



# Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing)

By Dai Gil Lee, Nam Pyo Suh

Download now

Read Online →

## Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh

The idea that materials can be designed to satisfy specific performance requirements is relatively new. With high-performance composites, however, the entire process of designing and fabricating a part can be worked out before manufacturing. The purpose of this book is to present an integrated approach to the design and manufacturing of products from advanced composites. It shows how the basic behavior of composites and their constitutive relationships can be used during the design stage, which minimizes the complexity of manufacturing composite parts and reduces the repetitive "design-build-test" cycle. Designing it right the first time is going to determine the competitiveness of a company, the reliability of the part, the robustness of fabrication processes, and ultimately, the cost and development time of composite parts. Most of all, it should expand the use of advanced composite parts in fields that use composites only to a limited extent at this time. To achieve these goals, this book presents the design and fabrication of novel composite parts made for machine tools and other applications like robots and automobiles.

This book is suitable as a textbook for graduate courses in the design and fabrication of composites. It will also be of interest to practicing engineers learning about composites and axiomatic design.

A CD-ROM is included in every copy of the book, containing *Axiomatic CLPT* software. This program, developed by the authors, will assist readers in calculating material properties from the microstructure of the composite.

This book is part of the Oxford Series on Advanced Manufacturing.

 [Download Axiomatic Design and Fabrication of Composite Stru ...pdf](#)

 [Read Online Axiomatic Design and Fabrication of Composite St ...pdf](#)

# **Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing)**

*By Dai Gil Lee, Nam Pyo Suh*

**Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh**

The idea that materials can be designed to satisfy specific performance requirements is relatively new. With high-performance composites, however, the entire process of designing and fabricating a part can be worked out before manufacturing. The purpose of this book is to present an integrated approach to the design and manufacturing of products from advanced composites. It shows how the basic behavior of composites and their constitutive relationships can be used during the design stage, which minimizes the complexity of manufacturing composite parts and reduces the repetitive "design-build-test" cycle. Designing it right the first time is going to determine the competitiveness of a company, the reliability of the part, the robustness of fabrication processes, and ultimately, the cost and development time of composite parts. Most of all, it should expand the use of advanced composite parts in fields that use composites only to a limited extent at this time. To achieve these goals, this book presents the design and fabrication of novel composite parts made for machine tools and other applications like robots and automobiles.

This book is suitable as a textbook for graduate courses in the design and fabrication of composites. It will also be of interest to practicing engineers learning about composites and axiomatic design.

A CD-ROM is included in every copy of the book, containing *Axiomatic CLPT* software. This program, developed by the authors, will assist readers in calculating material properties from the microstructure of the composite.

This book is part of the Oxford Series on Advanced Manufacturing.

**Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh**

## **Bibliography**

- Sales Rank: #2601584 in Books
- Published on: 2005-11-10
- Original language: English
- Number of items: 1
- Dimensions: 7.30" h x 1.60" w x 10.10" l, 3.15 pounds
- Binding: Hardcover
- 732 pages

 [Download Axiomatic Design and Fabrication of Composite Stru ...pdf](#)

 [Read Online Axiomatic Design and Fabrication of Composite St ...pdf](#)

**Download and Read Free Online Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh**

---

## **Editorial Review**

### Review

"As readers will be aware, there are numerous books on composite structures. However, what sets this book apart is that the subject is approached in a holistic manner by chronicling the concept/ design/ manufacturing/ testing and finally implementation of a number of composite parts from diverse industries and technical requirements. ... The book is well written and deserves to find a home in academia and industry."--*Journal of Composite Structures*

### About the Author

**Dai Gil Lee** is Professor of Mechanical Engineering at Korea Advanced Institute of Science and Technology. He is also a Vice President of Korea Society of Composite Materials and a Member of Korea Academy of Science and Technology.

**Nam P. Suh** is Ralph E. and Eloise F. Cross Professor of Mechanical Engineering at the Massachusetts Institute of Technology. He is the author of *Complexity: Theory and Applications* (OUP, 2005), *Axiomatic Design: Advances and Applications* (OUP, 2001), and *The Principles of Design* (OUP, 1990), and coeditor of the MIT-Pappalardo Series in Mechanical Engineering and the Oxford Series on Advanced Manufacturing.

## **Users Review**

### **From reader reviews:**

#### **Nicholas Buchanan:**

In this 21st centuries, people become competitive in every way. By being competitive currently, people have do something to make all of them survives, being in the middle of typically the crowded place and notice by means of surrounding. One thing that oftentimes many people have underestimated the idea for a while is reading. Yes, by reading a guide your ability to survive raise then having chance to remain than other is high. To suit your needs who want to start reading any book, we give you this kind of Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) book as basic and daily reading guide. Why, because this book is more than just a book.

#### **Lisa Sullivan:**

This book untitled Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) to be one of several books which best seller in this year, honestly, that is because when you read this book you can get a lot of benefit

upon it. You will easily to buy this particular book in the book retailer or you can order it by means of online. The publisher with this book sells the e-book too. It makes you more readily to read this book, as you can read this book in your Smart phone. So there is no reason to you personally to past this publication from your list.

**Barbara Rubio:**

Precisely why? Because this Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) is an unordinary book that the inside of the publication waiting for you to snap the idea but latter it will surprise you with the secret this inside. Reading this book adjacent to it was fantastic author who have write the book in such awesome way makes the content inside easier to understand, entertaining method but still convey the meaning entirely. So , it is good for you for not hesitating having this ever again or you going to regret it. This amazing book will give you a lot of gains than the other book get such as help improving your expertise and your critical thinking approach. So , still want to hold off having that book? If I have been you I will go to the e-book store hurriedly.

**Jerry Hull:**

Don't be worry when you are afraid that this book will certainly filled the space in your house, you will get it in e-book technique, more simple and reachable. That Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) can give you a lot of close friends because by you investigating this one book you have point that they don't and make you more like an interesting person. That book can be one of one step for you to get success. This guide offer you information that maybe your friend doesn't realize, by knowing more than various other make you to be great men and women. So , why hesitate? Let us have Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing).

**Download and Read Online Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh #ZGE5D94CNSA**

## **Read Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh for online ebook**

Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh books to read online.

### **Online Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh ebook PDF download**

**Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh Doc**

**Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh Mobipocket**

**Axiomatic Design and Fabrication of Composite Structures: Applications in Robots, Machine Tools, and Automobiles (Oxford Series on Advanced Manufacturing) By Dai Gil Lee, Nam Pyo Suh EPub**