PREFACE

The present thesis is the outcome of the research work done by me since 1977, under the supervision of Dr. S.N. Maheshwari, Asstt. Professor, Department of Mathematics and Statistics, University of Saugar, Saugar, (M.P.).

It contains five chapters. Each chapter is divided into sections. The first chapter concerns with some introductory concepts, known results and aims at the purpose of the work done. In the second chapter the concept of feebly open sets (as a generalisation of the concept of open sets) in topological spaces has been introduced and studied. The third chapter deals with the role of these sets in bitopological spaces. Chapter fourth and fifth concern with some stronger types of connectedness in topological and bitopological spaces respectively.

(2.3),

The contents of the sections (2.1), (4.1), (4.2), (5.1) and (5.3) have been either published or under publication in Madhya Bharti, Analele Ştiinţei al Univ. Al. I. Cuza Iaşi, and Vigyan Bharti. The remaining portions are under communication and the results are awaited.
Throughout the work the known theorems, definitions and remarks are numbered by capital Roman letters preceded by the chapter number.

I acknowledge my hearty indebtedness to my supervisor Dr. S.N. Maheshwari for his constant inspiration and stimulating guidance. I also express my deep sense of gratitude to Dr. P.L. Sharma, Prof. and Head, Dept. of Mathematics and Statistics, University of Sagar, Sagar and Dr. R. Prasad, Asstt. Professor in the department for their keen interest and kind help. I extend herewith my sincere thanks to my research companions Shri S.S. Thakur, Sri P.C. Jain, and Sri L.J. Singh for several helpful discussions and cooperation. I owe also to the Council of Scientific and Industrial Research, New Delhi, for endowing me with Junior Research Fellowship and converting it to SRF (Senior Research Fellowship). Finally, I express my thanks to Sri L.P. Choubey for taking pains and care in typing the manuscript of the thesis.

(U.B. Tapli)