

# Holistic Engineering Education: Beyond Technology

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# Reviews

*This book will not be simple to get going on reading but extremely exciting to read through. Yes, it can be play, still an interesting and amazing literature. I am very easily could possibly get a delight of reading a written book. (Rene Olson)* 

# HOLISTIC ENGINEERING EDUCATION: BEYOND TECHNOLOGY



Springer. Hardcover. Book Condition: New. Hardcover. 302 pages. Dimensions: 9.3in. x 6.3in. x 1.0in.Holistic Engineering Education: Beyond Technologyis a compilation of coordinated and focused essays from world leaders in the engineering profession who are dedicated to a transformation of engineering education and practice. The contributors define a new and holistic approach to education and practice that captures the creativity, interdisciplinarity, complexity, and adaptability required for the profession to grow and truly serve global needs. With few exceptions today, engineering students and professionals continue to receive a traditional, technically-based education and training using curriculum models developed for early 20th century manufacturing and machining. While this educational paradigm has served engineering well, helping engineers create awe-inspiring machines and technologies for society, the coursework and expectations of most engineering programs eschew breadth and intellectual exploration to focus on consistent technological precision and study. Why this dichotomy While engineering will always need precise technological skill, the 21st century innovation economy demands a new professional perspective that recognizes the value of complex systems thinking, cross-disciplinary collaborations, economic and environmental impacts (sustainability), and effective communication to global and community leaders, thus enabling engineers to consider the whole patient of societys needs. The goal of this book is to inspire, lead, and guide this critically needed transformation of engineering education. Holistic Engineering Education: Beyond Technology points the way to a transformation of engineering education and practice that will be sufficiently robust, flexible, and systems-oriented to meet the grand challenges of the 21st century with their ever-increasing scale, complexity, and transdisciplinary nature. -- Charles Vest, President, National Academy of Engineering; President Emeritus, MIT This collection of essays provides compelling arguments for the need of an engineering education that prepares engineers for the problems of the 21stcentury. Following the National Academys report on the Engineer of 2020, this book...

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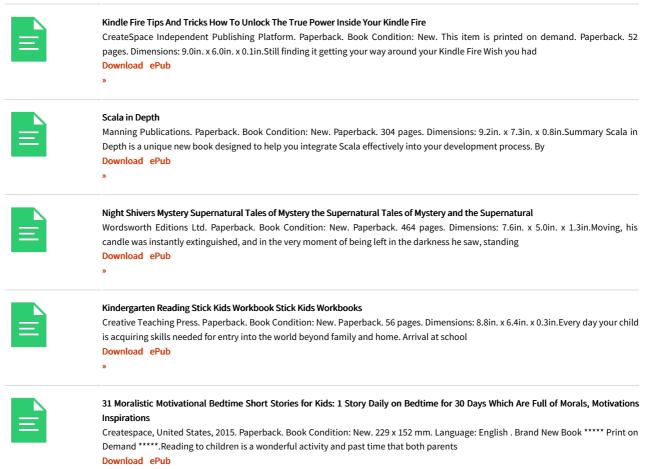
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