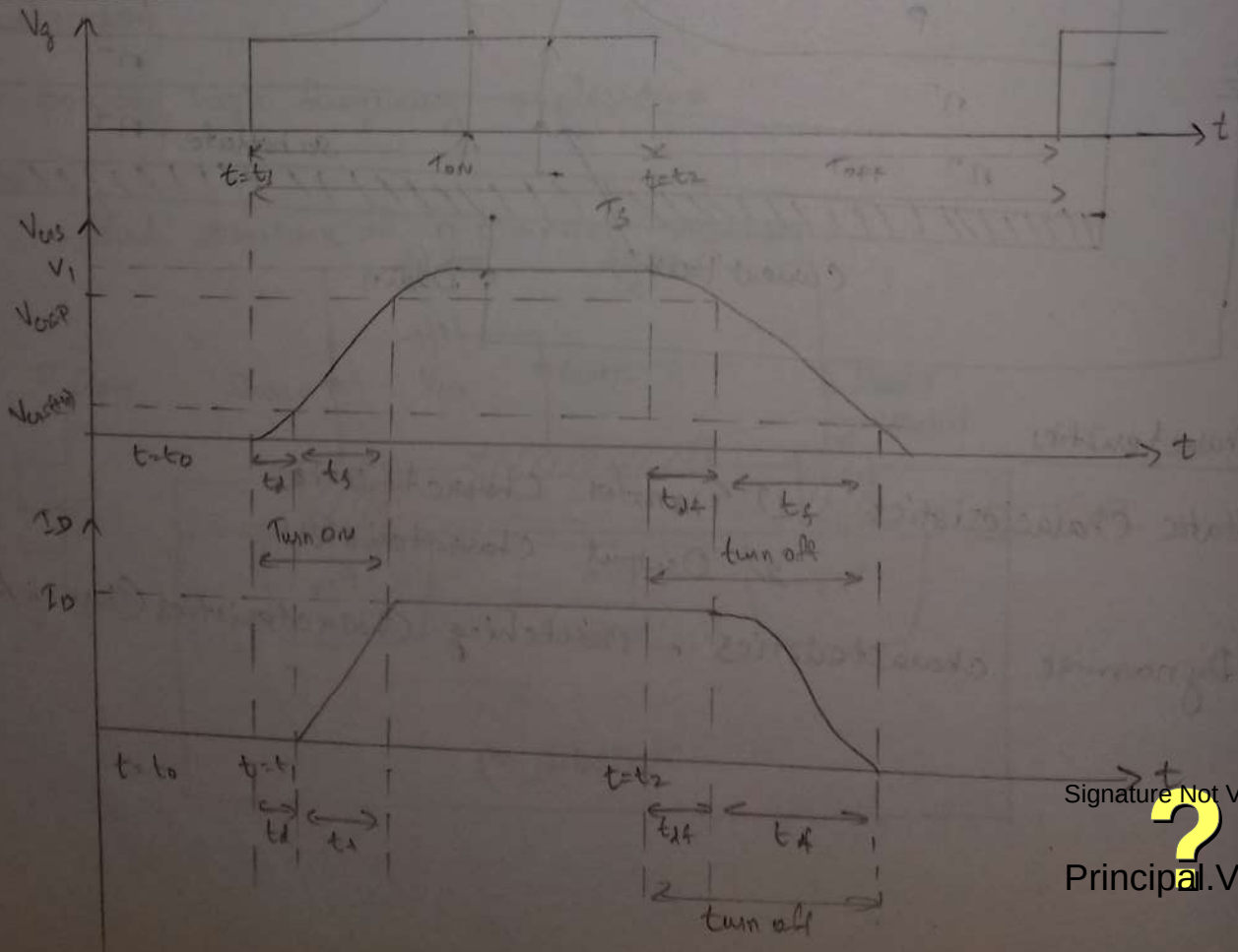
Transfer Characteristics



Output Characteristics



Switching Characteristics

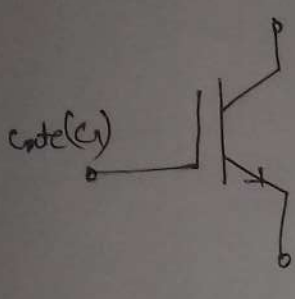


29/04/2022

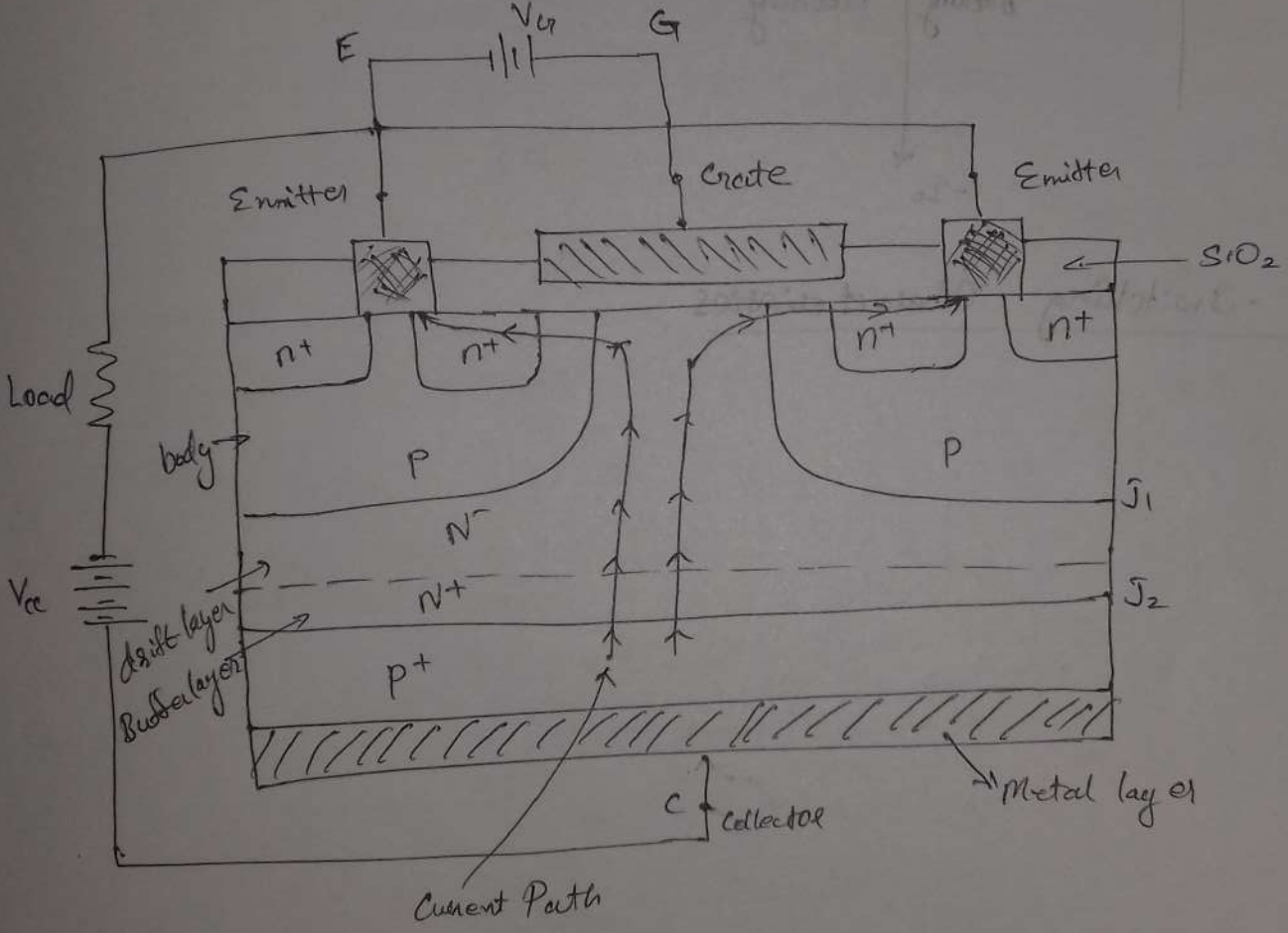
IGBT

High input impedance, low on state power loss

Free from secondary breakdown problem



- Voltage controlled device



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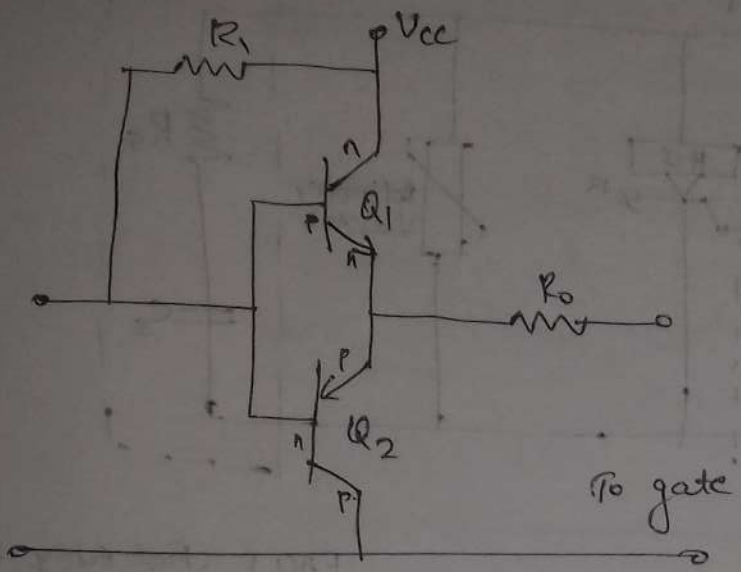
MOSFET gate control circuit

16/5/22

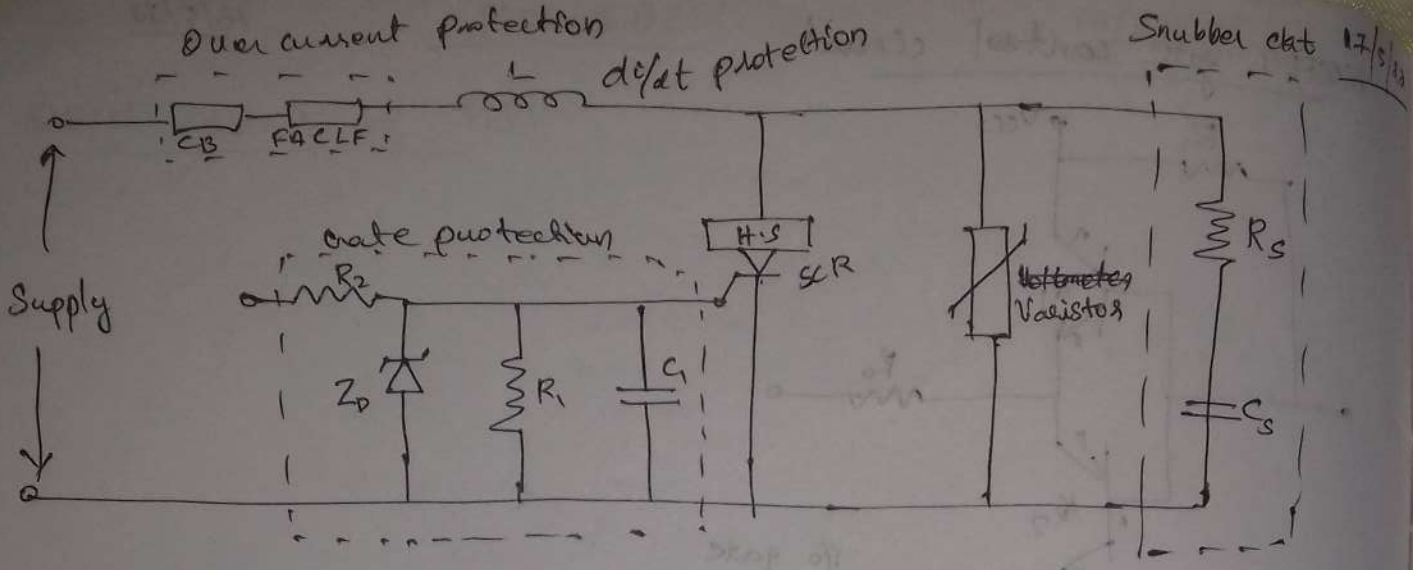


Totem-pole gate driver ckt

(npn, pnp) transistor pair offers low i/p impedance and operating ~~at~~ in linear region.

Snubber circuit

- Snubber circuit are capable of reducing ~~or~~ ~~and~~ eliminating voltage and current spikes.
- For limiting di/dt and dv/dt
- Shaping load line to keep it within safe opesating area.
- To reduce the total switching losses.
- Reducing EMI by damping voltage.
- Transferring power dissipation from switch to a resistor or useful load.
- " Mainly for power dissipation reduction"

