



SREE SAKTHI ENGINEERING COLLEGE

TNEA Admission Code **2673**

OOTY MAIN ROAD, KARAMADAI, | MOB : +91 92445 04444, +91 92445 02277
COIMBATORE- 641104. INDIA | Web : www.sreesakthi.edu.in

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2.3.2

**TEACHERS USE ICT
ENABLED TOOLS FOR
EFFECTIVE TEACHING-
LEARNING PROCESS**



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DEPARTMENT OF MECHANICAL ENGINEERING

2.3.2 Teachers use ICT enabled tools for effective teaching learning process

Knowledge, strategies, methods, and actions that produce positive student outcomes are those of an effective teacher. Effective teachers use their knowledge to enhance learning and have a good effect on their students. These positive results are frequently ones that are simple to measure, usually through a summary assessment.

1. NPTEL videos
2. Coursera
3. Google class rooms
4. Faculty participation in online course
5. E –Sources
6. Projectors in class rooms
7. Virtual based laboratory

1. NPTEL VIDEOS

The screenshot displays the NPTEL online course interface. The browser address bar shows the URL: https://onlinecourses.nptel.ac.in/noc22_me10/unit?unit=59&lesson=61. The course title is "NPTEL - Computer Integrated Manufacturing". The current page is "Lecture 24, Laboratory Demonstration, Computer Aided Design (part 2 of 2), Dr. Amandeep Singh". The video player shows a 3D CAD model of a mechanical part. Below the video is a "Video Transcript" section with the following text:

Language for Video Transcript: English

Video Transcript:

Now I need to show the sheet size. So, what size is the pul some other here. So, what size here is 25 millimeters, so 10 mm, right, so my pul size. So, I will make without cut here. So, I need to be through so we can just adjust the size of the pul size, but the pul size should not be. So, through how the pul size, through it only. This is a small diameter that is made here. ~~SO, I WILL MAKE WITHOUT CUT HERE~~

~~SO, I WILL MAKE WITHOUT CUT HERE~~ So, pul size should be perpendicular to the axis here. So, diameter for the hole is 2 mm, so below 5 mm dia I will make the hole. Now, what diameter is one of the plates that I will show you. The other diameter is to cut the dimension in a proper location, so I need to cut one in the center of the hole. So, this is not cut, so 20 mm here, 20 mm diameter that is here. So, the other diameter, so this is about 25 mm from the center that is in the center of the largest part of the coupling. Now, I need to cut a hole I will make sketch again here. So, simply I need sketch before I cut (I will make a sketch). Okay, it is done, so the dimensions are the same. I already did explain the number of holes in that. So, what diameter is 20 degree. So, I will just adjust this. Now, the hole is made, you agree, you cut command to make a through hole. So, extruded cut in the hole are selected in the go and extruded cut command is applied. You see how good result. This time the hole is made, but I want to show you the result, but I will show you the result in the next part of the video. So, I will make the hole.

Auto Save

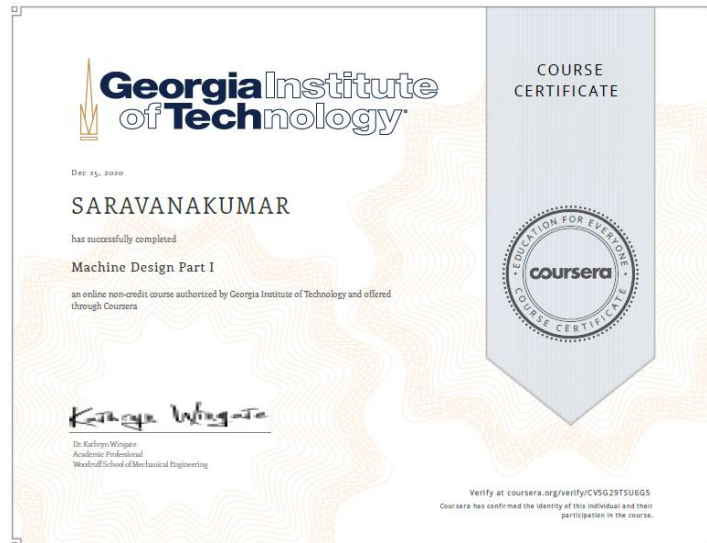
Laboratory Demonstration, Computer Aided Design
Solutions (Assembly) - Lecture

