## **CONTENTS**

		Page
Foreword		
Preface		
Chanton I		
Chapter I	e of Damages in Hydro Turbines and their Repair welding in Indian	
Hydroelectri		1
	ntroduction	1
	resent State of Damages	
	ractice of Repair Welding in Indian Hydroelectric Projects	
1.5	indice of Reput Westing in Indian 119 discussion 110 jeets	
Chapter II		
	of Problem and Planning of Experiments	17
	ntroduction	
2.2 Pl	lanning of Experiments	
	•	
Chapter III		
Experimenta	al Procedure and Techniques	20
3.1 M	faterial Used	
3.2 H	leat Treatment	
3.3 W	Velding Procedure and Technique	
3.4 W	Velding Operations	
3.5 Pr	reparation of Test Samples	
3.6 De	esign and Fabrication of Erosion Test Rig	
3.7 M	lechanical Test	
3.8 Er	rosion Test	
3.9 M	Ietallographic Study	
3.10 Ex	xamination of Erodent Particles	
_		
Chapter IV		
Results and I		35
	esults and Analysis	
	expecting a serior of the seri	
	evestigations using alternate layers of Austenitic (309 Mo) and	
	Iartensitic (444L) Stainless Steel Welding Electrodes	
4.4 Di	riscussion	
Chamtan V		
Chapter V	avious of Austonitia Stainlage Staal (Nitrania 60)	146
Erosion Bena	aviour of Austenitic Stainless Steel (Nitronic-60)	140
Chapter VI		
<del>-</del>	aviour of Surface Coatings	148
Drosion Done	avious of Surface Commigs	1.0
Chapter VII	•	
<del>-</del>	of the Project	150
_ *************************************		
References		152
List of Publications under the Project		156