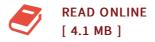




Fluid-Structure Interactions: Cross-Flow-Induced Instabilities

By Michael P. Paidoussis, Stuart J. Price, Emmanuel De Langre

CAMBRIDGE UNIVERSITY PRESS, United Kingdom, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English Brand New Book ***** Print on Demand *****.Structures in contact with fluid flow, whether natural or man-made, are inevitably subject to flow-induced forces and flow-induced vibration: from plant leaves to traffic signs and to more substantial structures, such as bridge decks and heat exchanger tubes. Under certain conditions the vibration may be self-excited, and it is usually referred to as an instability. These instabilities and, more specifically, the conditions under which they arise are of great importance to designers and operators of the systems concerned because of the significant potential to cause damage in the short term. Such flowinduced instabilities are the subject of this book. In particular, the flow-induced instabilities treated in this book are associated with cross-flow, that is, flow normal to the long axis of the structure. The book treats a specific set of problems that are fundamentally and technologically important: galloping, vortex-shedding oscillations under lock-in conditions and rainand-wind-induced vibrations, among others.



Reviews

This ebook is really gripping and fascinating. it had been writtern extremely perfectly and useful. Once you begin to read the book, it is extremely difficult to leave it before concluding. -- Leopold Hills

Totally among the finest publication I actually have at any time study. I am quite late in start reading this one, but better then never. I found out this publication from my dad and i suggested this pdf to discover. -- Karolann Deckow IV