Textbook Offers Practical Guide To Designing Power Supply Control Loops

Christophe Basso's new book on loop control is now available for purchase. Packed with more than 1500 equations and more than 400 figures, the book, "Designing Control Loops for Linear and Switching Power Supplies: A Tutorial Guide," offers a refreshing approach to explaining the complex subject of loop control, bridging the gap between the theoretical and the practical. Published by Artech House, the book is currently available for purchase through Amazon.

Loop control is an important topic to the student and the electronics engineer. Theory can be extremely complex and encompasses a lot of different fields: electronics, mechanics and fluid mechanics to cite a few. Available theory books often attempt to cover the subject exhaustively, quickly drowning readers in a sea of mathematical details they will never use or are irrelevant to their professional field. Furthermore, these textbooks remain highly theoretical and the link to practical applications is often overlooked. Trying to apply what has been learned to a real case quickly ends up in a dead-end: equations or descriptions simply do not match the environment the engineer is confronted with.

This book explores a different path. It narrows down the field to what power electronics engineers really need to know for compensating or stabilizing the systems they are working on. The book builds the necessary theoretical foundations but shows how to apply what is analytically explored to practical cases. For this reason, this work will please the practicing engineer but also the student looking for a link between classroom theory and their future work.

Basso is an application engineering director at ON Semiconductor in Toulouse, France where he has originated numerous integrated circuits such as the notable NCP120X series. In addition to developing new ICs, helping and teaching design engineers has been part of his professional activity in the field of ac-dc power conversion for the past 15 years.

SPICE simulation is one of Basso's favorite subjects and he has previously authored two books on the subject. In his work, Basso promotes the use of SPICE in combination with an equation-based approach to help engineers understand how complex circuits operate.

Basso holds a BSEE-equivalent from the Montpellier University (France) and an MSEE from the Institut National Polytechnique de Toulouse (France). He holds 22 patents on power conversion and often publishes papers in conferences and trade magazines including How2Power Today. He also teaches professional seminars at international conferences such as APEC and is an IEEE senior member.

Basso maintains a webpage where documents and models are available for download: http://cbasso.pagesperso-orange.fr/Spice.htm. On this webpage, you'll also find more information on his new textbook, including the table of contents.
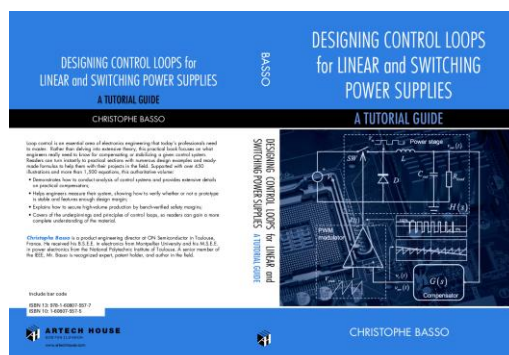

Figure. Packed with more than 1500 equations and more than 400 figures, Christophe Basso's new book on loop control offers power electronics engineers a refreshing approach in explaining the complex subject of loop control—one that bridges the gap between design theory and practice.