

The list of various ICT enabled pedagogical initiatives used by the faculty members are as follows:

1. **Whiteboard and marker (Lecture Method):** To convey basics, critical information, history, background, theories and equations.

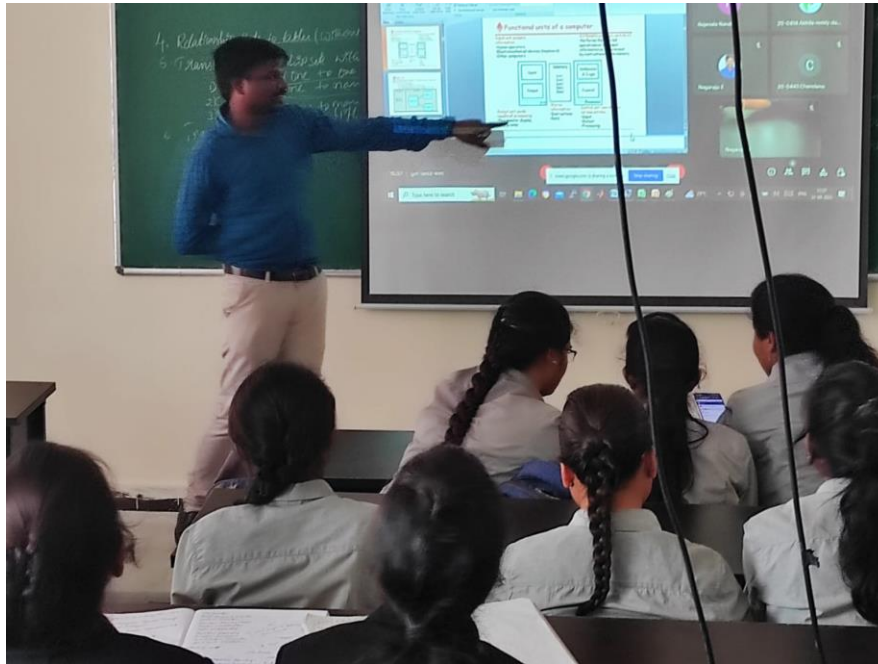
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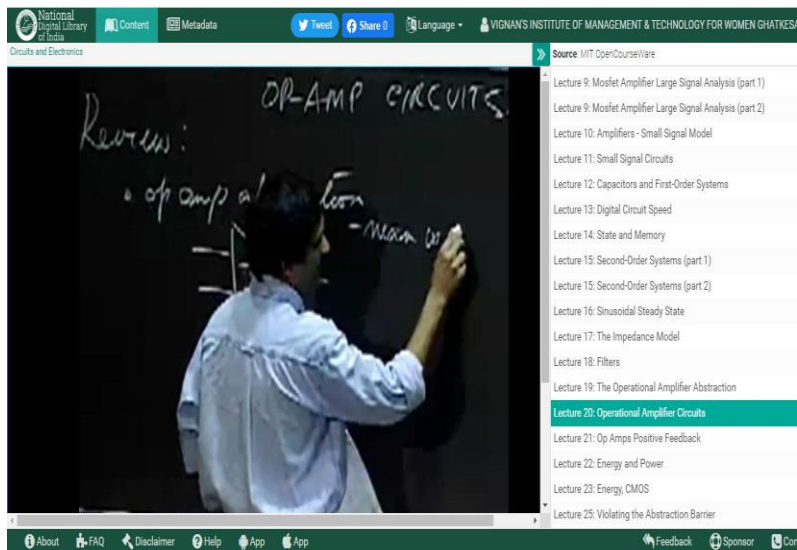
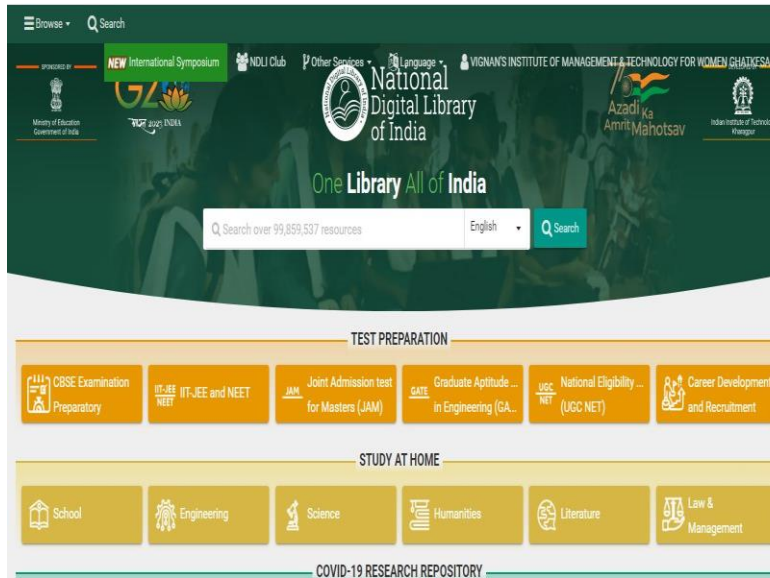
2. **Blended Teaching:** Usage of Teaching aid Techniques such as Video Lectures, Power point presentations. Implementation of Active learning strategies such as Collaborative and individual learning activities.



