

2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

Faculty members adopt innovative practices to develop and disseminate e-content, fostering an engaging and technologically enriched learning environment. The campus actively promotes the integration of technology through special lectures, technical discussions, expert presentations, workshops on emerging technologies, and competitive events. Teaching and learning quality are elevated through the use of advanced tools such as LCD projectors, document cameras, laptops, smart pen tabs, video conferencing systems, and e-learning platforms.

Information is seamlessly shared via email, YouTube, WhatsApp groups, Google Classroom, and platforms like Skype and Webex. These channels facilitate the distribution of course materials, announcements, assignments, presentations, doubt resolution, and mentorship. Google Meet and Zoom are leveraged for conducting lectures and examinations. Interactive teaching methodologies, including animated PPTs, video clips, NPTEL lectures, Coursera resources, YouTube videos, simulation tools, virtual labs, and online assessment platforms like Mentimeter and Quizizz, further enhance student engagement.

WhatsApp groups enable swift communication and dissemination of updates. For problem-solving courses, faculty utilize online tools and pre-upload materials to Moodle, which also serves as a platform for administering online exams and e-assignments. These strategies collectively enrich the online teaching and learning experience, ensuring a holistic and immersive educational journey.

S.No	ICT Tools	Source
1	ERP System	Institute Website
2	Paperless document flow for accessing Assignments and answer scripts	Google classroom
3	Video presentations	Google Meet
4	Video Lectures	YouTube
5	Project Based Learning Methodology	Project Lab
6	Blogs creation	Blog spot
7	Sharing PDF's, Power point slides and videos	Slide share
8	Active Participation of students in Interdisciplinary Activities	Inside and Outside of campus
9	Assessment using multiple choice questions	Google form
10	Flipped classroom	You Tube Videos
11	Peer group Learning	Study Material
12	Innovations in Assessment and Evaluation	ERP software

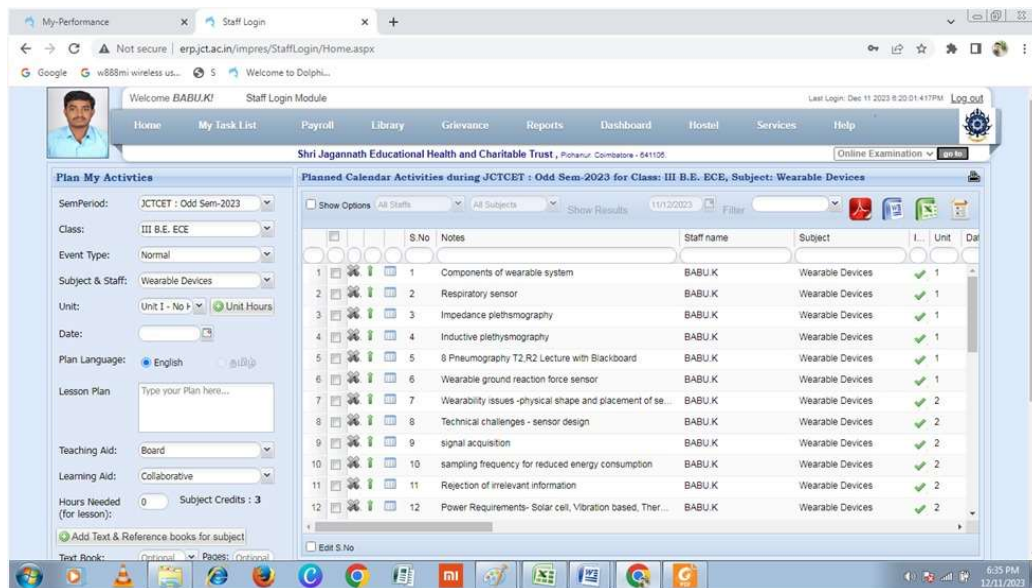
ICT Tools used in Teaching and Learning

- Both the classrooms and the seminar hall of the department are equipped with LED projectors. The faculty members regularly use both blackboards and LED projectors during class delivery.

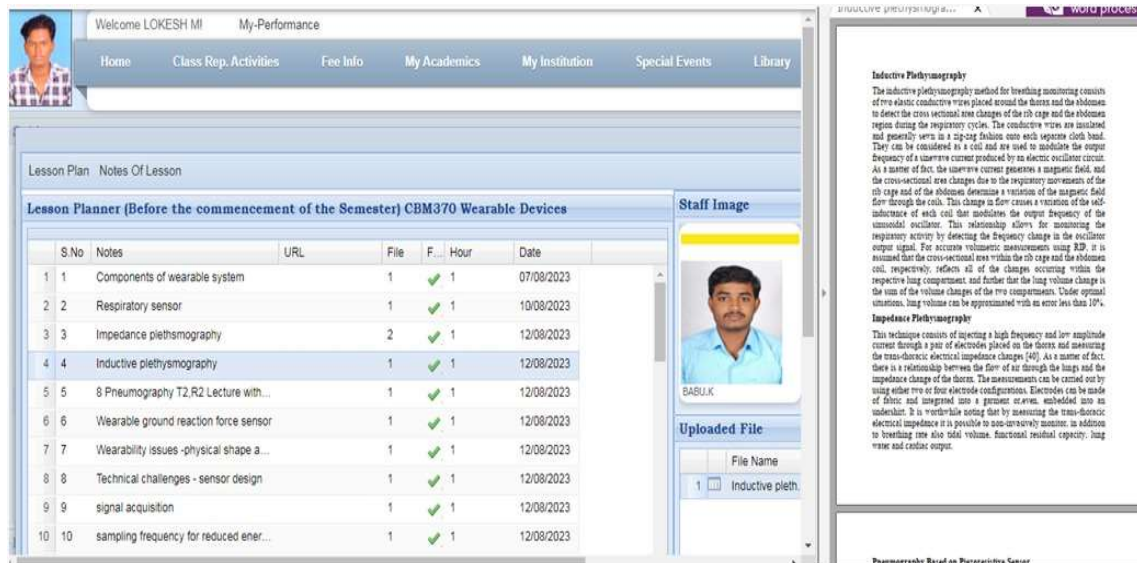
1. ERP Software

- An ERP system can facilitate collaboration and communication between faculty, staff, and students by providing a central platform for sharing information, resources, and best practices. Real-time data and insights into student performance, course effectiveness, and resource utilization empower administrators and faculty to make informed decisions about curriculum development, faculty training, and resource allocation.

- An ERP system can develop and manage curriculum content, align courses with learning outcomes, and track student progress while also providing students with an ERP profile login. This allows them to access course materials and receive feedback electronically, promoting a more flexible and engaging learning experience. The system further streamlines administrative processes, provides data-driven insights, and enhances collaboration, communication, and student engagement – ultimately leading to a more rewarding and impactful learning experience for both students and faculty.