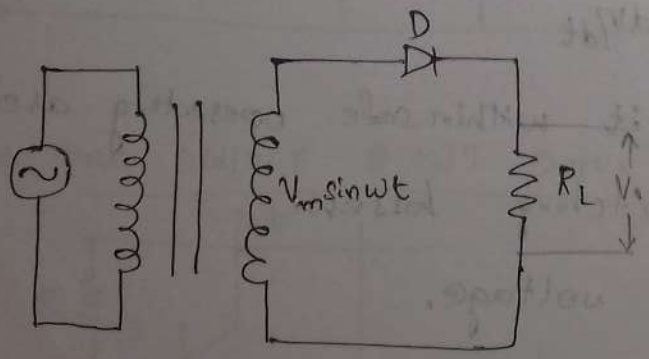


1) Overcurrent
2) di/dt
3) dV/dt
4) Gate protection
5) Temperature

FACLF : Fast Acting Fuse

Diode Rectifier

Single Phase Half Wave Rectifier



$$V_{avg} = \frac{1}{T}\int_0^T V\,dt$$

Rms → Root Mean Square

$$V_{rms} = \sqrt{\frac{1}{T}\int_0^T V^2\,dt}$$

$\sqrt{\frac{1}{\pi}\int_{\pi/3}^{\pi}(V_m \sin\omega t)^2}$

01

$$V_{rms} = V_m \sqrt{\frac{3}{2} + \frac{9\sqrt{3}}{4\pi}} = 1.655\, V_m$$

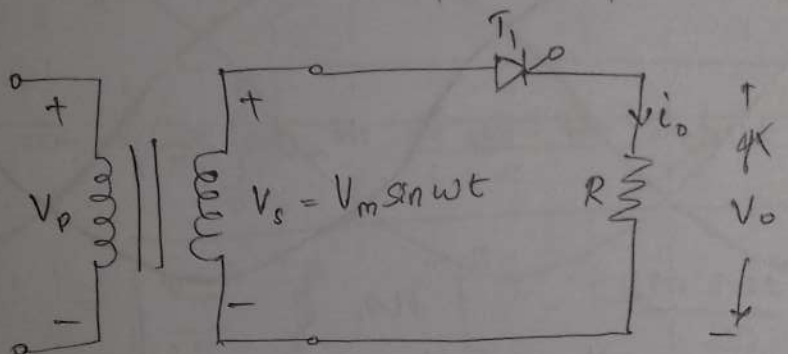
Phase Controlled Rectifier

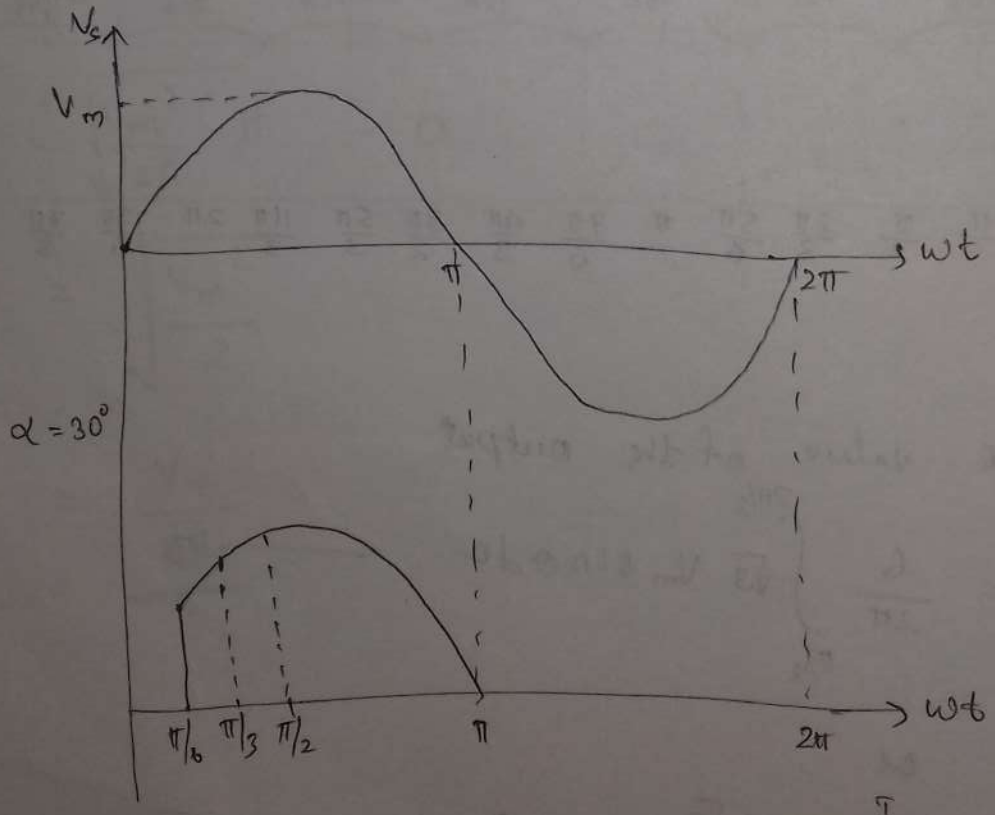
Single phase Half wave ~~Rectifier~~ Controlled Rectifier with R load

$|+ V_{T_1} -|$

Thyristor should be fwd biased

Gate signal should be provided





$$V_{dc} = \frac{1}{T}\int_0^T v_o\,dt = \frac{1}{2\pi}\int_0^{\pi} V_m \sin\omega t\,d(\omega t)$$

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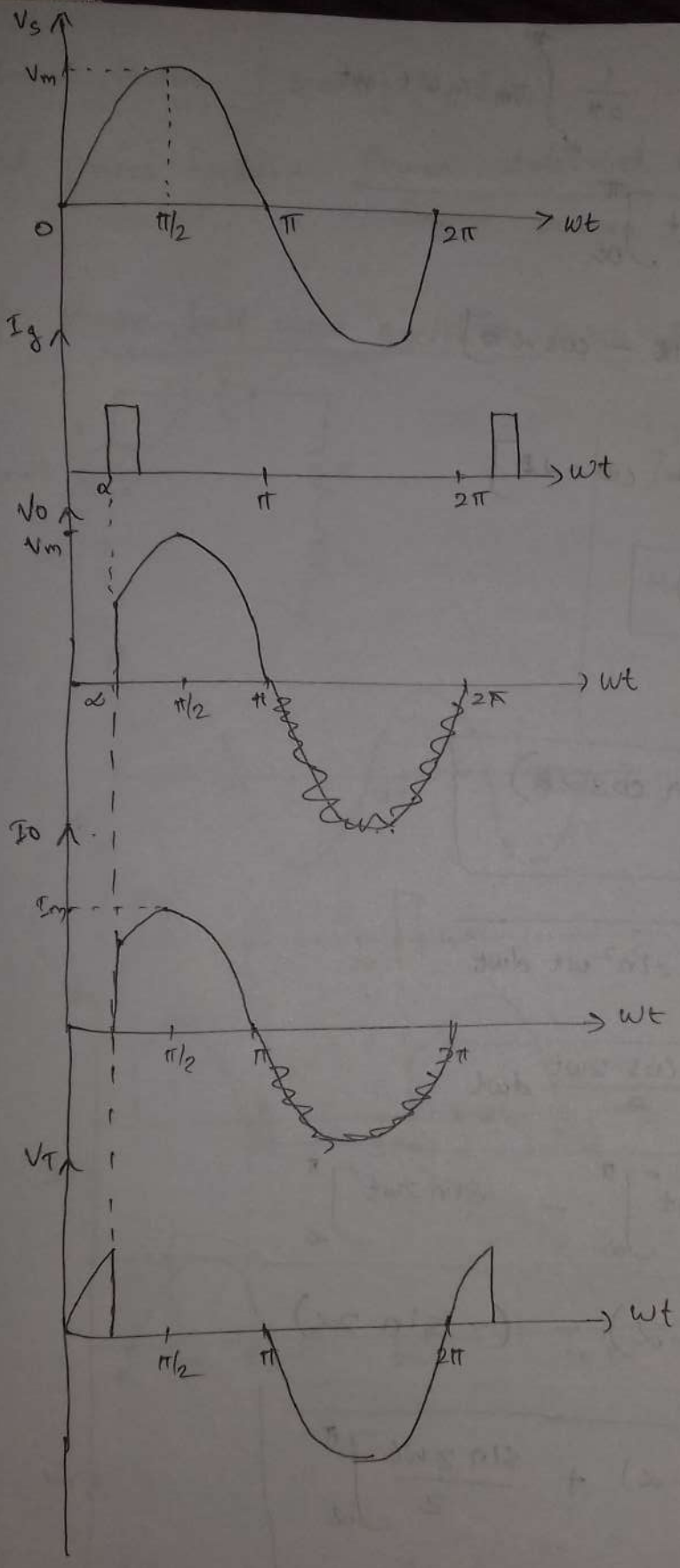
27/05/2022



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$$V_{dc} = \frac{1}{T}\int_0^T V\,dt = \frac{1}{2\pi}\int_\alpha^{\pi} V_m \sin\omega t\, d\omega t$$

$$= \frac{-V_m}{2\pi}\left[\cos\omega t\right]_\alpha^{\pi}$$

$$= \frac{-V_m}{2\pi}\left[\cos\pi - \cos\alpha\right]$$

$$= \frac{-V_m}{2\pi}\left[-1 - \cos\alpha\right]$$

$$\boxed{V_{avg} = \frac{V_m}{2\pi}(1+\cos\alpha)}$$

$$I_{avg} = \frac{V_0}{R}$$

$$\boxed{I_{avg} = \frac{V_m}{2\pi R}(1+\cos\alpha)}$$

$$V_{rms} = \sqrt{\frac{1}{2\pi}\int_\alpha^{\pi} V_m^2 \sin^2\omega t\, d\omega t}$$

$$= \sqrt{\frac{V_m^2}{2\pi}\int_\alpha^{\pi}\frac{1-\cos 2\omega t}{2}\, d\omega t}$$

$$= \sqrt{\frac{V_m^2}{4\pi}\left[\omega t\right]_\alpha^{\pi} - \left[\sin 2\omega t\right]_\alpha^{\pi}}$$

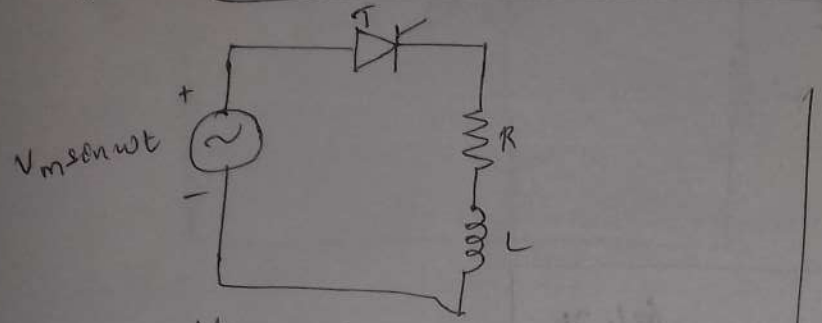
$$= \sqrt{\frac{V_m^2}{4\pi}(\pi-\alpha) - (-\sin 2\alpha)}$$

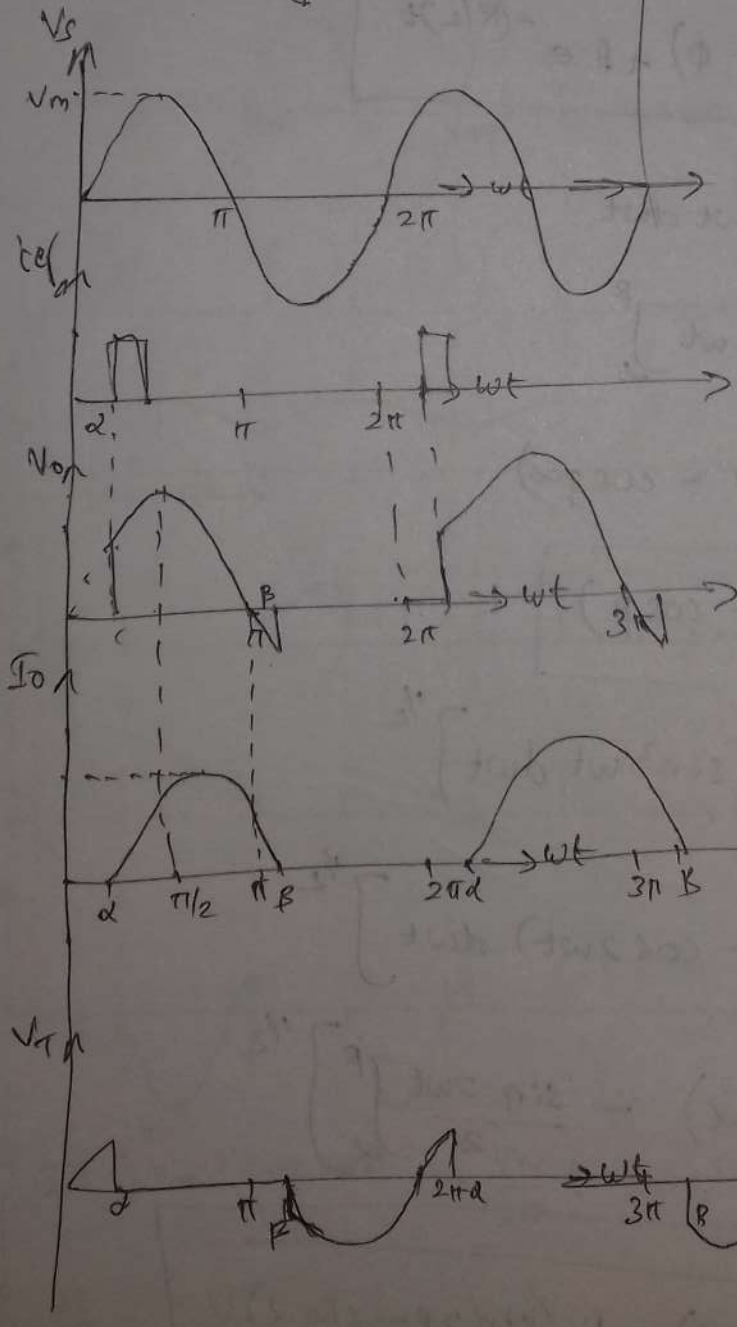
$$\boxed{V_{rms} = \frac{V_m}{2\sqrt{\pi}}\sqrt{(\pi-\alpha) + \frac{\sin 2\omega t}{2}\Big]_\alpha^{\pi}}$$

Input Power $P(VA) = V_s I_{rms}$

Input power factor = $\frac{\text{Power delivered to load}}{\text{Input power}}$

Single phase half wave rectifier with RL load





latching current: Minimum current to turn on

Holding current: Minimum current, no to turn off the system

α : triggering angle

β : extinction angle

$\gamma = \beta - \alpha$ = Conduction angle

28/05/2022

$i_s = \frac{V_m}{Z} \sin(\omega t - \phi)$

$Z = \sqrt{R^2 + X^2}$

$V_s = V_m \sin \omega t$

$I_o = I_s + I_t$ ⟶ Input current + transient current

$V_m = R i_o - L \frac{di_o}{dt}$

$0 = R i_t - L \frac{di_t}{dt}$

$i_t = A e^{-(R/L)t}$

$$\boxed{I_o = \frac{V_m}{Z} \sin(\omega t - \phi) + A e^{-(R/L)t}}$$

$V_{avg} = \frac{1}{2\pi} \int_{\alpha}^{\beta} V_m \sin \omega t \, d\omega t$

$= \frac{V_m}{2\pi} - \cos \omega t \Big]_{\alpha}^{\beta}$

$= -\frac{V_m}{2\pi} (\cos \beta - \cos \alpha)$

$$\boxed{V_{avg} = \frac{V_m}{2\pi} (\cos \alpha - \cos \beta)}$$

$V_{rms} = \left[\frac{1}{2\pi} \int_{\alpha}^{\beta} V_m^2 \sin^2 \omega t \, d\omega t \right]^{1/2}$

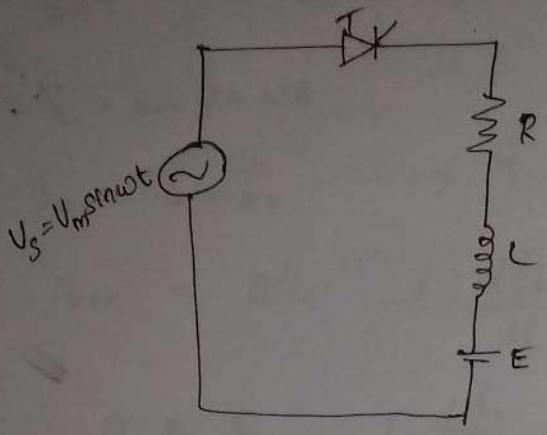
$= \left[\frac{V_m^2}{2\pi \times 2} \int_{\alpha}^{\beta} (1 - \cos 2\omega t) \, d\omega t \right]^{1/2}$

