



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code: 3726108

Semester – II

Subject Name: **Physical Design Automation**

Type of course: **Elective**

Prerequisite: NA

Rationale:

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE(E)	PA (M)	PA (V)	PA (I)		
3	0	2	4	70	30	30	20	150

Content:

Sr. No.	Content	Total Hrs
1	Introduction to VLSI Physical Design Automation.	
2	Standard cell, Performance issues in circuit layout, delay models Layout styles.	
3	Discrete methods in global placement.	
4	Timing-driven placement. Global Routing Via Minimization.	
5	Over the Cell Routing - Single layer and two-layer routing, Clock and Power Routing	
6	Compaction, algorithms, Physical Design Automation of FPGAs..	

Reference Books:

1. William Stallings, "Cryptography and Network Security, Principles and Practices", Pearson Education, 3rd Edition
2. Charlie Kaufman, Radia Perlman and Mike Speciner, "Network Security, Private Communication in a Public World", Prentice Hall, 2nd Edition
3. Christopher M. King, ErtemOsmanoglu, Curtis Dalton, "Security Architecture, Design Deployment and Operations", RSA Pres,
4. Stephen Northcutt, LenyZeltser, Scott Winters, Karen Kent, and Ronald W. Ritchey, "Inside Network Perimeter Security", Pearson Education, 2nd Edition
5. Richard Bejtlich, "The Practice of Network Security Monitoring: Understanding Incident Detection and Response", William Pollock Publisher, 2013



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code: 3726108

Course Outcome:

After learning the course the students should be able to:

Sr. No.	CO statement	Marks % weightage
CO-1	Study automation process for VLSI System design	
CO-2	Understanding of fundamentals for various physical design CAD tools.	
CO-3	Develop and enhance the existing algorithms and computational techniques for physical design process of VLSI systems	