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This text is concerned with the methods in which different types of energy are converted from one form to another. In particular, the book examines why so many of the energy

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conversion processes which involve heat have a low efficiency rating. Advances in Chemical Engineering, Volume 58 in this long-running serial, highlights new advances in the field with this new volume presenting interesting and timely chapters written by an international board of authors. Provides the

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authority and expertise
of leading contributors
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Presents the latest
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Human thermal comfort,
namely in the areas of
heating, ventilation and
air conditioning
(collectively known as
'HVAC'), is ubiquitous

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wherever human habitation may be found. Today, a large portion of the developed world's current energy demands are used to artificially keep the temperatures of our environments comfortable. It is therefore imperative for everyone, decision-makers and engineers alike, involved with the

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future of energy to be appropriately acquainted with HVAC. Lecture Notes on Engineering Human Thermal Comfort explains the quintessence of engineering human thermal comfort through straight-forward writing designed to help students better comprehend the materials presented.

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Illustrative figures, anecdotal banter, and ironical analogies interject the necessary technical humdrum to provide timeous stimuli in the midst of arduous technical details. This book is primarily for senior undergraduate engineering students interested in engineering human thermal comfort. It invokes some

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undergraduate
knowledge of
thermodynamics, heat
transfer, and fluid
mechanics as needed, to
enable students to
appreciate thermal
comfort engineering
without the need to seek
out other textbooks.

European Engineering
Research and
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Congress, 2-4 July 1991

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textbook focuses on the design of internal fluid flow systems, coiled heat exchangers and performance analysis of power plant systems.

The topics are arranged so that each

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builds upon the previous chapters to convey to the reader that topics are not stand-alone items during the design process, and that they all must come together to produce a

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associated
subjects of
thermodynamics
and fluid
mechanics are
combined in this
book to provide
the reader with
an easy-to-follow
text which**

emphasizes the essential coherence of the material.

In this book fluid mechanics and thermodynamics (F&T) are approached as interwoven, not disjoint fields.

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avalanches are
treated in the
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approximation,
and it is
demonstrated
that uniqueness
and stability
deliver a natural
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inequality. Gas
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years, however, there have been attempts to integrate these topics through a unified approach. This approach makes sense as thermal design of widely varied systems ranging from hair dryers to semicond- tor

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chips to jet engines to nuclear power plants is based on the conservation equations of mass, momentum, angular momentum, energy, and the second law of thermodynamics. While integrating

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