PREFACE

The majority of the traditional oral drug delivery systems have few impediments which are mainly associated to gastric residence of dosage form. Control drug delivery systems aimed not just to extend the release of drug but also to lengthen its retention in its absorption site. This can be achieved by designing several gastro retentive dosage forms like mucoadhesion, expandable systems, low density and high density systems etc.

This Ph.D thesis submitted to JNTUA, Ananthapuramu entitled “Development of novel drug delivery systems for repaglinide, an anti-diabetic drug” contains a detailed presentation on formulation and evaluation of gastro retentive drug delivery systems of repaglinide using okra gum and other polymers. Entire thesis has been divided into 6 chapters.

Chapter 1 focuses on general introduction to different types of gastro retentive drug delivery systems and significance of natural gums in the development of several pharmaceutical dosage forms. Chapter 2 includes a careful and systematic presentation of published literature that has been reviewed to develop and evaluate different drug delivery systems designed in the present investigation. The aim and objectives of the present study were discussed in chapter 3. The work carried out in different phases were also explained in the same chapter. Drug profile (repaglinide), polymer profiles and list of instruments were discussed in chapter 4. Complete methodology for experimental works on okra gum, optimization of floating tablets and formulation of mucoadhesive tablets using thiolated okra gum were also given. Chapter 5 provides the complete results and discussion. Chapter 6 outlines all the chapters of the dissertation in brief and conclusion on the performed research. The dissertation concludes that, the use of plant based polymers can be a good replacement for synthetic polymers in the development of controlled release dosage forms.