3. **Online Teaching:** Faculty made a swift transition from classroom to online teaching by using platforms like Google meet, Google class room, ZOOM, CISCO WEB-EX.



4. **Edu-blogs:** Faculty blogs uses as instructional potential for online resources to students.



5. **Integrated courses:** Faculty members of VMTW used from regular laboratory tool for enhancing their skills beyond the curriculum.



6. Course Handouts: Course handout consists of Video lectures, Lecture Notes, Assignment questions, Tutorial questions and answers a model question papers sharing using ICT tools like Google Classroom, Edu-blogs etc.

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7. **Massive Open online course:** Faculty enroll for various courses like NPTEL, COURSERA, SPOKEN TUTORIAL, IEEE and other MOOCs for better understanding of the subject and encourages the students to get certified.



Elite
NPTEL Online Certification
 (Funded by the MoE, Govt. of India)



This certificate is awarded to
MADDURU RUCHITHA
 for successfully completing the course

The Joy of Computing using Python

with a consolidated score of **61** %

Online Assignments	17.78/25	Proctored Exam	43.62/75
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Total number of candidates certified in this course: 12432


Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Apr 2024
 (12 week course)


Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL24CS57S557400426

To verify the certificate 

No. of credits recommended: 3 or 4



Elite
NPTEL Online Certification
 (Funded by the MoE, Govt. of India)



This certificate is awarded to
EDURU NAGARAJU
 for successfully completing the course



Introduction to Internet of Things

with a consolidated score of **78** %

Online Assignments	23.97/25	Proctored Exam	54/75
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Total number of candidates certified in this course: 32882


Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Jan-Apr 2024
 (12 week course)