Give us your feedback [Feedback](#)

Students are actively attending swayam courses in Online

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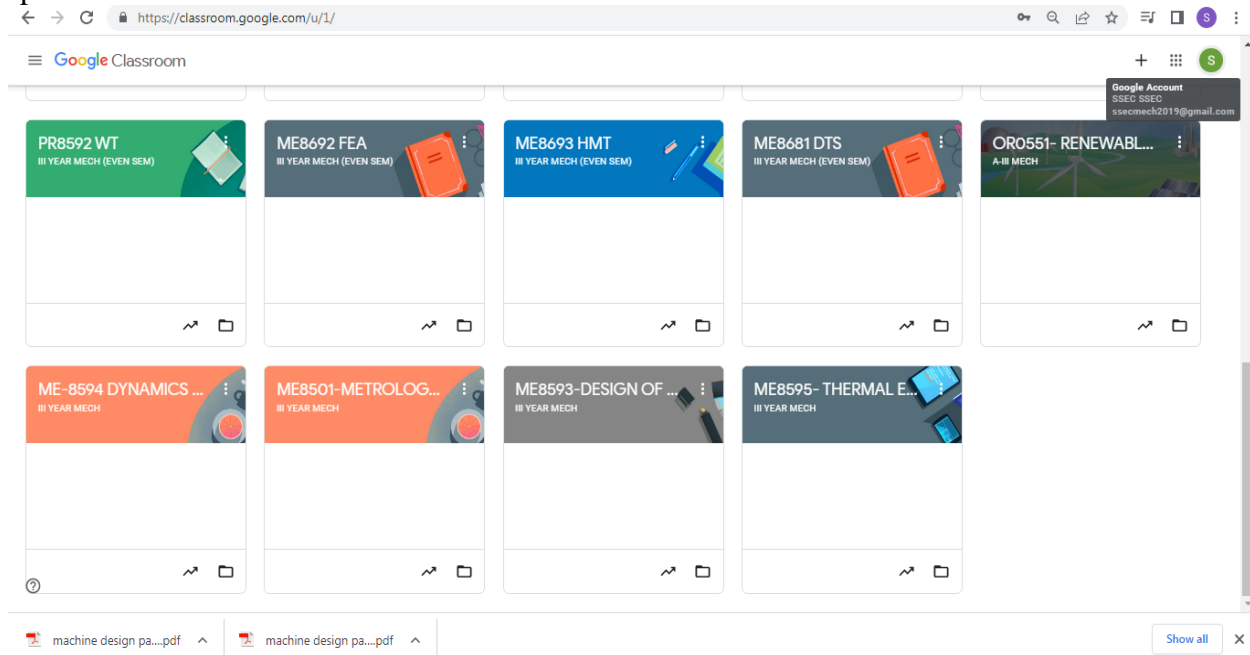
2. COURSERA:



Student from third year completed the coursera online course

3. GOOGLE CLASS ROOMS

Each batch of the students have a individual college mail ID. All course contents are uploaded there.




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4 Faculty participation in online course:

Insert logesh sir certificate

5. E –Sources (NPTEL Videos link)


SL.NO	TOPIC	NPTEL VIDEO
1	Preferred numbers	https://www.youtube.com/watch?v=1NLhgCi4iaE
2	Design of solid and hollow shafts based on strength	https://www.youtube.com/watch?v=SL21aDqgs8Q
3	Rigidity and critical speed	https://www.youtube.com/watch?v=mR-mGq19oGs
4	Rigid and flexible couplings.	https://www.youtube.com/watch?v=uGxfchLe-I
5	Keyways and splines	https://www.youtube.com/watch?v=G0bShPqHn5c
6	Bending and torsional stress equations	https://www.youtube.com/watch?v=X-qUQ3xaTA
7	Impact and shock loading	https://www.youtube.com/watch?v=PYnkI_VFxaA
8	Calculation of principle stresses for various load combinations	https://www.youtube.com/watch?v=W8WhnAj5R6M
9	Eccentric loading	https://www.youtube.com/watch?v=_py5xbKHGA
10	Threaded fasteners	https://www.youtube.com/watch?v=Z38Aq9ykUCM
11	Bolted joints including eccentric loading	https://www.youtube.com/watch?v=_py5xbKHGA
12	Knuckle joints	https://www.youtube.com/watch?v=OT6VcqvoOgY
13	Cotter joints	https://www.youtube.com/watch?v=CLeLFUrvO2g
14	Welded joints	https://www.youtube.com/watch?v=7b1bd-lgra0
15	Riveted joints for structures	https://www.youtube.com/watch?v=C5ZPaCvoigw
16	Theory of bonded joints	https://www.youtube.com/watch?v=rOcliPMmP2M
17	Various types of springs	https://www.youtube.com/watch?v=tTBnW5gAieM