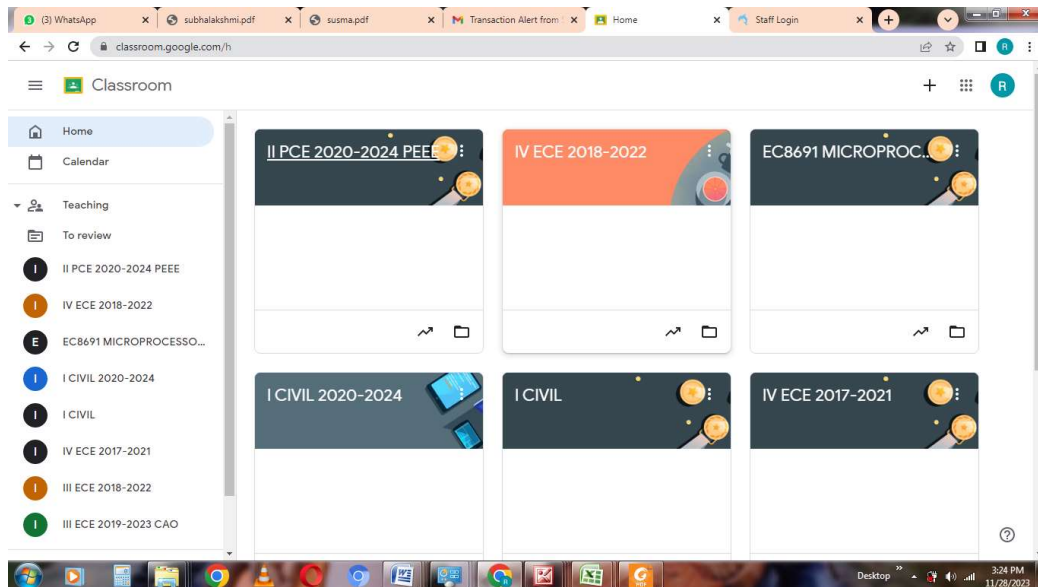
ERP Staff Module



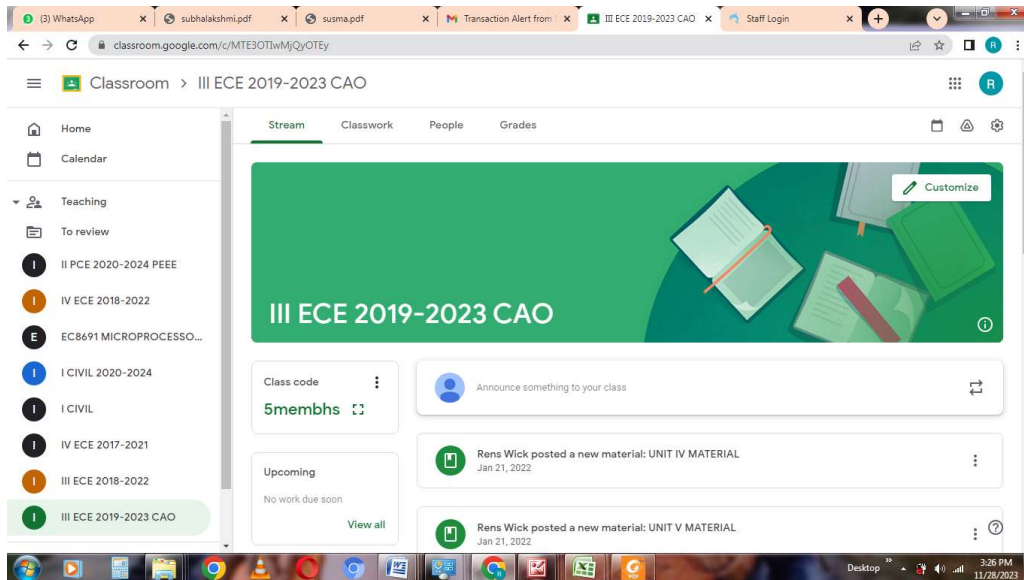
ERP Student Module

2.Google Classroom

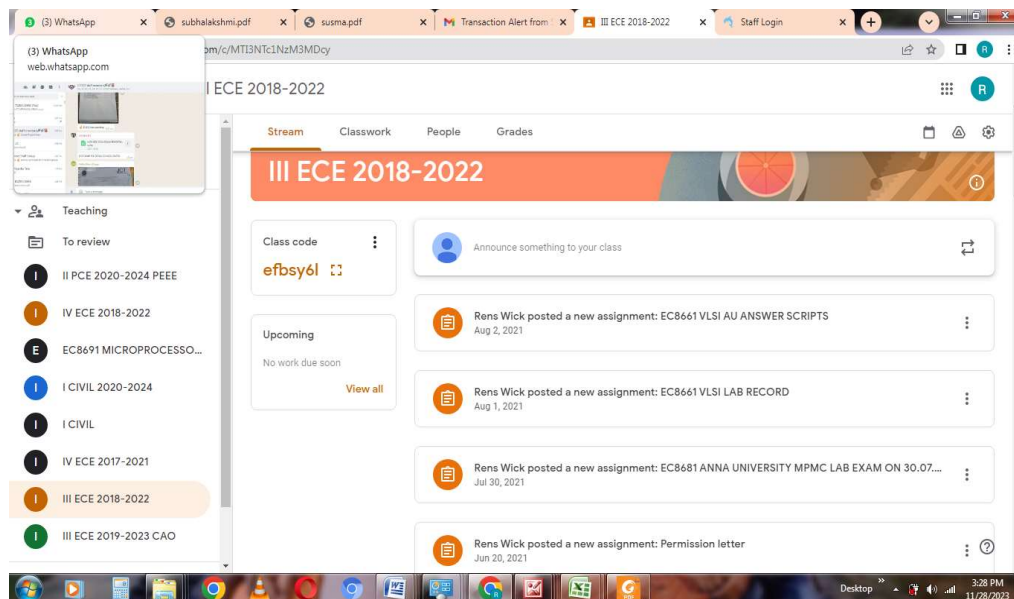
Faculty members of respective courses create Google Classrooms. The Head of the Department, Class Advisors, Tutors, Academic Coordinator, and Exam Cell coordinator are added as teachers to monitor the Continuous Internal Assessment (CIA) exams. The syllabus, course plan, course materials, assignments, CIA question papers, and additional content are posted in the Google Classrooms. Students are instructed to submit their documents through the same platform, enhancing paperless document flow and contributing to a more eco-friendly environment. Assignments and answer scripts for CIA exams are assessed within the Google Classrooms platform.



Google Classroom Home page



Sample page of Computer Architecture and Organization Course

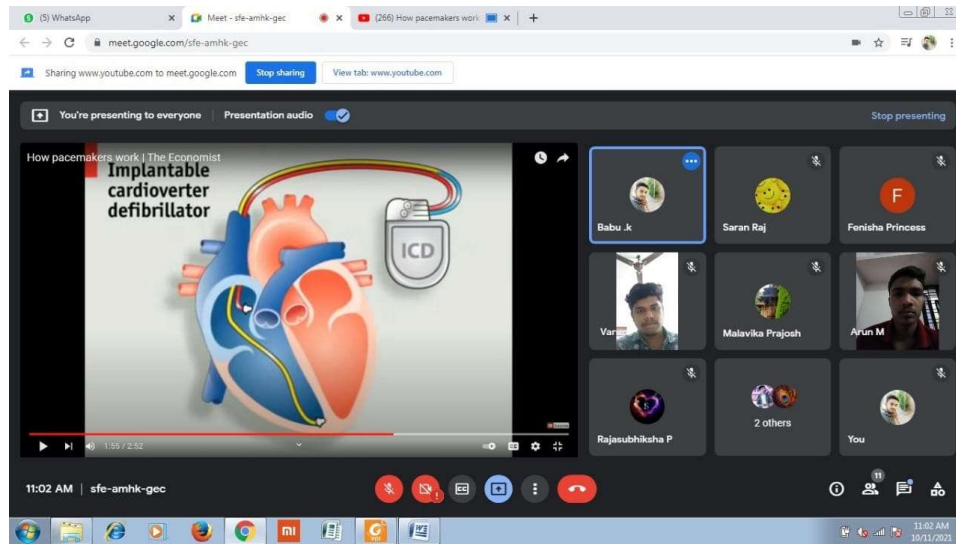


Content displayed in Google Classroom

3.Google Meet

Google Meet, an online platform that came into use at the beginning of the pandemic, revolutionized the way we conduct online classes and monitor Continuous Internal Assessment (CIA) exams. This advanced and widely used platform for conducting classes consumes minimal energy for video presentation and boasts a variety of features.

These features include Compatibility across devices, Live recording of classes, Messaging and screen sharing with students, Video and audio preview screen, Analytical paper handling etc.



Google Class

4.Video Lectures Through You Tube

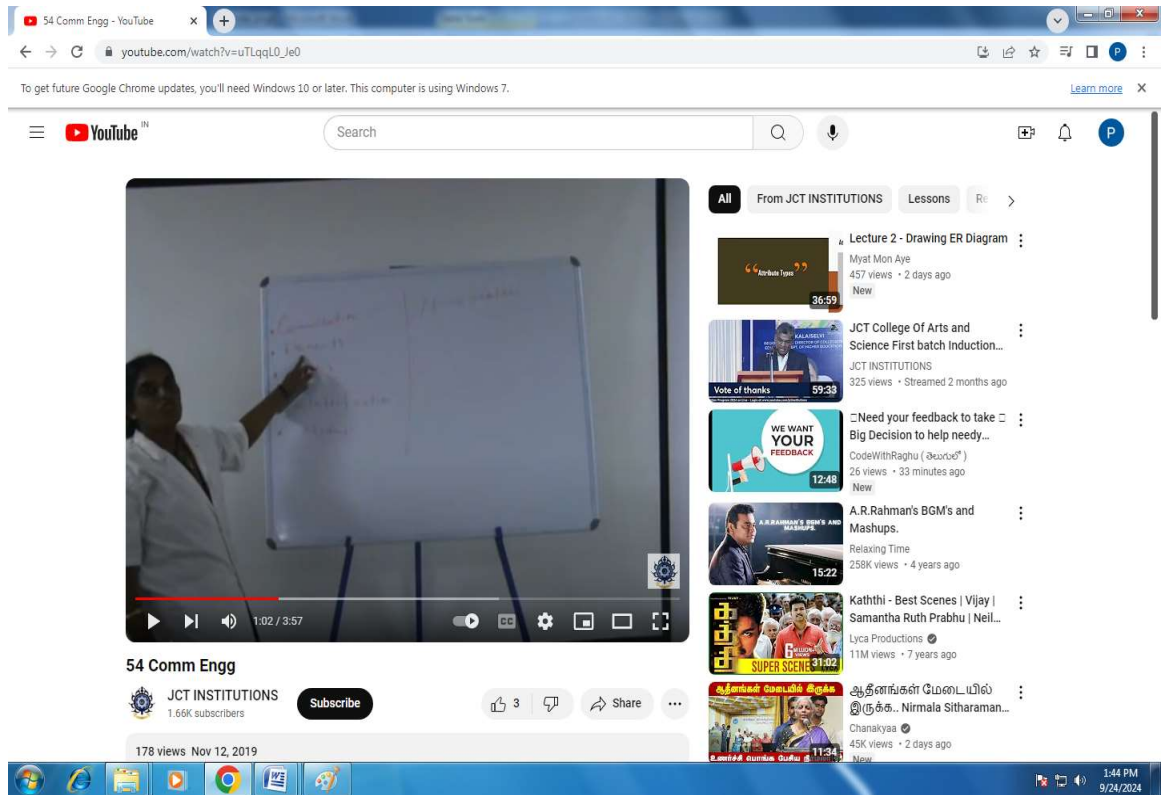
Video Lectures of the courses are recorded for analytical subjects and broadcasted in YouTube. Various courses are posted in YouTube and published for viewers. The table 5.6 shows the videos uploaded by the faculty members and the link for the corresponding videos.

