COMPUTER MODELING IN THE AEROSPACE INDUSTRY

EDITED BY
IFTIKHAR B. ABBASOV

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Iftikhar B. Abbasov

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This edition first published 2020 by John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, USA and Scrivener Publishing LLC, 100 Cummings Center, Suite 541J, Beverly, MA 01915, USA
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Library of Congress Cataloging-in-Publication Data

ISBN 978-1-119-66131-3

Cover image: Chromakinetic | Dreamstime.com
Cover design by Kris Hackerott

W72689

Set in size of 11pt and Minion Pro by Manila Typesetting Company, Makati, Philippines

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Devoted to advances in the field of computer simulation of aerospace equipment, this study is the most up-to-date coverage of the state-of-the-art on coastal and passenger aircraft, drones, and other recent developments in this constantly changing field.

This book is devoted to unique developments in the field of computer modeling in aerospace engineering. The book describes the original conceptual models of amphibious aircraft, ground-effect vehicles, hydrofoil vessels, and others, from theory to the full implementation in industrial applications.

The developed models are presented with the design of passenger compartments and are actually ready for implementation in the aircraft industry. The originality of the concepts are based on biological prototypes, which are ergonomic, multifunctional and aesthetically pleasing. The aerodynamic layout of prospective convertible land and ship-based aircrafts of vertical and short takeoff-landing is presented, as well as the development of the original model of the unmanned aerial vehicle, or drone. The results of full-scale experiments are presented, including the technology of modeling aerospace simulators based on the virtual reality environment with technical vision devices.

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- Presents unique developments of coastal aircraft concepts based on biological prototypes, from the idea to the finished model
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- Provides many useful illustrations of naval aviation

Audience:

The book is intended for aerospace engineers, mechanical engineers, structural engineers, researchers and developers in the field of aerospace industry, for aircraft designers and engineering students. It will be useful for scientists, students, graduate students and engineers in the field of naval aviation and space simulators.

Iftikhar B. Abbasov, PhD, is a specialist in mathematical modeling, computer engineering and industrial design at the Southern Federal University in Russia. He has numerous publications to his credit, focusing on the use of mathematical modeling and high-level computer programming for practical applications such as ocean exploration, coastal engineering and aircraft, with several books also available from Wiley-Scrivener.

Cover Design: Kris Hackerott
Cover Image: Cockpit flightdeck - Chromakinetic | | Dreamstime.com

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ISBN 978-1-119-66131-3

9 781119 661313