Department of Computer Science & Engineering - Data Science

Lesson Plan & Work-done Diary for AY: 2025-26, odd Semester

Course with Code: Theory of Computation -BCS503				Faculty: Dr. Neethi M V			Semester & Section: V	
Class No.	**Date planned (DD/MM)**	**Topics to be covered**	**TLP Planned**	**Class No.**	**Date of Conduction (DD/MM)**	**Topics Covered**	**TLP Executed**	**Remarks if any deviation**
MODULE-1								
1.	17/09/24	**Introduction to the course**	Chalk & talk	1				
2.	17/09/24	Introduction to Finite Automata,	Chalk & talk	2				
3.	17/09/24	Structural Representations,	Chalk & talk	3				
4.	19/09/24	Automata and Complexity.	Chalk & talk	4				
5.	23/09/24	The Central Concepts of Automata Theory.	Chalk & talk	5				
6.	24/09/24	Deterministic Finite Automata, .	Chalk & talk	6				
7.	26/09/24	Nondeterministic Finite Automata,	Chalk & talk	7				
8.	30/09/24	Nondeterministic Finite Automata,	Chalk & talk	8				
9.	01/01/24	An Application: Text Search,	Chalk & talk	9				
10.	01/10/24	Finite Automata with Epsilon-Transitions	Chalk & talk	10				
11.	03/10/24	Finite Automata with Epsilon-Transitions	Chalk & talk					

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MODULE-2								
1.	04/10/24	Regular Expressions,	Chalk & talk	1				
2.	07/10/24	Finite Automata and Regular Expressions,	Chalk & talk	2				
3.	08/10/24	Finite Automata and Regular Expressions,	Chalk & talk	2				
4.	10/10/24	Proving Languages not to be Regular.	Chalk & talk	4				
5.	18/10/24	Closure Properties of Regular Languages,	Chalk & talk	5				
6.	22/10/24	Equivalence and Minimizatis on of Automata,	Chalk & talk	6				
7.	22/10/24	Applications of Regular Expression	Chalk & talk	7				
8.	24/10/24	Applications of Regular Expression	Chalk & talk	8				
9.	25/10/24	Applications of Regular Expression	Chalk & talk	9				

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MODULE-3								
1.	28/10/24	Context-Free Grammars	PPT	1				
2.	29/10/24	Ambiguity in Grammars and Languages	PPT	2				
3.	29/10/24	Definition of the Pushdown Automaton	PPT	3				
4.	04/11/24	The Languages of a PDA	PPT	4				
5.	05/11/24	Equivalence of PDA's and CFG's	PPT	5				
6.	05/11/24	Equivalence of PDA's and CFG's	PPT	6				
7.	07/11/24	Deterministic Pushdown Automata	PPT	7				
8.	08/11/24	Deterministic Pushdown Automata	PPT	8				

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MODULE-4								
1.	11/11/2024	Normal Forms for Context-Free Grammars,	PPT	1				
2.	12/11/2024	The Pumping Lemma for Context-Free Languages,	PPT	2				
3.	12/11/2024	The Pumping Lemma for Context-Free Languages,	PPT	3				
4.	14/11/2024	The Pumping Lemma for Context-Free Languages,	PPT	4				
5.	15/11/2024	The Pumping Lemma for Context-Free Languages,	PPT	5				
6.	19/11/2024	Closure Properties of Context-Free Languages	PPT	6				
7.	19/11/2024	Closure Properties of Context-Free Languages	PPT	7				
8.	25/11/2024	Closure Properties of Context-Free Languages	PPT	8				

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MODULE-5								
1.	26/11/2024	Introduction to Turing Machines	PPT	1				
2.	26/11/2024	Problems That Computers Cannot Solve	PPT	2				
3.	28/11/2024	The Turing Machine	PPT	3				
4.	29/11/2024	Programming Techniques for Turing Machines	PPT	4				
5.	02/12/2024	Extensions to the Basic Turing Machine	PPT	5				
6.	03/12/2024	Undecidability: A Language That Is Not Recursively Enumerable.	PPT	6				
7.	03/12/2024	Undecidability: A Language That Is Not Recursively Enumerable.	PPT	7				
8.	05/12/2024	Undecidability: A Language That Is Not Recursively Enumerable.	PPT	8				
9.	06/12/2024	Undecidability: A Language That Is Not Recursively Enumerable.	PPT	9				
10.	09/12/2024	Undecidability: A Language That Is Not Recursively Enumerable.	PPT	10				

	Activity	Planned	Actual	Remarks
1	Theory Classes	41		
2	Assignments/ Quizzes/Self-study	3		
3	Tutorials/ Extra classes	1		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	100		
Planning			**Execution**	
Faculty Signature:			**Faculty Signature:**	
HoD Signature:			**HoD Signature:**	