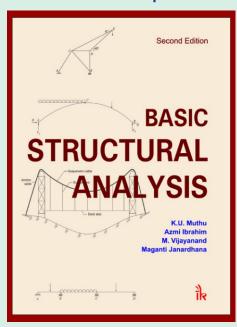
## **New Book Information**

# **Basic Structural Analysis**

(Second Edition)

## K.U. Muthu | Azmi Ibrahim | M. Vijay Anand | Maganti Janardhana





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The aim of the book is to present the applications of principles to solve basic structural engineering problems in an easy-to-follow and simple manner, avoiding unnecessary mathematical gymnastics and, instead, emphasizing on the engineering applications. This book caters to the needs of the student who enters the portals of Civil Engineering Department in the second year of UG programme and will be useful to understand the basic principles of structural analysis, energy principles, concepts of loads, arches, bridges, beams, analysis of statically determinate structures, and importance of influence line diagrams in analyzing problems on indeterminate beams.

The book takes an outcome-based learning approach, where the authors ensure that the students engage well with the contents of each chapter and the expected learning outcomes are achieved by them. Realizing the importance for a systematic approach to problem solving, Bloom's Taxonomy has been applied while designing the contents of the book, so that the students systematically learn to remember, understand, analyze, apply, evaluate and create learning. A large number of practical problems from various university and competitive examinations, presented in the book, will help students get a feel of the problems encountered in the real world. These will also help them during taking their own examinations.

### **Salient Features:**

- Provides large number of numerical examples in each chapter
- Contains problems from university and competitive examinations
- Provides exercises in an orderly way for self-study.

#### Contents:

- 1- General Introduction
- 2- Framed Structures
- 3- Moment Area Method
- 4- Conjugate Beam Method
- 5- Strain Energy Method
- 6- Moving Loads and Influence Line Diagram
- 7-Three Hinged Arches
- 8- Cables and Suspension Bridges
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- 10- Fixed Beams
- 11- Continuous Beams
- 12- Influence Lines for Indeterminate Beams References /Index.

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