Agilent Technologies
Innovating the HP Way

Educator's Corner : Teacher's Tools

Books

Like their counterparts in education, when Agilent engineers are not designing and producing Agilent instruments, some of them stay busy writing about their field. Here is a selection of their work on electronic test and measurement topics.

The Art of Measurement: Theory and Practice

Author and retired HP employee Ron Potter introduces "The Art of Measurement: Theory and Practice," published by Prentice Hall in 2000. A measurement used to simply involve reading a voltmeter or a ruler of some kind, but with the advent of the microprocessor it has become possible to measure systems with implicit or hidden parameters, like the equivalent circuit elements of a transistor, or the modal parameters of a mechanical structure. Available through Prentice-Hall (www.phptr.com) and most bookstores. ISBN 0-13-026174-2.

Electronic Instrument Handbook, 2nd edition

Editor Clyde Coombs assembled 33 Agilent R&D managers amd added the talents of several educators to build a definitive reference on the inner workings of electronic instruments. This hardcover book is more than 800 pages worth of valuable reference material, covering a bandwidth from dc to light. Also available through McGraw Hill, ISBN 0-07-012616-X Agilent E5800A (See **price list**)

Electronic Test Instruments

Bob Witte is an Agilent R&D manager who formerly taught college engineering. His easy reading book on the basics of electronic test instruments complements Agilent's Basic Instrument product line. Excellent for reference or text. 283 pages, hardcover. Also available through Prentice-Hall, ISBN 013-253147 X. Agilent E5801A (See **price list**)

Spectrum and Network Measurements

Also by Bob Witte, here is an easy read that takes the mystery out of frequency domain, fourier transforms, aliasing and more. 297 pages, paperback. Available through Prentice-Hall, ISBN 0-13-131800-X. Agilent 5960-5718 (See **price list**)

Graphical Programming: A Tutorial for Agilent VEE

Written by Bob Helsel, another Agilent employee who enjoys teaching, this book makes easy work of Agilent VEE, a powerful graphical programming language. Available through Prentice-Hall and bookstores, ISBN 013-631797-9.

FFT Lab Experiments Notebook

A series of six college level experiments written by Dr. Michael Thompson for a communications lab at Colorado State University. Designed around Agilent 54600-series oscilloscopes using an Agilent 54657A FFT module, these experiments cover windowing, leakage, aliasing and more. Free when you purchase the Agilent 54657A or Agilent 54659B module. Right-to-copy included. Agilent Product Note 54600-3

Using the FFT in Agilent 54600-Series Oscilloscopes

A very brief and easy-to-understand application note on the fundamentals of a aliasing, windowing and sampling. Free when you purchase the Agilent 54657A or Agilent 54659B module. Agilent 5091-7568E

The Impedance Measurement Handbook: A Guide to Measurement Technology and Techniques

Written by engineers who design impedance measuring instruments, the handbook covers impedance measurement basics, instruments, fixturing and cabling, errors, compensation and applications. 95 pp, Agilent 5950-3000 Free to educators

DC Power Supply Handbook

In electronic products, the dc power supply is the dominant failure mechanism. One of many application notes available free from Agilent, the DC Power Supply Handbook explains the practical aspects of operating and connecting power supplies. It covers sensing, grounding, multiple output connections, remote programming, specifications and power ratings. 65 pages, paperback. AN 90B Free to educators

Note: A complete index of current application notes is available on **Agilent's Test and Measurement Web site.**