

Preface

The problems of modern society are both complex and interdisciplinary. Despite the apparent diversity of problems, however, often tools developed in one context are adaptable to an entirely different situation. Thus, in advancing the frontiers of knowledge on a variety of fronts, the mathematical scientists, in particular, can bring harmony amidst this diversity by exploring the ever present world of nonlinear phenomena.

As we approach the end of the twentieth century, the evolution of our social and technological systems and subsystems is becoming more complex and interdependent. Moreover, we are on the threshold of a high-tech revolution as radical as the Industrial Revolution. Although this high-tech revolution that began after the end of the second world war and continues to accelerate today, has helped solve many technological and social problems, it has created new problems that are different in nature and global in character. For example, now there are many serious problems of worldwide consequence, such as the energy crisis, acid rain, environmental pollution, global warming, the spread of unknown diseases and the ever widening gap between the developed and developing countries.

The interest in mathematical analysis of nonlinear phenomena has lead to increased interdependency and cooperation among scientists across traditional disciplinary barriers, and this collaboration has proved to be rewarding and stimulating.

Pratibha Bala