



RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University

NAAC Accredited with 'A+' Grade & An ISO 9001: 2015 Certified Institution

NBA Accredited UG Programs: CSE, EEE, ECE and MECH

Department of Electronics and Communication Engineering

Academic Year 2024 – 2025 (Odd Semester)

Degree, Semester & Branch: III Semester B.E. ECE-B

Course Code & Title: EC3352 Digital Systems Design

Name of the Faculty member (s): Dr.R. Rajalakshmi

Active Learning Description

- **Unit / Topic: Unit-I / Implementation of Boolean Expressions using Universal gates**
- **Course Outcome: CO1**
- **Unit Outcome Mapping: 1e**
- **Activity Chosen: One minute paper** Date:16.08.24





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Academic Year 2024 – 2025 (Odd Semester)

Degree, Semester & Branch: III Semester B.E. ECE-B

Course Code & Title: EC3352 Digital Systems Design

Name of the Faculty member (s): Dr.R.Rajalakshmi

Active Learning Description

- **Unit / Topic: Unit-II / Priority Generator/Checker**
- **Course Outcome: CO2**
- **Unit Outcome Mapping: 6b**
- **Activity Chosen: Note Check**

Date:06.09.24





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

Degree, Semester & Branch: III Semester B.E. ECE-B

Course Code & Title: EC3352 Digital Systems Design

Name of the Faculty member (s): Dr.R.Rajalakshmi

Active Learning Description

- **Unit / Topic: Unit-III / Design of Mealy and Moore models**
- **Course Outcome: CO3**
- **Unit Outcome Mapping: 3c**
- **Activity Chosen: Zero Minute speech**

Date:23.09.24



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

Degree, Semester & Branch : III Semester B.E. ECE-B
Course Code & Title : EC3352 & Digital System Design
Name of the Faculty member : Dr.R.Rajalakshmi-ASP/ECE

Innovative Practice Description

- **Unit/Topic: Unit-IV / Hazards, Essential Hazards**
- **Course Outcome: CO4**
- **UO Mapping:4b**
- **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 college 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 3	PO 10	PSO 3
CO4	2	2	3	2	3

(1 – Low 2 – Moderate 3 – High)

PO / PSO mapped:

Innovative practice	PO 9	PO 10	PO 12
Justification for correlation	Students will function effectively as an individual, and as a member or leader in Open Flipped Classroom activity to analyze the concept of Hazards So Course outcome is mapped at level 1	In Flipped Classroom activity students will make effective presentations on Hazards concepts, hence Course outcome is mapped at level 1	Hazards topic used to design and develop error free circuits in the area of Digital System Design , So Course outcome is mapped at level 1

• **CO –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 Hazard free circuit.
 - Students can answer easily about Routing and placing with concepts of Hazard free circuit
- ❖ **Challenges faced in implementation:**
 - Faced issues while make the students to understand about Flipped Class room Activity rules.

References:

<https://www.youtube.com/watch?v=-2tBLiyjHgwh>
<https://www.electronics-tutorial.net/finite-state-machines/Asynchronous-FSM-Design/Essential-Hazards/>



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Academic Year 2024 – 2025 (Odd Semester)**

Degree, Semester & Branch: III Semester B.E. ECE-B

Course Code & Title: EC3352 Digital Systems Design

Name of the Faculty member (s): Dr.R.Rajalakshmi

Active Learning Description

- **Unit / Topic: Unit-III**

Implementation of Combinational Logic circuits using IC's, PROM, PLA

- **Course Outcome: CO5**
- **Unit Outcome Mapping: 5c**
- **Activity Chosen: Concept Test**

Date:28.10.24

