ΣΕΡΑΦΕΙΜ ΚΑΡΑΜΠΟΓΙΑΣ

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Abstract

In today's Information Society, characterized by the convergence and integration of previously distinct scientific fields, the field of signals and systems now constitutes a unified body of basic and fundamental knowledge for a wide range of areas related in one way or another to the production, processing, storage, and transmission of information. The main purpose of this book is to introduce the reader to the basic techniques of signal and system analysis and study in a unified manner and to provide the appropriate mathematical tools with which to handle signals and systems. An effort has been made to present the theoretical concepts in a simple way and to link them to corresponding concepts in physics. The examples have been selected for their usefulness in helping the reader to consolidate the theory and understand

the techniques for approaching and solving problems. The main topics of the Signals and Systems course are covered in eight chapters. Each chapter includes exercises without answers. There are also exercises in which students can gradually access: i) only the final result to compare with their own solution, ii) hints on how to solve the exercise, iii) comments on alternative solutions, and iv) the complete solution to the exercise. Finally, there are a series of exercises that are personalized through a code. These exercises have been selected to cover the material in the chapter, so that diligent students can practice and reinforce the relevant concepts of the course. Students can submit their answers electronically, receive feedback on their performance, and obtain the correct answers to the exercises.