INNOVATIONS IN TEACHING AND LEARNING

Subject: Signals & Systems   **Class:** S.Y. BTech E&TC
Digital Signal Processing,
Electronic Devices & Circuits

NAME OF THE ACTIVITY: YouTube Videos

I.   **Concept:** The sessions on the topics from the course are recorded and uploaded on a free video-sharing platform YouTube.

II. **Objective (Goal):** Make available the free learning resources to students.

III. **Appropriateness (Relevance of Selected Method):**

By the concept of YouTube Videos, student will be able to learn the topics which he/she might have missed during the regular course delivery. For the topic revision purpose also, these videos are useful.

IV. **Effective Presentation (Implementation Details):**

Online mode teaching has supported a lot in engineering courses. Faculty members have created videos of their respective fields explaining the concepts of theory and practical. These videos are made available to students on YouTube.

Your channel
Charushila Rane

⊟ Dashboard
▶ Content
⬛ Analytics
⚎ Community
☰ Subtitles
⚙ Settings
⚑ Send feedback

Channel content

Inspiration | **Videos** | Shorts | Live | Posts | Playlists | Podcasts | Promotions

Filter

	Video	Visibility	Restrictions	Date ↓	Views	Comments	Likes (vs. disli
☐	Innovations in Teaching and Learning_... 0:32 — I. Concept: A bag is filled with papers having different topics of the subject...	⊕ Public	None	Apr 24, 2025 Published	1	0	
☐	Properties of convolution 9:32 — This session gives explanation about convolution sum/integral properties for...	⊕ Public	None	Feb 20, 2025 Published	145	0	88 8 li
☐	Getting started with Matlab 1:15:02 — This video is useful for beginners to start using Matlab. While listening the video,...	⊕ Public	None	Aug 4, 2022 Published	434	26	85 23 li
☐	Design and implement two-stage sam... Thank You — This video describes the design and implementation of two stage sampling	⊕ Public	None	Jul 6, 2022 Published	506	67	95 68 li

Your channel
Charushila Rane

⊟ Dashboard
▶ Content
⬛ Analytics
⚎ Community
☰ Subtitles
⚙ Settings

	Video	Visibility	Restrictions	Date ↓	Views	Comments	Likes (vs. disli
☐	Design and implement two-stage sam... Thank You 21:02 — This video describes the design and implementation of two-stage sampling...	⊕ Public	None	Jul 6, 2022 Published	506	67	95 68 li
☐	To find 4 points circular convolution a... 7:44 — This video explains the MATLAB code to find 4 points circular convolution and...	⊕ Public	None	Jul 6, 2022 Published	155	34	97 40 li
☐	Study and verify DFT properties using ... 18:04 — This video explains the description and verification of DFT properties using...	⊕ Public	None	Jul 6, 2022 Published	842	26	96 49 li
☐	Sampling Theorem Practical using MA... 15:35 — This Video explains how to perform experiment on Sampling theorem using...	⊕ Public	None	Jul 6, 2022 Published	490	19	97 47 li

Sr. No.	Name of the Faculty Member	Innovations by Faculty in Teaching and Learning	URL/Links
6	Dr.Rane Charushila V.	Video lecture explaining experiment titled 'Write a program to verify the sampling theorem and aliasing effects with various sampling frequencies'.	https://youtu.be/GhfZbEJh9g8
		Video lecture explaining experiment titled 'Write a program to study and verify DFT properties' (Minimum two properties).	https://youtu.be/_l4JLVY7d4s
		Video lecture explaining experiment titled 'Write a program to find 4 points circular convolution and compare the result with 8 points circular convolution to study aliasing effect in the time domain'.	https://youtu.be/FMxKN4DOfn4
		Video lecture explaining experiment titled 'Design and implement two-stage sampling rate converter'.	https://youtu.be/Rb3nJHxITXk
		Video lecture on 'Getting started with Matlab'	https://youtu.be/c-EJn3whdvc
		Video lecture explaining 'Properties of Convolution'	https://youtu.be/9ZZ5kyRgHGA
		Innovations in Teaching and Learning through Brown bag approach_Special Probability Distributions	https://youtu.be/34Wjd9Z0ly8
		Innovations in Teaching and Learning_Tech Climb (Technical Snake and Ladder)	https://youtube.com/shorts/76ucFiHWvBg?feature=share

V.   Results (Impact):

A. Access to free lectures, and explanations of complex topics.
B. Helps with exam preparation and skill development.
C. Students can learn at their own pace, pause, rewind, or rewatch content.
D. Useful for revision and clarification of doubts outside classroom hours.

VI. Reproducibility and Reusability by Other Scholars for Further Development

Sr.No	Innovation Used by	Details of User	Purpose of Reproducibility and Reusability
1	SY,TY,Final year students	Students of RSCOE,E&TC	'Getting started with Matlab' video used for solving Matlab Tutorials, appearing quiz on Matlab, starting with matlab as a learner, to work on DSP practical, KPIT placement drive preparation.
2	Third year students and faculty coordinating DSP practicals	Students of RSCOE,E&TC Faculty: Mrs.S.P.Pattanaik	Four videos explaining DSP practical are referred for understanding, examination preparation and revision.

VII. PEER REVIEW AND CRITIQUE

Category: Internal/External/Interdepartmental

Score: (1:Least   2: Moderate   3:Highly)

Question 1. Is this Innovative Teaching and Learning Methodology useful during content delivery?

Question 2. Did this innovation increase student motivation or participation?

Question 3. Will it show improvement in student learning?

Question 4. Suggestions for improvement in future iterations.

Category	Name of Peer	Organization	Q.1	Q.2	Q.3	Q. 4 Suggestion/Critique
Internal	Mrs. S.P. Pattanaik	RSCOE	3	2	2	Add more Videos
External	Dr. Rashmi Patil	PCCOE	3	2	3	Add videos on more topics -
External	Dr. Manisha Rajput	DYPCOE	2	3	2	Very useful to clear the concepts.

Course Co-ordinator
Dr.Rane Charushila Vijay

Module Co-ordinator
Dr.Rane Charushila Vijay

HOD E&TC
Dr.S.C.Wagaj