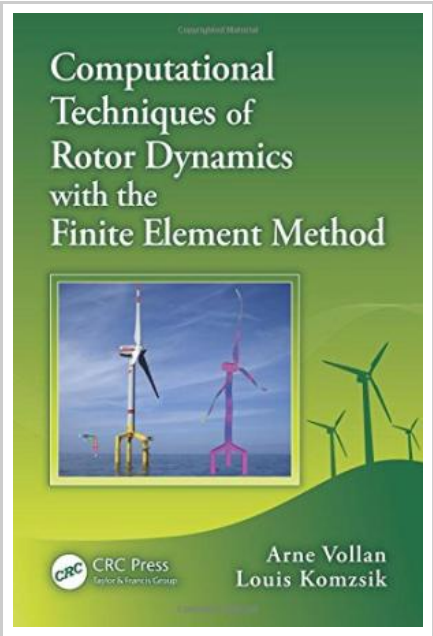

Computational Techniques of Rotor Dynamics with the Finite Element Method (Hardback)

By Arne Vollan, Louis Komzsik

Taylor Francis Inc, United States, 2012. Hardback. Book Condition: New. 244 x 163 mm. Language: English . Brand New Book. For more than a century, we have had a firm grasp on rotor dynamics involving rigid bodies with regular shapes, such as cylinders and shafts. However, to achieve an equally solid understanding of the rotational behavior of flexible bodies-especially those with irregular shapes, such as propeller and turbine blades-we require more modern tools and methods. Computational Techniques of Rotor Dynamics with the Finite Element Method explores the application of practical finite element method (FEM)-based computational techniques and state-of-the-art engineering software. These are used to simulate behavior of rotational structures that enable the function of various types of machinery-from generators and wind turbines to airplane engines and propellers. The book s first section focuses on the theoretical foundation of rotor dynamics, and the second concentrates on the engineering analysis of rotating structures. The authors explain techniques used in the modeling and computation of the forces involved in the rotational phenomenon. They then demonstrate how to interpret and apply the results to improve fidelity and performance. Coverage includes: * Use of FEM to achieve the most accurate computational simulation of all gyroscopic...

Reviews

The book is fantastic and great. It generally does not expense excessive. Its been designed in an exceptionally easy way and it is simply right after i finished reading through this book by which really changed me, change the way i think.

-- ***Adolfo Lindgren***

This created book is wonderful. This is for all those who statte that there was not a worth reading. Your way of life span will likely be enhance as soon as you comprehensive looking at this publication.

-- ***Jesse Yundt***