List of YouTube videos

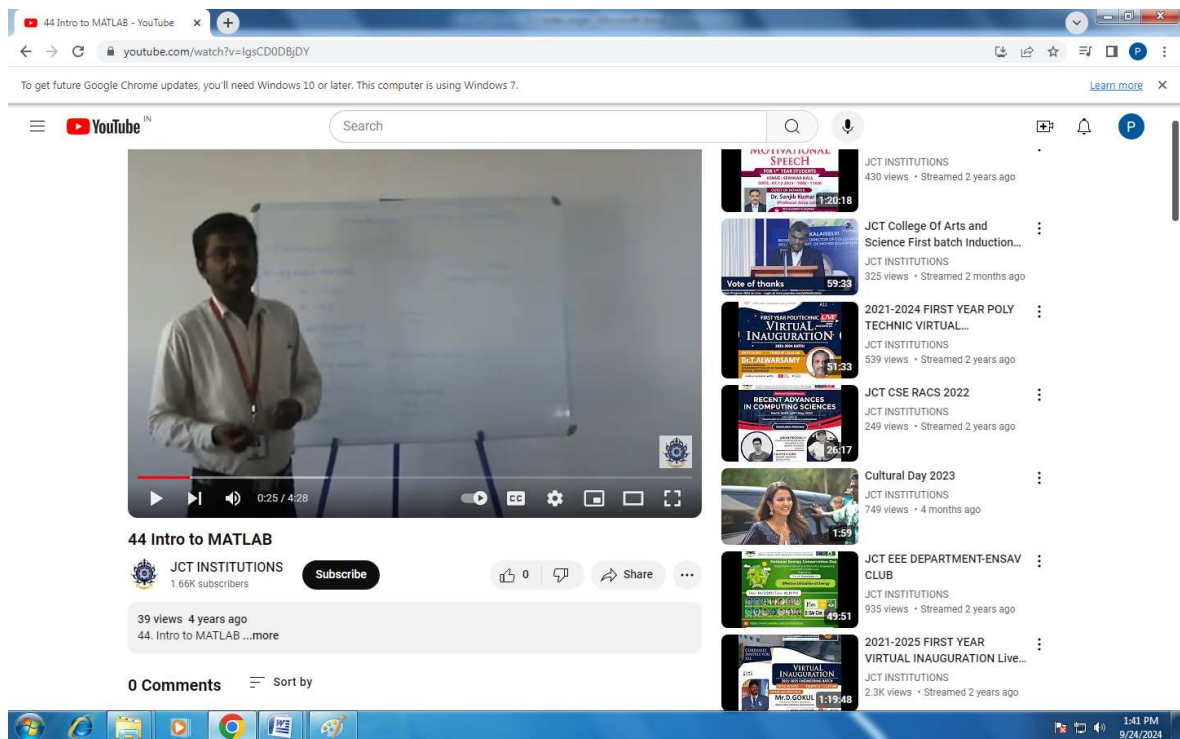
S.No.	Course Name	Name of the Faculty	Topic	Link for the Video
1	Signals And Systems	Mr.Kannan	Introduction to MATLAB	https://www.youtube.com/watch?v=lgSCD0DBjDY
2	Communication Enginnering	Mrs.Vedha Vinodha	Introduction To Communication	https://www.youtube.com/watch?v=uTLqqL0_Je0

3	Satellite Communication	Mr.K.Babu	Introduction to Satellite Communication	https://www.youtube.com/watch?v=uTLqqL0_Je0
4	Microprocessor and Microcontrollers	Mr.S.Renswick	8086 Architecture	https://www.youtube.com/watch?v=RfE8LH3wvEk
5	Electronic Devices	Mr.Chandrasekaran	Electronic devices: PN Junction diode	
6	Adhoc and wireless sensor networks	Mrs.Thahseen Thahir	Adhoc	
7	Satellite Communication	Mrs.Shabana.M	Introduction to Satellite Communication	
8	Electronic Devices	Ms.Sindhu A	Basics of electronic devices	
9	Signals And Systems	Mrs.Mohanapriya S	Introduction to MATLAB	
10	Control system	Mrs.Poornima R	Introduction to Control system engineering	
11	Microprocessor and Microcontrollers	Mr.Praveen Kumar K	Architecture of 8051 micro controller	https://www.youtube.com/watch?v=E7tnQhEXv6U
12	Control Systems	Mrs. Poornima R	Components of Control System	
13	Computer Networks	Dr. G. Emayavaramban	Introduction to Neural Networks	https://www.youtube.com/watch?v=IdJthKfTW4Y

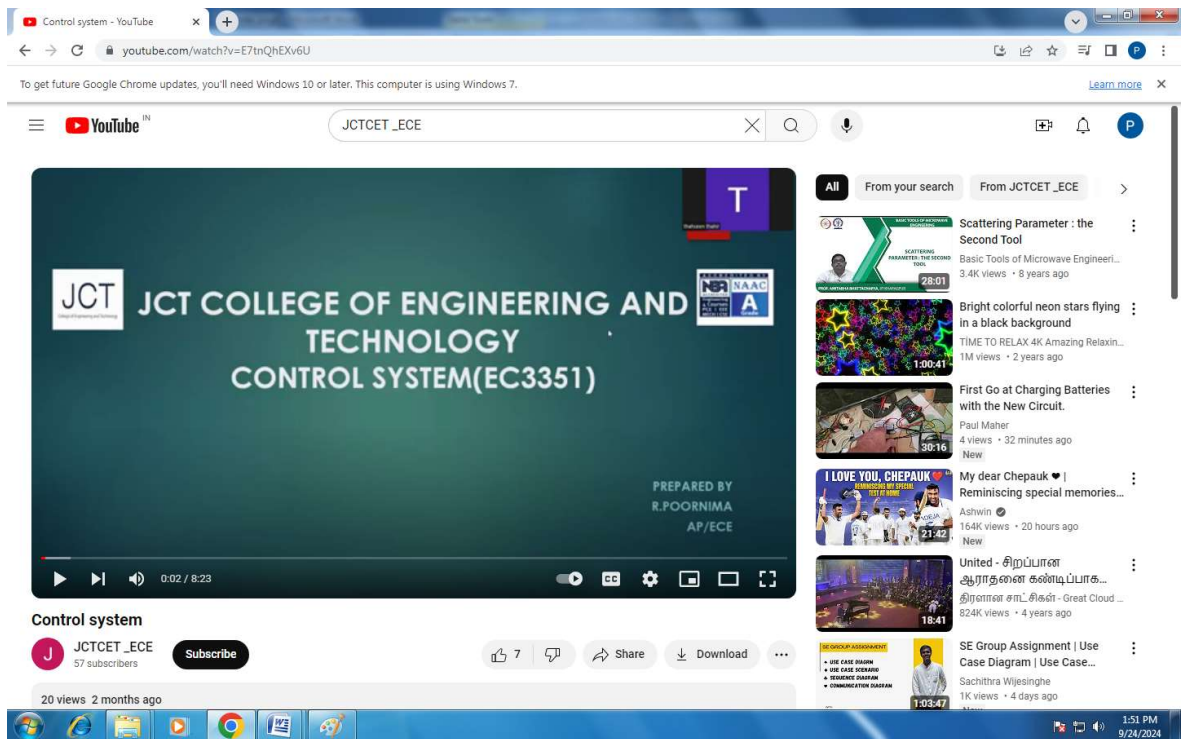
14	Digital Electronics	Mrs. S. Mohana Priya	Digital Circuits	https://www.youtube.com/watch?v=1fddegVe_74E
15	Embedded Systems	Mrs. Thahseen Thahir	Introduction to Embedded System and IoT	https://www.youtube.com/watch?v=3uCp9qSb3S4
16	Transmission Lines and RF System	Mr. M. Chandrasekaran	Problem Solving using Smith chart	https://www.youtube.com/watch?v=uGRkuaN-e5s
17	Wireless Communication	Ms. A. Sindhu	Mobile Radio Propagation small scale fading	https://www.youtube.com/watch?v=EzhQyilkVJA
18	Wireless Communication	Ms. A. Sindhu	Large Scale Path Loss	https://www.youtube.com/watch?v=pG6u1ad7NEA
19	Electronic Devices and Circuits	Mrs. E. Pavithra	Active and Passive Electronic Components	https://www.youtube.com/watch?v=1SjVKqk4lDw



