

## ELASTIC STABILITY OF STRUCTURAL ELEMENTS

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The elastic stability of structural elements is an important topic in the design of light weight optimal structures in many areas of engineering. This book, the second by Professor Iyengar on this subject (an earlier book, "**Structural Stability of Columns and Plates**", was brought out nearly twenty years ago), is designed as a one-semester course for undergraduate and graduate engineers.

The emphasis here is to move away from a solely classical treatment to one that emphasizes a mix of classical and numerical approaches to stability of common structural elements. The book is organized into two sections: the first comprising four chapters deals with one dimensional elements such as columns, beams and frames, and the second section comprising another five chapters is devoted to two dimensional plates. The more difficult problem of buckling of shells is probably considered to be beyond the scope of a one-semester course. Elastic, inelastic, large deformation and post-buckling regimes are considered. Many examples are worked out using equilibrium as well as energy approaches. A glimpse of the use of finite difference and finite element strategies is also offered. At each stage, insight is offered into the accuracy and convergence obtained. A set of practice problems which could be used in the classroom is appended to each chapter.

The book is remarkably free of errors and is available as a paperback edition (Rs. 375/-).

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