# CONTENTS

## INTRODUCTION

### CHAPTER I Preliminaries

1. Categories
2. Semigroups
3. Biordered sets

### CHAPTER II Unit regular monoids

1. Group cosets and Green’s relations
2. Groupoid of cosets
3. Group action on idempotents
4. Group cosets of unit regular monoids
5. E-centralising group of units
6. \( R \)-\([L]\) strongly unit regular semigroups
7. Examples
8. Construction of unit regular monoids

### CHAPTER III \( R \)-strongly unit regular monoids

1. Properties of \( R \)-strongly unit regular monoids
2. Construction of \( R \)-strongly unit regular monoids

### CHAPTER IV Particular cases and submonoids

1. Unit regular inverse monoids
2. Unit regular orthodox submonoids

### CHAPTER V The full transformation semigroup

1. Some combinatorial results on \( T(X) \)
2. The partial strong unit regularity of \( T(X) \)
3. Characterization of \( M_L \)
4. Characterization of \( Q_R \)
5. Some maximal bands of \( T(X) \).

## REFERENCES

## LIST OF SYMBOLS

## INDEX