The Evolution of the Two Standards of Measure to the Present Day Electromagnetic Distance Measurements (EDM)

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Key words:

ABSTRACT

Distance measurement has developed through history from pre-Christian times when the basic unit was cubit up to the present-day use of automated distance measuring instruments by surveyors, which makes measurements rapid and easy. The accuracy of distance measurements depends, on the calibration of the measurement unit and since the modulation wavelength is used as a measurement unit in electronic distance meters, this wavelength has to be accurately established. Since most surveyors do not know the basic checks for calibration of today's EDM instruments they are not able to achieve the accurate results required. This paper looks at the origin and development of the two standards of measure to the present-day use of wavelengths of radiation for defining a standard; also step by step routine checks for the calibration of the EDM are provided.

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