**DESCRIPTION**

The existing literature currently available to students and researchers is very general, covering only the formal techniques of static analysis.

This book presents real examples of the formal techniques called "abstract interpretation" currently being used in various industrial fields: railway, aeronautics, space, automotive, etc.

The purpose of this book is to present students and researchers, in a single book, with the wealth of experience of people who are intrinsically involved in the realization and evaluation of software-based safety critical systems. As the authors are people currently working within the industry, the usual problems of confidentiality, which can occur with other books, is not an issue and so makes it possible to supply new useful information (photos, architectural plans, real examples).