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| Nota di contenuto | Cover; Title; Copyright; Table of Contents; Introduction; Chapter 1. SPARK - A Language and Tool-Set for High-Integrity Software Development; 1.1. Introduction; 1.2. An overview of SPARK; 1.2.1. What is SPARK?; 1.3. The rationale behind SPARK; 1.3.1. Flow analysis; 1.3.2. Code proof; 1.3.3. Correctness by construction; 1.4. Industrial applications of SPARK; 1.4.1. SHOLIS; 1.4.2. Lockheed-Martin C-130J mission computer; 1.4.3. MULTOS CA; 1.4.4. Tokeneer; 1.4.5. Aircraft monitoring software; 1.4.6. iFACTS; 1.4.7. SPARK Skein; 1.5. Conclusion; 1.6. Bibliography<br>Chapter 2. Model-Based Testing Automatic Generationof Test Cases |

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2.3.5. Generating test campaigns2.3.6. Analysis of the results and indicators; 2.4. Examples of industrial applications; 2.4.1. AUDI; 2.4.2. Magneti marelli; 2.4.3. Other industrial applications; 2.4.4. Industrialization of the tests; 2.5. Conclusion; 2.6. Bibliography; Chapter 3. Safety Analysis of the Embedded Systems with the AltaRica Approach; 3.1. Introduction; 3.2. Safety analysis of embedded systems; 3.3. AltaRica language and tools; 3.3.1. The AltaRica language; 3.3.2. Modeling the propagation of failures with AltaRica; 3.3.3. Tools associated with AltaRica
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4.8. Examples of Polyspace® results

Sommario/riassunto

"At present the literature gives students and researchers of the very general books on the formal technics. The purpose of this book is to present in a single book, a return of experience on the used of the "formal technics" (such proof and model-checking) on industrial examples for the transportation domain.This book is based on the experience of people which are completely involved in the realization and the evaluation of safety critical system software based. The implication of the industrialists allows to raise the problems of confidentiality which could appear and so allow to supply new useful information (photos, plan of architecture, real example)"--