

# Contributor List

## How to Contribute to this Book

As a copylefted work, this book is open to revision and expansion by any interested parties. The only "catch" is that credit must be given where credit is due.

If you wish to cite portions of this book in a work of your own, you must follow the same guidelines as for any other copyrighted work. Here is a sample for the Creative Commons CC BY License:

Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:

- A. reproduce and Share the Licensed Material, in whole or in part; and
- B. produce, reproduce, and Share Adapted Material

No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.

If you wish to modify this book in any way, you should document the nature of those modifications in the "Credits" section along with your name, and ideally, information concerning how you may be contacted. Again, the CC BY License:

You are free to:

- (a) Share -- copy and redistribute the material in any medium or format.
- (b) Adapt -- remix, transform, and build upon the material for any purpose, even commercially.
- (c) Attribution -- You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

Given the complexities and security issues surrounding the maintenance of files comprising this book, it is recommended that you submit any revisions or expansions to the original author (Tony R. Kuphaldt). You are, of course, welcome to modify this book directly by editing your own personal copy, but we would all stand to benefit from your contributions if your ideas were incorporated into the online "master copy" where all the world can see it.

## Credits

All entries arranged in alphabetical order of surname. Major contributions are listed by individual name with some detail on the nature of the contribution(s), date, contact info, etc. Minor contributions (typo corrections, etc.) are listed by name only for reasons of brevity. Please understand that when I classify a contribution as "minor," it is in no way inferior to the effort or value of a "major" contribution, just smaller in the sense of less text changed. Any and all contributions are gratefully accepted. I am indebted to all those who have given freely of their own knowledge, time, and resources to make this a better book!

### John Anhalt

- **Date(s) of contribution(s):** December 2008
- **Nature of contribution:** Updated lead-acid cell chemistry, Ch 11
- **Contact at:** [jpa@anhalt.org](mailto:jpa@anhalt.org)

## Benjamin Crowell, Ph.D.

- **Date(s) of contribution(s):** January 2001
- **Nature of contribution:** Suggestions on improving technical accuracy of electric field and charge explanations in the first two chapters.
- **Contact at:** crowell01@lightandmatter.com

## Dennis Crunkilton

- **Date(s) of contribution(s):** January 2006 to present
- **Nature of contribution:** Mini table of contents, all chapters except appedicies; html, latex, ps, pdf; See Devel/tutorial.html; 01/2006.
- DC network analysis ch, Mesh current section, Mesh current by inspection, new material.i DC network analysis ch, Node voltage method, new section.
- Ch3, Added AFCL paragraphs after GFCL, 10/09/2007.
- **Contact at:** liecibiblio(at)gmail.com

## Tony R. Kuphaldt

- **Date(s) of contribution(s):** 1996 to present
- **Nature of contribution:** Original author.
- **Contact at:** liec0@lycos.com

## Ron LaPlante

- **Date(s) of contribution(s):** October 1998
- **Nature of contribution:** Helped create the "table" concept for use in analysis of series and parallel circuits.

## Davy Van Nieuwenborgh

- **Date(s) of contribution(s):** October 2006
- **Nature of contribution:** DC network analysis ch, Mesh current section, supplied solution to mesh problem, pointed out error in text.
- **Contact at:** Theoretical Computer Science laboratory, Department of Computer Science, Vrije Universiteit Brussel.

## Ray A. Rayburn

- **Date(s) of contribution(s):** September 2009
- **Nature of contribution:** Nonapplicability of Maximum Power Transfer Theorem to Hi-Fi audio amplifier.
- **Contact at:** <http://forum.allaboutcircuits.com/member.php?u=54720>

## Jason Starck

- **Date(s) of contribution(s):** June 2000
- **Nature of contribution:** HTML formatting, some error corrections.
- **Contact at:** [jstarck@yhslug.tux.org](mailto:jstarck@yhslug.tux.org)

## Warren Young

- **Date(s) of contribution(s):** August 2002
- **Nature of contribution:** Provided capacitor photographs for chapter 13.

## someonesdad@allaboutcircuits.com

- **Date(s) of contribution(s):** November 2009
- **Nature of contribution:** Chapter 8, troubleshooting tip end of Kelvin section.

