

ST.ANN'S COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
LESSON PLAN

Subject: COMPILER DESIGN

Year/ Sem: III-I Semester 'A' & 'B'

Name of Faculty: KRISHNA KISHORE THOTA

Academic Year: 2019-20

S. No.	UNIT No.	TOPICS	No.of Classes Required
1	I	Introduction Language Processing: Structure of a compiler the evaluation of Programming language, The Science of building a Compiler application of Compiler Technology, Programming Language Basics. Lexical Analysis:- The role of lexical analysis buffering, specification of tokens. Recognitions of tokens the lexical analyzer generator	10
2	II	Syntax Analysis : The Role of a parser, Context free Grammars Writing A grammar, top down parsing, bottom up parsing Introduction to Lr Parser.	10
3	III	More Powerful LR parser (LR1, LALR): Using Armigers Grammars Equal Recovery in Lr parser Syntax Directed Transactions Definition, Evolution order of SDTS Application of SDTS. Syntax Directed Translation Schemes.	10
4	IV	Intermediated Code: Generation Variants of Syntax trees 3 Address code, Types and Declaration, Translation of Expressions, Type Checking. Canted Flow Back patching	10
5	V	Runtime Environments: Stack allocation of space, access to Non Local data on the stack Heap Management code generation – Issues in design of code generation the target Language Address in the target code Basic blocks and Flow graphs. A Simple Code generation.	11
6	VI	Machine Independent Optimization: The principle sources of Optimization peep hole Optimization, Introduction to Data flow Analysis.	10
TOTAL CLASSES			61

TEXT BOOKS:

1. Compilers, Principles Techniques and Tools. Alfred V Aho, Monical S. Lam, Ravi Sethi Jeffery D. Ullman, 2nd edition, pearson, 2007
2. Compiler Design K. Muneeswaran, OXFORD
3. Principles of compiler design, 2nd edition, Nandhini Prasad, Elsevier.

REFERENCE BOOKS:

1. Compiler Construction, Principles and practice, Kenneth C Loudon, CENGAGE
2. Implementations of Compiler, A New approach to Compilers including the algebraic methods, Yunlinsu, SPRINGER

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SACET CSE