Indian Institute of Technology Kharagpur

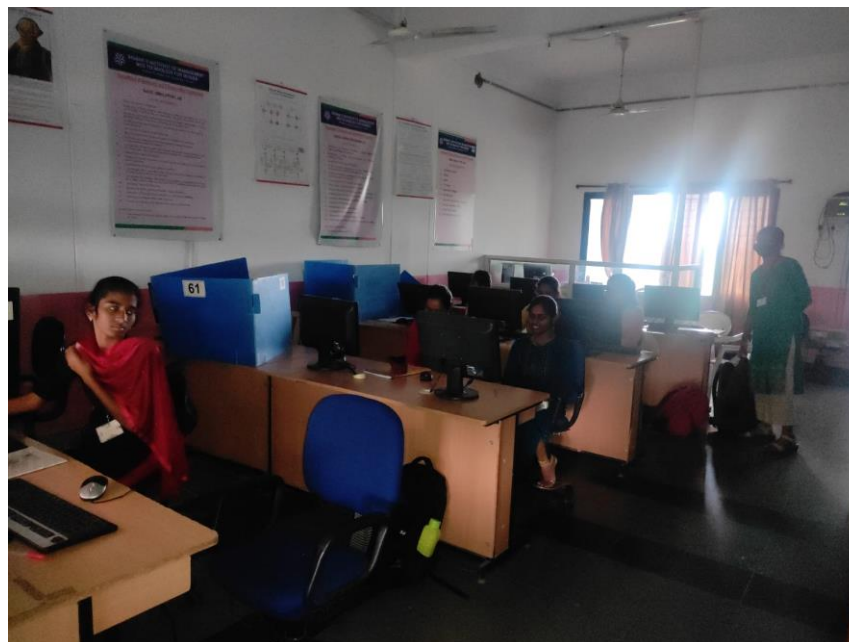


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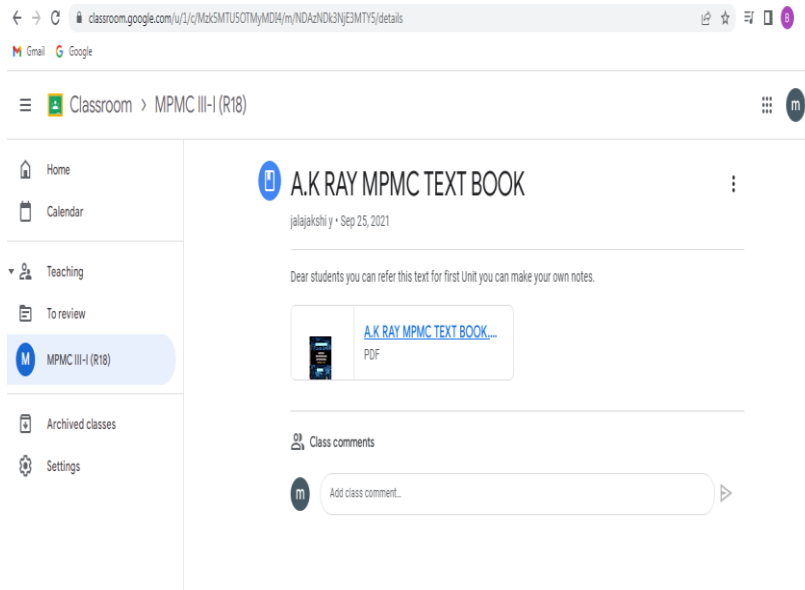
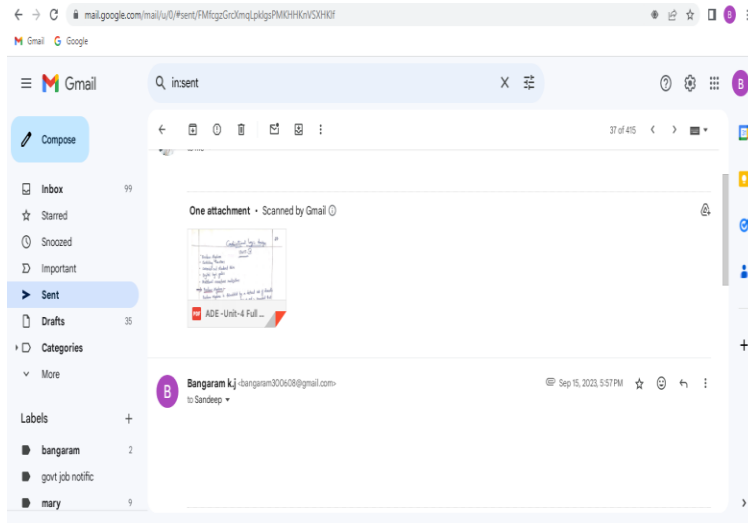
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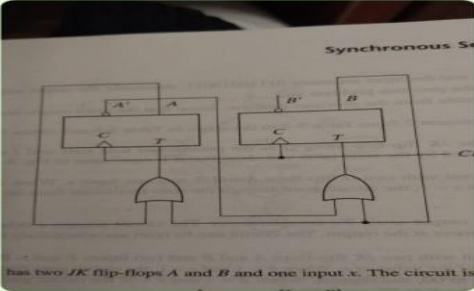
8. Courseware: Various departments train the students in the use of subject specific software's like MATALAB, VLSI, Xilinx, e-sim, CAD CAM etc for executing laboratory experiments and also to implement innovative ideas.



9. Social Media in Education: Faculty members use the social media platforms like WhatsApp and Telegram to connect with the students for sharing information.



18 January 2024



Determine state diagram 11:03 am ✓

Example 9.8

A sequential circuit has two JK flip-flops A and B and one input x. The circuit is described by the following flip-flop input equations:

$$J_A = x + B, \quad K_A = B'$$

$$J_B = A, \quad K_B = A'$$

The output of the circuit is Z. Determine the state equations for the J and K variables in terms of the variables of the circuit.

9.14 A sequential circuit has two JK flip-flops A and B, one input x and one output z. The flip-flop input equations and output equation are:

$$J_A = B'x, \quad K_A = Bx'$$

$$J_B = A'x, \quad K_B = Ax'$$

$$z = Ax + Bx'$$

(a) Draw the logic diagram of the circuit. (b) Determine the state equations for A and B. (c) Determine the state diagram of the circuit. (d) Determine the state equations and output equation for z.

9.15 Using state equations or state diagram of Fig. 9.14, determine the state transitions and output sequence that can be generated when the input sequence of 0110 and 1101 is applied.

9.16 Reduce the number of states in the following state table and tabulate the reduced state table.

Present State	Next State	Output
00	00	0
01	01	0
10	10	0
11	11	0
00	01	0
01	10	0
10	01	0
11	10	0