

P R E F A C E

The theory of univalent functions is an old Subject, born around the turn of 20th century; yet it remains an active field of current research. Progress has been rapid, especially in recent years. One of the major problems of the field is Bieberbach Conjecture, dating from the year 1916, which asserts that the Taylor coefficients of each functions of the class S satisfy the inequality $|a_n| \leq n$. For many years this problem has stood a challenge. Recently it has been settled by Louis De Branges' and hence it is now De Branges' Theorem.

The study of univalent functions today consists of the investigations of certain families of functions holomorphic or meromorphic and univalent in prescribed domain and external problems for their coefficients in power series expansion, function values and derivatives. The purpose of this dissertation is to study some subclasses of univalent functions entirely quantitative in character.

There are three chapters in dissertation. In first chapter we present all the definitions of the subclasses of univalent functions and statements of known results occurring in the course of our investigations.

In the second chapter we have introduced new class $S_n(\alpha, \beta, \gamma)$. A fruitful attempt is made in designing the varieties of properties of univalent functions in subclass $S_n(\alpha, \beta, \gamma)$ with negative coefficients. Also we have proved some inclusion relations and convolution theorems.

In the last chapter we have introduced new subclass $D_n(\alpha, \beta, \gamma)$, and studied some properties of class $D_n(\alpha, \beta, \gamma)$ with negative coefficients. By making use of concept of neighborhood of analytic functions we have obtained neighborhoods for subclasses $S_n(\alpha, \beta, \gamma)$ and $D_n(\alpha, \beta, \gamma)$. Most of the result is shown to be sharp.

Each chapter precedes by abstract and ends with the list of references.