

What Is Metrology and Why Is It Important?

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Metrology is the science of measurement and its application and is divided into three sub-branches of scientific, industrial and legal metrology. Establishment of measuring units, creation of new methods, construction of measuring equipment and transfer of traceability are among the activities of scientific metrology. Industrial metrology is the application of measurement in production and other processes, and legal metrology, covers the rules and legal requirements related to measurement. Governments should provide an integrated and reliable measurement system by establishing a measurement infrastructure in the country and by developing and maintaining internationally recognized standards and measurement methods. Studies show that if different countries have established a measurement infrastructure, then they can easily trade and develop their technology together. In addition to introducing metrology, this article emphasizes its importance by relying on metrological objectives and topics such as calibration and traceability to achieve high accuracy and reliability measurement.

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