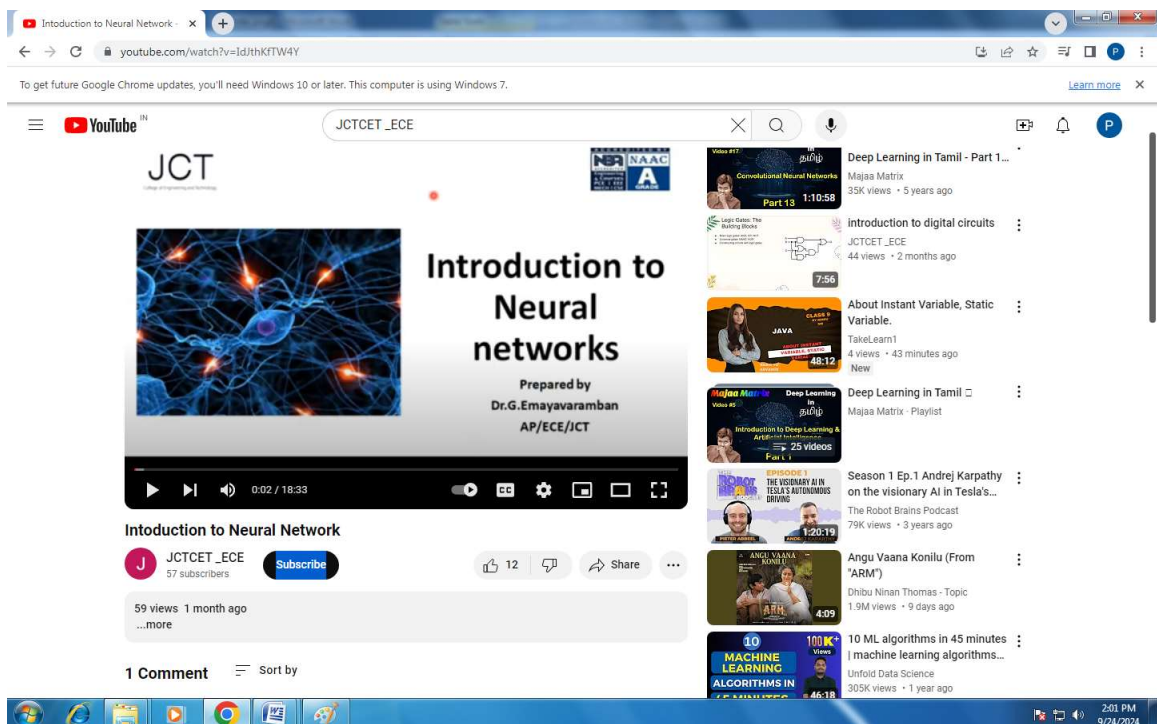
Sample Image You-tube Video Lecture (Mrs. Vedha Vinodha)



Sample Image You-tube Video Lecture (Mr. Kannan)



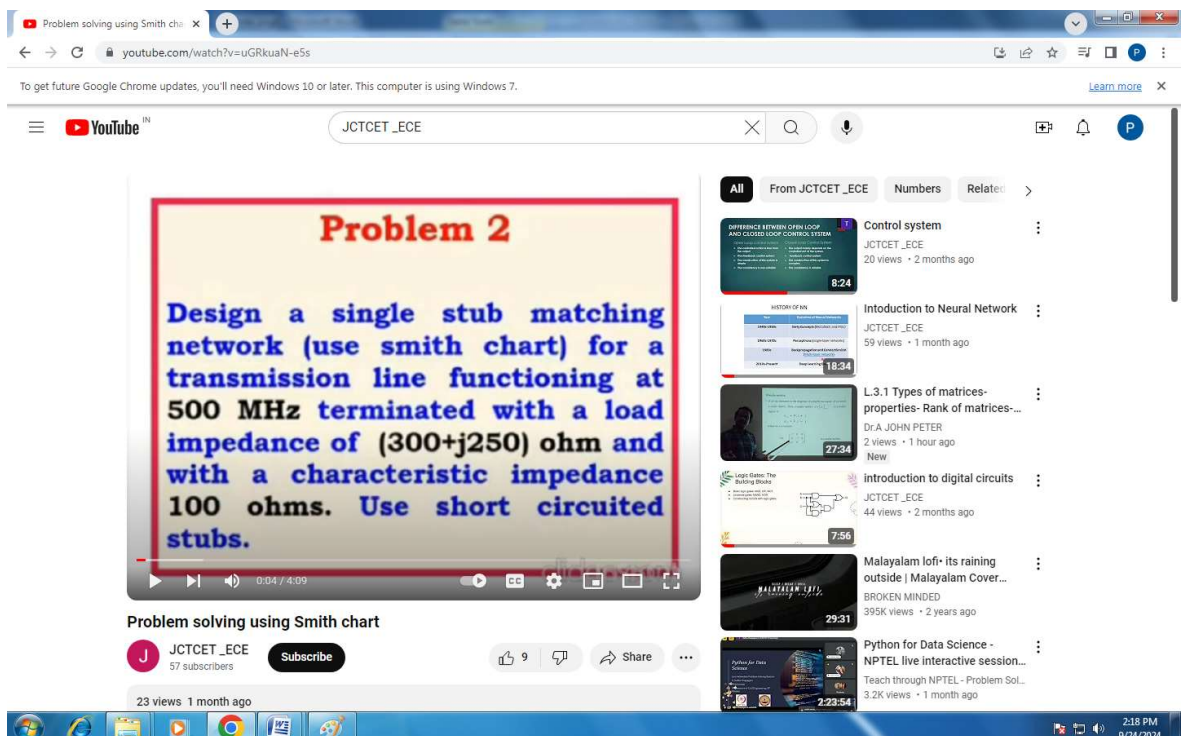
Sample Image You-tube Video Lecture (Mrs. Poornima. R)



Sample Image You-tube Video Lecture (Dr.G. Emayavaramban)



Sample Image You-tube Video Lecture (Mrs. Mohana Priya.S)



Sample Image You-tube Video Lecture (Mr. M. Chandrasekaran)



Sample Image You-tube Video Lecture (Ms. A. Sindhu)



Sample Image You-tube Video Lecture (Ms. A. Sindhu)



Sample Image You-tube Video Lecture (Mrs. E. Pavithra)



Sample Image You-tube Video Lecture (Mr. K. Babu)

5.Project based Learning Methodology

Mini projects are assigned to students with faculty guide. The results are verified and reports are submitted to Head of the Department after investigation.