6. Projectors in class rooms

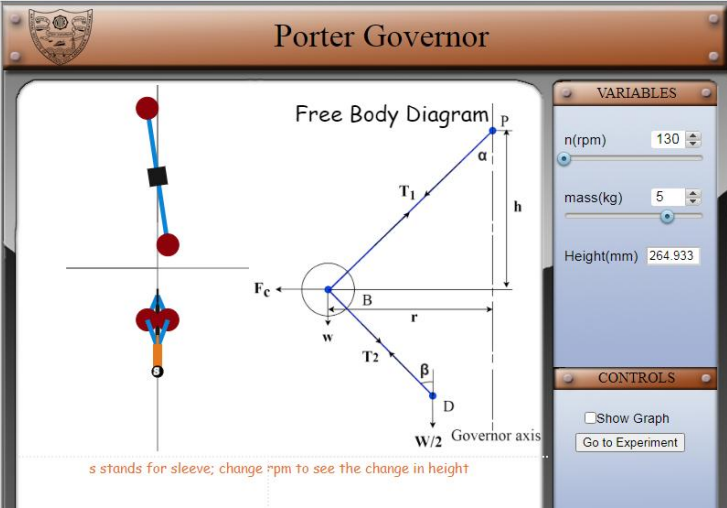


7. Virtual based laboratory

← → ↻ <https://dom-nitk.vlabs.ac.in/exp/porter-governor/simulation.html> 🔍 ☆ 📄 🌐 ⋮

 Porter Governor

Porter Governor



The simulation interface for the Porter Governor. It features a 3D model of the governor mechanism on the left, a free body diagram in the center, and a control panel on the right. The free body diagram shows a sleeve (B) with forces T_1 , T_2 , F_c , and w . The sleeve is connected to a sleeve (P) at height h and a sleeve (D) at height $W/2$. The angle between the sleeve and the vertical is α , and the angle between the sleeve and the horizontal is β . The radius of the sleeve is r .

VARIABLES

- n(rpm): 130
- mass(kg): 5
- Height(mm): 264.933

CONTROLS

- Show Graph
- Go to Experiment

s stands for sleeve; change rpm to see the change in height


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DEPARTMENT OF CIVIL ENGINEERING

2.3.2	ICT ENABLED PHOTO
	ICT ENABLED SMART CLASS ROOM PHOTO
	COMPUTER LAB
	GOOGLE CLASSROOM
	GOOGLE MEET CLASS PHOTOS
	VIRTUAL LAB LINKS
	E-LEARNING WEBSITE

A handwritten signature in blue ink, appearing to read 'Dr. R. Prabhu'.

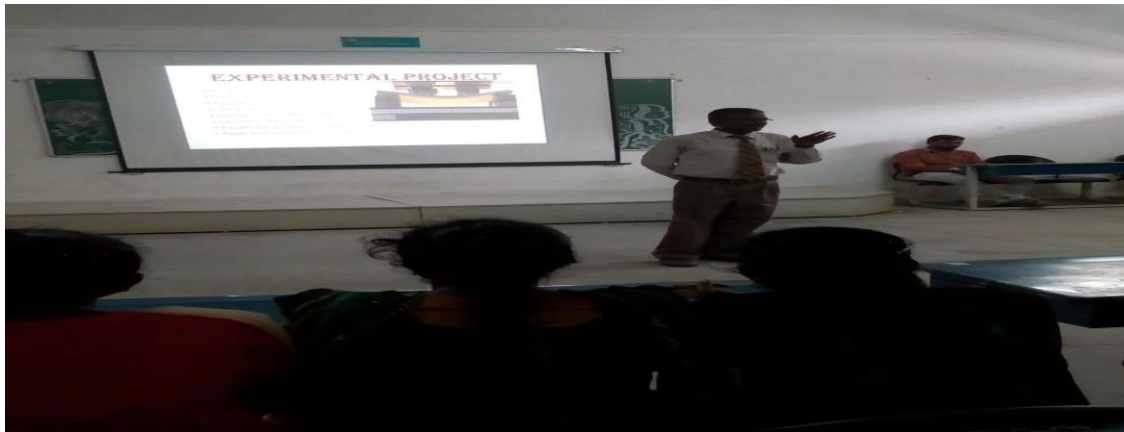
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ICT ENABLED PHOTO




