Soil is a vital natural resource, which acts as one of the significant life-supporting system for mankind. The best utilization of soil resources and their management needs comprehensive information on genetical history of the soils besides the knowledge about its characters. Geology and Geomorphology have an important role to play in the study of soil characteristics and genesis. The characteristics of soils on present landscapes are the net result of two kinds of processes: a) pedoogic processes of in situ modification which yield genetic soil properties b) geological processes of landscape evolutions which yield inherited soil properties. The need for interdisciplinary research involving geology and pedology gains more significance due to the fact that the ultimate ancestors of soils lie in geological sequences and the techniques applied in the two disciplines are overlapping.

The research topic for Ph.D. thesis has been selected with a view to study the comparative intensity of pedogenic processes in two geographically isolated areas having arid and semiarid climate because majority of the soils on the earth's crust belong to arid and semiarid regions. The arid areas occupy one third of the earth's surface. The present work is different from the contemporary approach towards pedogenesis.

The text of the thesis has been divided into seven chapters. Chapter I includes introduction to the research areas with respect to its location, climate, vegetation, physiography, geology and pedology. Resume of the previous work on classification processes of soil formation, soil properties and soils of
research area is listed in chapter II. Research Methodology including field and laboratory techniques of investigations is summarised in chapter III. Chapter IV and V describe the physical and chemical characters of the soil profiles of research area. In chapter VI an attempt has been made to work out the statistical models with help of computer programmes to estimate some important physical and chemical parameters for soils of Seistan plain (Iran) and SW Haryana (India). The observations drawn from various field and laboratory investigations are discussed in chapter VII which also includes the conclusions about the comparative studies of the soils of Seistan plain (Iran) and SW Haryana (India) in respect of morphological, physical and chemical properties, statistical modeling and classification. Some significant observations in respect of problematic soils and their remedial measures are also recorded.

The Thesis also embodies 94 tables, 45 figures, 7 maps and 5 plates. Tables and figures placed in the appendix, include the descriptive data and its graphic representation regarding morphological, physical and chemical properties of soils of two areas and used for comparison and statistical modeling. Maps have been interleafed with the text at appropriate places. The plates include field photographs of the soils in Seistan plain (Iran) and SW Haryana (India).

(Nasrollah Basirani)