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Autore	Tabatabaian Mehrzad
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Nota di contenuto	Frontmatter -- CONTENTS -- Preface -- About the Author -- 1. A HOLISTIC VIEW OF THERMODYNAMICS -- 2. REVIEW OF THE 1ST AND 2ND LAWS OF THERMODYNAMICS -- 3. STATISTICAL THERMODYNAMICS FOR ENGINEERS: A SUMMARY -- 4. MATHEMATICS OF THERMODYNAMIC FUNCTIONS AND PROPERTY RELATIONS -- 5. MATERIAL BEHAVIOR AND MODELS -- 6. GAS MIXTURES: NON- REACTIVE AND REACTIVE -- 7. PROPERTIES OF STEAM -- 8. BASIC STEAM POWER CYCLES -- 9. COMPOUND STEAM ENGINES -- 10. STEAM TURBINES -- 11. GAS POWER CYCLES -- 12. GAS TURBINES AND JET PROPULSION -- 13. REFRIGERATION -- 14. THERMODYNAMICS OF ENDOREVERSIBLE ENGINES -- 15. STEAM TABLES -- REFERENCES -- APPENDIX -- INDEX
Sommario/riassunto	Designed for the course in thermodynamics or for use as a reference for practicing engineers, this book includes the theoretical underpinnings and derivations necessary for advanced study. The book focuses on the mechanical and power engineering applications of thermodynamics. Mathematics is utilized as required, serving as a tool to formulate the concepts, solve problems and applications. Furthermore, numerous examples are provided to demonstrate the

applications of thermodynamics for engineering problems and to enhance the use of concepts. It also includes statistical thermodynamic examples when relevant and pertinent. These examples are shown either conceptually or numerically. Features: +Numerous examples are provided to demonstrate the applications of thermodynamics for engineering problems +Includes a comprehensive and generalist view of thermodynamics, along with historical developments in the field +Presents mathematical tools such as the Legendre transformation, the Euler chain rule, the Jacobian methodology and applications for thermodynamic derivatives.

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