Heat Transfer Applications for the Practicing Engineer. Essential Engineering Calculations Series

Description: Enables the reader to advance from heat transfer principles to real-world industrial applications

It is hard to imagine an area of study in engineering and/or science for which a basic knowledge and understanding of heat transfer is not an integral part of the discipline. Written at a level that is understandable to both students and practitioners, Heat Transfer Applications for the Practicing Engineer takes a highly pragmatic approach to this important topic. The book's coverage is thorough, its presentation is logical, and it addresses students' needs as well as the needs of the practicing professional.

Although geared towards chemical, mechanical, civil, and environmental engineers working on real-world industrial applications, applied scientists will also find the text a useful reference.

The book is divided into four parts. Part I addresses basic engineering principles. Part II is concerned with heat transfer fundamentals, particularly as they apply to conduction, convection, and radiation. Part III extends the material presented earlier to real-world heat transfer applications. Part IV provides ABET (Accreditation Board for Engineering and Technology) material from a heat transfer perspective. The text features:

Coverage of topics from the ground up for those readers with little to no background in heat transfer

Clear, precise explanations on how to carry out calculations associated with heat transfer

Bridges the gap between heat transfer theory and practice

Provides specific heat exchange operation, maintenance, and inspection (OH&I) details

Presents "rules of thumb" suggestions for heat exchanger design and predictive purposes

Nearly 300 illustrative examples

Material that prepares one for the professional engineer's exam

Additional problems on a Wiley website; solutions to these problems plus exams are available for those who adopt the text

Readers will gain a solid working knowledge of heat transfer fundamentals, principles, and applications upon completion of this text, and be better prepared to pass the professional engineer's exam, address more advanced material, and solve more complex problems.

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