Frequency Methods in Oscillation Theory (Mathematics and Its Applications)

Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi

Frequency Methods in Oscillation Theory (Mathematics and Its Applications)

Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi

Frequency Methods in Oscillation Theory (Mathematics and Its Applications) Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi
This book is devoted to nonlocal theory of nonlinear oscillations. The frequency methods of investigating problems of cycle existence in multidimensional analogues of Van der Pol equation, in dynamical systems with cylindrical phase space and dynamical systems satisfying Routh-Hurwitz generalized conditions are systematically presented here for the first time.
To solve these problems methods of Poincaré map construction, frequency methods, synthesis of Lyapunov direct methods and bifurcation theory elements are applied. V.M. Popov's method is employed for obtaining frequency criteria, which estimate period of oscillations. Also, an approach to investigate the stability of cycles based on the ideas of Zhukovsky, Borg, Hartmann, and Olech is presented, and the effects appearing when bounded trajectories are unstable are discussed. For chaotic oscillations theorems on localizations of attractors are given. The upper estimates of Hausdorff measure and dimension of attractors generalizing Doudy-Oesterle and Smith theorems are obtained, illustrated by the example of a Lorenz system and its different generalizations.
The analytical apparatus developed in the book is applied to the analysis of oscillation of various control systems, pendulum-like systems and those of synchronization.
Audience: This volume will be of interest to those whose work involves Fourier analysis, global analysis, and analysis on manifolds, as well as mathematics of physics and mechanics in general. A background in linear algebra and differential equations is assumed.

Download and Read Free Online Frequency Methods in Oscillation Theory (Mathematics and Its Applications) Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi

---

From reader reviews:

Jessica Garcia:

Information is provisions for individuals to get better life, information today can get by anyone from everywhere. The information can be a understanding or any news even a concern. What people must be consider if those information which is inside the former life are hard to be find than now is taking seriously which one is appropriate to believe or which one often the resource are convinced. If you get the unstable resource then you get it as your main information you will have huge disadvantage for you. All of those possibilities will not happen throughout you if you take Frequency Methods in Oscillation Theory (Mathematics and Its Applications) as your daily resource information.

Wendell Nadeau:

Reading a e-book tends to be new life style on this era globalization. With studying you can get a lot of information which will give you benefit in your life. With book everyone in this world could share their idea. Ebooks can also inspire a lot of people. Many author can inspire their own reader with their story as well as their experience. Not only situation that share in the ebooks. But also they write about the data about something that you need illustration. How to get the good score toefl, or how to teach your sons or daughters, there are many kinds of book which exist now. The authors these days always try to improve their talent in writing, they also doing some study before they write to the book. One of them is this Frequency Methods in Oscillation Theory (Mathematics and Its Applications).

Morris Sampson:

A lot of people always spent their free time to vacation or perhaps go to the outside with them household or their friend. Do you realize? Many a lot of people spent that they free time just watching TV, or even playing video games all day long. If you would like try to find a new activity that's look different you can read some sort of book. It is really fun for you. If you enjoy the book that you simply read you can spent all day every day to reading a publication. The book Frequency Methods in Oscillation Theory (Mathematics and Its Applications) it is very good to read. There are a lot of folks that recommended this book. These folks were enjoying reading this book. In the event you did not have enough space to create this book you can buy the e-book. You can m0ore simply to read this book through your smart phone. The price is not too costly but this book provides high quality.

James Ojeda:

People live in this new moment of lifestyle always try and and must have the extra time or they will get lots of stress from both way of life and work. So , whenever we ask do people have extra time, we will say absolutely of course. People is human not really a huge robot. Then we inquire again, what kind of activity are there when the spare time coming to anyone of course your answer will unlimited right. Then ever try this one, reading textbooks. It can be your alternative with spending your spare time, the book you have read

is Frequency Methods in Oscillation Theory (Mathematics and Its Applications).

Read Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi for online ebook

Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi books to read online.

Online Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi ebook PDF download

Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi Doc

Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi Mobipocket

Frequency Methods in Oscillation Theory (Mathematics and Its Applications) by Gennady Leonov, I.M. Burkin, A.I. Shepeljavyi EPub