CONTENTS

ACKNOWLEDGEMENT
LIST OF PUBLICATIONS
PREFACE

CHAPTER 1: Preliminaries 1 – 37

1.1. Introduction 1

1.2. Some Fundamental Tools of Functional Analysis 2

1.3. Brief Survey of Variational Inequalities 27

CHAPTER 2: $\mathcal{H}$-Monotone Operators with an Application to a System of Nonlinear Implicit Variational Inclusions 38 – 54

2.1. Introduction 38

2.2. Resolvent Operator and Formulation of Problem 39

2.3. Existence of Solution 44

2.4. Iterative Algorithm and Convergence Analysis 49

2.5. Conclusion 54

CHAPTER 3: An Iterative Algorithm for a System of Generalized Mixed Variational Inclusion Problems 55 – 70

3.1. Introduction 55

3.2. Resolvent Operator and Formulation of Problem 56

3.3. Iterative Algorithm 62

3.4. Existence of Solution and Convergence Analysis 63
3.5. Conclusion  

CHAPTER 4: Convergence and Stability of a Perturbed Mann Iterative Scheme for Solving a System of Generalized Variational-Like Inclusion Problem  

4.1. Introduction  

4.2. Resolvent Operator and Formulation of Problem  

4.3. Existence of Solution and Mann Type Perturbed Iterative Algorithm  

4.4. Convergence and Stability Analysis  

4.5. Conclusion  

Bibliography  

70 - 105