

College of IT and Management Education

Lesson Plan

Branch : MCA
Semester : 4th (January,2017-June,2017)
Subject : Compiler Design(MCC404)
Faculty Name : Rajalaxmi Mishra
Credit Points : 4

Total No. of Classes : 40

Sl. No.	Topic	Session
Module – I		17 Hours
1	Introduction	1
2	Lexical Analysis (Scanning)	3
3	Lexical-Analyzer Generators: Lex & Flex	1
4	Syntax Analysis (Parsing)	1
5	Context Free Grammar	1
6	Top-Down Parsing	1
7	Bottom-Up Parsing	1
8	LR Parsing Methods	1
9	SLR	1
10	Canonical LR	1
11	LALR	1
12	Parser Generators-YACC & BISON	1
	Semantic Analysis: Attribute Grammars	1
13	Syntax-Directed Translation Schemes (SDTS)	1
14	Doubt Clearing Class	1
Module – II		11 Hours
15	Intermediate-Code Generation Techniques	1
16	Type Checking	1
17	Ambiguity in CFG and its removal	1
18	Run-Time Environments	1
19	Storage Organization	1
20	Allocation & Management of Stack and Heap	1
21	Garbage Collections	1
22	Register allocation	1
23	Code Generation	2
24	Doubt Clearing Class	1
Module III		12 Hours
25	Machine-Independent Optimizations	1
26	Inter-procedural Analysis	1
27	Basic Concepts, Requirement of Inter-procedural Analysis	1
28	Logical Representation of Data Flow	1
29	Pointer-Analysis Algorithm	1

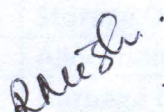
30	Context-Insensitive Inter-procedural Analysis	2
31	Context-Sensitive Pointer Analysis	2
32	Datalog Implementation	2
33	Doubt Clearing Class	1
Total Session		40

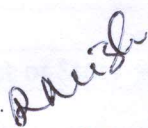
Text Books:


1. Alfred V. Aho, Monica S. Lam, Ravi Sethi, Jeffrey D. Ullman, "Compilers: Principles, Techniques, and Tools", 2nd Edition, 2007, Pearson Education Inc., New Delhi. [Chapters-1, 3 to 9 (excluding 7.8), 12]
2. Kenneth C. Loudon, "Compiler Construction: Principles and Practices", First Edition, 1997, CENGAGE Learning India Pvt. Ltd., New Delhi.

References Books:

1. Pat D. Terry, "Compiling with C# and Java", 2006, Pearson Education Inc., New Delhi.
2. Dick Grune, Henri E. Bal, Cerial J. H. Jacobs, Koen Langendoen, "Modern Compiler Design", First Edition (2000), Wiley India Pvt. Ltd., New Delhi.
3. Keith D. Cooper, Linda Torczon, "Engineering a Compiler", First Edition (2004), Elsevier India Pvt. Ltd., New Delhi.
4. G. Sudha Sadasivam, "Compiler Design", 2008, SCITECH Publications (India) Pvt. Ltd, Chennai.
5. David Galles, "Modern Compiler Design", 2006, Dreamtech /Pearson Education Inc., New Delhi.


Signature of the Faculty.


Signature of the
Academic Coordinator, MCA


Signature of
The Principal