

*For Comments Only*

**BUREAU OF INDIAN STANDARDS**

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भारतीय मानक मसौदा

अंतरिक्ष पद्धतियाँ — कक्षा निर्धारण और अनुमान — तकनीकों का  
वर्णन करने की प्रक्रिया

*Draft Indian Standard*

**SPACE SYSTEMS — ORBIT DETERMINATION AND ESTIMATION — PROCESS  
FOR DESCRIBING TECHNIQUES**

ICS: 49.140

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**Air and Space Vehicles Sectional Committee, TED 14**

**Last date for receipt of comments is  
23/09/2023**

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Air and Space Vehicles Sectional Committee, TED 14

## NATIONAL FOREWORD

*(Formal Clause to be added later)*

The text of ISO standard is proposed for publication as an Indian Standard without deviations. Certain terminologies and 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.

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

## SCOPE

This Technical Report prescribes the manner in which orbit determination and estimation techniques are to be described so that parties can plan operations with sufficient margin to accommodate different individual approaches to orbit determination and estimation. This Technical Report does not require the exchange of orbit data nor does it prescribe a method of performing orbit determination. It only prescribes the information that shall accompany such data so that collaborating satellite owners/operators understand the similarities and differences between their independent orbit determination processes.

All satellite owners/operators are entitled to a preferred approach to physical approximations, numerical implementation, and computational execution of orbit determination and estimation of future states of their satellites. Mission demands should determine the architecture (speed of execution, required precision, etc.). This Technical Report will enable stakeholders to describe their techniques in a manner that is uniformly understood. Implementation details that can have proprietary or competitive advantage need not be revealed.

**FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO/TR 11233 : 2014 or CONTACT:**

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