DESCRIPTION

A groundbreaking text book that presents a collaborative approach to design methods that tap into a range of disciplines

In recent years, the number of complex problems to be solved by engineers has multiplied exponentially. Transdisciplinary Engineering Design Process outlines a collaborative approach to the engineering design process that includes input from planners, economists, politicians, physicists, biologists, domain experts, and others that represent a wide variety of disciplines. As the author explains, by including other disciplines to have a voice, the process goes beyond traditional interdisciplinary design to a more productive and creative transdisciplinary process.

The transdisciplinary approach to engineering outlined leads to greater innovation through a collaboration of transdisciplinary knowledge, reaching beyond the borders of their own subject area to conduct “useful” research that benefits society. The author—a noted expert in the field—argues that by adopting transdisciplinary research to solving complex, large-scale engineering problems it produces more innovative and improved results. This important guide:

• Takes a holistic approach to solving complex engineering design challenges

• Includes a wealth of topics such as modeling and simulation, optimization, reliability, statistical decisions, ethics and project management

• Contains a description of a complex transdisciplinary design process that is clear and logical

• Offers an overview of the key trends in modern design engineering
• Integrates transdisciplinary knowledge and tools to prepare students for the future of jobs

Written for members of the academy as well as industry leaders, *Transdisciplinary Engineering Design Process* is an essential resource that offers a new perspective on the design process that invites in a wide variety of collaborative partners.

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