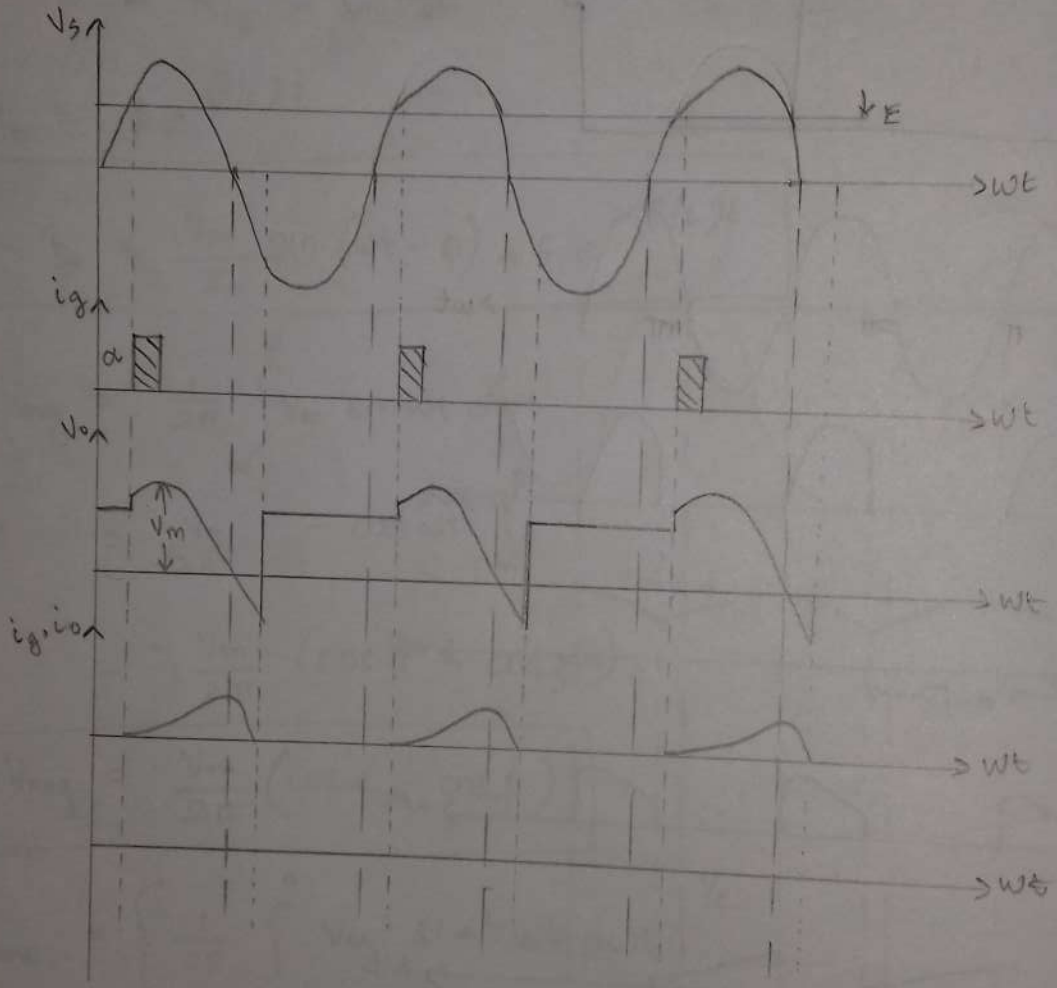
$= \frac{V_m}{2\sqrt{\pi}} \left[(\beta - \alpha) - \frac{\sin 2\omega t}{2} \Big]_{\alpha}^{\beta} \right]^{1/2}$

$$\boxed{V_{rms} = \frac{V_m}{2\sqrt{\pi}} \sqrt{(\beta - \alpha) - \frac{1}{2}(\sin 2\beta - \sin \alpha)}}$$

Single phase halfwave controlled with REL load

31/05/2022





$$V_m \sin\omega t = R i_o + L\frac{di_o}{dt} + E$$

$$V_o = \frac{1}{2\pi}\int_{\alpha}^{\beta} V_m \sin\omega t \, d\omega t + E(2\pi + \alpha - \beta)$$

$$I_o = \frac{1}{2\pi R}\left[V_m(\cos\alpha + \cos\theta_1) - E(\pi - (\theta_1 + \alpha))\right]$$

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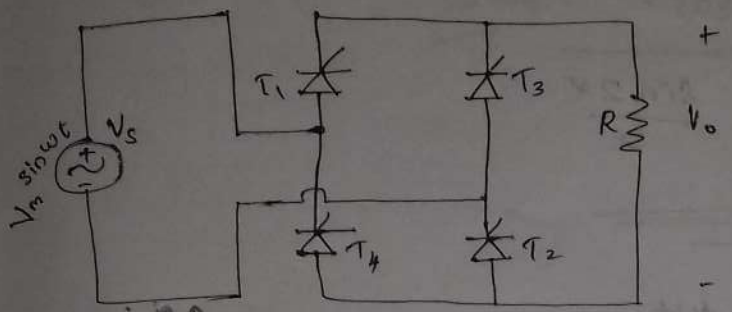
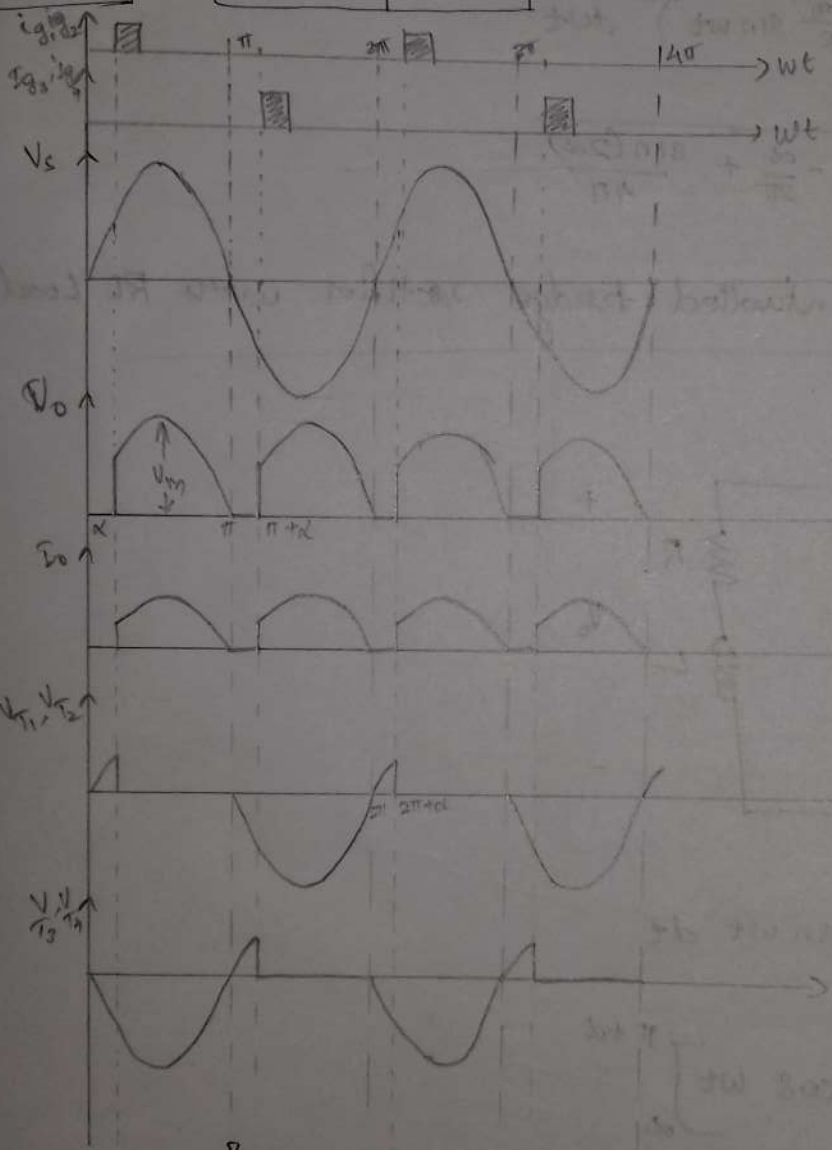
Single phase fully controlled bridge rectifier with R Load





$$V_o = \frac{1}{2\pi} \int_{\alpha}^{\pi} 2 V_m \sin \omega t \, d\omega t$$

$$V_o = \frac{V_m}{\pi} (1 + \cos \alpha)$$

$$V_{rms} = \left[\frac{1}{\pi} \int_{\alpha}^{\pi} V_m^2 \sin^2 \omega t \, d\omega t \right]^{1/2} = \left[\frac{V_m^2}{2\pi} \left((\pi - \alpha) + \frac{\sin 2\alpha}{2} \right) \right]^{1/2}$$

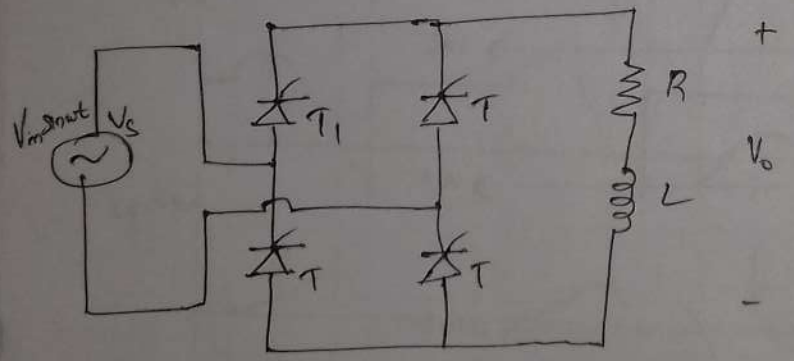
$$= \sqrt{\frac{V_m^2}{2\pi}\int_{\alpha}^{\pi}(1-\cos 2\omega t)\, d\omega t}$$

$$= \frac{V_m}{\sqrt{2\pi}}\sqrt{(\pi-\alpha)+\frac{\sin 2\alpha}{2}}$$

$$I_{rms} = \sqrt{\frac{1}{\pi}\int_{\alpha}^{\pi}\left(\frac{V_m}{R}\sin\omega t\right)^2 d\omega t}$$

$$= \frac{V_m}{R}\sqrt{\frac{1}{2}-\frac{\alpha}{2\pi}+\frac{\sin(2\alpha)}{4\pi}}$$

Single phase fully controlled bridge rectifier with RL Load



$$V_{avg} = \frac{1}{\pi}\int_{\alpha}^{\pi+\alpha} V_m \sin\omega t\, dt$$

$$= \frac{V_m}{\pi}\left[-\cos\omega t\right]_{\alpha}^{\pi+\alpha}$$

$$= \frac{V_m}{\pi}\left[-\cos(\pi+\alpha)+\cos\alpha\right]$$

$$= \frac{V_m}{\pi}\left[-(-\cos\alpha)+\cos\alpha\right]$$

$$= \frac{2V_m}{\pi}\cos\alpha$$

OFF time $= \frac{\pi-\alpha}{\omega}$ sec

S3 AEI

22

Network Theory - Tithin James.

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		3/11/21	10/11/21	17/11/21	24/11/21	1/12/21	8/12/21
1	Adil.K	AB	AB	AB	AB	AB	AB
2	Ajay.K.P						
3	Akhil.M.A						
4	Akshai Mohan		AB				
5	Akshay.M						
6	Alan Sunny						
7	Alen Joe Prince						
8	Anargh.K				AB		
9	Aswin.T.S						
10	Aswin Vinod.C						
11	Ayana.P.V						
12	Dipuraj.M						
13	Hiramdeep.T						
14	Joyal Saji	AB					AB
15	Jude Jomon George						
16	Kevin Saji						
17	Kiran K.V			AB			
18	Monial.C.Pradeep						
19	Muhammed Sahl						
20	Revanth.P.V.K						
21	Tom Jessan						
22	Vyshnav.K.						
23	Tithin James						

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
15/12/21	5/1/22	12/1/22	19/1/21	2/2/22	9/2/22	16/2/22	23/2/22	2/3/22
Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
					Ab		Ab	
						Ab		Ab
				Ab				
		Ab						
			Ab			Ab		
							Ab	
			Ab			Ab		Ab
								Ab

Tilthio | Tilthio | Tilthio | Tilthio | Tilthio | Tilthio | Tilthio | Tilthio | Tilth

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S3 AEI

24 Partial Differential Eqn & Complex Analysis – Vineetha Abraham

		Day 1 4/11/21	Day 2 11/11/21	Day 3 18/11/21	Day 4 25/11/24	Day 5 2/12/21	9/12/21
1	Adil K	AB	AB	AB	AB	AB	AB
2	Ajay K P						
3	Akhil M A						
4	Akshas Mohan	AB					
5	Akshay M						
6	Alan Sunny						
7	Alen Joe Prince					AB	
8	Anargh K					AB	
9	Aswin T S			AB			
10	Aswin Vinod C						
11	Ayana P V						
12	Dipuraj M						
13	Hiremdeep T						
14	Joyal Saji						AB
15	Jude Jomon George						
16	Kevin Saji						
17	Kiran K V						
18	Monial C Pradeep		AB				
19	Muhammed Sahil						
20	Revanth P V K						
21	Tom Jessan						
22	Vyshnav K						
	Vineetha Abraham						

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
16/12/21	6/1/22	13/1/22	20/1/22	27/1/22	3/2/22	10/2/22	17/2/22	24/2/22
Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
	Ab.						Ab.	
				Ab		Ab		Ab
		Ab						Ab
								Ab
								Ab

S3 AEI

26

Logic Circuit Design - Dr. Roshini. T. V.

