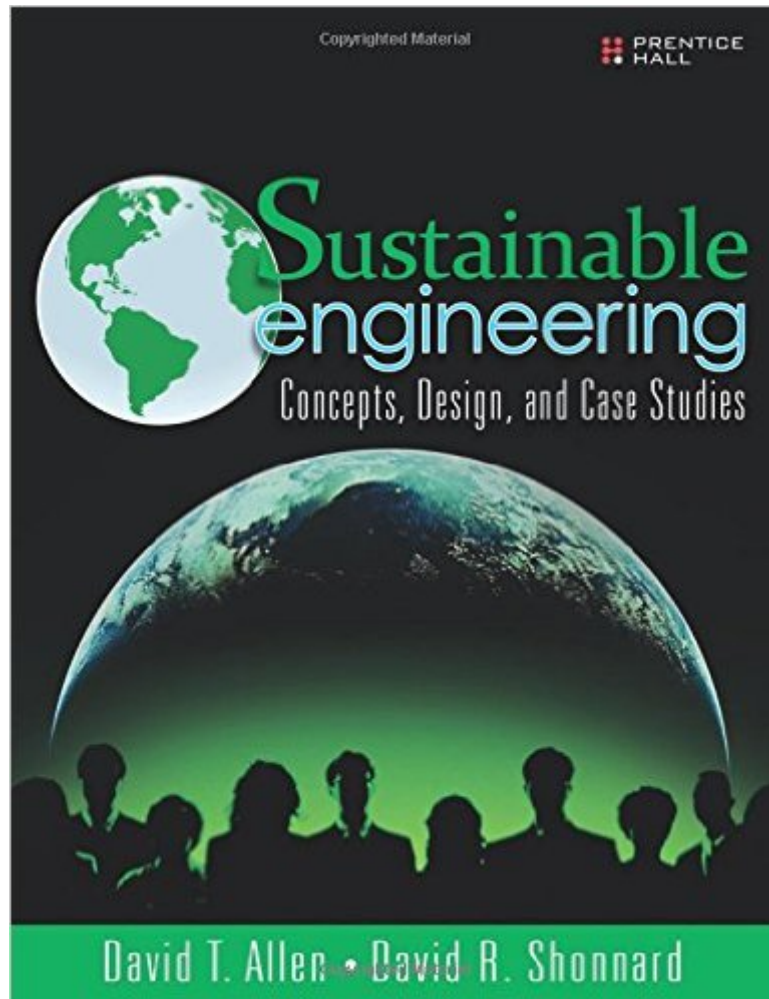


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# Sustainable Engineering: Concepts, Design And Case Studies



## Synopsis

Assessing Engineering Designs for Environmental, Economic, and Social Impact Engineers will play a central role in addressing one of the twenty-first century's key challenges: the development of new technologies that address societal needs and wants within the constraints imposed by limited natural resources and the need to protect environmental systems. To create tomorrow's sustainable products, engineers must carefully consider environmental, economic, and social factors in evaluating their designs. Fortunately, quantitative tools for incorporating sustainability concepts into engineering designs and performance metrics are now emerging. Sustainable Engineering introduces these tools and shows how to apply them. Building on widely accepted principles they first introduced in Green Engineering, David T. Allen and David R. Shonnard discuss key aspects of designing sustainable systems in any engineering discipline. Their powerful, unified approach integrates essential engineering and quantitative design skills, industry perspectives, and case studies, enabling engineering professionals, educators, and students to incorporate sustainability throughout their work. Coverage includes

- A concise review of the natural resource and environmental challenges engineers face when designing for sustainability
- Analysis and legislative frameworks for addressing environmental issues and sustainability
- Methods for identifying green and sustainable materials
- Principles for improving the sustainability of engineering designs
- Tools for evaluating sustainable designs and monetizing their benefits

## Book Information

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## Customer Reviews

I got this for a college course in sustainable engineering. I like the author's examples. Life Cycle

Assessments are hard to quantify because it's all about where you draw the boundary conditions. I think the author does a great job of not getting too carried away, but including the right amount of components. Also, the book reads very easy, like a book should. Some engineering books read more like technical journal articles. This book starts from the absolute basics and works up from that.

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