



Code	Subject Title	Cr. Hrs	Semester
IT-301	Theory of Automata (IT)	3	V
Year	Discipline		
3	Information Technology		

Objectives

Formal language, Defining Language, Regular Expression, Finite Automata, Transition Graphs, Kleene's Theorem, Finite Automata with output, Regular Languages, Non regular Languages, Decidability, Demonstration Of JFLAP, Context Free Grammars, Grammatical Format, Pushdown Automata (PDA), CFG=PDA, Non-Context-Free Languages, Context-Free Languages, Decidability, Turing Machine, The Chomsky Hierarchy

Prerequisites

Discrete Mathematics

Text Book

Daniel I. A. Cohen "Introduction To Computer Theory", 2nd Edition John Wiley, ISBN 0-471-13772-3, 1996

Reference Books

- John C. Martin "Introduction to Languages and The Theory of Computation", 2nd Edition McGraw Hill, ISBN 0070408459, 1997
 - John E. Hopcroft, Rajeev Motwani and Jeffrey D. Ullman "Introduction to Automata Theory, Languages, and Computation", 2nd Edition Addison-Wesley, ISBN 0201441241, 2000
 - Harry R. Lewis and Christos H. Papadimitriou "Elements of Theory of Computation", 2nd Edition Prentice Hall, ISBN 0132624788, 1997
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