Department of Electronics and Communication Engineering
Academic Year 2024 – 2025 (Odd Semester)

Degree, Semester & Branch : III Semester B.E. CSE B
Course Code & Title : CS3351 Digital Principles and Computer Organization
Name of the Faculty member : Mr.A.Rameshbabu

Innovative Practice Description

- **Unit / Topic:** Unit V - Memory and I/O - Cache Memories
- **Course Outcome:** CO 4
- **Topic Learning Outcome:** 5b
- **Activity Chosen:** Flipped Classroom
- **Justification:**
  - A flipped classroom is a type of blended learning where students are introduced to content at home and practice working through it at College.
- **Time Allotted for the Activity:** 50 Minutes
- **Details of the Implementation:**
  - This is the reverse of the more common practice of introducing new content at college, then assigning homework and projects to complete by the students independently at home.
  - In this blended learning approach, face-to-face interaction is mixed with independent study–usually via technology. In a common Flipped Classroom scenario, students might watch pre-recorded videos at home, then come to school to do the homework armed with questions and at least some background knowledge.
  - The concept behind the flipped classroom is to rethink when students have access to the resources they need most. If the problem is that students need help doing the work rather than being introduced to the new thinking behind the work, then the solution the flipped classroom takes is to reverse that pattern.
- **CO – PO / PSO mapping:**

CO	PO 1	PO 2	PO 4	PO 9	PO 10	PO 12	PSO 3
CO3	3	3	2	1	1	2	3

(1 – Low 2 – Moderate 3 – High)

- **PO / PSO mapped:**

Innovative practice	PO 9	PO 10	PSO 3
Justification for correlation	Students will function effectively as an individual, and as a member or leader in Flipped Classroom activity to discuss about Cache Memories, So Course outcome is mapped at level 1	In Flipped Classroom activity students will make effective presentations on Cache Memories, hence Course outcome is mapped at level 1	Knowledge of different Cache Memories is used to Design, analyze and develop electronic products in the area of VLSI Design, So Course outcome is mapped at level 3

- **Images / Screenshot of the practice:**

- **Reflective Critique:**
  - ***Feedback of practice from students and other stakeholders:***
    - Students eagerly participated and enjoyed this activity.
  - ***Benefit of the practice:***
    - Outcome attainment would have increased due to innovative practice over conventional practice.
    - Students easily understand the concepts of Cache Memories.
    - Students can answer easily about different types of Cache Memories.
  - ***Challenges faced in implementation:***
    - Faced issues while make the students to understand about Flipped Class room Activity rules.

References:

- https://www.geeksforgeeks.org/cache-memory-in-computer-organization/
- https://www.techtarget.com/searchstorage/definition/cache-memory
- https://www.javatpoint.com/cache-memory
- https://byjus.com/gate/cache-memory-notes/

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ACTIVE LEARNING TEACHING METHODS

Degree, Semester & Branch : III Semester B.E. CSE B

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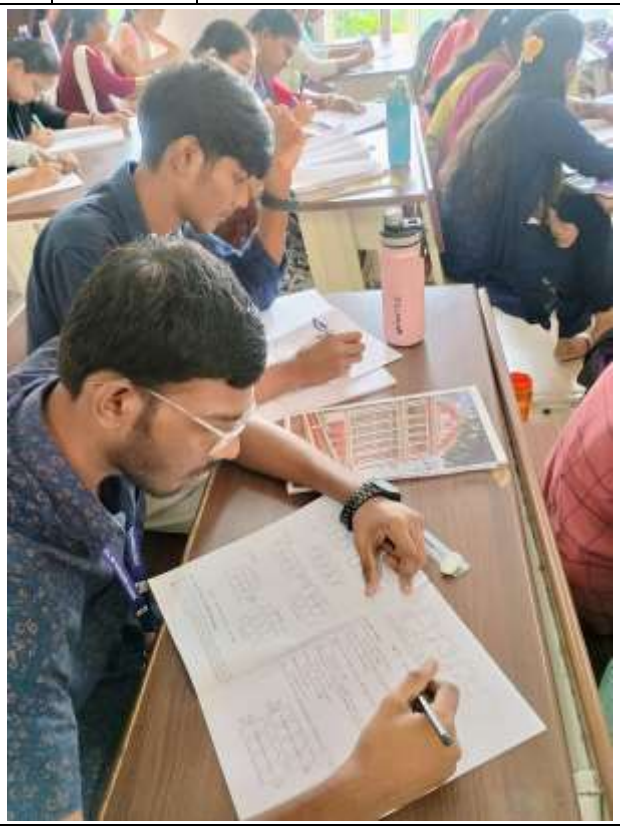
Sl. No.	Date	Topic(s)	Activity*	Reference
UNIT I - COMBINATIONAL LOGIC				
1.	14.08.24	Magnitude Comparator	One Minute Paper	https://oncourseworkshop.com/self-awareness/one-minute-paper/
				

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Sl. No.	Date	Topic(s)	Activity*	Reference
UNIT II - SYNCHRONOUS SEQUENTIAL LOGIC				
1.	27.08.24	Flip Flops (SR & D) Operation, Excitation Table	Mind Map	https://www.zenflowchart.com/guides/mind-map-ideas-for-students
				

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Sl. No.	Date	Topic(s)	Activity*	Reference
UNIT III - COMPUTER FUNDAMENTALS				
1.	21.09.24	Von Neumann Architecture & Operations and Operands	Write Pair Share	https://www.literacymn.org/think-write-pair-share
				

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Sl. No.	Date	Topic(s)	Activity*	Reference
UNIT IV - PROCESSOR				
1.	04.11.24	Data Hazards	Exit Slips	https://www.readingrockets.org/classroom/classroom-strategies