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ICT ENABLED SMART CLASS ROOM PHOTO




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COMPUTER LAB



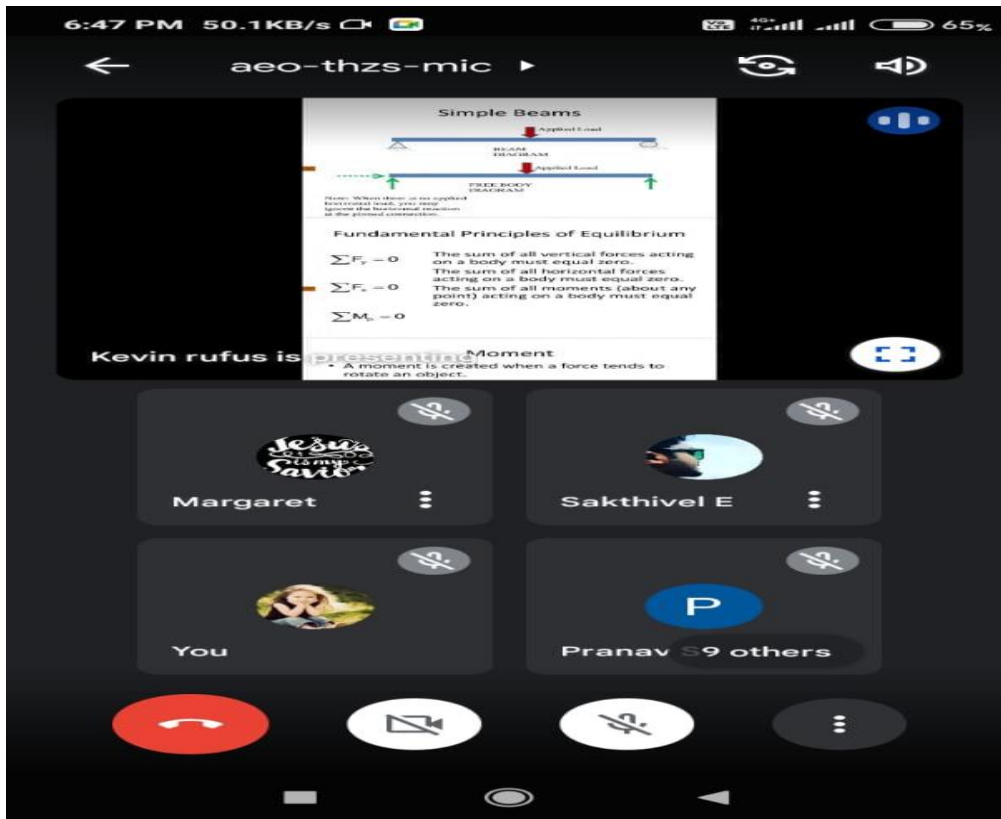

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GOOGLE CLASSROOM




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GOOGLE MEET CLASS PHOTOS




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VIRTUAL LAB LINKS

CE8512 - WATER AND WASTE WATER ANALYSIS LABORATORY

Sl.NO	NAME OF THE EXPERIMENT	Hyper Link
1	Determination of PH, Turbidity and Conductivity	https://www.youtube.com/watch?v=4ociAQoDCW0 https://www.youtube.com/watch?v=LeKqhMqEoKQ https://www.youtube.com/watch?v=WhyMOVvAu3s
2	Determination of Hardness	https://www.youtube.com/watch?v=Sa0WfA9UGGO
3	Determination of Alkalinity and Acidity	https://www.youtube.com/watch?v=zXvEmIFqicw https://www.youtube.com/watch?v=UL56LrTKTI
4	Determination of Chlorides	https://www.youtube.com/watch?v=KTWxG1uUT-0
5	Determination of Phosphates and Sulphates	https://www.youtube.com/watch?v=Digx_p7Hb5Q https://www.youtube.com/watch?v=tU36Sqsqv0
6	Determination of iron and Fluoride	https://www.youtube.com/watch?v=QoR2X2Jrc8c https://www.youtube.com/watch?v=lclKhNdKEUo
7	Determination of optimum coagulant dosage	https://www.youtube.com/watch?v=Y8faha-CEtM
8	Determination of residual chlorine and available chlorine in bleaching powder	https://www.youtube.com/watch?v=zeliRO_lmDdc https://www.youtube.com/watch?v=2K_C1SGIMU4
9	Determination of oil and grease	https://www.youtube.com/watch?v=yxDQm9Ge8Z8&t=103s
10	Determination of suspended, settleable, volatile and fixed solids	https://www.youtube.com/watch?v=GJSe_Deo-_0 https://www.youtube.com/watch?v=WsRxE2IWWmk
11	Determination Dissolved Oxygen and BOD for the given sample	https://www.youtube.com/watch?v=h4fCkhh4Y5I https://www.youtube.com/watch?v=yq7ISeCi6uo
12	Determination of COD of given sample	https://www.youtube.com/watch?v=xZu8GCCeJ_c