Name of the Student : Hariprasath,Pandiayrajan

Project Title: Smart parking system



Snapshot for Project Based Learning

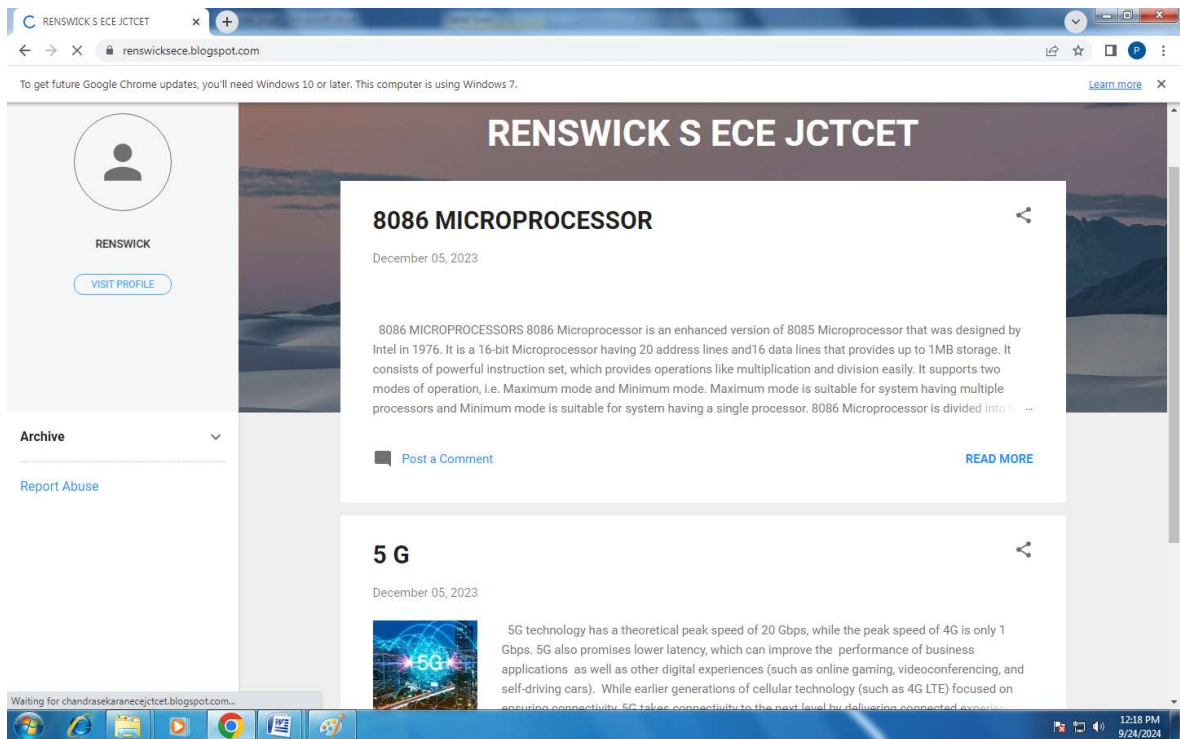
6.Blog Spot

- Faculty members of Electronics and Communication Engineering created blogs and post the recent advancements in electronics to share information among students.

The list of blogs created by the faculty is shown in the table given below .

S.No.	Name of the Faculty	Blog link
1	Dr.V.J.Arulkarthick	http://drarulkarthickhodecejtcet.blogspot.com
2	Mrs.Vedhavinodha D	https://vedhavinodhaecejtcet.blogspot.com
3	Mr.Chandrasekaran C	https://chandrasekaranecejtcet.blogspot.com
4	Mr.Renswick S	https://renswicksece.blogspot.com
5	Mrs.Thahseen Thahir	https://thahseenthahirecejtcet.blogspot.com
6	Mr.Babu K	https://babukecejtcet.blogspot.com
7	Mrs.Shabana M	https://shabanamecejtcet.blogspot.com
8	Ms.Sindhu A	https://sindhuajectcet.blogspot.com
9	Mrs.Mohanapriya S	https://mohanapriyasecejtcet.blogspot.com
10	Mrs.Poornima R	https://poornimarecejtcet.blogspot.com
11	Mr.Praveen Kumar K	https://praveenkumarkecejtcet.blogspot.com
12	Mrs. Thahseen Thahir	https://vlsidesignjtcet.blogspot.com
13	Mr. Babu K	https://communicationsystemsjectcet.blogspot.com

List of Blogs



Sample blog (Mr. Renswick. S)



Sample blog (Mrs. Thahseen Thahir)



Sample blog (Mr. Babu.K)



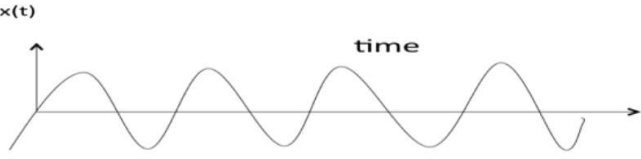
Sample blog (Mrs. Shabana.M)

MOHANAPRIYA S ECE JCT CET

MOHANAPRIYA S ECE JCT CET

December 05, 2023

Introduction to Signals and Systems



What is Signal? Signal is a time varying physical phenomenon which is intended to convey information. OR Signal is a function of one or more independent variables, which contain some information. Example: voice signal, video signal, signals on telephone wires etc. Note: Noise is also a signal, but the information conveyed by noise is unwanted hence it is considered as undesirable. What is System? System is a device or combination of devices, which can operate on signals and produces corresponding response. Input to a system is called as excitation and output is called as response.

Post a Comment

READ MORE

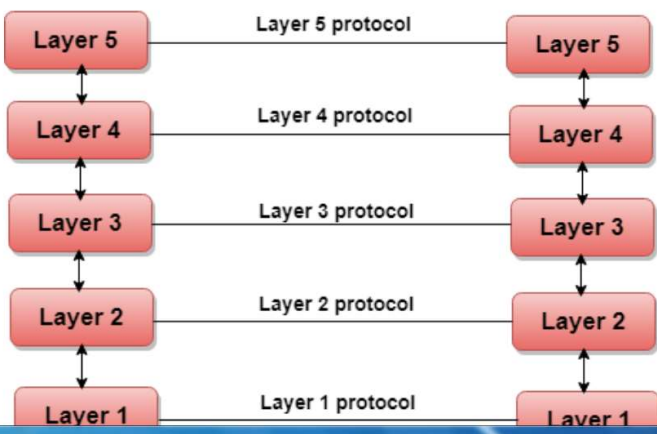
Sample blog (Mrs. Mohana Priya. S)

PRAVEEN KUMAR K ECE JCTCET

PRAVEEN KUMAR K ECE JCTCET

December 05, 2023

Computer Network Models



Layer 5

Layer 5 protocol

Layer 5

Layer 4

Layer 4 protocol

Layer 4

Layer 3

Layer 3 protocol

Layer 3

Layer 2

Layer 2 protocol

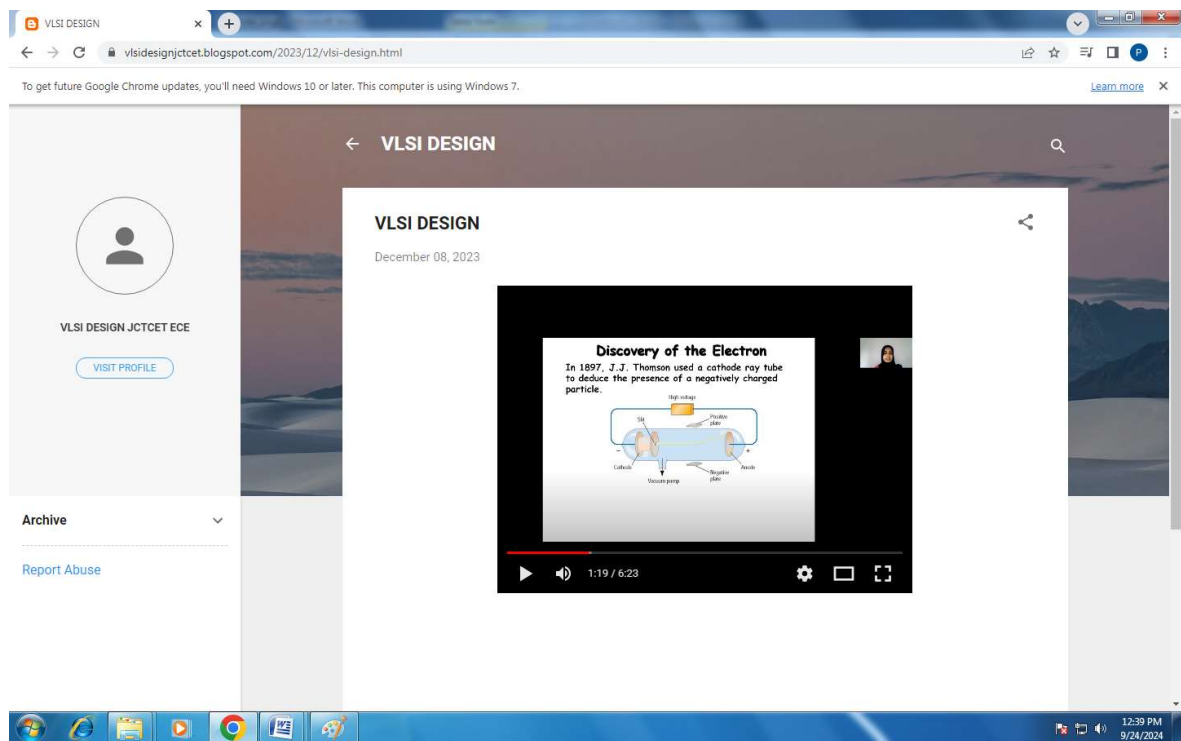
Layer 2

Layer 1

Layer 1 protocol

Layer 1

Sample blog (Mr. Praveen Kumar. K)



