DESCRIPTION

A multidisciplinary reference of engineering measurement tools, techniques, and applications

"When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the stage of science." — Lord Kelvin

Measurement is at the heart of any engineering and scientific discipline and job function. Whether engineers and scientists are attempting to state requirements quantitatively and demonstrate compliance; to track progress and predict results; or to analyze costs and benefits, they must use the right tools and techniques to produce meaningful data.

The Handbook of Measurement in Science and Engineering is the most comprehensive, up-to-date reference set on engineering and scientific measurements—beyond anything on the market today. Encyclopedic in scope, Volume 3 covers measurements in physics, electrical engineering and chemistry:

- Laser Measurement Techniques
- Magnetic Force Images using Capacitive Coupling Effect
- Scanning Tunneling Microscopy
- Measurement of Light and Color
• The Detection and Measurement of Ionizing Radiation
• Measuring Time and Comparing Clocks
• Laboratory-Based Gravity Measurement
• Cryogenic Measurements
• Temperature-Dependent Fluorescence Measurements
• Voltage and Current Transducers for Power Systems
• Electric Power and Energy Measurement
• Chemometrics for the Engineering and Measurement Sciences
• Liquid Chromatography
• Mass Spectroscopy Measurements of Nitrotyrosine-Containing Proteins
• Fluorescence Spectroscopy
• X-Ray Absorption Spectroscopy
• Nuclear Magnetic Resonance (NMR) Spectroscopy
• Near Infrared (NIR) Spectroscopy
• Nanomaterials Properties
• Chemical Sensing

Vital for engineers, scientists, and technical managers in industry and government, *Handbook of Measurement in Science and Engineering* will also prove ideal for academics and researchers at universities and laboratories.

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⚠️ ABOUT THE AUTHOR

**Myer Kutz** holds engineering degrees from RPI and MIT. He was Vice President and General Manager of Wiley's STM division and has consulted and authored for most of the major professional and technical publishing houses. He is the author of 7 books and the editor of more than 20 handbooks.
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