**table of content**

**chapter** Description Page No

**1** **INTRODUCTION 1**-**5**

1. Introduction 1
2. Overview 1
3. What is VLSI? 1
4. History of IC’s 2
5. Moore’s Law 3
6. Advantages of IC’s 5
7. Background 5

**2 literature survey 6**-**10**

1. Literature survey 6
2. Overview of existing literature 9

**3 decoders 11**-**17**

1. Overview Of Decoders 11
2. Types Of Decoders 11
3. How Decoders Work 11
4. Binary Decoders 12
5. 2-4 Line Decoder 12
6. 3-8-Line Decoder 13
7. 4-16 Line Decoder 15
8. Applications Of Decoders 17

**4** **EXISTING SYSTEM** **18**-**23**

1. Logic gates 18
2. What is Logic Gate? 18
3. Types of Logic Gates 19
4. Existing System 19
5. Pass Transistor Logic 21
6. Transmission Gate Logic 21
7. Mixed Logic Design 22

**5 Proposed System 24**-**28**

1. Proposed Methodology 24
2. Motivation For GDI 24
3. Analysis Of GDI Technique 24
4. Advantages Of GDI 28

**6 Software Implementation 29**-**34**

1. Introduction 29
2. Schematic Capture 29
3. Schematic Entry 29
4. Creating A New Library 30
5. Creating A Schematic Cell View 32
6. Adding Components to Schematic 32
7. Adding Pins to Schematic 34
8. Measuring Powe Dissipation 35

**7 Simulation Results 37**-**41**

1. Analog Simulation with Specter 37
2. Starting The Simulation Environment 37
3. Choosing A Simulator 37
4. Setting The Module Libraries 37
5. Choosing Analysis 38
6. Selecting Signals for Plotting 39
7. Simulation Results 30
8. Comparison 41

**8 Conclusion and future scope 42**-**44**

**bibliography 45**

**APPENDIX**