

TEXT BOOK:

1. **Elements of Artificial Neural Networks**, Kishan Mehrotra, C. K. Mohan, Sanjay Ranka, Penram, 1997.

REFERENCE BOOKS:

1. **Artificial Neural Networks**, R. Schalkoff, MGH, 1997.
2. **Introduction to Artificial Neural Systems**, J. Zurada, Jaico, 2003.
3. **Neural Networks**, Haykins, Pearson Edu., 1999.

CAD FOR VLSI

Subject Code	: 10EC754	IA Marks	: 25
No. of Lecture Hrs/Week	: 04	Exam Hours	: 03
Total no. of Lecture Hrs.	: 52	Exam Marks	: 100

UNIT – 1&2

INTRODUCTION TO VLSI METHODOLOGIES: VLSI Physical Design Automation - Design and Fabrication of VLSI Devices - Fabrication process and its impact on Physical Design.

UNIT – 3&4

A QUICK TOUR OF VLSI DESIGN AUTOMATION TOOLS: Data structures and Basic Algorithms, Algorithmic Graph theory and computational complexity, Tractable and Intractable problems.

UNIT – 5&6

GENERAL PURPOSE METHODS FOR COMBINATIONAL OPTIMIZATION: partitioning, floor planning and pin assignment, placement, routing.

UNIT – 7&8

SIMULATION-LOGIC SYNTHESIS: Verification-High level synthesis - Compaction. Physical Design Automation of FPGAs, MCMS-VHDL-Verilog-Implementation of Simple circuits using VHDL and Verilog.

REFERENCE BOOKS:

1. "Algorithms for VLSI Physical Design Automation", N. A. Shervani, 1999.
2. "Algorithms for VLSI Design Automation", S. H. Gerez, 1998.

APPLIED EMBEDDED SYSTEM DESIGN

Subject Code	: 10EC755	IA Marks	: 25
No. of Lecture Hrs/Week	: 04	Exam Hours	: 03
Total no. of Lecture Hrs.	: 52	Exam Marks	: 100

1. **Embedded Systems : Architecture, Programming, and Design**, Raj Kamal, 2nd Edn. TMH, 2008.

REFERENCE BOOKS:

1. **Embedded System Design – A certified Hardware / Software Introduction**, Frank Vahid, John Wikey & Sons, 2002.
2. **An embedded Software Primer** by David E Simon, Pearson Edition 1999.

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