Analysis of Structures offers an original way of introducing engineering students to the subject of stress and deformation analysis of solid objects, and helps them become more familiar with how numerical methods such as the finite element method are used in industry.

Eisley and Waas secure for the reader a thorough understanding of the basic numerical skills and insight into interpreting the results these methods can generate.

Throughout the text, they include analytical development alongside the computational equivalent, providing the student with the understanding that is necessary to interpret and use the solutions that are obtained using software based on the finite element method. They then extend these methods to the analysis of solid and structural components that are used in modern aerospace, mechanical and civil engineering applications.

Analysis of Structures is accompanied by a book companion website www.wiley.com/go/waas housing exercises and examples that use modern software which generates color contour plots of deformation and internal stress. It offers invaluable guidance and understanding to senior level and graduate students studying courses in stress and deformation analysis as part of aerospace, mechanical and civil engineering degrees as well as to practicing engineers who want to re-train or re-engineer their set of analysis tools for contemporary stress and deformation analysis of solids and structures.
• Provides a fresh, practical perspective to the teaching of structural analysis using numerical methods for obtaining answers to real engineering applications

• Proposes a new way of introducing students to the subject of stress and deformation analysis of solid objects that are used in a wide variety of contemporary engineering applications

• Casts axial, torsional and bending deformations of thin walled objects in a framework that is closely amenable to the methods by which modern stress analysis software operates.

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