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		5/11/21	12/11/21	19/11/21	26/11/21	3/12/21	10/12/21
1	Adil. K	AB	AB	AB	AB	AB	AB
2	Ajay. K.P						
3	Akhil. M.A						
4	Akshaa Mohan						
5	Akshay. M						
6	Alan Sunny						
7	Alen Joe Prince		AB				
8	Anargh. K						
9	Aswin T.S						
10	Aswin Vinod. C						
11	Ayana P.V						
12	Dipuraj. M						
13	Hiandeep. T						
14	Joyal Saji				AB		
15	Jude Jomon George						
16	Kevin Saji						
17	Kiran. K.V						
18	Mrinal. C. Pradeep						
19	Muhammed Sahl					AB	
20	Revanth P.V.K						
21	Tom Jessan	AB					
22	Vyshnav. K.						
	Dr. Roshini T.V						

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
17/12/21	7/1/22	14/1/22	21/1/22	28/1/22	4/2/22	11/2/22	18/2/22	25/2/22
AB	AB	AB	AB	AB	AB	AB	AB	AB
						AB		
	AB							
			AB					
						AB		
AB								
Roshni	Roshni	Roshni	Roshni	Roshni	Roshni	Roshni	Roshni	Roshni

S3 AEI

28

Solid State Devices – Sudhassana Vijayan

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		5/11/21	12/11/21	19/11/21	26/11/21	3/12/21	10/12/21
1	Adil · K	AB	AB	AB	AB	AB	AB
2	Ajay · K · P						
3	Akhil · M · A						
4	Akshar Mohan						
5	Akshay · M						
6	Alan Sunny						
7	Alen Joe Ponnie		AB				
8	Anargh · K						
9	Aswin · T · S						
10	Aswin Vinod · C						
11	Ayana · P · V						
12	Dipuraj · M						
13	Hiranndeep · T						
14	Joyal Saji				AB		
15	Jude Jomon George						
16	Kevin Saji						
17	Kiran · K · V						
18	Monial · C · Pradeep						
19	Muhammed Sahl ·					AB	
20	Revanth · P · V · K						
21	Tom Jessan	AB					
22	Vyshnav · K						
	Sudhassana Vijayan	Sd	Sd	Sd	Sd	Sd	Sd

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
17/12/21	7/1/22	14/1/22	21/1/22	28/1/22	4/2/22	11/2/22	18/2/22	25/2/22
Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
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Ayana	Ayana	Ayana	Ayana	Ayana	Ayana	Ayana	Aryan	Ayana
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Sd	Sd	Sd	Sd	Sd	Sd	Sd	Sd	Sd

S4 AE1

30

Probability & Numerical Methods – Dominic N Thomas

		Day 1 4/1/22	Day 2 4/1/22	Day 3 18/1/22	Day 4 25/1/22	Day 5 1/2/22	Day 6 8/2/22
1	Adil. K	P	P	P	P	P	P
2	Ajay. K.P	P	P	P	P	P	P
3	Akhil. M.A	P	P	P	Ab	P	P
4	Akshar Mohan.	P	P	P	P	P	P
5	Akshay. M.	P	P	P	P	P	P
6	Alen Sunny	P	P	P	P	P	P
7	Alen Joe Prince	P	P	P	P	P	P
8	Anagh. K	P	P	P	P	P	P
9	Aswin T.S	P	P	P	P	P	P
10	Aswin Vinod. C	P	P	P	P	P	P
11	Ayana. P.V	P	P	P	P	P	P
12	Dipuraj. M	P	Ab	P	P	P	P
13	Hirandeep. T	P	P	P	P	P	P
14	Joyal Saji	P	P	P	P	P	P
15	Jude Tomon George	P	P	P	P	P	P
16	Kevin Saji	P	P	P	P	P	P
17	Kiran K.V	P	P	P	P	P	Ab
18	Mrinal. C. Pradeep	P	P	P	P	P	P
19	Muhammed Sahl	P	P	P	P	P	P
20	Revanth P.V.K	P	P	Ab	P	P	P
21	Tom Tessan	P	P	P	P	P	P
22	Vyshnav. K	P	P	P	P	P	P
	Dominic. N. Thomas	Dnt	Dnt	Dnt	Dnt	Dnt	Dnt

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Day 7 15/2/22	Day 8 22/2/22	Day 9 1/3/22	Day 10 8/3/22	Day 11 15/3/22	Day 12 22/3/22	Day 13 29/3/22	Day 14 5/4/22	Day 15 12/4/22
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	Ab	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	R	P	P	P	P	P
P	P	P	P	Ab	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	Ab	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
Drie	Drie	Drie	Drie	Drie	Drie	Drie	Drie	Drie

S4 AE1

32 Signals & Systems – Vinod J. Thomas.

		Day 1 5/1/22	Day 2 12/1/22	Day 3 19/1/22	Day 4 26/1/22	Day 5 2/2/22	Day 6 9/2/22
1.	Adil. K	/	/	/	/	/	/
2	Ajay. K.P	/	/	/	/	/	/
3	Akhil. M.A	/	/	/	/	/	/
4	Akshay Mohan	/	/	/	/	Ab	/
5	Akshay. M	/	/	/	/	/	/
6	Alan Sunny	/	/	/	/	/	/
7	Alen Joe Prince	Ab	/	/	/	/	/
8	Anagh. K	/	/	/	/	/	/
9	Aswin T.S	/	/	/	/	/	/
10	Aswin Vinod. C	/	/	/	Ab	/	/
11	Ayana. P.V	/	/	/	/	/	/
12	Dipuraj. M	/	/	/	/	/	/
13	Hirandeep. T	/	Ab	/	/	/	/
14	Joyal Saji	/	/	/	/	/	/
15	Jude Jomon George	/	/	/	/	/	/
16	Kevin Saji	/	/	/	/	/	Ab
17	Kiran. K.V	/	/	/	/	/	/
18	Monial. C. Pradeep	/	/	Ab	/	/	/
19	Muhammed Sahl.	/	/	/	/	/	/
20	Revanth P.V.K	/	/	/	/	/	/
21	Tom Jessan	/	/	/	/	/	/
22	Vyshnav. K	/	/	/	/	/	/
	Vinod. J. Thomas	Vin	Vin	Vin	Vin	Vin	Vin

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Day 7 16/2/22	Day 8 23/2/22	Day 9 2/3/22	Day 10 9/3/22	Day 11 16/3/22	Day 12 23/3/22	Day 13 30/3/22	Day 14 6/4/22	Day 15 13/4/22
P	P	P	P	P	P	P	P	P
P	Ab	P	P	Ab	P	P	P	P
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	P	P	P	P	Ab	P	P	P
P	P	P	P	P	P	P	P	P
P	P	Ab	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	Ab	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	Ab	P	P	P	P	P
P	P	P	P	P	P	Ab	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
Ab	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P

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S4 AEI

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Electrical Measurements & Measuring Instruments – Dhanoj. M.

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		5/1/22	12/1/22	19/1/22	26/1/22	2/2/22	9/2/22
1	Adil. k	/	/	/	/	/	/
2	Ajay. K.P	/	/	/	Ab	/	/
3	Akhil. M.A	Ab	/	/	/	/	/
4	Akshar Mohan	/	/	/	/	/	/
5	Akshay. M	/	/	/	/	/	/
6	Alan Sunny	/	/	/	/	/	/
7	Alen Joe Prince	/	/	/	/	/	/
8	Anargh. k	/	/	/	/	/	/
9	Aswin T. S	/	/	/	/	/	/
10	Aswin Vinod. C	/	/	/	/	/	/
11	Ayana. P.V	/	/	Ab	/	/	/
12	Dipuraj. M	/	/	/	/	/	/
13	Hisandeep. T	/	/	/	/	/	/
14	Joyal Saji	/	/	/	/	/	/
15	Jude Jomon George	/	/	/	/	/	/
16	Kevin Saji	/	/	/	/	/	/
17	Kiran K.V	/	/	/	/	/	/
18	Monial. C. Pradeep.	/	/	/	/	/	/
19	Muhammed Sahl	/	/	/	/	/	/
20	Revanth P.V.K	/	/	/	/	/	/
21	Tom Jessan	/	/	/	/	/	/
22	Vyshnav. k	/	Ab	/	/	/	/
	Dhanoj. M	Dj	Dj	Dj	Dj	Dj	Dj

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Day 7 16/2/22	Day 8 23/2/22	Day 9 2/3/22	Day 10 9/3/22	Day 11 16/3/22	Day 12 23/3/22	Day 13 30/3/22	Day 14 6/4/22	Day 15 13/4/22
/	/	/	/	/	/	/	/	/
/	/	/	Ab	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
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/	/	/	/	/	/	/	/	/
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
Ab	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	Ab

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S4 DEI

36 Analog Circuits – Shinu M.M

		Day 1 7/1/22	Day 2 14/1/22	Day 3 21/1/22	Day 4 28/1/22	Day 5 4/2/22	Day 6 11/2/22
1.	Adil K						
2	Ajay K P	/	/	/	/	/	/
3	Akhil M A	/	/	/	/	/	/
4	Akshas Mohan	AB	/	/	/	/	/
5	Akshay M	/	/	/	/	/	/
6	Alan Sunny	/	/	/	/	/	/
7	Alen Joe Prince	/	/	/	/	AB	/
8	Anargh K	/	/	/	/	/	/
9	Aswin T S	/	/	AB	/	/	/
10	Aswin Vinod C	/	/	/	/	/	/
11	Ayana P V	/	/	/	/	/	/
12	Dipuraj M	/	/	/	/	/	/
13	Hirandeep T	/	/	/	/	/	/
14	Joyal Saji	/	/	/	/	/	/
15	Jude Jomon George	/	/	/	/	/	/
16	Kevin Saji	/	/	/	/	/	/
17	Kiran K V	/	/	/	/	/	/
18	Mrinal C Pradeep	/	/	/	/	/	/
19	Muhammed Sahl	/	/	/	AB	/	/
20	Revanth P V K	/	/	/	/	/	/
21	Tom Tissan	/	/	/	/	/	/
22	Vyshnav K	/	/	/	/	/	/
	Shinu M M	Shinu	Shinu	Shinu	Shinu	Shinu	Shinu

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Day 7 18/2/22	Day 8 25/2/22	Day 9 4/3/22	Day 10 11/3/22	Day 11 18/3/22	Day 12 25/3/22	Day 13 1/4/22	Day 14 8/4/22	Day 15 15/4/22
/	/	/	/	/	/	/	/	Ab
/	/	/	/	Ab	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	Ab	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	Ab	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	Ab
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	Ab	/	/
Shri	Shri	Shri	Shri	Shri	Shri	Shri	Shri	Shri

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Timestamp	Name of the faculty	Department of the Faculty	Course code	Course Name	Date	Starting Time	Topic	Number of students registered	Number of students Attended	Sample work done by students	Duration
11-8-2022 14:02:35	DIVYA THOMAS	ASH	MAT201	PARTIAL DIFFERENT	16-09-2022	1:02:00 PM	SOLUTION OF PDE	14	12	https://drive.google.com/open?id=17Rmp1B_JVYspV1NyPJFxp5jfNpnifBJ3	1:00:00
11-8-2022 14:04:05	DIVYA THOMAS	ASH	MAT201	PDE	30-09-2022	1:02:00 PM	CHARPITS	14	14	https://drive.google.com/open?id=13WhjHtBE0fvc1VBjADZRc7wuY0zjOhPO	1:00:00
11-8-2022 14:06:41	DIVYA THOMAS	ASH	MAT201	PDE	21-10-2022	1:00:00 PM	WAVE EQUATION	14	4	https://drive.google.com/open?id=17GacwVYw8dMvgnLuwGtbGU1z2mxico7x	1:00:00
11-8-2022 14:08:01	DIVYA THOMAS	ASH	MAT201	PDE	28-10-2022	1:00:00 PM	WAVE EQUATION	14	14	https://drive.google.com/open?id=1ilSXWaArnzTc61A0DaOEVS6vhbe1d0iB	1:00:00
11-8-2022 14:17:01	DIVYA THOMAS	ASH	MAT201	PDE	04-11-2022	1:00:00 AM	HEAT EQUATION	14	14	https://drive.google.com/open?id=1zVUVaYvTnPqJSHJxS2Q2FCydvcOIjnJe	1:00:00
11-9-2022 11:23:12	SHINU MM	AEI	ECT205	NETWORK THEORY	22-09-2022	9:00:00 AM	MESH ANALYSIS	14	13	https://drive.google.com/open?id=1m-M6FMGmAALJz4SQa7B3SNnaZGpTRkIE	1:00:00
11-9-2022 11:27:50	SHINU MM	AEI	ECT205	NETWORK THEORY	13-10-2022	9:00:00 AM	MESH ANALYSIS	14	13	https://drive.google.com/open?id=1ViuHf64nOtRp13U6q84OYw-lyq1eUFb-	1:00:00
11-9-2022 14:33:36	SHINU MM	AEI	ECT205	NETWORK THEORY	20-10-2022	9:00:00 AM	THEVENIN THEOREM	14	14	https://drive.google.com/open?id=1k4xs4YjKy-4H78zl1nEjZoi7vg2D8gVr	1:00:00
11-9-2022 14:36:14	Reshma K V	EI	ECT203	LOGIC CIRCUIT DESI	16-09-2022	11:10:00 AM	Binary to Octal and oc	14	13	https://drive.google.com/open?id=1AtMcfSXTxC2h8X3iYUalGsadM0CGJlMl	1:00:00
11-9-2022 14:37:35	SHINU MM	AEI	ECT 205	NETWORK THEORY	27-10-2022	9:00:00 AM	LT	14	14	https://drive.google.com/open?id=1H7X71LZZ3QlGh6Ss2ZN1SuyfSUJ52BAi	1:00:00
11-9-2022 14:39:54	Reshma K V	EI	ECT203	LOGIC CIRCUIT DES	30-09-2022	11:10:00 AM	Addition using 2's Com	14	14	https://drive.google.com/open?id=1x4KhN0lMOfrd_MW9-3L96B7BuzR_dS9J	1:00:00
11-9-2022 14:41:53	Reshma K V	EI	ECT203	LOGIC CIRCUIT DESI	21-10-2022	11:10:00 AM	Non-canonical SOP for	14	14	https://drive.google.com/open?id=1e7zvzGx8WK9G7HL2OO9RCNCZLHTkgJGI	1:00:00
11-9-2022 14:44:13	RESHMA kK V	EI	ECT 203	LOGIC CIRCUIT DES	28-10-2022	11:10:00 AM	K-Map	14	14	https://drive.google.com/open?id=1BlHRqqd9_e_WECAY7ABvvfqYNFeMmVRS	1:00:00
11-9-2022 22:47:32	SHAMYA A	AEI	ECT 201	SOLID STATE DEVICE	13-09-2022	10:00:00 AM	concept ofeff	14	12	https://drive.google.com/open?id=1TQU_1UZwJIw3TTftWkr0SY9fVapSVVH0	1:00:00

