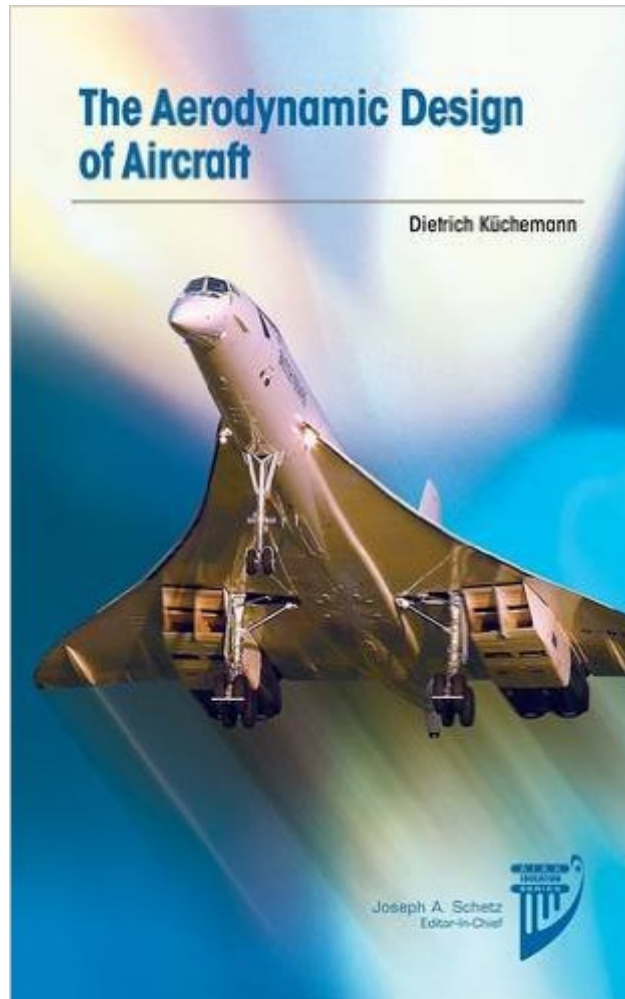


The book was found

The Aerodynamic Design Of Aircraft (AIAA Education Series)



Synopsis

Dietrich Kuchemann's *The Aerodynamic Design of Aircraft* is as relevant and as forward looking today as it was when it was first published in 1978. It comprises the philosophy and life's work of a unique and visionary intellect. Based upon material taught in a course at Imperial College London, the insight and intuition conveyed by this text are timeless. With its republication, Kuchemann's influence will extend to the next generation of aerospace industry students and practitioners and the vehicles they will produce. Kuchemann establishes three classes of aircraft based on the character of flow involved. Each class is suitable for a distinct cruise speed regime: classical and swept aircraft for subsonic and transonic cruise, slender-wing aircraft for supersonic cruise, and wave-rider aircraft for hypersonic cruise. Unlike most engineering texts, which focus on a set of tools, Kuchemann's approach is to focus on the problem and its solution - what kind of flow is best for a given class of aircraft and how to achieve it. With this approach, Kuchemann fully embraces the true inverse nature of design; rather than answer "what flow given the shape," he strives to answer "what flow given the purpose" and then "what shape given the flow."

Book Information

Series: AIAA Education

Hardcover: 564 pages

Publisher: Amer Inst of Aeronautics & (September 21, 2012)

Language: English

ISBN-10: 160086922X

ISBN-13: 978-1600869228

Product Dimensions: 6.5 x 1.2 x 9.3 inches

Shipping Weight: 2.1 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 starsÂ Â See all reviewsÂ (1 customer review)

Best Sellers Rank: #948,452 in Books (See Top 100 in Books) #132 inÂ Books > Engineering & Transportation > Engineering > Aerospace > Aircraft Design & Construction #481 inÂ Books > Textbooks > Engineering > Aeronautical Engineering #1149 inÂ Books > Science & Math > Astronomy & Space Science > Aeronautics & Astronautics

Customer Reviews

This book, written in the early to mid 1970s, covers the whole of classical analytical aerodynamics, in the tradition of Ludwig Prandtl, up to the early days of CFD methods. The author was a member and eventually Head of Aerodynamics Department at the Royal Aircraft Establishment,

Farnborough, having been a student of Ludwig Prandtl at Gottingen before the second world war. Kuchemann discusses basic concepts for generating lift and drag and works through the types of aircraft shape needed to fly efficiently at up to hypersonic conditions. Although dated by the lack of coverage of CFD, the basis in classical theory allows sensitivities to be understood by the mathematically literate.

[Download to continue reading...](#)

The Aerodynamic Design of Aircraft (AIAA Education Series) Fundamentals of Aircraft and Airship Design: Airship Design and Case Studies (Aiaa Education Series) Aircraft Propulsion Systems Technology and Design (AIAA Education Series) (Reynolds Series in Sociology) Elements of Spacecraft Design (AIAA Education) Introduction to Flight Testing and Applied Aerodynamics (Aiaa Education Series) Civil Avionics Systems (AIAA Education Series) Aerothermodynamics of Gas Turbine and Rocket Propulsion (AIAA Education Series) Modern Military Aircraft: The World's Fighting Aircraft 1945 to the Present Day Vintage Aircraft Nose Art: Over 1000 Photographs of Pin-Up Paintings on USA Military Aircraft in World War 2 and Korea Classic Military Aircraft: The World's Fighting Aircraft 1914-1945 The Vital Guide to Commercial Aircraft and Airliners: The World's Current Major Civil Aircraft AIAA Aerospace Design Engineers Guide (Library of Flight) Aircraft Control and Simulation: Dynamics, Controls Design, and Autonomous Systems General Aviation Aircraft Design: Applied Methods and Procedures U.S. Aircraft Carriers: An Illustrated Design History Curriculum and Aims, Fifth Edition (Thinking about Education) (Thinking About Education Series) Modern Education Finance and Policy (Peabody College Education Leadership Series) Public or Private Education?: Lessons from History (Woburn Education Series) Aircraft Electricity and Electronics (Glencoe Aviation Technology Series) Aircraft : Adult Coloring Book Vol.1: Airplane, Tank, Battleship Sketches for Coloring (Adult Coloring Book Series) (Volume 1)

[Dmca](#)