Sample blog (Mrs. Thahseen Thahir)

7. Slide share

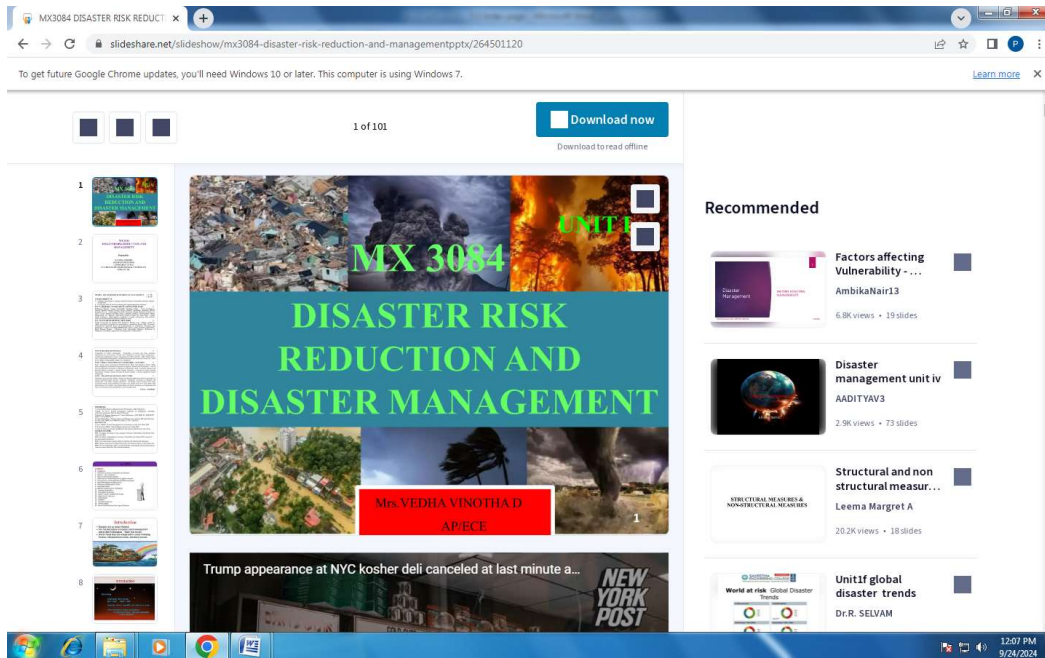
Slideshare is a presentation sharing website which allows us to post content - PDFs, PowerPoint slides, videos, and others - as a presentation. Faculty members of Electronics and Communication Engineering have posted their course presentations in slideshare. Some of the sample slideshare pages are shown below.

The list of slide share presentations created by the faculty is shown in table given below.

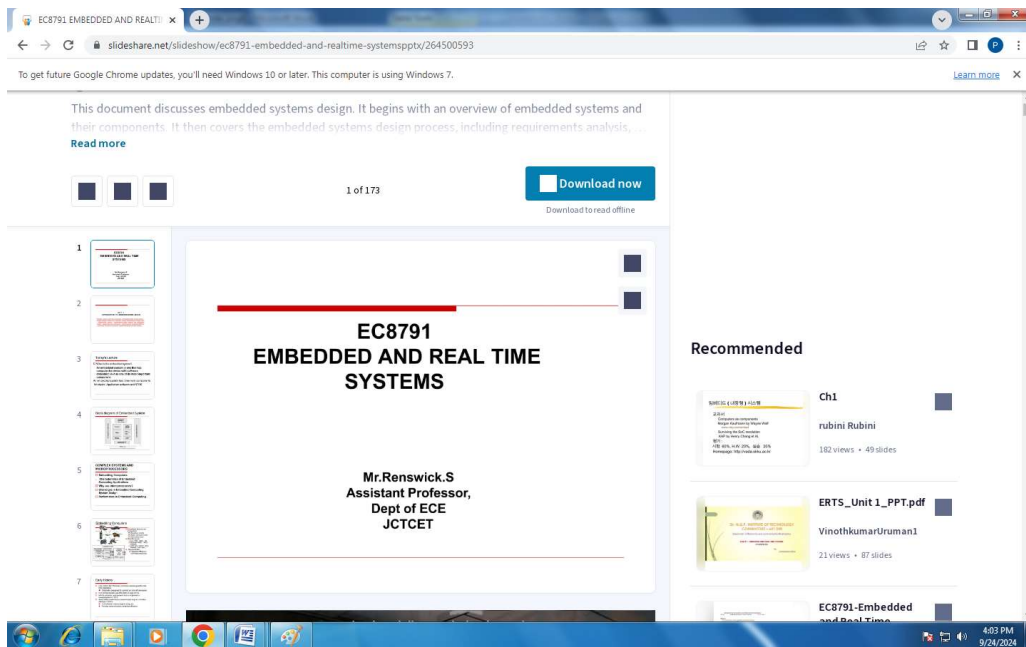
List of Slide Share presentation

S.No	Name of the Faculty	Slide Share link
1	Dr.V.J.Arulkarthick	https://www.slideshare.net/arulkarthickvj/digitalsignalprocessing.pptx
2	Mrs.Vedhavinodha D	https://www.slideshare.net/dvedha1975/mx3084-disaster-risk-reduction-and-managementpptx

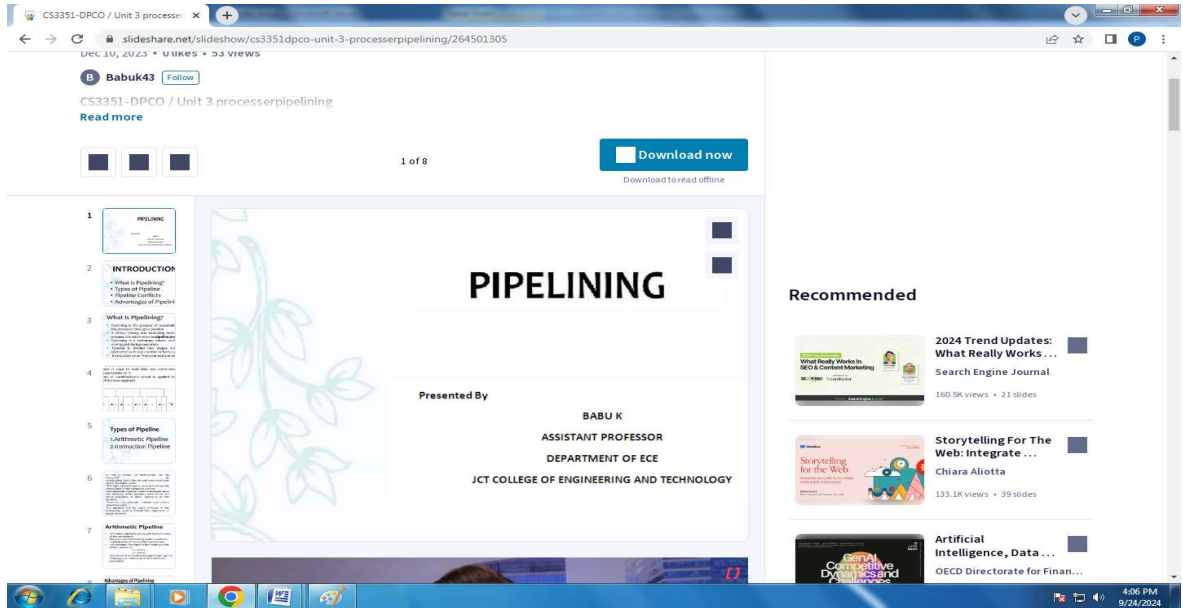
3	Mr.Chandrasekaran	https://www.slideshare.net/Chandrasekaran/cs3351dpco-unit-3-antennaandmicrowave
4	Mr,Renswick S	https://www.slideshare.net/RensWick2/ec8791-embedded-and-realtime-systemspptx
5	Mrs.Thahseen Thahir	https://www.slideshare.net/ThahsinNajath/ec8702-adhoc-and-wireless-sensor-networks
6	Mr.Babu K	https://www.slideshare.net/Babuk43/cs3351dpco-unit-3-processorpipelining
7	Mrs.Shabana M	https://www.slideshare.net/shabananizar263/ec8094-satellite-communication-unit-ivpptx
8	Ms.Sindhu A	https://www.sindhu2/ec8561-wirelesscommunication-pptx
9	Mrs.Mohanapriya S	https://www.mohanapriya/ec8094-signalsandsystems-pptx
10	Mrs.Poornima R	https://www.slideshare.net/poornima/ec8691-microprocessorsandmicrocontrollersp.ptx
11	Mr.Praveen Kumar K	https://www.slideshare.net/praveenkumark/networksecurity.ptx