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11-9-2022 22:49:26	SHAMYA A	AEI	ECT201	SOLID STATE DEVICE	28-09-2022	10:00:00 AM	EINSTEIN RELATION	14	13	https://drive.google.com/open?id=12TYOonb-1QaFTY1vWkwEzw9JYn0ZAv4i	1:00:00
11-20-2022 19:49:28	Reshma K V	EI	ECT 203	LOGIC CIRCUIT DESI	11-11-2022	11:10:00 AM	Multiplexer	14	13	https://drive.google.com/open?id=1EZ2ODMAnrdwh9cvyH7z0VGPZWNJAomdz	1:00:00
11-20-2022 19:51:23	Reshma K V	EI	ECT 203	LOGIC CIRCUIT DESI	18-11-2022	11:10:00 AM	Decoders	14	12	https://drive.google.com/open?id=1ydjmJSzyELNOxHXk7SmtWCEHEVjDBgV_	1:00:00
1-12-2023 14:47:10	DIVYA THOMAS	ASH	MAT201	PDE AND COMPLEX A	16-09-2022	1:00:00 PM	SOLUTION OF PDE	14	14	https://drive.google.com/open?id=1RnggyVY6FvcBAfTS4B5Cyv6RnkGaZSEp	1:00:00
1-12-2023 14:50:45	DIVYA THOMAS	ASH	MAT201	PDE AND COMPLEX A	30-09-2022	12:00:00 PM	CHARPITS METHOD	14	14	https://drive.google.com/open?id=19njk5vTAbs9zhZMX4IdwtKkgXVV6EVLx	1:00:00
1-12-2023 14:53:53	DIVYA THOMAS	ASH	MAT 201	PDE AND COMPLEX A	21-10-2022	1:00:00 PM	WAVE EQUATION	14	5	https://drive.google.com/open?id=1IFYMMrdai_TNZde-e9G147rrScwxs1wC	1:00:00
1-12-2023 14:56:14	DIVYA THOMAS	ASH	MAT201	PDE AND COMPLEX A	28-10-2022	1:00:00 PM	WAVE EQUATION	14	13	https://drive.google.com/open?id=1GRk_0sByVL_tlxFU6CISfNhpBTo4lQhG	1:00:00
1-12-2023 15:00:16	DIVYA THOMAS	ASH	MAT201	PDE AND COMPLEX A	04-11-2022	1:00:00 PM	HEAT EQUATION	14	14	https://drive.google.com/open?id=1SAX6Nqhv3598gyZoR2528KDTIcGnhHgz	1:00:00
1-12-2023 15:03:01	DIVYA THOMAS	ASH	MAT201	PDE AND COMPLEX A	18-11-2022	1:00:00 PM	ANALYTIC FUNCTION	14	12	https://drive.google.com/open?id=1Vvm7w15gGltPdlMHvxpNbvzB8HO_MpAG	1:00:00
1-12-2023 15:05:17	DIVYA THOMAS	ASH	MAT201	PDE AND COMPLEX A	25-11-2022	1:00:00 PM	TAYLOR SERIES	14	10	https://drive.google.com/open?id=1GVB3_x_99lq9dVu5n5YK32nEmpSjTQcn	1:00:00
1-12-2023 15:07:49	DIVYA THOMAS	ASH	MAT201	PDE& COMPLEX ANL	21-02-2022	1:00:00 PM	COMPLEX INTEGRAT	14	13	https://drive.google.com/open?id=1PHbm3XXo2Lk65nyxPdV3sEHoxbDFtTjS	1:00:00
1-12-2023 15:09:58	DIVYA THOMAS	ASH	MAT201	PDE&COMPLEX ANAI	16-12-2022	1:00:00 PM	COMPLEX INTEGRAT	14	9	https://drive.google.com/open?id=1A8lic7Dc5bxqah5RJCGygRni9Fsu90zt	1:00:00
1-21-2023 0:11:47	shamya A	EIE	ECT 201	SOILD STATE DEVUC	11-10-2022	11:10:00 AM	CONTACT POTENTIA	14	14	https://drive.google.com/open?id=1nhW6zxqV99HCmqgK0OY_oLlADydVygI0	1:00:00
1-21-2023 0:15:25	SHAMYA A	EIE	ECT201	SOLID STATE DEVICE	05-01-2023	9:00:00 AM	IMP QUESTIONS ANS	14	7	https://drive.google.com/open?id=1HPABsz533-Oz3w623SSSgO-KiErgT3-j	2:00:00
1-23-2023 15:16:13	RESHMA K V	EI	ECT 203	LOGIC CIRCUIT DESI	25-11-2022	11:10:00 AM	PIPO	14	13	https://drive.google.com/open?id=1nrzg1CxgXPWCqRJlloBAb-tE1FRz8B3N	1:00:00

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1-23-2023 15:18:30	RESHMA K V	EI	ECT 203 LO	LOGIC CIRCUIT DESI	16-12-2022	11:10:00 AM	NAND in TTL and CMC	14	14	https://drive.google.com/open?id=1HYhE2o-WDbTOmW7JM2EfJL7dXnHCT9Yh	1:00:00
1-23-2023 15:20:50	RESHMA K V	EI	ECT 203	LOGIC CIRCUIT DESI	02-12-2022	11:10:00 AM	TTL	14	14	https://drive.google.com/open?id=1vkmTM5f40rgC3ps07Q0prqnkmyJ0HZtE	1:00:00

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25/11/22

Types of Registers in digital electronics

- shift registers are categorized into types majorly by their mode of operation, either serial or parallel.

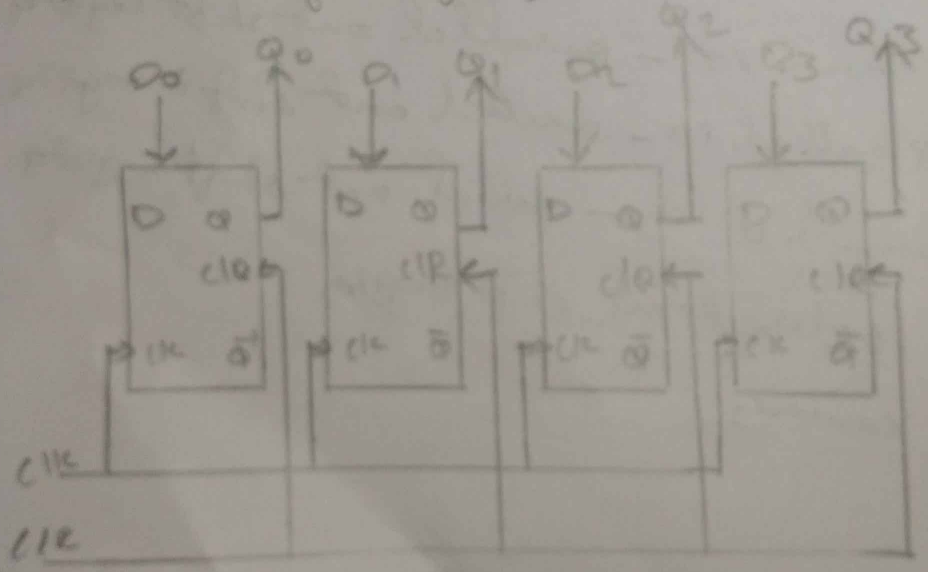
Types:-

1. serial in - serial out shift register
2. serial in - parallel out shift register
3. parallel in - parallel out shift register
4. parallel in - serial out shift register
5. Bidirectional shift register
6. counters

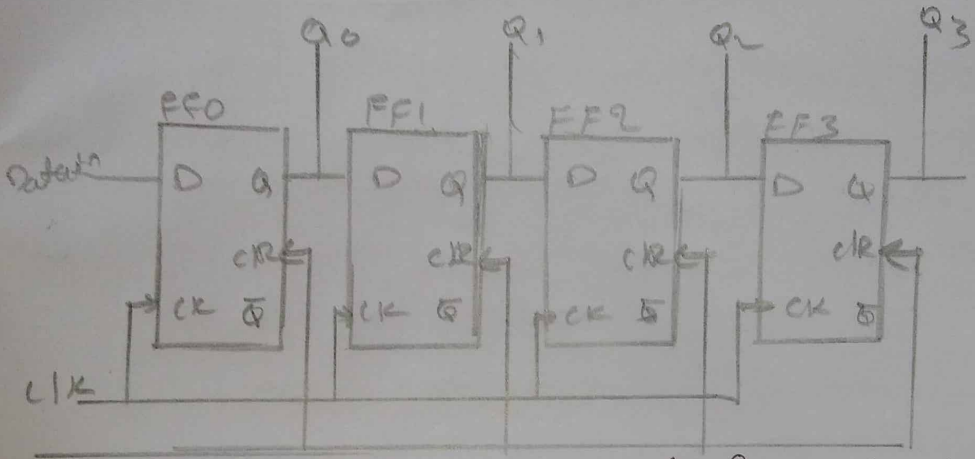
25/11/22

Parallel in – parallel out shift registers

For parallel in – parallel out shift registers, the output data across the parallel output appear simultaneously as the input data is fed in. This type of shift registers is also called as PIPO shift registers.



4 bit serial in - parallel out shift register



Tabel showes how data shifted one by serial in - parallel out series

clear	FF0	FF1	FF2	FF3
1001	0	0	0	0
	1	0	0	0
	0	1	0	0
	0	0	1	0
	1	0	0	1

Timestamp	Name of the faculty	Department of the Faculty	Course code	Course Name	Date	Starting Time	Duration	Topic	Number of students registered	Number of students Attended	Sample work done by students
6-17-2023 11:36:41	Vineethamol Abraham	ASH	MAT204	Probability,Random prc	13-02-2023	11:10:00 AM	12:00:00	Binomial distribution	14	10	https://drive.google.com/open?id=18x463EpMnuJgBxarpXYMw16O9QhEkFFJ
6-17-2023 11:40:02	Vineethamol Abraham	ASH	MAT 204	Probability,Random prc	27-02-2023	11:10:00 AM	12:10:00	Poisson distribution	14	5	https://drive.google.com/open?id=1VQ3RiwcY6MqDn7_90VKxlgmMEltrEwOL
6-17-2023 11:42:39	Vineethamol Abraham	ASH	MAT 204	Probability,Random prc	20-03-2023	11:10:00 AM	12:00:00	Joint PDF	14	13	https://drive.google.com/open?id=129qml6-hodnJ811Fu_yg1mSaZnmtwTrt
6-17-2023 11:44:25	Vineethamol Abraham	ASH	MAT 204	Probability,Random prc	27-03-2023	11:10:00 AM	12:10:00	Central limit theorem	14	12	https://drive.google.com/open?id=1CyFlEhBM7_CaSfAsNLS1CvYj2v_KcBHf
6-17-2023 11:46:26	Vineethamol Abraham	ASH	MAT 204	Probability,Random prc	03-04-2023	11:10:00 AM	12:00:00	WSS Process	14	14	https://drive.google.com/open?id=18HdMRHRBWzgYpZlc8j2ii7chVikNFI49
6-17-2023 11:48:23	Vineethamol Abraham	ASH	MAT 204	Probability,Random prc	10-04-2023	11:10:00 AM	12:10:00	Autocorrelation	14	7	https://drive.google.com/open?id=1qY5cfT8F0UJmDLNOBkKfChvzsgDB7FjR
6-17-2023 11:52:08	Vineethamol Araham	ASH	MAT 204	Probability,Random prc	05-06-2023	11:10:00 AM	12:00:00	Newton's Forward diffe	14	13	https://drive.google.com/open?id=1Xkj-mW62lp5AcktJDAtX3YM_ICMhSffl
6-19-2023 14:43:38	Jinsa Mathew	EIE	ECT204	Signals and systems	09-02-2023	9:00:00 AM	1:00:00	Signal operations	14	11	https://drive.google.com/open?id=1e1rqLqMQkEClJc8xj9but49ct7gIApjA
6-19-2023 14:46:05	Jinsa Mathew	EIE	ECT204	Signals and Systems	16-02-2023	9:00:00 AM	1:00:00	Energy & power eignsl	14	11	https://drive.google.com/open?id=1QGXPyd_WpGkFgg5hlG0E0b9135wv5a8x
6-19-2023 14:48:32	Jinsa Mathew	EIE	ECT204	Signals and Systems	02-03-2023	1:00:00 AM	1:00:00	Response of system, c	14	5	https://drive.google.com/open?id=1DPk1x66ggSwsQx536Spisz9hL086j_yO

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6-19-2023 14:50:38	Jinsa Mathew	EIE	ECT204	Signals and Systems	30-03-2023	9:00:00 AM	1:00:00	Fourier transform	14	11	https://drive.google.com/open?id=15SGcbuckbeus2_h1tWWV-qXUcTsPPR09
6-19-2023 14:53:13	Jinsa	Mathew	ECT204	Signals and Systems	13-04-2023	9:00:00 AM	1:00:00	Laplace transform	14	12	https://drive.google.com/open?id=1XPfZkIaWJdBkHSgmXNOIMm3zIZfNZiOP
6-19-2023 14:55:19	Jinsa Mathew	EIE	ECT204	Signals and Systems	27-04-2023	9:00:00 AM	1:00:00	LTI system analysis	14	10	https://drive.google.com/open?id=19zlWd8IxlZU8xPL0DD6kXN4H0MJzlbBX
6-19-2023 14:57:42	Jinsa Mathew	EIE	ECT204	Signals and Systems	01-06-2023	9:00:00 AM	1:00:00	DTFT- frequency respo	14	9	https://drive.google.com/open?id=1DIR3t43BNrIrDTeDtIlfcPVNl-HEOAv4
6-19-2023 15:00:13	Jinsa Mathew	EIE	ECT204	Signals and Systems	08-06-2023	9:00:00 AM	1:00:00	DTFT reponse of syste	14	14	https://drive.google.com/open?id=1DpXJMS-KH1tj5EeLHVFMym4_AE3ER9wg
6-19-2023 15:01:38	Jinsa Mathew	EIE	ECT204	Signals and Systems	15-06-2023	9:00:00 AM	1:00:00	Inverse z transform	14	14	https://drive.google.com/open?id=1QDOWbLcDOkL7JEoOgI39KaZ5qERv-Q1N
6-19-2023 21:28:13	Reshma k V	EI	AET206	Measurements and Ins	06-02-2023	9:00:00 AM	1:00:00	principles of measurem	14	10	https://drive.google.com/open?id=1RJFmeHpBubmhUG8yFL4H1yrPIdOzbDOJ
6-19-2023 21:30:46	Reshma K V	EI	AET206	Measurements and Ins	13-02-2023	9:00:00 AM	1:00:00	errors in measurement	14	6	https://drive.google.com/open?id=1oDflgQl851KYCWn7z17vklUSxZrgybSs
6-19-2023 21:44:08	Reshma K V	EI	AET206	Measurements and Ins	27-03-2023	9:00:00 AM	1:00:00	Accelerometers, piezo	14	12	https://drive.google.com/open?id=1TRMzWFIrWd1ByT8yQ1THyHiws0E1OrX7
6-19-2023 21:45:50	Reshma K V	EI	AET206	Measurements and Ins	05-06-2023	9:00:00 AM	1:00:00	CRO	14	13	https://drive.google.com/open?id=1bITtyfTERpIRvuf3wrOv1vWpJvm_3GqM
6-19-2023 21:47:07	Reshma K V	EI	AET206	Measurements and Ins	12-06-2023	9:00:00 AM	1:00:00	X-Y Plotter	14	8	https://drive.google.com/open?id=1JUdoftwi7Du0IrE9QEinypI1wHuErQ9e

