

Introduction to Engineering Surveying, An

Edition: 1st Edition
Publication date: 2012

Publication date:
Author/Editors:

ISBN: 9780702188725

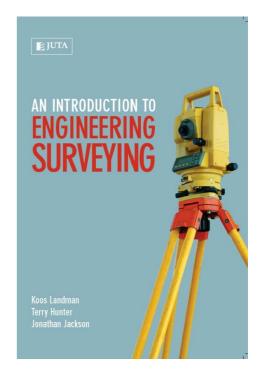
Format: Soft Cover

Number of Pages: 240

Retail price: R574.00 (incl. VAT, excl.

delivery.)

Website Link: juta.co.za/pdf/23118/



About this Publication:

An Introduction to Engineering Surveying is written for Civil Engineering and Geomatics or Land Surveying tertiary students who are studying towards a Bachelors Degree or a National Diploma. It covers a wide range of spatial measurement methods that support civil engineering planning. The methods described include levelling, traversing, satellite surveying, preparation of topographic maps and setting out of roads, construction platforms and reservoirs.

Key Features

- The map co-ordinate conventions adopted in southern African survey datums are used throughout. The reader is also introduced to the international UTM coordinate system as well as to geographical coordinates. The Cape, Hart94 and ITRF survey datums as well as modern control system support through VRS are described.
- The cadastral methods used in South Africa and most SADC countries are described.
- The material follows a logical sequence, starting with fundamental theoretical concepts, and building up to general and then advanced applications in the workplace.
- All methods and techniques are illustrated and explained.
- Practical worked examples in real-life situations are used to explain the methods introduced.

Contents Include:

Chapter 1: Introduction to engineering surveying

Chapter 2: The South African survey reference system and basic co-ordinate calculations

Chapter 3: Angle and distance measurement **Chapter 4:** Traversing using a total station **Chapter 5:** Calculations on the projection

Chapter 6: Satellite surveying **Chapter 7:** Cadastral surveying

Chapter 8: The determination of heights

Chapter 9: Circular curves
Chapter 10: Transition curves
Chapter 11: Vertical curves

Chapter 12: Construction surveying **Chapter 13:** Topographical surveying

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