

# Reading guide RTA (2IN60) 2010 - 2011

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## Abstract

This note is a reading guide to the 2<sup>nd</sup> edition of the book of Buttazzo [1], identifying those parts that are to be studied for the examination. Note that in addition to the book, both the *slides* and the *articles* of the “Expected reading” on the web [4] have to be studied as well! Moreover, it is strongly encouraged to take a look at the slides of Buttazzo [2] and the errata [3] as well as the errata on the course web-site.

## Introduction

Roughly speaking, Chapters 1 till 5, and 7 have to be studied. Chapters 1, 2, 4, and 7 have to be studied entirely. Below, Chapters 3 and 5 will be discussed in more detail.

## Discussion by Chapter

### Chapter 3

You should know that EDF is *optimal* for both independent tasks as well as tasks with precedence constraints for preemptive tasks with asynchronous activation. This implies that you have to study Sections 3.1, 3.3, and 3.5.2.

### Chapter 4

To be studied, except for Section 4.6.

### Chapter 5

To be studied, except for Sections 5.3.1, 5.3.2, 5.4.1, 5.4.2, 5.5, 5.6, and 5.7.

### Chapter 7

To be studied, except that implementation considerations of all protocols may be skipped as well as multi-unit aspects of SRP (Section 7.5).

## References

- [1] G.C. Buttazzo, “Hard real-time computing systems, predictable scheduling – algorithms and applications, Springer, 2004, ISBN 0-387-23137-4 (2<sup>nd</sup> edition).
- [2] <http://feanor.sssup.it/~giorgio/slides/realtime/>
- [3] <http://feanor.sssup.it/~giorgio/errata-HRT2.pdf>
- [4] <http://www.win.tue.nl/~rbril/education/2IN60>