6-22-2023 18:34:45	SHINU MM	AEI	ECT202	ANALOG CIRCUIT	03-04-2023	10:00:00 AM	1:00:00	MODULE 4	14	13	https://drive.google.com/open?id=1x0rpByUDjnZ6_GyHfnl9zdAAwHu87ZfW
6-22-2023 18:36:27	SHINU MM	AEI	ECT202	ANALOG CIRCUIT	10-04-2023	2:00:00 PM	1:00:00	MODULE 4	14	7	https://drive.google.com/open?id=11YrOOltSiZGqbU14jVCB9JyrpEFTCDWn
6-22-2023 18:39:49	SHINU MM	AEI	ECT202	ANALAOG CIRCUIT	05-06-2023	2:00:00 AM	1:00:00	MODULE 3	14	12	https://drive.google.com/open?id=1LXKqDvoDVfcL67OvAi19I1MOVqSTbbZ7

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Q) The i/p, o/p of a causal LTI s/m is described by the diff eqn $\frac{d^2y(t)}{dt^2} + 3\frac{dy(t)}{dt} + 2y(t) = x(t)$

i) Find the frequency response $(H(\omega))$

ii) Find the impulse response $h(t) = F^{-1}(H(\omega))$

iii) Find the response of the s/m when i/p $= te^{-t}u(t)$

⇒ given that $\frac{d^2y(t)}{dt^2} + 3\frac{dy(t)}{dt} + 2y(t) = x(t)$

i) taking F.T

$(j\omega)^2 Y(\omega) + 3(j\omega)Y(\omega) + 2Y(\omega) = X(\omega)$

$Y(\omega)[(j\omega)^2 + 3(j\omega) + 2] = X(\omega)$

$\therefore H(\omega) = \frac{Y(\omega)}{X(\omega)} = \frac{1}{(j\omega)^2 + 3(j\omega) + 2}$

ii) Impulse response $= F^{-1}(H(\omega))$

$= \frac{1}{(j\omega+1)(j\omega+2)} = \frac{A}{j\omega+1} + \frac{B}{j\omega+2}$

$A = \frac{1}{j\omega+2}\Big|_{j\omega=-1} = 1$

$B = \frac{1}{j\omega+1}\Big|_{j\omega=-2} = -1$

$\therefore H(\omega) = \frac{1}{j\omega+1} - \frac{1}{j\omega+2}$

$h(t) = F^{-1}\left[\frac{1}{j\omega+1} - \frac{1}{j\omega+2}\right] = e^{-t}u(t) - e^{-2t}u(t)$

3) $x(t) = te^{-t}u(t)$

$X(\omega) = \frac{1}{(j\omega+1)^2}$

$\therefore Y(\omega) = H(\omega) \cdot X(\omega) = \frac{1}{(j\omega+1)(j\omega+2)} \cdot \frac{1}{(j\omega+1)^2}$

$= \frac{A}{(j\omega+1)} + \frac{B}{(j\omega+2)} + \frac{C}{(j\omega+1)^2} + \frac{D}{(j\omega+1)} = \frac{1}{(j\omega+1)^3(j\omega+2)}$

$C = \frac{1}{(j\omega+1)(j\omega+2)}\Big|_{j\omega=-1} \times = \frac{A}{(j\omega+1)^3} + \frac{B}{(j\omega+1)^2} + \frac{C}{j\omega+1} + \frac{D}{j\omega+2}$

$A = \frac{1}{j\omega+2}\Big|_{j\omega=-1} = \frac{1}{-1+2} = 1$

$B = \frac{d}{d\omega}\left[\frac{1}{j\omega+2}\right]\Big|_{j\omega=-1} = \frac{-1}{(j\omega+2)^2}\Big|_{j\omega=1} = -1$

$C = \frac{d^2}{d\omega}\left[\frac{1}{j\omega+2}\right] = \frac{d}{d\omega}\left[\frac{-1}{(j\omega+2)^2}\right] = -\left[\frac{-2(j\omega+2)\times 1}{(j\omega+2)^4}\right] = \frac{+2j\omega+4}{(j\omega+2)^4}\Big|_{j\omega=-1}$

$= \frac{2\times -1+4}{(-1+2)^4} = 2$

$\therefore Y(\omega) = \frac{1}{(j\omega+1)^3} - \frac{1}{(j\omega+1)^2} + \frac{2}{j\omega+1} + \frac{1}{j\omega+2}$

$y(t) = F^{-1}[Y(\omega)]$

$= t^2/2\, e^{-t}u(t) - te^{-t}u(t) + 2e^{-t}u(t) + 1e^{-2t}u(t)$

Q) Consider a causal LTI s/m with impulse response $h(t) = e^{-4t}u(t)$ find the o/p of the s/m for an i/p $x(t) = 3e^{-t}u(t)$

⇒ given that $h(t) = e^{-4t}u(t)$

$H(\omega) = FT[h(t)] = FT[e^{-4t}u(t)]$

$= \frac{1}{j\omega+4}$

$x(t) = 3e^{-t}u(t)$

$\therefore X(\omega) = FT[3e^{-t}u(t)] = \frac{3}{j\omega+1}$

$Y(\omega) = X(\omega) \cdot H(\omega)$

$= \frac{3}{j\omega+1} \cdot \frac{1}{j\omega+4}$

$= \frac{A}{j\omega+1} + \frac{B}{j\omega+4}$

$A = \frac{3}{j\omega+4}\Big|_{j\omega=-1} = 1 \qquad B = \frac{3}{j\omega+1}\Big|_{j\omega=-4} = -1$

$Y(\omega) = \frac{1}{j\omega+1} - \frac{1}{j\omega+4}$

$y(t) = F^{-1}[Y(\omega)] = F^{-1}\left[\frac{1}{j\omega+1} - \frac{1}{j\omega+4}\right]$

$= e^{-t}u(t) - e^{-4t}u(t)$

Q) using FT find the diff eqn description for the s/m having impulse response $h(t) = [3e^{-3t} - 2e^{-2t}]u(t)$

⇒ given $h(t) = [3e^{-3t} - 2e^{-2t}]u(t)$ on taking FT on both sides of eqn A

$H(\omega) = \frac{3}{j\omega+3} - \frac{2}{j\omega+2} = \frac{3(j\omega+2) - 2(j\omega+3)}{(j\omega+3)(j\omega+2)}$

$= \frac{3j\omega+6-2j\omega-6}{(j\omega)^2+5j\omega+6} = \frac{j\omega}{(j\omega)^2+5j\omega+6}$

$\frac{Y(\omega)}{X(\omega)} = \frac{j\omega}{(j\omega)^2+5j\omega+6}$

$[(j\omega)^2+5j\omega+6]X(\omega) = j\omega X(\omega)$

$(j\omega)^2 Y(\omega) + 5j\omega Y(\omega) + 6Y(\omega) = j\omega X(\omega)$

taking inverse FT

$\frac{d^2y(t)}{dt^2} + 5\frac{dy(t)}{dt} + 6y(t) = \frac{d}{dt}x(t)$

Q) Consider a LTI s/m with frequency response $H(\omega) = \frac{1}{j\omega+3}$ for a particular i/p $x(t)$ the s/m is observed to produce the o/p $y(t) = e^{-t}u(t) - e^{-2t}u(t)$ determine $x(t)$

⇒ given $H(\omega) = \frac{1}{j\omega+3}$

$y(t) = e^{-t}u(t) - e^{-2t}u(t)$

$Y(\omega) = \frac{1}{j\omega+1} - \frac{1}{j\omega+2} = \frac{j\omega+2-(j\omega+1)}{(j\omega+1)(j\omega+2)} = \frac{1}{(j\omega+1)(j\omega+2)}$

we know $Y(\omega) = H(\omega) \cdot X(\omega)$

$X(\omega) = \frac{Y(\omega)}{H(\omega)} = \frac{1}{j\omega+1} \cdot \frac{1}{\frac{1}{j\omega+2}} = \frac{A}{j\omega+1} + \frac{B}{j\omega+2}$

$A = \frac{1}{j\omega+2}\Big|_{j\omega=-1} = 1 \qquad B = \frac{1}{j\omega+1}\Big|_{j\omega=-2} = -1$

$$= \frac{\frac{1}{jw+1} - \frac{1}{jw+2}}{\frac{1}{jw+3}} = \frac{(jw+2)-(jw+1)}{(jw+1)(jw+2)} \times \frac{(jw+2)-(jw+1))jw+3}{(jw+1)(jw+2)}$$

$$\frac{(jw+2)(jw+3) - (jw+1)(jw+3)}{(jw+1)(jw+2)}$$

$$= \frac{jw^2 + 3jw + 2jw + 6 - jw^2 - 3jw - 2jw - 3}{(jw+1)(jw+2)} = \frac{jw+3}{(jw+1)(jw+2)}$$

$$= \frac{A}{jw+1} + \frac{B}{jw+2}$$

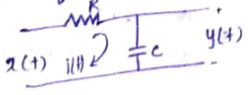
$$A = \frac{jw+3}{jw+2}\Big|_{jw=-1} = 2 \quad ; B = \frac{jw+3}{jw+1}\Big|_{jw=-2} = -1$$

$$X(w) = \frac{2}{jw+1} - \frac{1}{jw+2}$$

$$x(t) = F^{-1}[X(w)] = F^{-1}\left[\frac{2}{jw+1} - \frac{1}{jw+2}\right]$$

$$= 2e^{-t}u(t) - e^{-2t}u(t)$$

Q) Find the frequency response of RC network shown in fig. Plot the magnitude & phase response of RC=1. also find the impulse response of the circuit.



$$\Rightarrow x(t) - Ri(t) - 1/C \int i(t)\,dt = 0$$

$$x(t) = Ri(t) + 1/C \int i(t)\,dt \quad -(1)$$

$$y(t) = 1/C \int i(t)\,dt \quad -(2)$$

$\int I(w) = \frac{1}{jw}$

$$\Gamma\ T\ (1) \Rightarrow X(w) = RI(w) + 1/C\ \frac{I(w)}{jw} \quad -(3)$$

$$\Gamma\ T\ (2) \Rightarrow Y(w) = 1/C\ \frac{I(w)}{jw} \quad -(4)$$

$$(3) \Rightarrow X(w) = \left[R + \frac{1}{jwC}\right] I(w)$$

$$Y(w) = \frac{1}{jwC} I(w)$$

$$H(w) = \frac{Y(w)}{X(w)} = \frac{\frac{1}{jwC} I(w)}{\left[R + 1/jwC\right] I(w)} = \frac{1/jwC}{\frac{jwRC+1}{jwC}} = \frac{1}{jwRC+1}$$

$$h(t) = F^{-1}[H(w)] = F^{-1}\left[\frac{1}{1+jwRC}\right] = F^{-1}\left[\frac{1}{RC\left[1/RC + jw\right]}\right]$$

$$= F^{-1}\left[1/RC \Big/ jw + 1/RC\right] = 1/RC\ e^{-(1/RC)t}u(t)$$

When $RC = 1$

$$h(t) = e^{-t}u(t)$$

$$H(w) = \frac{1}{1+jwRC}$$

$RC = 1$, $H(w) = \frac{1}{1+jw}$

$$H(w) = |H(w)| \angle H(w)$$

$$|H(w)| = \frac{1}{\sqrt{1^2+w^2}} = \frac{1}{\sqrt{1+w^2}}$$

$$\angle H(w) = 0 - \tan^{-1}(w)$$

AY 2022-23 S7 AEI

Vimal Jyothi Engineering College, Chemperi, Kannur Dist., Kerala

	1	2	3	4	5	6
Mo	*AET401 COMMUNICATION ENGINEERING* **Ms.Shamya A**	*AET423 SCADA AND DISTRIBUTED CONTROL TUT* **Mr.Dhanoj Mohan**	*AET423 SCADA AND DISTRIBUTED CONTROL* **Mr.Dhanoj Mohan**	*OPEN ELECTIVE* **Mr.Binil Kumar K / Mr. Shamsudheen K K / Mr. Josy James / Mr. Appu Kurian / Dr.P Sridharan / Dr.S Christopher Ezhil Singh / Mr. Mejo M Francis / Ms. MANJU M. Ms.Sudharsana Vijayan**	*OPEN ELECTIVE* **Mr.Binil Kumar K / Mr. Shamsudheen K K / Mr. Josy James / Mr. Appu Kurian / Dr.P Sridharan / Dr.S Christopher Ezhil Singh / Mr. Mejo M Francis / Ms. MANJU M. Ms.Sudharsana Vijayan**	*MCN401 INDUSTRIAL SAFETY ENGINEERING* **Ms.Jinsa Mathew**
Tu	*AEQ413 SEMINAR* **Ms.Reshma K V / b / Dr.G.Glan Devadhas**			*OPEN ELECTIVE* **Mr.Binil Kumar K / Mr. Shamsudheen K K / Mr. Josy James / Mr. Appu Kurian / Dr.P Sridharan / Dr.S Christopher Ezhil Singh / Mr. Mejo M Francis / Ms. MANJU M. Ms.Sudharsana Vijayan**	*OPEN ELECTIVE* **Mr.Binil Kumar K / Mr. Shamsudheen K K / Mr. Josy James / Mr. Appu Kurian / Dr.P Sridharan / Dr.S Christopher Ezhil Singh / Mr. Mejo M Francis / Ms. MANJU M. Ms.Sudharsana Vijayan**	*AET401 COMMUNICATION ENGINEERING TUT* **Ms.Shamya A**
We	*AED415 PROJECT PHASE I* **Mr.Dhanoj Mohan / Ms.Jinsa Mathew**			*AED415 PROJECT PHASE I* **Mr.Dhanoj Mohan / Ms.Jinsa Mathew**		
Th	*MCN401 INDUSTRIAL SAFETY ENGINEERING* **Ms.Jinsa Mathew**	*AET423 SCADA AND DISTRIBUTED CONTROL* **Mr.Dhanoj Mohan**	*AET401 COMMUNICATION ENGINEERING* **Ms.Shamya A**	*MCN401 INDUSTRIAL SAFETY ENGINEERING* **Ms.Jinsa Mathew**	*AET423 SCADA AND DISTRIBUTED CONTROL* **Mr.Dhanoj Mohan**	*AET401 COMMUNICATION ENGINEERING* **Ms.Shamya A**
Fr	*AET401 COMMUNICATION ENGINEERING* **Ms.Shamya A**	*MCN401 INDUSTRIAL SAFETY ENGINEERING TUT* **Ms.Jinsa Mathew**	*AET423 SCADA AND DISTRIBUTED CONTROL* **Mr.Dhanoj Mohan**	*AEL411 PROCESS CONTROL LAB* **Ms.Reshma K V / Ms.Jinsa Mathew / a / Mr.Jolly Kutty**		
Sa	*Special Timetable*					

