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(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)
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Reference : MSD 03/T-135 **Date : 09 July 2024**

TECHNICAL COMMITTEE : Statistical Methods for Quality , Data Analytics and Reliability, MSD 03

To,

All concerned

Dear Madam/Sir,

The following document has been prepared by the Statistical Methods for Quality , Data Analytics and Reliability Sectional Committee, MSD 03. Please click here to view the document.

Document Number : MSD 03 (26012) WC
Title of the document : Determination and use of straight-line calibration functions
Document Type : New Indian Standard

This document has following salient features which may require specific attention for your valuable comments:

1) This Technical Specification is concerned with linear, that is, straight-line, calibration functions that describe the relationship between two variables X and Y, namely, functions of the form Y = A + BX. Although many of the principles apply to more general types of calibration function, the approaches described exploit the simple form of the straight-line calibration function wherever possible.
2) Values of the parameters A and B, are determined on the basis of measured data points (xi; yi), i = 1,…,m. Various cases are considered relating to the nature of the uncertainties associated with these data. No assumption is made that the errors relating to the yi are homoscedastic (having equal variance), and similarly for the xi when the errors are not negligible.
3) Estimates of the parameters A and B are determined using least squares methods. The emphasis of this Technical Specification is on choosing the least squares method most appropriate for the type of measurement data, in particular methods that reflect the associated uncertainties. The most general type of covariance matrix associated with the measurement data is treated, but important special cases that lead to simpler calculations are described in detail.
4) For all cases considered, methods for validating the use of the straight-line calibration functions and for evaluating the uncertainties and covariance associated with the parameter estimates are given.
5) The Technical Specification also describes the use of the calibration function parameter estimates and their associated uncertainties and covariance to predict a value of X and its associated standard uncertainty given a measured value of Y and its associated standard uncertainty.
6) NOTE 1 The Technical Specification does not give a general treatment of outliers in measurement data, although the validation tests given can be used as a basis for identifying discrepant data.
7) NOTE 2 The Technical Specification describes a method to evaluate the uncertainties associated with the measurement data in the case that those uncertainties are known only up to a scale factor (Annex E).

Please examine the document and share your comments regarding further improvement in the document.

Last date for sharing the comments is : 08 August 2024

The comments should be shared in the prescribed template through this portal only; and the comments so received shall be taken up by the Sectional Committee for necessary action. For any other query, please write an email at msd@bis.gov.in to the undersigned at Bureau of Indian Standard, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi.

In case no comments are received, we would presume your approval of the documents. However, in case we receive any comments on the document, the same shall be put up to the Sectional Committee for necessary action.

Thanking You,

Yours faithfully,
(ANUJ SWARUP BHATNAGAR)
Head (Management and Systems Department)
Email: msd@bis.gov.in

व्यापक परिचालन में मसौदा(दे)

हमारा सन्दर्भ : MSD 03/T-135 दिनांक : 09-07-2024

तकनीकी समिति : Statistical Methods for Quality , Data Analytics and Reliability Sectional Committee, MSD 03

प्राप्तकर्ता : रूचि रखने वाले सभी निकाय

महोदय/या,

निम्नलिखित मसौदा तैयार किया गया है :

प्रलेख संख्या : MSD 03 (26012) WC
शीर्षक :

कृपया इस/इन मानक(को)/संसोधन(नो) के मसौदे(दो) का अवलोकन करें और अपनी सम्मतियाँ यह बताते हुए भेजें कि यदि ये मानक(को) के संशोधन(नो) के रूप में प्रकाशित हो तो इन पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयां आ सकती हैं।

सम्मत्तियाँ भेजने की अंतिम तिथि : 08 August 2024

सम्मतियाँ, यदि कोई हों तो, कृपया यहाँ क्लिक करके ऑनलाइन पोर्टल के माध्यम से ऊपर दी गयी अंतिम तिथि तक दर्ज कराएं।

यह/ये प्रलेख भारतीय मानक ब्यूरो की वेबसाइट www.bis.gov.in पर भी उपलब्ध है/हैं।

धन्यवाद।

भवदीय/भवदिया,

विभाग प्रमुख का नाम : ANUJ SWARUP BHATNAGAR
(Management and Systems Department)
ई-मेल : msd@bis.gov.in