Preface

This book is an attempt to overcome the gap between science and practice in the field of concurrent control systems specified by Petri nets. It combines theoretical aspects of concurrent systems (with the reference to algorithms and their computational complexity) supplemented with practical implementation and reconfiguration of a given system in an FPGA device.

We intended this book to be useful to CAD researchers, engineers, and designers of concurrent systems. The content of the book includes theoretical background and practical applications, especially regarding implementation and partial reconfiguration of FPGAs. The book may also be useful for students of electrical engineering, computer science, and discrete mathematics.

Almost all of the proposed algorithms and methods were implemented within the system Hippo developed at the University of Zielona Góra. Some of ready-to-use tools are available online at: www.hippo.iee.uz.zgora.pl.

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