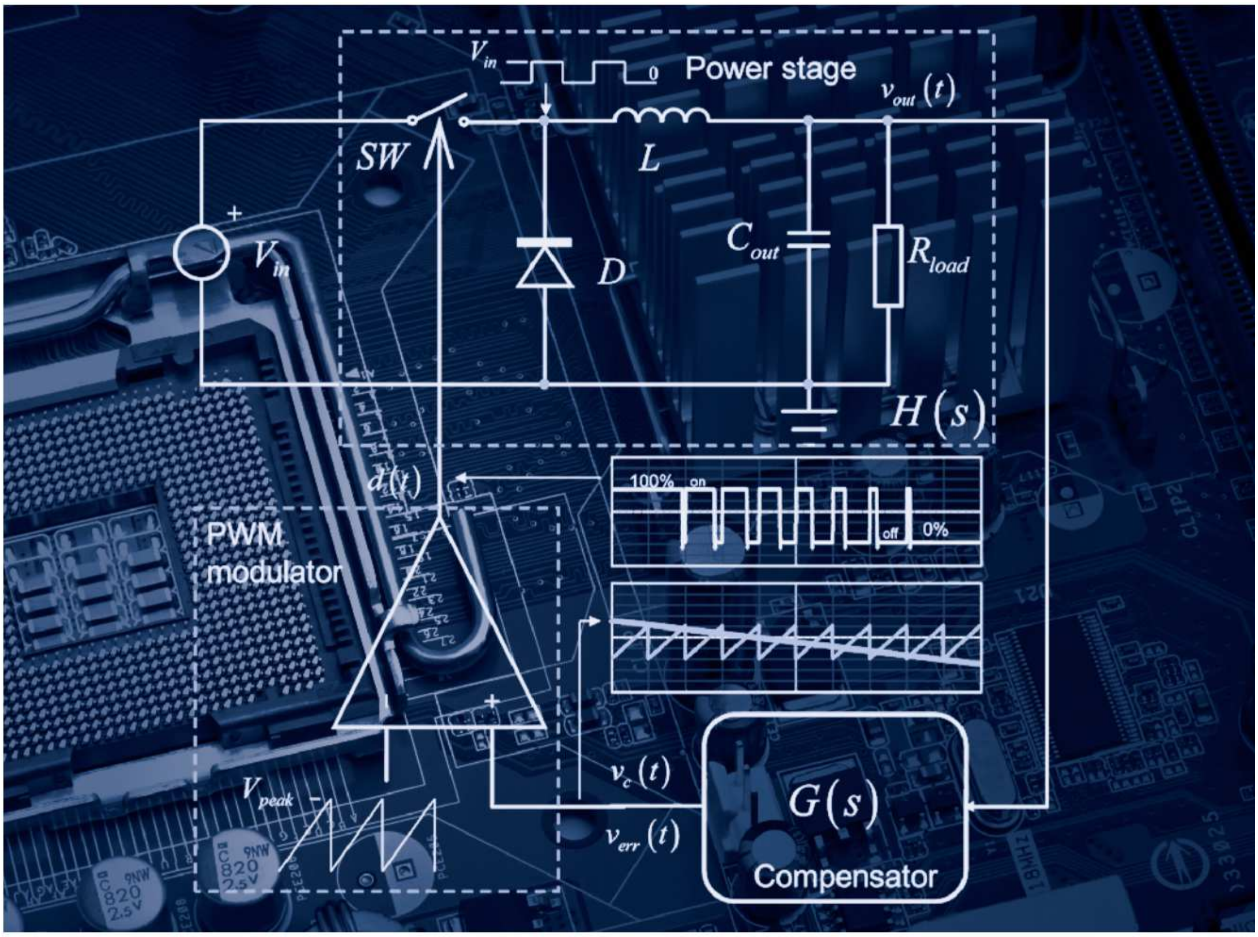
# DESIGNING CONTROL LOOPS for LINEAR and SWITCHING POWER SUPPLIES

## A TUTORIAL GUIDE




CHRISTOPHE BASSO

CHAPTER 4

Compensation 153

CHAPTER 5

## CHAPTER 8



## CHAPTER 9

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## A TUTORIAL GUIDE

CHRISTOPHE BASSO

Loop control is an essential area of electronics engineering that today's professionals need to master. Rather than delving into extensive theory, this practical book focuses on what engineers really need to know for compensating or stabilizing a given control system. Readers can turn instantly to practical sections with numerous design examples and ready-made formulas to help them with their projects in the field. Supported with over 450 illustrations and more than 1,500 equations, this authoritative volume:

- Demonstrates how to conduct analysis of control systems and provides extensive details on practical compensators;
- Helps engineers measure their system, showing how to verify whether or not a prototype is stable and features enough design margin;
- Explains how to secure high-volume production by bench-verified safety margins;
- Covers of the underpinnings and principles of control loops, so readers can gain a more complete understanding of the material.

***Christophe Basso*** is a product engineering director at ON Semiconductor in Toulouse, France. He received his B.S.E.E. in electronics from Montpellier University and his M.S.E.E. in power electronics from the National Polytechnic Institute of Toulouse. A senior member of the IEEE, Mr. Basso is recognized expert, patent holder, and author in the field.

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