13	Determination of SVI of biological sludge and microscopic examination	https://www.youtube.com/watch?v=GTLKoGG0dM https://www.youtube.com/watch?v=l8xf1Hig8H0
14	Determination MPN index of given water sample	https://www.youtube.com/watch?v=csi82oWy7hM
15	Determination of Ammonia Nitrogen in wastewater	https://www.youtube.com/watch?v=h84cOeJNSCO

HYDRAULIC ENGINEERING LABORATORY

Virtual Lab Link:

<u>Sl.N O.</u>	<u>NAME OF THE EXPERIMENT</u>	<u>Hyper Link</u>
<u>1</u>	<u>Calibration of Rotameter</u>	https://www.youtube.com/watch?v=6CdO9inzSRQ
<u>2</u>	<u>Calibration of Venturimeter / Orificemeter</u>	https://www.youtube.com/watch?v=3wfUev6TQv0&feature=youtu.be https://www.youtube.com/watch?v=FmI92OGnj7I
<u>3</u>	<u>Bernoulli's Experiment</u>	https://www.youtube.com/watch?v=kPu9KO3TI28 https://www.youtube.com/watch?v=UJ3-Zm1wbIQ&feature=youtu.be
<u>4</u>	<u>Determination of friction factor in pipes</u>	https://www.youtube.com/watch?v=OyvgOL8I09U
<u>5</u>	<u>Determination of minor losses</u>	https://www.youtube.com/watch?v=hNtQMu57j44
<u>6</u>	<u>Characteristics of Centrifugal pumps</u>	https://www.youtube.com/watch?v=gk15BTzjggg
<u>7</u>	<u>Characteristics of Gear pump</u>	https://www.youtube.com/watch?v=qow9OaUdt6U
<u>8</u>	<u>Characteristics of Submersible pump</u>	https://www.youtube.com/watch?v=WVAjwjQeE68
<u>9</u>	<u>Characteristics of Reciprocating pump</u>	https://www.youtube.com/watch?v=s6Rix0SL3C8&feature=youtu.be
<u>10</u>	<u>Characteristics of Pelton wheel turbine</u>	https://www.youtube.com/watch?v=N_iAwHhf4FA
<u>11</u>	<u>Characteristics of Francis turbine/ Kaplan turbine</u>	https://www.youtube.com/watch?v=Tp8h1G4m434 https://www.youtube.com/watch?v=V2kB9NdsaN8
<u>12</u>	<u>Determination of Metacentric height of floating bodies</u>	https://www.youtube.com/watch?v=QUgXf2Rj2YQ&feature=youtu.be
<u>13</u>	<u>Flow through Orifice, Mouthpiece and Notches</u>	https://www.youtube.com/watch?v=Y5k4vxoztFo

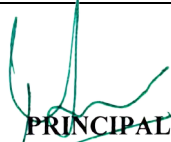


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SOIL MECHANICS LABORATORY

Virtual Lab Link:

