Department of Electronics and Communication Engineering

Academic Year 2024 – 2025 (Odd Semester)

Degree, Semester & Branch: B.Tech., III & AI&DS A

Course Code & Title: CS3351 Digital Principles and Computer Organization

Name of the Faculty member (s): Ms.S.Harini Shriram

Innovative Practice Description

- **Unit / Topic:** V/ Cache Memories
- **Course Outcome:** CO : Students are able to Identify the characteristics of various memory systems & I/O Communication
- **Topic Learning Outcome:** TLO: To explain the different types of memories
- **Activity Chosen:** Flipped class room
- **Justification:** It allows students to learn in their own pace, it encourages students to actively engage with lecture material, it frees up actual class time for more effective, creative and active learning activities and students take control and responsibility for their learning.
- **Time Allotted for the Activity:** 40 minutes
- **Details of the Implementation:**
  Specific topic was given to the students learn on their own. Resources like reference book, videos were given to the students. Students are asked to prepare more in depth than before. Students are separate into groups where students are given a task to perform. Get the class back together to share the individual group's work with everyone.
- **CO – PO / PSO mapping:**

CO	PO1	PO 2	PO 3	PO4	PO5	PO8	PO9	PO1 0	PO12	PSO 1	PSO2	PSO3
CO5	3	3	-	-	-	-	-	2	2	2	-	2

- **PO / PSO mapped:**

Innovative practice	PO01	PO02	PSO1
	3	3	2
Justification for correlation	Basic engineering knowledge is necessary to analyse and characterise the hierarchy of memory. Hence, it is mapped to level 3.	The outcome is mapped to level 3 by identifying the mathematical and engineering knowledge needed to solve problems in the memory chip organisation.	The students will be able to identify the suitable memory chips for memory allocation. Thus, it is mapped at level 1.

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

- **Reflective Critique:**

  - ***Feedback of practice from students and other stakeholders:***

    Self-learning and accountability of the students got improved. They learn how to communicate with team members and work together to achieve common goals.

  - ***Benefit of the practice:***

    Every student got equal opportunity to take part in this activity. The success of the activity was evaluated by asking the same question in Internal Assessment test II – Around 80% of students answered correct

  - ***Challenges faced in implementation:***

    The main challenge faced is that few students not exposed to flipped class room. Students struggle with self-discipline and may turn up to class without having absorbed the lesson. Few students hesitated to come forward and to interact. I have encouraged them to come forward and share their points

References:

1. Carl Hamacher, Zvonko Vranesic, Safwat Zaky, Naraig Manjikian, "Computer Organization and Embedded Systems", Sixth Edition, Tata McGraw-Hill, 2012.
2. William Stallings, "Computer Organization and Architecture – Designing for Performance", Tenth Edition, Pearson Education, 2016.
3. M. Morris Mano, "Digital Logic and Computer Design", Pearson Education, 2016.

Signature of Faculty Member **HOD**