

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

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मसौदा भारतीय मानक
सूचान प्रौद्योगिकी—
बायोमीट्रिक प्रदर्शन परीक्षण और रिपोर्टिंग—
भाग 1: सिद्धांत और ढांचा

Draft Indian Standard
Information Technology —
Biometric Performance Testing and Reporting —
Part 1: Principles and Framework

ICS 35.240.15

LITD 32 Biometrics Sectional Committee

Last date for comments: 17 July 2023.

NATIONAL FOREWORD

(Formal clauses will be added later)

This Draft Indian Standard (Part 1) which is identical with ISO/IEC 19795-1:2021 'Information Technology — Biometric Performance Testing and Reporting — Part 1: Principles and Framework' issued by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Biometrics Sectional Committee and approval of the Electronics and Information Technology Division Council.

Other parts in this series are:

- Part 2: Testing Methodologies for Technology and Scenario Evaluation
- Part 3: Modality-Specific Testing
- Part 4: Interoperability performance testing
- Part 5: Access control scenario and grading scheme
- Part 6: Testing methodologies for operational evaluation
- Part 7: Testing of on-card biometric comparison algorithms
- Part 9: Testing on mobile devices

The text of ISO/IEC Standard may be approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current Practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standard also exist. The corresponding Indian Standard which is to be substituted in its respective place is listed below along with its degree of equivalence for the edition indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

International Standard	Corresponding Indian Standard	Degree of Equivalence
ISO/IEC 2382-37, Information technology — Vocabulary — Part 37: Biometrics	IS/ISO/IEC 2382-37:2022 Information technology — Vocabulary — Part 37: Biometrics (Under Development)	Identical with ISO/IEC 2382-37:2022

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 ‘Rules for rounding off numerical values (Second Revision)’. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

Scope of ISO/IEC 19795-1:2021 as follows:

“This document:

— establishes general principles for testing the performance of biometrics systems in terms of error rates and throughput rates for purposes including measurement of performance, prediction of performance, comparison of performance, and verifying conformance with specified performance requirements;

- specifies performance metrics for biometric systems;
- specifies requirements on the recording of test data and reporting of test results; and
- specifies requirements on test protocols in order to:
 - reduce bias due to inappropriate data collection or analytic procedures;
 - help achieve the best estimate of field performance for the expended effort;
 - improve understanding of the limits of applicability of the test results.

This document is applicable to empirical performance testing of biometric systems and algorithms through analysis of the comparison scores and decisions output by the system, without requiring detailed knowledge of the system's algorithms or of the underlying distribution of biometric characteristics in the population of interest.

Not within the scope of this document is the measurement of error and throughput rates for people deliberately trying to subvert the intended operation of the biometric system (e.g. by presentation attacks).”

Note: - The Technical content of this document has not been enclosed as these are identical with the corresponding ISO/IEC Standard. For details please refer to ISO/IEC 19795-1:2021 or kindly contact.

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