P R E F A C E

Of the number of different approximation methods for solving differential equations, one of the most important methods is the finite element method. The finite element method has evolved as a technique of major importance for the solution of a wide range of scientific and engineering problems. It has the virtues of simplicity in concept, elegance in development and potency in application. The present dissertation entitled **"AUTOMATIC GENERATION OF MESH POINTS FOR FINITE ELEMENT METHOD"** attempts to develop a basic understanding of the finite element methods.

In this dissertation, chapter 1 and 2, deals with the different finite element methods,their advantages , the types of basis functions and the use of finite element method for solving differential equations. The different types of elements and their properties are studied in chapter 3. In chapter 4, a brief discussion of automatic mesh generation is presented and a program to solve boundary value problem for diiferential equations using automatic mesh generation in finite element method is listed.

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