

**WORLD METEOROLOGICAL ORGANIZATION**  
**WMO TECHNICAL CONFERENCE ON METEOROLOGICAL AND**  
**ENVIRONMENTAL INSTRUMENTS AND METHODS OF OBSERVATION**  
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**SUBMITTED ABSTRACT**

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	<b>Session Name</b>	1. Characterization and standardization of environmental measurements - traceability assurance
<b>1.</b>	<b>Title of the paper</b>	How to use different methods of calibration to achieve cost- effective

<b>2.</b>	<b>Institution</b>	Egyptian Meteorological Authority			
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<b>4.</b>	<b>Abstract of the paper</b>
	<p>How to use different methods of calibration to achieve cost- effective Abstract. Calibration defines the accuracy and quality of equipment measurements. Over time there is a tendency for measurements and accuracy to 'drift' particularly when using particular technologies or measuring particular parameters such as pressure, temperature and humidity. To be confident in these measurements there is an ongoing need to service and maintain the calibration of this equipment throughout its lifetime for reliable, accurate and repeatable measurements. The goal of calibration is to determine the measurement uncertainty to ensuring the accuracy of test equipment. WMO mentioned the requirements of uncertainty for each meteorological sensor in CIMO Guide and WMO no.8 Documents, these mentioned values of uncertainty are the same for different application areas but the reality is we need low uncertainty for some application areas like Aviation (Aerodrome station sensors) while we can accept more tolerance in other application areas like climatic stations. The value of uncertainty not only depends on the accuracy of tested sensor but also on the method of calibration. In this study I tried to take into account two factors (application area – method of calibration) to achieve cost-effective.</p>