



Department of Computer Science and Engineering
Pedagogical Initiatives

Academic Year : 2024-25 (EVEN)

Date: 27.03.2025

Name of the faculty : Dr.M.TAMILSELVI

Sub. Code / Title : CS3452 – THEORY OF COMPUTATION

Class / Sem / Dept : II / IV / CSE

Objective:

• To help students well understand and apply the Pumping Lemma for proving languages are not regular.

S.No.	Type of pedagogical initiative	Description	Course outcomes
1.	Pumping Lemma Puzzle Challenge	<p>Explain the Pumping Lemma and why it's used to prove that certain languages cannot be expressed by a finite automaton (not regular).</p> <p>Task: Divide students into teams. Give them three sample languages (some regular, some non-regular). Example non-regular languages: $\{ a^n b^n \mid n \geq 1 \}$ $\{ ww \mid w \in \{a, b\}^* \}$ $\{ 0^n 1^m 2^n \mid n, m \geq 1 \}$</p> <ul style="list-style-type: none">Each team presents their reasoning and proof. <p>Topic:</p> <ul style="list-style-type: none">Proving Language not to be a regular.	CO1

Outcome:

Students develop a deeper understanding of regular and non-regular languages and how to apply formal proofs in automata theory.



Photos:



Our II year students participated in Pumping Lemma Puzzle Challenge

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Course Incharge

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HOD