## Your Name Here

- **Date(s) of contribution(s):** Month and year of contribution
- **Nature of contribution:** Insert text here, describing how you contributed to the book.
- **Contact at:** `my_email@provider.net`

## Typo Corrections and other "Minor" Contributions

- *The students of Bellingham Technical College's Instrumentation program.*
- **anonymous** (July 2007) Ch 1, remove :registers. Ch 5, s/figures something/figures is something/. Ch 6 s/The current/The current. (September 2007) Ch 5, 8, 9, 10, 11, 12, 13, 15. Numerous typos, clarifications.
- **Tony Armstrong** (January 2003) Suggested diagram correction in "Series and Parallel Combination Circuits" chapter.
- **James Boorn** (January 2001) Clarification on SPICE simulation.
- **Dejan Budimir** (January 2003) Clarification of Mesh Current method explanation.
- **Sridhar Chitta**, Assoc. Professor, Dept. of Instrumentation and Control Engg., Vignan Institute of Technology and Science, Deshmukhi Village, Pochampally Mandal, Nalgonda Distt, Andhra Pradesh, India (December 2005) Chapter 13: CAPACITORS, Clarification: s/note the direction of current/note the direction of electron current/, 2-places
- **Colin Creitz** (May 2007) Chapters: several, s/it's/its.
- **Larry Cramblett** (September 2004) Typographical error correction in "Nonlinear conduction" section.
- **Brad Drum** (May 2006) Error correction in "Superconductivity" section, Chapter 12: PHYSICS OF CONDUCTORS AND INSULATORS. Degrees are not used as a modifier with kelvin(s), 3 changes.
- **Jeff DeFreitas** (March 2006)Improve appearance: replace "/" and"/" Chapters: A1, A2. Type errors Chapter 3: /am injurious spark/an injurious spark/, /in the even/inthe event/
- **Sean Donner** (December 2004) Typographical error correction in "Voltage and current" section, Chapter 1: BASIC CONCEPTS OF ELECTRICITY,(by a the/by the) (current of current/ of current).

(January 2005), Typographical error correction in "Fuses" section, Chapter 12: THE PHYSICS OF CONDUCTORS AND INSULATORS (Neither fuses nor circuit breakers were not designed to open / Neither fuses nor circuit breakers were designed to open).

(January 2005), Typographical error correction in "Factors Affecting Capacitance" section, Chapter 13: CAPACITORS, (greater plate area gives greater capacitance; less plate area gives less capacitance / greater plate area gives greater capacitance; less plate area gives less capacitance); "Factors Affecting Capacitance" section, (thin layer of insulation/thin layer of insulation).

(January 2005), Typographical error correction in "Practical Considerations" section, Chapter 15: INDUCTORS, (there is not such thing / there is no such thing).

(January 2005), Typographical error correction in "Voltage and current calculations" section, Chapter 16: RC AND L/R TIME CONSTANTS (voltage in current / voltage and current).

- **Manuel Duarte** (August 2006): Ch: DC Metering Circuits ammeter images: 00163.eps, 00164.eps; Ch: RC and L/R Time Constants, simplified  $\ln()$  equation images 10263.eps, 10264.eps, 10266.eps, 10276.eps.
- **Aaron Forster** (February 2003) Typographical error correction in "Physics of Conductors and Insulators" chapter.
- **Bill Heath** (September-December 2002) Correction on illustration of atomic structure, and corrections of several typographical errors.
- **Stefan Kluehspies** (June 2003): Corrected spelling error in Andrew Tannenbaum's name.
- **David M. St. Pierre** (November 2007): Corrected spelling error in Andrew Tanenbaum's name (from the title page of his book).
- **Geoffrey Lessel**, Thompsons Station, TN (June 2005): Corrected typo error in Ch 1 "If this charge (static electricity) is stationary, and you won't realize—remove If; Ch 2 "Ohm's Law also make intuitive sense if you apply it to the water-and-pipe analogy." s/if/it; Chapter 2 "Ohm's Law is not very useful for analyzing the behavior of components like these where resistance is varies with voltage and current." remove "is"; Ch 3 "which halts fibrillation and and gives the heart a

chance to recover." double "and"; Ch 3 "To be safest, you should follow this procedure is checking, using, and then checking your meter.... s/is/of.

- **LouTheBlueGuru**, allaboutcircuits.com, July 2005 Typographical errors, in Ch 6 "the current through R1 is half:" s/half/twice; "current through R1 is still exactly twice that of R2" s/R3/R2
- **Norm Meyrowitz**, nkm, allaboutcircuits.com, July 2005 Typographical errors, in Ch 2.3 "where we don't know both voltage and resistance:" s/resistance/current
- **Don Stalkowski** (June 2002) Technical help with PostScript-to-PDF file format conversion.
- **Joseph Teichman** (June 2002) Suggestion and technical help regarding use of PNG images instead of JPEG.
- **Derek Terveer** (June 2006) Typographical errors, several in Ch 1,2,3.
- **Geoffrey Lessel** (June 2005) Typographical error, s/It discovered/It was discovered/ in Ch 1.
- **Austin@allaboutcircuits.com** (July 2007) Ch 2, units of mass, pound vs kilogram, near "units of pound" s/pound/kilogram/.
- **CATV@allaboutcircuits.com** (April 2007) Telephone ring voltage error, Ch 3.
- **line@allaboutcircuits.com** (June 2005) Typographical error correction in Volumes 1,2,3,5, various chapters ,(s/visa-versa/vice versa/).
- **rob843@allaboutcircuits.com** (April 2007) Telephone ring voltage error, Ch 3.
- **bigtwenty@allaboutcircuits.com** (July 2007) Ch 4 near "different metric prefix", s/right to left/left to right/.
- **jut@allaboutcircuits.com** (September 2007) Ch 13 near s/if were we to/if we were to/, s/a capacitors/a capacitor.
- **rxtxau@allaboutcircuits.com** (October 2007) Ch 3, suggested, GFCI terminology, non-US usage.

