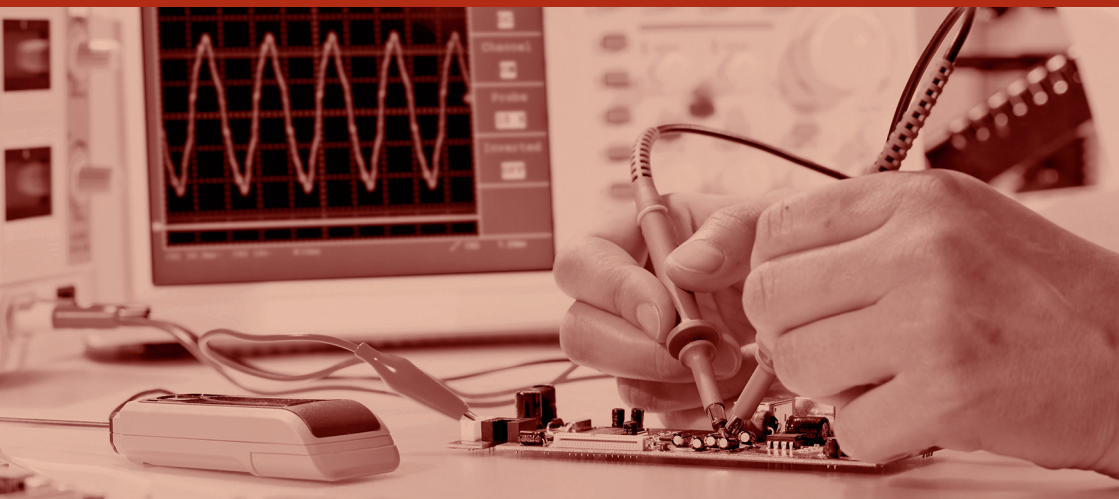


David Burkhart

An Introduction to Electrical Engineering, for Translators and Interpreters

**Kurze Einführung in die Elektrotechnik
für Übersetzer und Dolmetscher**



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**David Burkhart: An Introduction to Electrical Engineering,
for Translators and Interpreters**

Kurze Einführung in die Elektrotechnik für Übersetzer und Dolmetscher

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Table of Contents

An Invitation to Electrical Engineering	15
An electronics design lab	19
The subdisciplines of Electrical Engineering	21
Electronics	21
Power Engineering.....	21
Control Engineering	22
Microelectronics	23
Signal processing	23
Telecommunications	24
Instrumentation	25
Computer Engineering	26
Mechatronics.....	26
Biomedical Engineering.....	27
Aerospace Engineering	27
Fundamentals of Electrical Engineering.....	28
Physical quantities.....	28
Voltage.....	29
D.C. and A.C. voltages.....	32
D.C. voltage	32
A.C. voltage	33
Alternating current + offset	36
Additional waveshapes	37
Electric current.....	39
Electric resistance	41
Power	42
Frequency.....	45
What is a nominal value?.....	47

Resonance	48
Resonance in general.....	48
Resonance in electronics.....	49
What is a resonant circuit? Series resonance	49
Parallel resonance.....	50
What is frequency response?	50
What is Q?	51
What are resonant circuits used for?	51
Resonance in electronics circuits	52
Resonance: exercise	52
Component—circuit—device—equipment.....	53
Types of components	53
Components and circuits	56
A note on analog and digital components	59
Devices and equipment.....	59
Surface mounting.....	60
Electrical Engineering and related fields	61
Thought questions on the fundamentals of Electrical Engineering.....	62
Main topics	63
Amplification	63
A note on language usage.....	65
When might it be desirable to make a signal weaker?	66
Is a transformer an amplifier?	66
What is a voltage amplifier?	67
How does an amplifier work?	67
Exercise	69
Semiconductors	70
Tech talk in a pub: What are transistors?	74
Tech talk in a pub: What are semiconductors used for?.....	79
Exercise	83
Stages.....	84
Signal processing	84
What is digital signal processing?	86
An example of DSP.....	87
How does DSP work?	87
What does a DSP chip look like?	89
Reading text.....	89

A note on language usage.....	90
Further information	90
Bandwidth	90
Is that analog or digital?	91
The fundamental meaning of analog and digital.....	92
Analog and digital waveshapes.....	93
Analog and digital components	94
A note on the concepts digital, binary and tristate	95
Exercise	96
Digital electronics	97
Monolithic design, instead of discrete components.....	97
The substrate	98
Foundry	98
Logic gates.....	99
Basic digital logic functions.....	99
Moore's law	100
Programmable logic.....	101
Programmable logic controllers	102
Field-programmable gate arrays	106
Microprocessors.....	111
Why is (almost) everything becoming digital?.....	112
Thought question.....	112
Interfacing the analog and digital worlds.....	113
Converting analog signals to digital ones.....	113
Digital to analog	114
Measurement equipment.....	115
What is a digital measurement instrument?	116
What is an oscilloscope?.....	117
Measuring voltages	117
Measuring currents.....	119
Measuring resistances	120
Measuring frequencies	120
Measuring digital signals	121
Thought questions on measurement equipment.....	122
Transducers, sensors and actuators.....	123
What do sensors look like?	125
What do transducers look like?	126