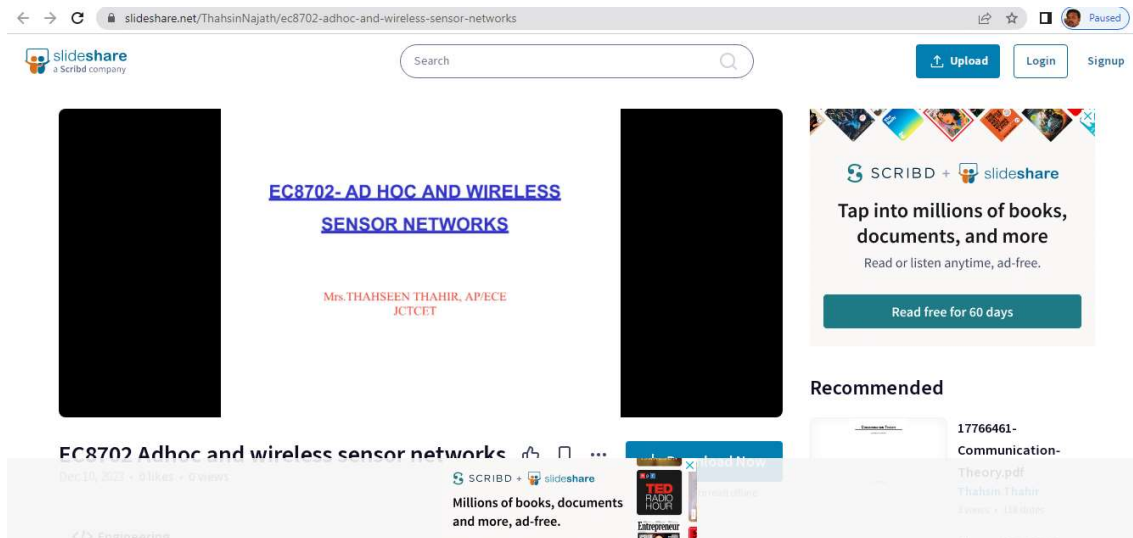
Sample slide share page of Mrs. D. Vedha Vinodha



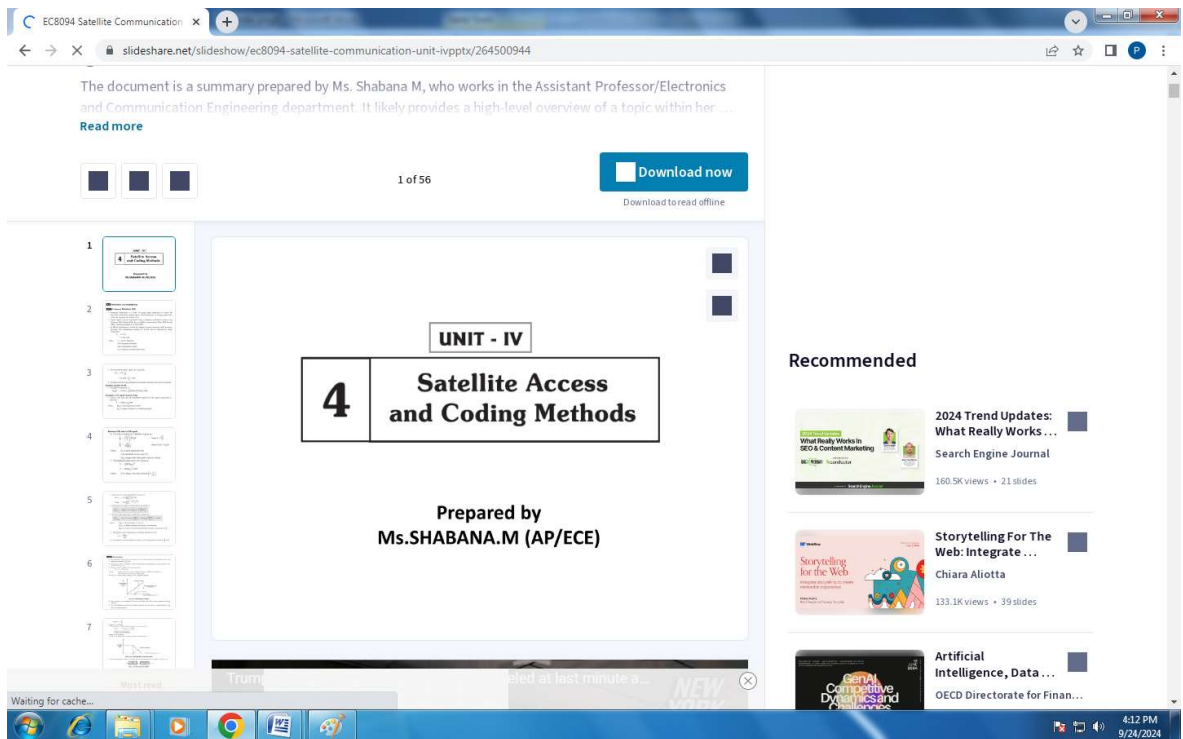
Sample slide share page of Mr. S. Renswick



Sample slide share page of Mr. Babu.K



Sample slide share page of Mrs. Thahseen Thahir



Sample slide share page of Ms. Shabana.M

8.Interdisciplinary activities

Project Lab

The project laboratory provides a platform for every student to think innovative ideas and make it into products. This lab provides learning environment to every students to develop mini projects and final year project works through practical oriented learning.



Interaction with Third year ECE students about the Introduction of VLSI Design



Active Participation of ECE students for Project Expo held at Rathinam Campus, Coimbatore

9.Quiz by Google form:

Assessments can be done using multiple-choice questions created through Google Forms.

After completing each unit, faculty will create a Google Form containing questions and simple problems related to the topics from the unit. They will then share the link in the student group.

 A screenshot of a Google Form titled 'Control Systems'. The form is in 'Questions' view. The first question is: '1. Which of the following is an example of an open-loop control system?'. The options are:

- a) Automatic washing machine
- b) Room temperature control system
- c) Electric toaster
- d) Cruise control in a car

 The second question is partially visible: '2. What is the main purpose of a feedback system in a control system?'. The form interface includes a 'Send' button, a 'Responses' tab, and a 'Settings' tab. The bottom of the screen shows a Windows taskbar with various application icons and the system clock showing 5:36 PM on 9/28/2024.

Sample image of Google Form

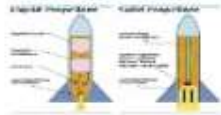
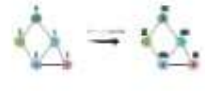
Timestamp	Score	1. Which of the following is an example of an open-loop control system?	2. What is the main purpose of a feedback system in a control system?	3. Which of the following describes a system that is both linear and time-invariant (LTI)?	4. In a control system, what does the term 'transfer function' refer to?	5. A system where the output depends only on the current input is called a...
9/27/2023 17:01:48	2 / 10	c) Electric toaster	b) To increase the bandwidth	a) A system where the output depends only on the current input	a) The relationship between input and output in the frequency domain	Option 1
9/27/2023 17:05:02	9 / 10	c) Electric toaster	a) To improve stability	c) A system where the principle of superposition applies	b) The relationship between input and output in the time domain	a) It gives a direct measure of the system's response to a unit step input
9/27/2023 17:05:08	4 / 10	c) Electric toaster	b) To increase the bandwidth	c) A system where the principle of superposition applies	a) The relationship between input and output in the time domain	c) It has a direct measure of the system's response to a unit step input
9/27/2023 17:07:14	10 / 10	c) Electric toaster	a) To improve stability	c) A system where the principle of superposition applies	a) The relationship between input and output in the time domain	a) It gives a direct measure of the system's response to a unit step input
9/27/2023 18:31:28	10 / 10	c) Electric toaster	a) To improve stability	c) A system where the principle of superposition applies	a) The relationship between input and output in the time domain	a) It gives a direct measure of the system's response to a unit step input
9/27/2023 18:50:40	4 / 10	b) Room temperature control system	c) To decrease the response time	c) A system where the principle of superposition applies	b) The relationship between input and output in the time domain	b) It always gives a direct measure of the system's response to a unit step input
9/27/2023 18:51:39	5 / 10	c) Electric toaster	d) To provide system input	c) A system where the principle of superposition applies	b) The relationship between input and output in the time domain	b) It always gives a direct measure of the system's response to a unit step input
9/27/2023 19:04:11	6 / 10	b) Room temperature control system	d) To provide system input	b) A system where time scaling affects system output	d) The response of the system to a unit step input	a) It gives a direct measure of the system's response to a unit step input
9/27/2023 19:14:36	3 / 10	b) Room temperature control system	d) To provide system input	c) A system where the principle of superposition applies	a) The relationship between input and output in the time domain	d) Its response to a unit step input is a direct measure of the system's response to a unit step input
9/27/2023 19:01:48	2 / 10	c) Electric toaster	b) To increase the bandwidth	a) A system where the output depends only on the current input	a) The relationship between input and output in the time domain	Option 1
9/27/2023 19:05:02	9 / 10	c) Electric toaster	a) To improve stability	c) A system where the principle of superposition applies	b) The relationship between input and output in the time domain	a) It gives a direct measure of the system's response to a unit step input
9/27/2023 19:05:08	4 / 10	c) Electric toaster	b) To increase the bandwidth	c) A system where the principle of superposition applies	a) The relationship between input and output in the time domain	c) It has a direct measure of the system's response to a unit step input
9/27/2023 19:07:14	10 / 10	c) Electric toaster	a) To improve stability	c) A system where the principle of superposition applies	a) The relationship between input and output in the time domain	a) It gives a direct measure of the system's response to a unit step input