- **Stacy Mckenna Seip** (November 2007) Ch 3 s/on hand/one hand, Ch 4 s/weight/weigh, Ch 8 s/weight/weigh, s/left their/left there, Ch 9 s/cannot spare/cannot afford/, Ch1 Clarification, static electricity.
- **Cory Benjamin** (November 2007) Ch 3 s/on hand/one hand.
- **Larry Weber** (Feb 2008) Ch 3 s/on hand/one hand.
- **trunks14@allaboutcircuits.com** (Feb 2008) Ch 15 s/of of/of .
- **Greg Herrington** (Feb 2008) Ch 1, Clarification: no neutron in hydrogen atom.
- **mark44** (Feb 2008) Ch 1, s/naturaly/naturally/
- **Unregistered@allaboutcircuits.com** (February 2008) Ch 1, s/smokelsee/smokeless , s/economic/economic/ .
- **Timothy Unregistered@allaboutcircuits.com** (Feb 2008) Changed default roman font to newcent.
- **Imranullah Syed** (Feb 2008) Suggested centering of uncaptioned schematics.
- **davidr@insyst\_ltd.com** (april 2008) Ch 5, s/results/result 2plcs.
- **Professor Thom@allaboutcircuits.com** (Oct 2008) Ch 6, s/g/c near Ecd and near 00435.png, 2plcs.
- **John Schwab** (Dec 2008) Ch 1, Static Electricity, near Charles Coulomb: rearrangement of text segments.
- **Olivier Derewonko** (Dec 2008) Ch 4 s/orientation a voltage/orientation of a/. Ch2 s/flow though/flow through/. Ch Safe meter usage, REVIEW, s/,./ . Ch5, s/is it/it is/.
- **dor@allaboutcircuits.com** (June 2009) Ch 1, s/nusiance/nuisance.
- **rspuzio@allaboutcircuits.com** (September 2009) Ch 8, s/logarithmic/nonlinear , 6-plcs.
- **David Lewis@allaboutcircuits.com** (September 2009) Ch 1, hide paragraph: Physical dimension also impacts conductivity. . . etc.



- **Walter Odington@allaboutcircuits.com** (January 2010) Ch 3, s/hydration another/hydration is another/ .
- **tone\_b@allaboutcircuits.com** (January 2010) Ch 6 , s/must were/were/ .
- **Unregistered Guest@allaboutcircuits.com** (July 2010) Ch 1 , s/is is/it is/ .
- **Unregistered Guest@allaboutcircuits.com** (July 2010) Ch 5 , added l2 to image 00090.png .
- **Unregistered Guest@allaboutcircuits.com** (August 2010) Ch 1 , s/was one the/was one of the/ .
- **D. Crunkilton** (June 2011) hi.latex, header file; updated link to openbookproject.net .
- **Bob Arthur** (Jan 2012) images: 00046.eps, 00047.eps,00048.eps 00362.eps, graph line visibility fixed.
- **vspriyan@allaboutcircuits.com** (Jan 2013) Ch 10, Near: voltages divided by their s/currents/resistances/ .
- **Eugene Smirnoff** (Jan 2013) Ch1, s/an hypothetical/a hypothetical/ . Ch 2 s/An historic/A historic/ .
- **Gulliveig@allaboutcircuits.com** (Jan 2014) Ch4, s/significant digits/mantissa, s/1000/999/ .
- **slidercrank@allaboutcircuits.com** (Feb 2014) Ch6, s/both positive/both be positive/ .
- **Skfir@allaboutcircuits.com** (August 2015) Ch10, s/suppling/supplying/ .
- **John Wang** (Sept 2017) Ch2, s/points 1 and 4/points 1 and 6/, s/points 2 and 3/3 and 4/ .
- **Stewart Todd Morgan** (Feb 2020) Ch3, s+<http://web.mit.edu/safety>+<https://ehs.mit.edu/workplace-safety-program/electr>
- **DC** (Sept 2017) Ch12, Chi3; Reformatted various tables to html/latex.
- **DC** (Nov 2021) ChA1, ChA2, ChA3; Replaced Design Science with Creative Commons CC BY license

