

# ISO/IEC 5152:2024-07 (E)

## Information technology - Biometric performance estimation methodologies using statistical models

---

<b>Contents</b>	<b>Page</b>
Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Symbols and abbreviated terms.....	2
5 Conformance.....	2
6 Details of estimation.....	2
6.1 Estimation of biometric performance based on extreme value theory.....	2
6.2 Estimation design.....	3
6.3 Generalized extreme value distribution.....	3
6.4 Generalized Pareto distribution.....	5
6.5 Evaluation of the fitness of the model.....	7
6.6 Selection of rGEV and GP.....	8
6.6.1 Differences between the two methodologies.....	8
6.6.2 Features of the two methodologies.....	9
7 Performance metrics.....	9
8 Record keeping.....	10
9 Reporting estimation results.....	10
9.1 Reporting one-to-one comparison performance.....	10
9.2 Reporting estimation results.....	10
9.3 Reporting form.....	11
Annex A (informative) Extreme value theory.....	13
Annex B (informative) Examples applied to multiple modality datasets to demonstrate the validity of the methodology.....	18
Bibliography.....	25