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Timetable prepared by Dr Javesh George M, Associate Professor, ECE

Timestamp	Email Address	Course Name:	Course Code:	Name of faculty:	Date of Class conducted:	Time:	Topic covered:	Details of tutorial work:	No.of students present:	Absentees details:	Details of tutorial sample:
#########	jinsamathew@vjec.ac.in	Industrial Safety Engineering	MCN401	Jinsa Mathew	9/30/2022	10:00:00 AM	Safety Officer-responsibilities, authority	Discussed about Safety Officer-responsibilities, authority	18	Sreehari, Joyel Joseph	https://drive.google.com/file/d/1BpanZyur9I7-33hu0mhrxXE-oXFxSaHF/view?usp=share_link
#########	jinsamathew@vjec.ac.in	Industrial Safety Engineering	MCN401	Jinsa Mathew	10/28/2022	10:00:00 AM	Housekeeping, Responsibility of management and employees,	Discussed Housekeeping, Responsibility of management and employees,	20	Nil	m/open?id=118bvJlpEF1dRQW687GMMvlVIydn4131ahttps://drive.google.com/file/d/1BpanZyur9I7-
#########	shamyasanthosh@vjec.ac.in	COMMUNICATION ENGINEERING	AET401	SHAMYA A	9/29/2022	3:10:00 PM	AM MODULATION ANALYSIS AND ITS NUMERICALS	M MODULATION ANALYSIS AND ITS NUMERICALS	16	4	https://drive.google.com/open?id=1aBYAwZ7mbX4yF06qs2GdQTyDkCjSMVzj
#########	shamyasanthosh@vjec.ac.in	COMMUNICATION ENGINEERING	AET 401	SHAMYA A	10/13/2022	3:10:00 PM	FREQUENCY MODULATION	PROBLEM EXPLANATION	19	1	https://drive.google.com/open?id=1_wuqn-wDFOzdlxJbJiEym9Rv83D9IGMR
#########	shamyasanthosh@vjec.ac.in	communication engineering	aet41	shamya A	12/8/2022	3:10:00 PM	PSD of BPSK	Revised the topic	18	2	https://drive.google.com/open?id=1y8ZW8BTcORy2OhxqTW457TBZQfoJEbdU
#########	shamyasanthosh@vjec.ac.in	communication engineering	AET401	shamya A	12/15/2022	9:00:00 AM	PSD and bandwidth of QPSK	revision	16	4	https://drive.google.com/open?id=1NOs4YW1XVKpNs2KiU6F2kybC6kBpQKV9

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S8 AEI

Vimal Jyothi Engineering College, Chemperi, Kannur Dist., Kerala

	1 9:00 - 10:00	2 10:00 - 11:00	3 11:10 - 12:10	4 1:00 - 2:00	5 2:00 - 3:00	6 3:10 - 4:10
Mo	AED 416Project - Phase III Dr Glan Devadhas / Mr Dhanoj Mohan / R / Mr Jollykutty Sebastian			AED 416Project - Phase III		
Tu	*AET402 VLSI CIRCUIT DESIGN* **Ms Shamya**	*AET476 Program Elective - IV(T)* **Mr Shinu**	*AET402 VLSI CIRCUIT DESIGN* **Ms Shamya**	*AET476 Program Elective - IV* T **Mr Shinu**	*AET468 Program Elective - V* **Ms Reshma K V**	*AET424 SOFT COMPUTING* **Ms Jinsa Mathew**
We	*AET468 Program Elective - V* **Ms Reshma K V**	*AET424 SOFT COMPUTING* **Ms Jinsa Mathew**	*AET468 Program Elective - V* **Ms Reshma K V**	*AET424 SOFT COMPUTING* T **Ms Jinsa Mathew**	*AET476 Program Elective - IV* **Mr Shinu**	*AET402 VLSI CIRCUIT DESIGN* **Ms Shamya**
Th	*AET402 VLSI CIRCUIT DESIGN* **Ms Shamya**	*AET468 Program Elective - V* **Ms Reshma K V**	*AET476 Program Elective - IV* **Mr Shinu**	*AET424 SOFT COMPUTING* **Ms Jinsa Mathew**	AET404 Comprehensive Course Viva Ms Reshma K V	
Fr	AED 416Project - Phase III			AED 416Project - Phase III Dr Glan Devadhas / Mr Dhanoj Mohan / R / Mr Jollykutty Sebastian		
Sa	Special Time table			Special Time table		

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VIMAL JYOTHI ENGINEERING COLLEGE
DEPARTMENT OF EIE
S8 AEI- TUTORIAL CLASS DETAILS

Course Name:	Course Code:	Name of faculty:	Date of Class conducted:	Time:	Topic covered:	Details of tutorial work:	No.of students present:	Absentees details:	Details of tutorial sample:
Soft computing	AET424	Jinsa Mathew	2/8/2023	13:00	Neural network	Problem - with activatio	19	VML19AE0	https://drive.google.com/u/0/open?usp=forms_web&id=14ZT8PSFjhh4HESc-14-Xai96RZTbpj9g
Soft Computing	AET424	Jinsa Mathew	3/15/2023	13:00	Fuzzy operation	Examples of fuzzy opera	18	VML19AE0	https://drive.google.com/u/0/open?usp=forms_web&id=1tHrfiQQ13HBQYI8MiLDvKpCB4V3pQFAK
Soft computing	AET424	Jinsa Mathew	3/22/2023	1:00	Fuzzy relation	Examples of fuzzy relatic	19	VML19AE0	https://drive.google.com/u/0/open?usp=forms_web&id=1sXWeHONLJ8_A2Ty8IXMBSI-YIXCO84HO
Soft Computing	AET424	Jinsa Mathew	3/8/2023	13:00	Bayes theorem	Calculation of probabilit	19	VML19AE0	https://drive.google.com/u/0/open?usp=forms_web&id=1YxIbYSA1sMJXQGRCS25MaxbhnfG7MQom
ROBOTICS AND INDUS	AET476	SHINU .MM	4/4/2023	13:00	MODULE 1	discussion module 1	10	1	https://drive.google.com/u/0/open?usp=forms_web&id=1T6V5dYDVDp6gL8KHkil4s56sdj8RqiwX
ROBOTICS AND INDUS	AET476	SHINU MM	5/10/2023	13:00	MODULE 2	Discussion module 2	20	0	https://drive.google.com/u/0/open?usp=forms_web&id=1q59Vjar_SpONj7pG8UfCwF4TtM8cuKP1

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28/10/22

Module-2 Tutorial 2

Housekeeping

Housekeeping at work is an important as it is at home, Especially if you want a safe workplace.

Poor house keeping may result in Employee injuries or even death, citations by the occupational Safety and Health administration (OSHA). & even difficulty in Securing future work.

Housekeeping Rules:-

⇒ Everyone's responsibility
⇒ clean up after yourself.
⇒ pickup trash and debris and dispose of it Properly.
⇒ Dispose of Combustible and flammables Properly.
⇒ Organize cables under desks.

Benefits

⇒ Reduced handling to ease the flow of materials
⇒ fewer tripping & slipping incidents
⇒ decreased fire hazards

⇒ more effective use of space.
⇒ less janitorial work.

Elements of Effective housekeeping Program

⇒ Maintenance
⇒ Dust and dirt removal
⇒ Employee facilities.
⇒ Surfaces
⇒ Maintain light fixtures
⇒ Aisles and Stairways
⇒ Spill control
⇒ Tool and Equipment.
⇒ Waste disposal.
⇒ Storage.

5S Concept of House Keeping

1. Sort
2. Set in order
3. Shine
4. Standardize
5. Sustain.

Sort :-
means eliminating anything that is unnecessary for the Equipment to work properly.

2. Set in order :- Best way of Eliminating Pointless Searching & having all the material necessary for functional production.

3. Shining :- means keeping everything so clean that it shines

4. Standardize :- means respecting the previous 3S.

5. Sustain :- after a period of 3 to 6 months the time has come to evaluate the situation

Benefits of 5S

⇒ Improved safety of working Environment
⇒ Higher Equipment availability
⇒ Lower defect rates.
⇒ Reduced Costs
⇒ Reduce injury rates.
⇒ Increased productivity.
⇒ Improved Employee morale
⇒ Higher quality.

Advantages: -

⇒ Improve Safety

⇒ Improve the working atmosphere & Environment

⇒ Improve the quality of work & products.

⇒ Enable Efficient maintenance

⇒ Enhance your image & Customer trust.

S5AEI

38 Industrial Instrumentation – Reshma K.V

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		17/8/2022	24/8/2022	31/8/2022	7/9/2022	14/9/2022	21/9/2022
1	Adil K	/	/	/	/	/	/
2	Ajay K P	/	/	/	/	/	/
3	Akhil M A	/	/	/	/	/	/
4	Akshas Mohan	/	/	/	/	/	/
5	Akshay M	/	/	/	/	/	/
6	Alan Sunny	/	/	AB	/	/	/
7	Alen Joe Prince	/	/	/	/	/	/
8	Anargh K	/	/	/	/	/	/
9	Aswin T S	/	/	/	/	/	/
10	Aswin Vinod C	/	/	/	/	/	/
11	Ayana P V	/	/	/	/	/	/
12	Dipuraj M	/	/	/	/	/	/
13	Hirandeep T	/	/	/	AB	/	/
14	Joyal Saji	/	/	/	AB	/	/
15	Jude Jomon George	/	/	/	/	/	/
16	Kevin Saji	/	/	/	/	/	/
17	Kiran K V	/	/	/	/	/	/
18	Mrinal C Pradeep	/	/	/	/	/	/
19	Muhammed Sahl	/	/	/	/	/	/
20	Revanth P V K	/	/	/	/	AB	/
21	Tom Jessan	/	/	/	/	/	/
22	Vyshnav K	/	/	/	/	/	/
	Reshma K.V						

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
28/9/2022	5/10/2022	12/10/2022	19/10/2022	26/10/2022	2/11/2022	9/11/2022	16/11/2022	23/11/2022
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
Ab	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
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/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	/	/	/	/	/	/	/	/
/	/	/	/	Ab	/	/	/	/

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40 Computer Architecture & Embedded Systems – Shinu . M. M

		Day 1 18/8/22	Day 2 25/8/22	Day 3 1/9/22	Day 4 8/9/22	Day 5 15/9/22	Day 6 22/9/22
1.	Adel . K						
2.	Ajay . K . P	/	/	/	/	/	/
3	Akhil . M . A	/	/	/	/	/	/
4	Akshar Mohan	/	/	/	/	/	/
5	Akshay . M	/	/	/	/	/	/
6	Alan Sunny	Ab	/	/	/	/	/
7	Alen Joe Prince	/	/	/	/	/	/
8	Anargh . K	/	/	/	/	Ab	/
9	Aswin T . S	/	/	/	/	/	/
10	Aswin Vinod . C	/	/	/	/	/	/
11	Ayana . P . V	/	/	/	/	/	/
12	Dipuraj . M	/	/	/	/	/	/
13	Hirandeep . T	/	/	/	/	/	/
14	Joyal Saji	/	/	/	/	/	/
15	Jude Jomon George	/	/	/	/	/	/
16	Kevin Saji	/	Ab	/	/	/	/
17	Kiran . K . V	/	/	/	/	/	Ab
18	Mrinal . C . Pradeep	/	/	/	/	/	/
19	Muhammed Sahl	/	/	/	/	/	/
20	Revanth P . V . K	/	/	/	/	/	/
21	Tom Tessan	/	/	/	/	/	/
22	Vyshnav . K	/	/	Ab	/	/	/
	Shinu . M . M						

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
29/9/22	6/10/22	13/10/22	20/10/22	27/10/22	3/11/22	10/11/22	17/11/22	24/11/22
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	Ab	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	Ab	P	P	P
P	P	P	P	P	P	Ab	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	Ab	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
Ab	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	Ab	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	Ab	P	P	P	P	P	P	P
P	P	P	P	P	P	Ab	P	P
Shi	Shi	Shi	Shi	Shi	Shi	Shi	Shi	Shi

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42 Control Sems – Dr. G. Glan Devadhas.

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		18/8/22	25/8/22	1/9/22	8/9/22	15/9/22	22/9/22
1.	Adil. K						
2.	Ajay. K.P	P	P	P	P	P	P
3	Akhil. M.A	P	P	P	P	P	P
4	Akshas Mohan	P	P	P	P	P	P
5	Akshay. M	P	P	P	P	P	P
6	Alan Sunny	Ab	P	P	P	P	P
7	Alen Joe Prince	P	P	P	P	P	P
8	Anargh. K	P	P	P	P	P	P
9	Aswin T.S	P	P	P	P	P	P
10	Aswin Vinod. C	P	P	P	P	Ab	P
11	Ayana. P.V	P	P	P	P	P	P
12	Dipiraj. M	P	P	P	P	P	Ab
13	Hirandeep. T	P	P	P	P	P	P
14	Joyal Saji	P	P	P	P	P	P
15	Jude Tomon George	P	P	P	P	P	P
16	Kevin Saji	P	Ab	P	P	P	P
17	Kiran. K.V	P	P	P	P	P	P
18	Monial. C. Pradeep	P	P	P	P	P	P
19	Muhammed Sahl.	P	P	P	P	P	P
20	Revanth P.V.K	P	P	R	P	P	P
21	Tom Jessan	P	P	P	P	Ab	P
22	Vyshnav. K	P	P	Ab	P	P	P
	Dr. G. Glan Devadhas.	G.Gl	G.Gl	G.Gl	G.Gl	G.Gl	G.Gl

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
29/9/22	6/10/22	13/10/22	20/10/22	27/10/22	3/11/22	10/11/22	17/11/22	24/11/22
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	Ab	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	Ab	P	P	P
P	P	P	P	P	P	Ab	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	Ab	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
Ab	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	Ab	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	Ab	P	P	P	P	P	P	P
P	P	P	P	P	P	Ab	P	P
G.Gln	G.Gln	G.Gln	G.Gln	G.Gln	G.Gln	G.Gln	G.Gln	G.Gln

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Analog Integrated ckts - Jinsa Mathew.

