

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

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भारतीय मानक मसौदा

ज्यामितीय उत्पाद विशिष्टि (जीपीएस) – निस्पंदन
भाग 31 मजबूत प्रोफाइल फ़िल्टर – गॉसियन रिग्रेशन फ़िल्टर
[IS 18430 (भाग 31) का पहला पुनरीक्षण]

Draft Indian Standard

Geometrical Product Specifications (GPS) — Filtration
Part 31 Robust profile filters — Gaussian regression filters
[First Revision of IS 18430 (Part 31)]

ICS 17.040.20

Engineering Metrology Sectional Committee, PGD 25	Last date for receipt of comment is: 31 May 2025
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NATIONAL FOREWORD

This Indian Standard (Part 31) which is identical with ISO 16610-31 : 2025 ‘Geometrical product specifications (GPS) — Filtration — Part 31: Robust profile filters: Gaussian regression filters’ issued by the International Organization for Standardization (ISO) will be adopted by the Bureau of Indian Standards on the recommendation of the Engineering Metrology Sectional Committee and approval of the Production and General Engineering Division Council.

This Indian Standard was first published in 2023. This first revision has been brought out to align it with ISO 16610-31: 2025.

The major changes in this revision are as follows:

- a) providing continuous Gaussian regression filters for open and for closed profiles, and
- b) providing a normative iterative solution for continuous Gaussian regression filters.

This standard has been published in several parts, other parts in this series are:

- Part 1 Overview and basic concepts
- Part 20 Linear profile filters: Basic concepts
- Part 21 Linear profile filters: Gaussian filters
- Part 22: Linear profile filters: Spline filters
- Part 28 Profile filters: End effects
- Part 29 Linear profile filters: wavelets
- Part 30 Robust profile filters: Basic concepts
- Part 32 Robust profile filters: Spline filters

- Part 40 Morphological profile filters: Basic concepts
- Part 41 Morphological profile filters: Disk and horizontal line-segment filters
- Part 49 Morphological profile filters: Scale space techniques
- Part 60 Linear areal filters: Basic concepts
- Part 61 Linear areal filters: Gaussian filters
- Part 62 Linear areal filters: spline filters
- Part 71 Robust areal filters: Gaussian regression filters
- Part 85: Morphological areal filters: Segmentation

The text of ISO Standard has been 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’ appear 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 Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 16610-1 Geometrical product specifications (GPS) — Filtration — Part 1: Overview and basic concepts	IS 18430 (Part 1) : 2023/ ISO 16610-1: 2015 Geometrical product specifications (GPS) — Filtration: Part 1 Overview and basic concepts	Identical
ISO 16610-20 Geometrical product specifications (GPS) — Filtration — Part 20: Linear profile filters: Basic concepts	IS 18430 (Part 20) : 2023/ ISO 16610-20:2015 Geometrical product specifications (GPS) — Filtration: Part 20 Linear profile filters — Basic concepts	Identical
ISO 16610-21 Geometrical product specifications (GPS) — Filtration — Part 21: Linear profile filters: Gaussian filters	IS 18430 (Part 21) : 2023/ ISO 16610-21 : 2011 Geometrical product specifications (GPS) — Filtration: Part 21 Linear profile filters — Gaussian filters	Identical
ISO 16610-22 Geometrical product specifications (GPS) — Filtration — Part 22: Linear profile filters: Spline filters	IS 18430 (Part 22) : 2024/ ISO 16610-22 : 2015 Geometrical Product Specifications (GPS) — Filtration: Part 22 Linear Profile — Filters — Spline Filters	Identical

ISO 16610-30 Geometrical product specifications (GPS) — Filtration — Part 30: Robust profile filters: Basic concepts	IS 18430 (Part 30) : 2024/ ISO 16610-30 : 2015 Geometrical product specifications (GPS) — Filtration : Part 30 Robust profile filters — Basic concepts
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ISO/IEC Guide 99 International vocabulary of metrology — Basic and general concepts and associated terms (VIM)	IS/ISO/IEC Guide 99 : 2007 vocabulary of metrology — Basic and general concepts and associated terms (VIM)	Identical
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NOTE: The technical content of draft standard is not available on website. For details, please refer to ISO 16610-31: 2025 or contact:

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