Principles of Turbomachinery in Air-Breathing Engines

Second Edition

Acquire complete knowledge of the basics of air-breathing turbomachinery with this hands-on practical text. This updated new edition for students in mechanical and aerospace engineering discusses the role of entropy in assessing machine performance, provides a review of flow structures, and includes an applied review of boundary layer principles. New coverage describes approaches used to smooth initial design geometry into a continuous flow path, the development of design methods associated with the flow over blade shape (cascades loss theory) and annular type flows, as well as a discussion of the mechanisms for the setting of shaft speed. This essential text is also fully supported by over 200 figures, numerous examples, and homework problems, many of which have been revised for this edition.

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I dedicate the second edition of this book to my late father and original author of this book, Dr. Erian Aziz Baskharone. May God bless your soul for all of time. I miss you every day. I would also like to offer my sincerest of thanks to Dr. Lee Hill for his significant contributions to getting this edition of the book published. Your help has been immense and words can't express how appreciative I am for that.

—Daniel Erian Baskharone

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