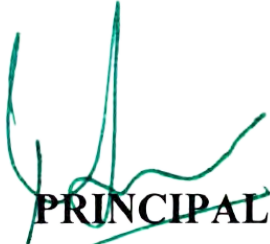
Sl.NO	NAME OF THE EXPERIMENT	Hyper Link
1	Specific gravity of soil solids	https://www.youtube.com/watch?v=hNNilk-OKaw
2	Grain size distribution – Sieve analysis	https://www.youtube.com/watch?v=CAezS3mPzOc
3	Grain size distribution - Hydrometer analysis	https://www.youtube.com/watch?v=78sKJKsaUvY
4	Liquid limit and Plastic limit tests	https://www.youtube.com/watch?v=pM-w_cvk1nA
5	Shrinkage limit and Differential free swell tests	https://www.youtube.com/watch?v=UyWdZJg4f_Y https://www.youtube.com/watch?v=qFlmUBHVAKw
6	Field density Test (Sand replacement method and core cutter method)	https://www.youtube.com/watch?v=C10dkIH12W0 https://www.youtube.com/watch?v=5rDHjZ_RJg0
7	Determination of moisture – density relationship using standard Proctor compaction test.	https://www.youtube.com/watch?v=c4i_y6u-tsE
8	Determination of relative density	https://www.youtube.com/watch?v=k3AIhoLLWUk
9	Permeability determination (constant head and falling head methods)	https://www.youtube.com/watch?v=B3gvVN29u8E https://www.youtube.com/watch?v=SS7o6sKw2Xc
10	One dimensional consolidation test	https://www.youtube.com/watch?v=wKdAbLamsvU
11	Direct shear test in cohesionless soil	https://www.youtube.com/watch?v=bmpn5oNDvOs
12	Unconfined compression test in cohesive soil	https://www.youtube.com/watch?v=M4TNKwuSnAk
13	Laboratory vane shear test in cohesive soil	https://www.youtube.com/watch?v=fhub_nMvfBE&t=44s



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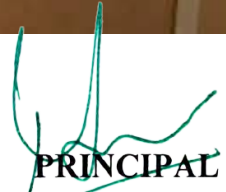
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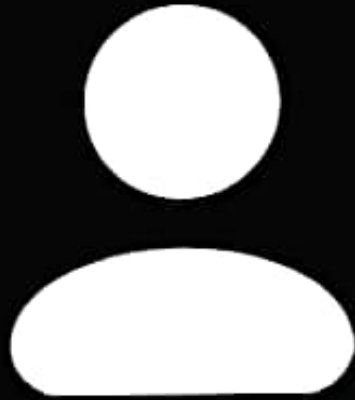
- 1. Nptel**
- 2. Swayam**
- 3. Mook**
- 4. Udemy**
- 5. Edx**
- 6. Alison**



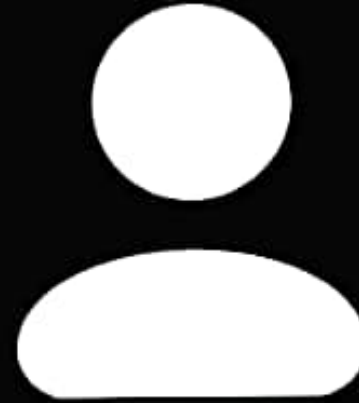
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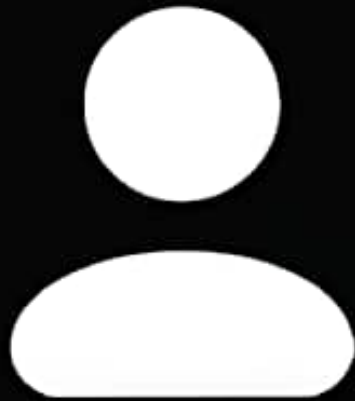

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 Savitha



 Rupathra



 Krithika Velmurugan



Connecting to audio ...



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Close

Participants (6)

Waiting(1)



Shathasri Shathasri

Joining...

Participants(5)



Elakkiya Elambarithi (Host, me)



Krithika Velmurugan



Rupathra

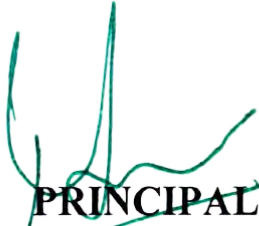


Savitha



B. Manjupriya




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Invite

Mute All