		Day 1 18/8/22	Day 2 25/8/22	Day 3 1/9/22	Day 4 8/9/22	Day 5 15/9/22	Day 6 22/9/22
1.	Adil. K						
2	Ajay. K. P	P	P	P	P	P	P
3	Akhil. M. A	P	P	P	P	P	P
4	Akshas Mohan	P	P	P	P	P	P
5	Akshay. M	P	P	P	P	P	P
6	Alan Sunny	AB	P	P	P	P	P
7	Alen Joe Prince	P	P	P	P	P	P
8	Anargh. K	P	P	P	P	P	P
9	Aswin T. S	P	P	P	P	P	P
10	Aswin Vinod. C	P	P	P	AB	P	P
11	Ayana. P. V	P	P	P	P	P	P
12	Dipuraj. M	P	P	P	P	P	AB
13	Hirandeep. T	P	P	P	P	P	P
14	Joyal Saji	P	P	P	P	P	P
15	Jude Jomon George	P	P	P	P	P	P
16	Kevin Saji	P	AB	P	P	P	P
17	Kiran K. V	P	P	P	P	P	P
18	Mrinal. C. Pradeep	P	P	P	P	P	P
19	Muhammed Sahl	P	P	P	P	P	P
20	Revanth P. V. K.	P	P	P	P	P	P
21	Tom Jessan	P	P	P	P	AB	P
22	Vyshnav. K	P	P	AB	P	P	P
	Jinsa Mathew.	Jinsa	Jinsa	Jinsa	Jinsa	Jinsa	Jinsa

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
29/9/22	6/10/22	13/10/22	20/10/22	27/10/22	3/11/22	10/11/22	17/11/22	24/11/22
P	P	P	P	P	P	P	P	Ab
P	P	P	P	P	P	P	P	P
P	Ab	P	P	P	P	P	P	P
P	P	P	P	Ab	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	Ab	P	P
P	P	P	Ab	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	Ab	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	Ab
P	P	Ab	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	Ab	P	P

Jinsa | Jinsa | Jinsa | Jinsa | Jinsa | Jinsa | Jinsa | Jinsa | Jinsa.

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Power Electronics – Prabin James

		Day 1 6/2/23	Day 2 13/2/23	Day 3 20/2/23	Day 4 27/2/23	Day 5 6/3/23	Day 6 13/3/23
1	Adil.K						
2	Ajay.K.P	/	/	/	/	/	/
3	Akhil.M.A	/	/	/	/	/	/
4	Akshas Mohan	Ab	/	/	/	/	/
5	Akshay.M	/	/	/	/	/	/
6	Alan Sunny	/	/	/	/	/	/
7	Alen Joe Prince	/	/	/	/	Ab	/
8	Anargh.K	/	Ab	/	/	/	/
9	Aswin T.S	/	/	/	/	/	/
10	Aswin Vinod.C	/	/	/	/	/	/
11	Ayana.P.V	/	/	/	/	/	/
12	Dipuraj.M	/	/	/	/	/	/
13	Hiandeep.T	/	/	/	/	/	/
14	Joyal Saji	/	/	Ab	/	/	/
15	Jude Jomon George	/	/	/	/	/	/
16	Kevin Saji	/	/	/	/	Ab	/
17	Kiran.K.V	/	/	/	/	/	/
18	Mrinal.C.Pradeep	/	/	/	/	/	/
19	Muhammed Sahl	/	/	/	/	/	/
20	Revanth.P.V.K	Ab	/	/	/	/	/
21	Tom Jessan	/	/	/	/	/	/
22	Vyshnav.K.	/	/	/	/	/	/
	Prabin James	Prabin	Prabin	Prabin	Prabin	Prabin	Prabin

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
20/3/23	27/3/23	10/4/23	17/4/23	24/4/23	8/5/23	15/5/23	22/5/23	5/6/23
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	Ab	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
Ab	/	/	/	/	/	/	/	/
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	Ab	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
Prabhi	Prabhi	Prabhi	Prabhi	Prabhi	Prabhi	Prabhi	Prabhi	Prabhi

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S6 AEI

Process Dynamics & Control – Dr. G. Glan Devadhas

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		7/2/23	14/2/23	21/2/23	28/2/23	7/3/23	14/3/23
1.	Adil K						
2.	Ajay K P	/	Ab	/	/	/	/
3.	Akhil M A	/	/	/	/	/	/
4.	Akshas Mohan	/	/	/	/	/	/
5.	Akshay M	/	/	/	/	/	/
6.	Alan Sunny	/	/	/	/	/	/
7.	Alen Joe Prince	/	/	Ab	/	/	/
8.	Anagha K	Ab	/	/	/	/	/
9.	Aswin T S	/	/	/	/	/	/
10.	Aswin Vinod C	/	/	/	/	/	/
11.	Ayana P V	/	/	/	/	/	/
12.	Dipuraj M	/	Ab	/	/	/	/
13.	Hirandeep T	/	/	/	/	Ab	/
14.	Joyal Saji	/	/	Ab	/	/	/
15.	Jude Jomon George	Ab	/	/	/	/	/
16.	Kevin Saji	/	/	/	/	/	/
17.	Kiran K V	/	/	/	/	/	/
18.	Mrinal C Pradeep	/	/	/	Ab	/	/
19.	Muhammed Sahl	/	/	/	/	/	/
20.	Revanth P V K	/	/	/	/	/	Ab
21	Tom Jessan	/	/	/	/	/	/
22.	Vyshnav K	/	/	/	/	/	/
	Dr. G. Glan Devadhas	G.Glan	G.Glan	G.Glan	G.Glan	G.Glan	G.Glan

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
21/3/23	28/3/23	11/4/23	18/4/23	25/4/23	9/5/23	16/5/23	23/5/23	6/6/23
/	/	/	/	/	/	/	/	Ab
/	/	/	/	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
/	/	/	Ab	/	/	/	/	/
Ab	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	Ab	/	/	/	Ab
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
Ab	/	/	/	/	/	/	/	/
/	/	/	/	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	/	/	Ab	/	/	/	/	/
S.Gh=	S.Gh=	S.Gh=	S.Gh=	S.Gh=	S.Gh=	S.Gh=	S.Gh=	S.Gh=

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Digital Signal Processing - Dr. Jayesh George

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
		8/2/2023	15/2/23	22/2/23	1/3/23	8/3/23	15/3/23
1.	Adil K						
2.	Ajay K P	/	/	/	/	AB	/
3.	Akhil M A	/	/	/	/	/	/
4.	Akshas Mohan	AB	/	/	/	/	/
5.	Akshay M	/	/	/	AB	/	/
6.	Alan Sunny	/	AB	/	/	/	/
7.	Alen Joe Prince	/	/	/	/	/	/
8.	Anargh K	/	/	/	/	/	/
9.	Aswin T S	/	/	/	/	/	/
10.	Aswin Vinod C	/	/	/	/	/	/
11.	Ayana P V	/	/	/	/	/	/
12.	Dipuraj M	/	/	AB	/	/	/
13.	Hiramdeep T	AB	/	/	/	/	/
14.	Joyal Saji	/	/	/	/	/	/
15.	Jude Jomon	/	/	/	/	/	AB
16.	Kevin Saji	/	/	/	/	/	/
17.	Kiran K V	/	/	/	/	/	/
18.	Mrinal C Pradeep	/	/	/	/	/	/
19.	Muhammed Sahil	AB	/	/	/	/	/
20.	Revanth P V K	/	/	/	/	/	/
21.	Tom Jessan	/	/	/	/	/	/
22.	Vyshnav K	/	/	/	AB	/	/
	Jayesh George	JG	JG	JG	JG	JG	JG

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Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
22/3/23	29/3/23	12/4/23	19/4/23	26/4/23	10/5/23	17/5/23	24/5/23	7/6/23
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	Ab	/	/	/	/	/	/	/
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	Ab	/	/	/	/
/	/	/	/	/	/	/	/	Ab
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	Ab	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	Ab	/
/	/	/	/	/	/	/	/	/
/	/	/	Ab	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	Ab	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	Ab
/	/	/	/	/	Ab	/	/	/
/	/	/	/	/	/	Ab	/	/
/	/	/	/	/	/	/	/	/
Tq	Tq	Tq	Tq	Tq	Tq	Tq	Tq	Tq

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SL. NO.	NAME OF THE STUDENT	FACULTY
1	AARSHA ANIL	
2	ALAN THOMAS	
3	ALANA ANCE JOHN	
4	AMRITHA PRADEEP	
5	ANN RIYA JAISON	
6	AUSTINE S MANUEL	
7	CAMAY JILLS	
8	CHANDHANA RAJEEVAN	
9	CHRISTEENA J ROSE	
10	DENI THOMAS	
11	DEVA NAIR	
12	HAMNA RAFEEQ	
13	JASHLIN S SIMON	
14	KIRAN PRASAD PP	
15	MARWA ABDUL RAZAK	
16	MAZIN MURSHID	Ms. Derroll Davic
17	MOHAMMED ZAIN RAFEEQU	
18	NANDHAJ VIJAYAN	
19	NAVANEETHA P NAMBIAR	
20	RIDHA GAFOOR	
21	ROSE BENNY	
22	SHARON RAJISH JOSEPH	
23	SHYAMITH MANNAMBETH	
24	SNEHAL VINOD T	
25	SOURAV C	
26	STEPHIN LIJI	
27	THAHA MUHAMMED YASEEN	
28	THALHAH ANAS	
29	VAIBHAV RAJESH	
30	VAISHAKH P	
31	VISHNUPRIYA N	

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Timestamp	Email Address	Name of the faculty	Subject Code	Subject Name	Date	Hour	Total Students	No. of absentees	Roll No. of absentees	Topic Covered	Sample work done by the students (1 MB max)
6-12-2022 12:26:02	ambilimacse@vjec.ac.	Ambili M. A.	CST204	DBMS	10-05-2022	1	32	1	2	ER Diagram	https://drive.google.com/open?id=1ieBlh9sngAL3VLhmbLjhrEyyAoocZYET
6-12-2022 12:37:09	ambilimacse@vjec.ac.	Ambili M. A.	CST204	DBMS	28-05-2022	1	32	6	2,7,12,22,23,31	Relational Algebra	https://drive.google.com/open?id=1yqRpb0Zcl0Wedz8yrG4KUCEKl4qtzxv2
6-12-2022 12:39:26	ambilimacse@vjec.ac.	Ambili M. A.	CST204	DBMS	08-06-2022	1	32	6	2,6,12,16,22,28	SQL	https://drive.google.com/open?id=1w3HkJVwgoKKFwfAa5Pp2SP4FgJaBpeHj
6-12-2022 15:42:30	neenaphalgun@vjec.a	Neena V V	CST206	Operating System	20-05-2022	4	32	6	15,16,17,27,28,32	Process Creation	https://drive.google.com/open?id=1FVWXfJfCEEdqi9E8crqbOznjOBF6-RGw
6-12-2022 15:44:41	neenaphalgun@vjec.a	Neena V V	CST206	Operating System	27-05-2022	3	32	6	2,12,22,23,25,29	Process Scheduling	https://drive.google.com/open?id=1-fzIWjnKUc3oelGUsrzWFVjViQuU6sqE
6-13-2022 11:07:15	abdullatheef@vjec.ac.i	Abdul Latheef	CST 202	Computer organization	10-05-2022	6	31	1	2	shift register and binar	https://drive.google.com/open?id=1ZZm4QnpdQcWci4DMjHoTe71idBXNOmdp
6-13-2022 11:17:37	abdullatheef@vjec.ac.i	Abdul Latheef	CST 202	Computer organization	28-05-2022	6	32	13	2,7,11,12, 16,22,23,25,	status register	https://drive.google.com/open?id=1yFlhqFFjDPlRqgs0fW1XyDkOwNB4nIXL

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VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF CIVIL ENGINEERING

Tutorial Details- S3 CE (2022-26 BATCH)

Subject	Name of faculty	Date	No:of students present	Topics covered	Absent students details (if any)	Material details(google drive link)
CET201 MECHANICS OF SOLIDS	MIDHUN KRISHNAN	15/09/2023	27	Stress-strain diagram of mild steel, Factor of safety	NIL	
		06-10-2023	28	Temperature effects, temperature stress in composite bars, Shear stress and shear strain	NIL	
		07-10-2023	27	Modulus of rigidity, simple shear, punching shear	(Roll No: 2, Abhijith Salu)	
		13/10/2023	26	Instantaneous stress in bars due to gradual, sudden and impact loads	Roll No: 2 - Abhijith Salu, Roll No: 20 Sandra Chandran	
MAT201 PDE AND COMPLEX ANALYSIS	DIVYA THOMAS	11-09-2023	26	conjucate of complex function	12	
		18/9/23	26	real part and imaginary part	22	
		10-09-2023	25	conformal mapping	11,22,25	
CET 203 FLUID MECHANICS AND HYDRAULICS	ATHIRA RAJENDRAN	18/09/23	28	Gauge pressure vacuum pressure	NIL	https://drive.google.com/drive/folders/13UeYUj1S-T1WtLa_GFf_ti4p9OZGwUSs?usp=sharing
		25/09/23	23	Pressure measurement	1,2,27,28	
		09/10/1023	28	Buoyancy	NIL	
		16/10/23	24	Metacentric height	8,11,22,23	

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EET401: ADVANCED CONTROL SYSTEM

Date	Subject Code	Subject Name	Name of Faculty	Topics Covered	Roll number of students in each batch		Proof Material folder Link
11-8-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Introduction to state space and state model concepts, State equation of linear continuous time systems	1-31		
16-8-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Examples of electrical circuits and dc servomotors	1-31		
22-8-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Controllable and observable companion forms	1-31		
23-8-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Diagonal Canonical forms	1-31		
14-9-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Computation of state transition matrix using Laplace transform and Cayley Hamilton method	1-31		https://drive.google.com/drive/folders/1uWqGL1reh8jXGnWJs3NaBdVvjQk1ySui?usp=sharing
21-9-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Solution of time response of autonomous systems and forced systems	1-31		
30-9-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Phase variable form and Diagonal canonical form representations	1-31		
04-10-2023	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Computation of state transition matrix using Laplace transform and Cayley Hamilton method	1-31		
6-10-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Controllability & observability, Kalman's tests	1-31		
6-10-23	EET401	ADVANCED CONTROL SYSTEM	ATHIRA M THOMAS	Gilbert's and PBH tests,	1-31		

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