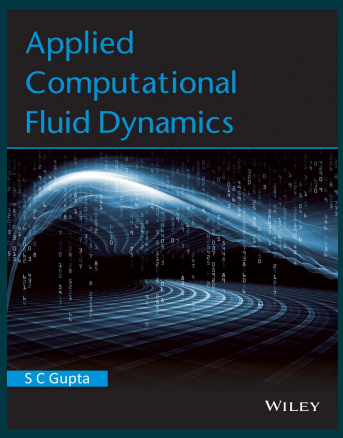

Applied Computational Fluid Dynamics

By S C Gupta

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Description

This book is intended for undergraduate and postgraduate students studying computational techniques. The book is application oriented as well as code-development oriented. It is focused towards inverse design and optimization methods. Emphasis is placed on efficient algorithms development and parallel computing. While Chapter 1 is introductory about the flow physics, Chapter 2 is about discretization of domains and stability of marching schemes. Chapter 3 describes the finite difference discretization, numerical features of schemes including issues related to conservative smoothing and implicit nature of unsteady problems. Chapter 4 is about structured and unstructured grid generation methodologies including surface grid generation.

About the Author

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Prof. S C Gupta is presently teaching at MVJ College of Engineering, Bangalore. He Graduated in Aeronautical Engineering from Punjab Engineering College, Chandigarh in the year 1969 with Distinction of Hons and a Gold Medal and subsequently obtained M.Tech from Indian Institute of Technology, Kanpur in the Year 1971. He has over 47 years of experience in the field of Aeronautics

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