Inverse Problems in Engineering Mechanics

By Tanaka, Masataka / Bui, Huy D.

Book Condition: New. Publisher/Verlag: Springer, Berlin | IUTAM Symposium Tokyo, 1992 | Inverse problems occur in a wide variey of fields. In general, the inverse problem can be defined as one where one should estimate the cause from the result, while the direct problem is concerned with how to obtain the result from the cause. The aim of this symposium was to gather scientists and researchers in engineering mechanics concerned with inverse problems in order to exchange research result and develop computational and experimentalapproaches to solve inverse problems. The contributions in this volume cover the following subjects: mathematical and computational aspects of inverse problems, parameter or system identification, shape determination, sensitivity analysis, optimization, material property characterization, ultrasonic nondestructive testing, elastodynamic inverse problems, thermal inverse problems, and other miscellaneous engineering applications. | List of Contents.- 1 Mathematical Aspects.- On Regularization Methods within System Identification.- New Approaches to the Optimal Regularization.- A Method for Solving Inverse Boundary-Value Problems Using Symbolic Computation.- An Application of the Fuzzy Control for an Ill-posed Problem.- Inverse Filtering for Reverberant Transfer Functions.- 2 Computational Aspects.- Classification of Inverse Problems Arising in Field Problems and Their Treatments.- A Physically Based Method of Experimental Data-Concepts, Formulation and Application to...

READ ONLINE

Reviews

Very useful to all of category of people. I actually have read through and that i am sure that i will likely to go through once more again in the foreseeable future. I realized this book from my i and dad advised this publication to find out.
-- Alta Kirlin

This is the very best publication i have got read until now. It is definitely simplified but shocks within the fifty percent of the pdf. You may like how the article writer create this pdf.
-- Rosario Durgan