

SSN COLLEGE OF ENGINEERING

Department of CSE

COURSE PLAN

SUBJECT NAME	:	COMPILER DESIGN
SUBJECT CODE	:	CS6660
DEGREE / YEAR	:	B.E. CSE / III YEAR/ A & B Sections
BATCH	:	2015-2019
SEMESTER	:	VI (2017-18: EVEN)
NAME OF THE STAFF	:	Dr. B. PRABAVATHY & Dr. B. BHARATHI
DESIGNATION	:	ASSOCIATE PROFESSOR

Teaching Methodology and aids : **PowerPoint presentations\Projector\Use of ICT\Chalk and Blackboard**
 (Content Delivery Method (CDM)) **(For all topics)**

Sl. No	Unit No	Topic	CDM	No of Hrs (plan)	No of Hrs (actual)	Remarks
1.	UNIT 1 (5 Hrs)	Introduction to compilers Translators-Compilation, interpretation, Language processors		1		
2.		Phases of a Compiler		1		
3.		Errors encountered in different phases		1		
4.		The Grouping of Phases-Compiler Construction Tools		1		
5.		Programming language basics		1		
6.		Planned Hours		5		
7.	UNIT 2 (9 Hrs)	Lexical analysis Need and role of lexical analyser, lexical errors		1		
8.		Expressing Tokens by Regular Expressions		1		
9.		Converting Regular Expression to DFA		2		
10.		Minimization of DFA	T	2		
11.		Language for Specifying Lexical analyzers, LEX		2		
12.		Design of Lexical Analyzer for a sample Language		1		
13.		Planned Hours		9		
14.	UNIT 3 (13 Hrs)	Syntax analysis Need and role of syntax analyser		1		
15.		Context free grammar		1		
16.		Top Down Parsing -General Strategies		1		
17.		Recursive Descent Parsing		1		
18.		Predictive Parsing, LL(1)		1		
19.		Bottom-up parsing – Shift Reduce Parsing		1		
20.		LR Parser - SLR Parser	T	2		
21.		LALR Parser		2		
22.		Error Handling and Recovery in Syntax Analyzer		1		
23.		YACC		1		
24.		Design of a syntax Analyzer for a Sample Language		1		
25.		Planned Hours		13		
26.		Syntax directed translation & Run time environment Syntax directed Definitions-Construction of Syntax Tree		1		
27.		Bottom-up Evaluation of S-Attribute		1		

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	UNIT 4 (12 Hrs)	Definitions				
28.		Design of predictive translator		1		
29.		Type Systems		1		
30.		Specification of a simple type checker		1		
31.		Equivalence of Type Expressions-Type Conversions.		1		
32.		Source Language Issues		1		
33.		Storage Organization		1		
34.		Storage Allocation		2		
35.		Parameter Passing-Symbol Tables		1		
36.		Dynamic Storage Allocation-Storage Allocation in FORTRAN		1		
37.		Planned Hours		12		
38.	UNIT 5 (9 Hrs)	Code optimization & Code Generation Principal Sources of Optimization		1		
39.		DAG representation of Basic Blocks		1		
40.		Optimization of basic Blocks		2		
41.		Global Data Flow Analysis		2		
42.		Efficient Data Flow Algorithms		1		
43.		Issues in Design of a Code Generator		1		
44.		A Simple Code Generator Algorithm		1		
45.		Planned Hours		9		

Total Number of Syllabus Hours: 45

Total Number of Planned Hours: 48

Content Delivery Methods (CDM): T- Tutorial

PREPARED BY
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APPROVED BY
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