Sample Response of quiz conducted through Google form

10. Flipped Classroom

A **flipped classroom** is an instructional strategy that reverses the traditional teaching approach. In a flipped classroom:

1. **Traditional model:** Students usually attend lectures in class and complete assignments or homework afterward.
2. **Flipped model:** Students first learn new content outside of class (typically through videos, readings, or other instructional materials). Then, class time is used for active learning, discussion, problem-solving, or applying the knowledge with the help of the instructor.

S No.	COURSE NAME	TOPIC	PEDAGOGICAL INITIATIVES	OBJECTIVES	SNAPSHOTS/PROOFS
1	Satellite Communication	Launching Procedures, launch vehicles and propulsion	Flipped class Room	To ensure successful space missions, safety, and continual advancement in space technology.	https://www.youtube.com/watch?v=cEYtEj4 
2		GNSS	Flipped class Room	To guide the development of GNNs to model complex relational data and perform predictive tasks across a wide range of applications, including natural language processing, social network analysis,	 https://www.youtube.com/watch?v=gYmPFWIw
3		GPRS	Peer Group Learning	Students will be able to describe the basic concept of GPRS and its importance in mobile communication, explaining the key components of its architecture (e.g., Mobile Station, Base Station Subsystem, GPRS Support Nodes).	

Snapshot of Pedagogical Initiatives

11. Peer Group Learning

Peer group learning is a collaborative learning approach where students work together in small groups to help each other understand concepts, solve problems, and complete tasks. It shifts the focus from the traditional teacher-centered model to a more interactive, student-centered model. This method encourages students to share knowledge, discuss ideas, and learn from each other.



Sample Image of Peer Group Learning

Key Features of Peer Group Learning:

1. **Collaboration:** Students learn by engaging with their peers, discussing concepts, and working through problems together.
2. **Active Participation:** Each student plays an active role in the learning process, contributing their knowledge and perspectives.
3. **Peer Support:** Students help each other understand complex topics, offering different explanations or viewpoints that may be more relatable than a teacher's.
4. **Social Interaction:** Encourages communication, teamwork, and the development of interpersonal skills.
5. **Self-Regulated Learning:** Students take ownership of their learning, which can increase motivation and accountability.

12. Innovations in Assessment & Evaluation

- Feedback on courses is collected through an ERP software platform at the end of Continuous Internal Assessments (CIAs) and semesters. This feedback is used to review faculty knowledge, teaching methodology, and overall contributions, ultimately aiming to enhance faculty performance and effectiveness.

- Each semester involves three Continuous Internal Assessments (CIAs), enabling the review of course attainment levels, tracking of slow and advanced learners, and determination of individual course pass percentages.

Staff	Subject	Average
BABU.K	Medical Electronics	44.70
CHANDRASEKARAN.M	Communication Network	44.80
	Communication Network Lab	45.00
	MENTOR	44.60
SINDHU.A	Computer Architecture and Organization	44.90
	LIBRARY	45.00
SURESHKUMAR.P	Renewable Energy Sources	44.70
THAHSEEN THAHIR	Communication Systems Lab	45.20
	Digital Communication	45.10
VINODHINI.M	Digital Signal Processing Lab	44.70
	Discrete-Time Signal Processing	44.80

Staff	Subject	Average
BABU.K	HOSPITAL MANAGEMENT	48.00
	MENTOR	48.17
CHANDRASEKARAN.M	Antennas and Microwave Engineering	48.17
RENSWICK.S	Embedded and Real Time Systems	47.50
	Embedded Lab	47.33
THAHSEEN THAHIR	Adhoc and Wireless sensor networks	47.50
VEDHA VINODHANI.D	Advanced Communication Lab	48.50
	Optical Communication	47.50
VINODHINI.M	Embedded and Real Time Systems	48.00
	Embedded Lab	48.33
	Library	48.17
	NALAYA TIRAN	47.83

Snapshot of students feedback through ERP software

Staff	Subject	Did the teacher complete the syllabus with uniform pace?	Does the teacher advise and motivate the students for the lab work?	Does the teacher begin and end the class on time?	Does the teacher come prepared for the class?	Does the teacher demonstrate good and effective use of the learning environment in the classroom?	Does the teacher employ new teaching techniques in the classroom?	Does the teacher encourage the students to come for practical examples and case studies?	Does the teacher maintain clarity and precision of both theory and practical of both?	Does the teacher make the class interactive?	Does the teacher return the relevant answer scripts of the students?	Does the teacher share additional relevant information to clear the doubts?	Does the teacher spend time to clear the doubts?	Does the teacher use available resources for the lab work?	Does the teacher use available resources for the lab work?	Does the teacher use available resources for the lab work?	Does the teacher use available resources for the lab work?	Does the teacher use available resources for the lab work?	Does the teacher use available resources for the lab work?
BABU.K	Medical Electronics	48.00	44.00	44.00	46.00	44.00	46.00	44.00	44.00	46.00	42.00	44.00	46.00	44.00	46.00	44.00	46.00	44.00	46.00
CHANDRASEKARAN.M	Communication Network	44.00	46.00	44.00	46.00	44.00	46.00	44.00	44.00	46.00	44.00	46.00	44.00	46.00	44.00	46.00	44.00	46.00	44.00
	Communication Network Lab	46.00	46.00	44.00	44.00	46.00	46.00	42.00	44.00	46.00	46.00	44.00	44.00	46.00	46.00	44.00	46.00	44.00	46.00
	MENTOR	44.00	46.00	44.00	44.00	46.00	46.00	42.00	46.00	46.00	44.00	46.00	44.00	44.00	44.00	44.00	44.00	44.00	46.00
SINDHU.A	Computer Architecture and Organization	46.00	46.00	44.00	46.00	46.00	42.00	44.00	46.00	46.00	42.00	46.00	44.00	46.00	46.00	42.00	46.00	44.00	46.00
	LIBRARY	46.00	44.00	44.00	46.00	44.00	42.00	44.00	46.00	46.00	44.00	44.00	44.00	46.00	46.00	48.00	46.00	44.00	46.00
SURESHKUMAR.P	Renewable Energy Sources	46.00	46.00	44.00	46.00	46.00	46.00	42.00	46.00	46.00	44.00	44.00	44.00	46.00	46.00	44.00	44.00	44.00	46.00
THAHSEEN THAHIR	Communication Systems Lab	46.00	44.00	46.00	46.00	44.00	46.00	44.00	46.00	44.00	44.00	46.00	46.00	44.00	46.00	44.00	44.00	44.00	46.00
	Digital Communication	46.00	44.00	46.00	44.00	46.00	44.00	46.00	44.00	46.00	44.00	46.00	42.00	46.00	46.00	44.00	44.00	44.00	46.00
VINODHINI.M	Digital Signal Processing Lab	46.00	44.00	46.00	46.00	42.00	44.00	44.00	46.00	44.00	44.00	46.00	46.00	44.00	46.00	44.00	44.00	44.00	46.00
	Discrete-Time Signal Processing	44.00	46.00	44.00	44.00	44.00	46.00	44.00	46.00	44.00	42.00	46.00	46.00	46.00	46.00	44.00	44.00	44.00	46.00

Snapshot of students feedback through ERP software