What do actuators look like?	126
Exercises.....	127
Further information	127
How your laptop works	128
Software on a laptop	128
Laptop hardware.....	130
Exercise	134
Exercise	135
Thought questions	136
Electric machines	137
What is a machine?.....	137
Types of electric motors.....	137
What is the difference between a motor and an engine?	138
Generators	138
Thought questions	141
Current trends.....	142
Robots with excellent motor skills.....	142
Driverless cars	143
A note on terminology.....	143
Virtual reality	144
Live translation	144
Artificial intelligence for everyday tasks.....	146
Exercise.....	147
Thought questions	147
Wearables.....	148
Wearables: fitness trackers.....	148
Goggle Glasses.....	148
Smart watches	149
Other wearables that are technically possible	149
For further information.....	150
LEDs and new applications	150
Why are LEDs so widespread?	150
For further information.....	151

Cloud computing	151
What is cloud computing?	151
Back up data	151
Access your data anywhere	151
Problems with local applications.....	152
Cloud-based software	152
Advantages of cloud-based software	152
Cloud services	152
Problems related to cloud computing	153
The Internet of Things.....	153
Thought question.....	154
Industry 4.0	154
The Telekom is switching to an all-IP system.....	154
What does this mean for consumers?.....	155
Bring Your Own Device.....	155
Pro	156
Con	156
For further information.....	156
Unified Communications.....	156
Unified Communications—exercise 1.....	157
Unified Communications—exercise 2.....	158
Sources of information.....	159
Appendix 1—Glossary of common Electrical Engineering and technical terms in English.....	160
Nouns.....	160
Verbs	165
Adjectives	168
Exercise.....	170
Appendix 2—Translating some difficult German terms	171
Anlage	171
Drive—der Antrieb.....	173

Appendix 3—Suggested solutions to exercises and thought questions	174
Page 44—Exercise on power	174
Page 52—Resonance: exercise.....	174
Page 54—Passive versus active components	175
Page 62—Thought questions on the fundamentals of Electrical Engineering	176
Page 69—Exercise	177
Page 83—Exercise	178
Page 96—Exercise	178
Page 106—Exercise	179
Page 112—Thought question	179
Page 122—Thought questions on measurement equipment.....	180
Page 127—Exercises.....	180
Page 134—Exercise	182
Page 135—Exercise	182
Page 136—Thought questions.....	183
Page 141—Thought questions.....	184
Page 157—Unified Communications (exercise 1)	184
Page 158—Unified Communications (exercise 2)	185

An Invitation to Electrical Engineering



Electrical Engineering¹ is having a profound impact on society, especially in conjunction with related fields such as Computer Science and Mechanical Engineering. The following is a story about how advanced technology is changing the everyday lives of virtually everyone alive today.

My grandfather—who died in 1963—suddenly came back to life. (I guess there is a smartphone app for that.) For an entire afternoon and evening, we sat on the porch of the house where he had lived before his death.

First, he told me what it is like to spend several decades in heaven or hell (I cannot remember which one). After detailing how he returned to life, he asked me to tell him about myself. He listened with obvious interest as I related that I had moved to Germany shortly after graduating from high school, and learned the language. Grandad had always been a curious person, and wanted to know all the details.

¹ Electrical Engineering is a proper noun, because this is the exact designation of a professional field. It is also the name for the corresponding academic program at a university. For this reason, it is written with initial capital letters. This is also true for the subdisciplines of Electrical Engineering, such as Power Engineering.

Wanting to show him where I live in Munich, I took out my tablet PC and switched it on. Grandad immediately remarked, "Oh, I see you have a writing slate. We had those when I was in school, around one-hundred years ago. My goodness, some things never change!"

I found it quite amusing for him to confuse this shiny, high-tech product with an extremely low-tech slate. Hence, I agreed with him. Hesitantly, I said, "Oh yes, this is my ... 'writing slate' ... Let me show you where I live in Munich."

He made a funny face, and remarked, "Do you have some photographs stuck on your slate?"

I realized I had now painted my way into a corner; I would have to bridge sixty years of engineering progress in a few, simple sentences and explain what a tablet PC is.

Grandad had always had heart problems, and I didn't want to provoke a heart attack. Stammering, I said, "Actually, I have some photos **in** my ... slate. It's called an iPad, by the way."

"Let me see your slate." He took it and nearly fell out of his chair. "My God, what an odd slate! We never had such things where **I** went to school! What did you call this thing?"

