DESCRIPTION

Written in a clear and readable style by an experienced author of teaching texts, *Engineering Design Methods* is an integrated design textbook that presents specific methods within an overall strategy from concept to detail design. It also outlines the nature of design thinking, and sets it within broader contexts of product development and design process management. The book is much more than a manual of procedures; throughout, there is discussion and explication of the principles and practice of design.

Building on the outstanding success of the previous three editions, this new edition cements the position of *Engineering Design Methods* at the forefront of engineering and industrial design as an essential text not only for students and lecturers but also for practitioners. The book promotes a flexible approach to the design process, and provides explicit, step-by-step advice on how to implement several separate design methods that have been shown to be of value in both education and practice.

This revised fourth edition -

• promotes a flexible approach to the design process,

• provides explicit, step-by-step advice on how to implement several separate design methods that have been shown to be of value in both education and practice,

• contains new case studies and examples from industry that further broaden the scope of the book from engineering design into product design,
includes a significant new chapter presenting user scenarios; a procedure for investigating potential product user wants and needs, that culminates in a design brief identifying an opportunity for developing a new product concept,

- features a book companion website with powerpoint slides for instructors.

Reviewers' comments:

“Engineering Design Methods... is a valuable contribution to the engineering design literature. The engineering design methods presented are those that are of practical significance and the book is a must for anyone wishing to raise the standard of their design work. The design methods are described clearly and succinctly, examples are used to illustrate principles and design strategies are presented that show how the methods are best employed”. Professor Graham Thompson, Department of Mechanical Engineering, UMIST, UK

“Professor Nigel Cross' treatment of Engineering Design is a singularly successful treatment for my courses because it is short and concise enough to be read by virtually all students. Furthermore, his interpretations are open enough to allow the inquiring mind to fill out the picture, incorporating and extending the ideas to fit the reflective designer's own needs.” Professor Larry Leifer, Stanford Center for Design Research, Stanford University, USA

“This book is an excellent book as a textbook for design methodology both for undergraduate and graduate level.... Students will gain a firm foundation of design methods from problem definition to design evaluations from this book”. Professor Kun-Pyo Lee, Department of Industrial Design, Korea Institute of Science and Technology, Korea

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**ABOUT THE AUTHOR**

**Professor Nigel Cross** is a leading international figure in the world of design research and methodology. He is a long-time member of the academic staff of the UK’s pioneering, multimedia Open University, where he has been involved in developing a wide range of distance-education courses in design,. He has also held visiting appointments in The Netherlands, Australia and the USA. His research interests are principally in understanding the nature of design ability, and the development of design skill from novice to expert. Professor Cross is also editor-in-chief of Design Studies, the international journal of design research.
**NEW TO EDITION**

The Fourth Edition of this important and integral engineering design textbook contains new case studies, examples, and problems as well as a significant new chapter presenting the User Scenarios Method.

**FEATURES**

- Updated throughout with new examples, and problems broadening the appeal and relevance of the book from engineering design into product design

- Written by a known leader in the field

- Presents a new chapter on the User Scenarios Method filling the gap in the current ‘symmetrical problem/solution’ model of the design process linking ‘Overall problem’ and ‘Overall solution’

- A companion website provides power-point slides of figures for instructors.

For additional product details, please visit [https://www.wiley.com/en-us](https://www.wiley.com/en-us)