CONTENTS

Chapter	Title	Page No.
1.	INTRODUCTION	01 - 21
	1.1 History of Fuzzy Logic	
	1.2 Crisp Set and Fuzzy Set	
	1.3 Advantages and Disadvantages of Fuzzy Logic	
	1.4 Applications of Fuzzy Logic	
	1.5 Methods of Fuzzification and Defuzzification	
	1.6 Literature Survey	
	1.7 Orientation of Work	
	1.8 References	
2.	TRANSDUCERS AND DESIGN OF TRANSDUCER SECTION	22 - 39
	2.1 Important Parameters	
	2.2 Classification of Transducers	
	2.3 Temperature Transducers	
	2.3.1 R.T.D.	
	2.3.2 Thermocouple	
	2.3.3 Semiconductors	
	2.3.4 Pyrometer	
	2.3.5 Thermistor	
	2.4 Characteristics of Thermistor	
	2.5 Design of Sensor Section	
	2.5.1 Timing Generation with IC-555	
	2.5.2 Design of Fuzzy Astable Multivibrator	
	2.5.3 Characteristics of Temperature Sensor	
	2.5.4 Results	
	2.5.5 Advantages and Disadvantages	
	2.6 References	

Chapter	Title	Page No.
3.	HARDWARE AND SOFTWARE DEVELOPMENT	40 - 82
	3.1 Fuzzy Control System and Its Design	
	3.2 Implementation of Fuzzy Logic Temp. Controller	
	3.3 Flow Chart	
	3.4 Assembly Language Programme Listing	
	3.5 Look-up Tables	
	3.6 Membership Functions	
	3.7 Tuning Process	
	3.8 References	
4.	SUMMARY AND CONCLUSIONS	83 - 90