



Department of Computer Science & Engineering - Data Science

Lesson Plan & Work-done Diary for AY: 2026-27, 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.		Introduction to the course	Chalk & talk	1				
2.		Introduction to Finite Automata,	Chalk & talk	2				
3.		Structural Representations,	Chalk & talk	3				
4.		Automata and Complexity.	Chalk & talk	4				
5.		The Central Concepts of Automata Theory.	Chalk & talk	5				
6.		Deterministic Finite Automata, .	Chalk & talk	6				
7.		Nondeterministic Finite Automata,	Chalk & talk	7				
8.		Nondeterministic Finite Automata,	Chalk & talk	8				
9.		An Application: Text Search,	Chalk & talk	9				
10.		Finite Automata with Epsilon-Transitions	Chalk & talk	10				
11.		Finite Automata with Epsilon-Transitions	Chalk & talk					

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MODULE-2								
1.		Regular Expressions,	Chalk & talk	1				
2.		Finite Automata and Regular Expressions,	Chalk & talk	2				
3.		Finite Automata and Regular Expressions,	Chalk & talk	2				
4.		Proving Languages not to be Regular.	Chalk & talk	4				
5.		Closure Properties of Regular Languages,	Chalk & talk	5				
6.		Equivalence and Minimizatis on of Automata,	Chalk & talk	6				
7.		Applications of Regular Expression	Chalk & talk	7				
8.		Applications of Regular Expression	Chalk & talk	8				
9.		Applications of Regular Expression	Chalk & talk	9				

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MODULE-3								
1.		Context-Free Grammars	PPT	1				
2.		Ambiguity in Grammars and Languages	PPT	2				
3.		Definition of the Pushdown Automaton	PPT	3				
4.		The Languages of a PDA	PPT	4				
5.		Equivalence of PDA's and CFG's	PPT	5				
6.		Equivalence of PDA's and CFG's	PPT	6				
7.		Deterministic Pushdown Automata	PPT	7				
8.		Deterministic Pushdown Automata	PPT	8				

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MODULE-4								
1.		Normal Forms for Context-Free Grammars,	PPT	1				
2.		The Pumping Lemma for Context-Free Languages,	PPT	2				
3.		The Pumping Lemma for Context-Free Languages,	PPT	3				
4.		The Pumping Lemma for Context-Free Languages,	PPT	4				
5.		The Pumping Lemma for Context-Free Languages,	PPT	5				
6.		Closure Properties of Context-Free Languages	PPT	6				
7.		Closure Properties of Context-Free Languages	PPT	7				
8.		Closure Properties of Context-Free Languages	PPT	8				

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MODULE-5								
1.		Introduction to Turing Machines	PPT	1				
2.		Problems That Computers Cannot Solve	PPT	2				
3.		The Turing Machine	PPT	3				
4.		Programming Techniques for Turing Machines	PPT	4				
5.		Extensions to the Basic Turing Machine	PPT	5				
6.		Undecidability: A Language That Is Not Recursively Enumerable.	PPT	6				
7.		Undecidability: A Language That Is Not Recursively Enumerable.	PPT	7				
8.		Undecidability: A Language That Is Not Recursively Enumerable.	PPT	8				
9.		Undecidability: A Language That Is Not Recursively Enumerable.	PPT	9				
10.		Undecidability: A Language That Is Not Recursively Enumerable.	PPT	10				

	Activity	Planned	Actual	Remarks
1	Theory Classes	50		
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:	