**Audio Effects: Theory, Implementation, and Application**

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Should one ever judge a book by its cover? Most people would empathetically say "No" although many would secretly admit that they may have done so in the past. What about judging a book by its format? That is an issue that is becoming more prevalent today as e-books are an integral part of the marketplace, and in this instance your reviewer got faced with the question. I was tasked with reviewing *'Audio Effects — Theory, Implementation, and Application'* (CRC Press, 2015) but rather than a traditional tome, I received an email with a link to VitalSource Bookshelf Online that allowed me to receive an electronic copy of the work for review on my desktop computer.

And this is when reviewing a book stopped being an enjoyable task.

I detested the format. Reading on a computer is a chore to start with, as one is tethered to a machine and even the best screen resolution gets hard on the eyes. I thought that I could print the chapters but the reader software would only allow printing two pages at a time; the pages would be illustrated with copyright notices, and to add insult to injury the equations would print at a font size ranging from 2 to 6 points. What a mess. (Hardbound copy now available.)

And had I judged this book by its format I would have missed on one of the best-written, best-structured, and most complete book on the topic of audio processing. I am glad that I eventually sat down in front of the screen and let myself be absorbed by the work of Reiss and McPherson.

The book uses dedicated chapters for a wide range of effects that take place in the time-domain (delay, reverberation, phase vocoder), the frequency domain (filters, Doppler effects, equalizers) or the realm of dynamics (overdrive, modulation, compression, etc.) and in each instance provides the theory of mathematical foundation using sophomore-level engineering math, clear and effective figures, excellent examples and exercises, as well as a short paragraph akin to a "did you know?" entry that lightens the reading. Whenever appropriate, the authors also include programming examples. From the excellent introduction to the final chapter (dedicated to building software plug-ins for some of the popular digital audio workstations environments) the book exalts clarity of thought and of presentation. The only chapter of little value is "Audio Products" as it does not add much to the reading and feels out place in a reference work.

What this book offers is an in-depth guide to how audio effects can be designed, calculated, and implemented in software. It is an effective text for college-level students in Electrical Engineering (or Computer Science) who have a passion for audio. What this book is not, is a "How to" guide to using audio effects; thus it will have little (if any) appeal to artists and/or readers who may not have the necessary mathematical understanding of the methods and tools associated with audio processing.

Every reference book should have a good bibliography and reference section, and in this regards the readers will not be disappointed either. The references are both broad and deep and they are extremely current.

So should you buy this book? The print copy is a bit more expensive than the electronic version, and some do not like paper anymore. Could it be enjoyed on a tablet? Maybe, or maybe not. It all depends upon how one uses a reference text. Personally I would not hesitate to spend the money on this work as I can see annotating a lot of the pages (especially the code portions) and this may not work best in an electronic version. Finally, a book of this quality should have a spot on an engineer's bookshelf and this is where the e-book version does not pass the test.

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