

## PREFACE

This thesis, “RIGHT JACOBSON RADICALS FOR RIGHT NEAR-RINGS” submitted for the degree of Doctor of Philosophy in Mathematics of Acharya Nagarjuna University, forms the research work done by me in the Department of Mathematics, Acharya Nagarjuna University.

In the introductory chapter explains the origin of the present problem, the existing literature relevant to the work of the thesis, and a summary of main results of the thesis which forms the substance of Chapters 1 to 5 are briefly presented.

The Content of chapter 1 forms the paper ‘A Radical for right near-rings: The right Jacobson radical of type-0’ which was published in the ‘International Journal of Mathematics and Mathematical Sciences’ in 2006.

Most of the results of sections 2.2 and 2.3 of chapter 2 form a part of the paper ‘Two more radicals for right near-rings: The right Jacobson radicals of type-1 and 2’ which was published in the ‘Kyungpook Mathematical Journal’ in 2006.

The content of Section 3.3 of chapter 3 forms the paper ‘Kurosh-Amitsur right Jacobson radicals of type-1 and 2 for right near-rings’ which was ~~communicated to~~ ‘<sup>accepted</sup> Results in Mathematics’ for publication, in ‘Results in Mathematics’.

The content of chapter 4 forms the paper ‘Right semisimple right near-rings’ which was communicated to ‘Novi Sad Journal of Mathematics’ for publication.

The content of section 5.2 of chapter 5 forms the paper ‘Hereditary right Jacobson radical of type-0(e) for right near-rings’ which was communicated to the ‘Journal of the Australian Mathematical Society’ for publication.

The content of section 5.3 of Chapter 5 forms the paper ‘Hereditary right Jacobson radicals of type-1(e) and 2(e) for right near-rings’ which was communicated to ‘Algebra Colloquium’ for publication.

It is obligatory on my part to thank all those who have extended sustained support during my research.

In the first instance, I express my deep sense of gratitude to my Research Director, **Dr. Ravi Srinivasa Rao**, Reader and Head of the Department of Mathematics, P.G. Center, P.B. Siddhartha College of Arts & Science, Vijayawada, for his expertise and constant encouragement. Indeed, he is a veritable mine of knowledge and source of inspiration for me.

It is my bounden duty to thank **Prof. D. Rama kotaiah**, former Vice-Chancellor, Acharya Nagarjuna University (ANU) for he happened to be one of the pioneers of near-rings and has given me inestimable suggestions thereby paving way for my research. I am also grateful to **Prof. G. Koteswara Rao**, former Head of the Department of Mathematics, ANU for giving me a fillip with his valuable suggestions. The research has come to its fruition with their kind support.

My sincere thanks go to the esteemed faculty members of the Department of Mathematics, ANU, **Prof. Y. Venkateswara Reddy**, **Prof. L. Prakash Rao**, **K.B. Prabhakara Rao**, **Prof. C. Santha Kumari**, **Prof. V. Sambasiva Rao** and **Prof. Bh. Satyanarayana** for their cooperation.

My thanks are due to the Management of J.K.C. College for according me permission to take up my research. I also thank the Principal and Colleagues of my Institution, J.K.C. College, Guntur for their kind cooperation.

I am grateful to the Management and the Administrative Staff of P.G. Center, P.B. Siddhartha College of Arts & Science for providing me with all facilities to pursue my research.

I owe much to the members of my family and all those who stood by me during the entire span of my research.

**K. SIVA PRASAD**