"I call it an iPad. Well, your're right, it's a fancy slate. It's a modern one."

I decided to have some fun. Taking my "slate" back, I asked him, "Where did you live as a young boy?"

"In Pensacola; here in Florida."

"Where in Pensacola? What street?"

"Why? Why are you asking?"

"I'm just curious."

He went inside the house, and looked through some papers: "Royce Street; 1204 Royce Street."

I quickly called up Street View on my iPad. In a moment, the house at 1204 Royce Street was displayed. Silently, I turned my "slate" around to my grandad.

“Holy smokes! You must be some kind of a magician!”

“Oh no, I just have this ‘slate’—this iPad.”

He then burst out laughing, which I thought was better than having a heart attack. Feeling that he was enjoying this sudden introduction to high-tech digital devices, I decided to continue the game.

Later that evening, after a glass of wine or two (over ice cubes), he asked me about my professional activities. I remarked that I was writing a book on Electrical Engineering. This seem to interest him; he was, after all, a writer himself. He wished to see my manuscript.

At the time of our talk, the manuscript was a work in progress and I did not have a printout. I started the word processor of the iPad and opened the book file.

I immediately wished I had not done that. He was very puzzled and troubled somehow.

He exclaimed, “First, you show me something which you call a slate which contains pictures of where I was raised. And now, you have somehow changed your slate into a thin typewriter. Either I have had too much wine, or you are a wizard!”

Looking down on a page of my manuscript, I saw that the text was to include a discussion of the word *default*. My grandfather had always had a huge vocabulary, so here was a great opportunity to pick his brain.

“Now, the dictionary defines *default* as follows ...” I commented. Before I could continue, he interrupted me: “How in the world have you managed to squeeze a **dictionary** into that tiny package?!”

It was too late to explain the wonders of digital electronics to him, after all that wine. I figured the best strategy would be to distract him somehow. I asked him: “Who was president just before you died?”

“Let me see ... John F. Kennedy. The young lad.”

Quickly, I found a video clip of Kennedy’s inaugural address in YouTube, and suggested, “Why don’t we have another glass of wine?” As he reached for the bottle, Kennedy began his speech.

The result of the experiment was that he spilled several ounces of Chardonnay over my shirt and trousers.

"What is that?", he asked excitedly.

"Let me see ... John F. Kennedy. The president."

Holding the bottle in one hand and wiping me dry with the other, he stared at the screen.

"What? This thing is a collection of old photographs, a typewriter, a dictionary, and now a record player—I mean a television set—as well!"

While I sat, silently asking myself, "How am I going to explain ...?", my iPad sounded a short tone. "Ping" indicates an e-mail message has arrived.

In the e-mail app, I found greetings from my wife; she was curious what I was doing. Turning to my grandfather, I casually said, "I just got some mail."

He looked out into the darkness and remarked—logically—"Mail is not delivered at night."

I showed him the message. We decided to have a bit more wine, and chatted well into the night.

Just before leaving, I asked him, "What surprises you most about my 'slate'?"

He shook his head and remarked, "I simply do not understand how you managed to fit an entire dictionary into that tiny thing!"

David Burkhart

An Introduction to Electrical Engineering, for Translators and Interpreters

Kurze Einführung in die Elektrotechnik für Übersetzer und Dolmetscher

Wer elektrotechnische Fachtexte übersetzt, muss sich mit hochkomplexen Sachverhalten, physikalischen Gesetzen und Begriffen auseinandersetzen. Der rasante technische Wandel macht die Aufgabe des Übersetzers noch anspruchsvoller. Da kann man schnell an seine Grenzen geraten. An dieser Problematik setzt das Buch an. Es vermittelt Einsteigerwissen zu den Schwerpunkten im Bereich Elektrotechnik: Grundlagen, Hauptthemen, aktuelle Trends. Es richtet sich an Personen, die elektrotechnische Texte ins Englische oder aus dem Englischen übersetzen.

Inhalte (Auszug):

- Subdisciplines of Electrical Engineering
- Fundamentals: voltages; power; resonance; component – circuit – device – equipment
- Main topics: amplification; semiconductors; signal processing; digital electronics; programmable logic; sensors and transducers; electric machines
- Current trends: wearables; LEDs; cloud computing; the Internet of Things; Bring Your Own Device
- Glossary of common terms



David Burkhart ist in Florida, USA, geboren und aufgewachsen. Dort studierte er Grundschulpädagogik und Elektrotechnik und schloss beide Studiengänge an der Florida Atlantic University in Boca Raton, Florida ab. Er lebt seit 35 Jahren in Deutschland, die meiste Zeit in München. Seit etwa 30 Jahren arbeitet er als technischer Redakteur, technischer Übersetzer und als Trainer. Zu den Themen „Technisches Englisch“ und „Elektrotechnik-Einführung“ gibt er bundesweit Workshops.

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