A book by T. Lunne, P. K. Robertson, and J. J. M. Powell
"CONE-PENETRATION TESTING IN GEOTECHNICAL PRACTICE"
has been presented within the framework of the Gersevanov lectures. SPON Press, Taylor and Francis Group, ISBN 10: 0 419 23750 X, ISBN 13: 978 0 419 23750 1 312 str.

In-situ testing of soil beds by the penetration of cones is the most effective and universal method of acquiring a large volume of data on the stratification and physico-mechanical properties of soils at various depths under various conditions, including those prevalent on the continental shelf. A vast number of publications, seminars, and conferences in Russia and abroad are devoted to the subject of cone-penetration testing. Many problems involving this testing are, however, treated differently, both on the national and international level. Expansion of international cooperation in the field of geotechnical engineering, and international participation in design and construction require harmonization of different concepts, methods, and standards in the field of cone-penetration testing.

The book in question will therefore be extremely useful to engineers and surveyors, since it provides an extensive overview, which includes the following problems:

– testing equipment and procedures;
– interpretation of test data with practical examples;
– the relation between data derived from cone-penetration and laboratory tests; and,
– use of test results for design and construction.

The book is published in the English language, but is also useful for the Russian-speaking audience. It is oriented toward a broad audience: students, instructors, and lecturers will find it indispensable as an educational textbook. For engineers and researchers interested in general and special problems of geotechnical engineering, this book is an encyclopedia covering all aspects of cone-penetration testing.

The book contains reference information required for international cooperation:

– a list of conventional international notations and abbreviations, conversion factors between various systems of units, and the most widely used international terms and their definitions.

Many useful diagrams, tables, illustrations, and practical examples are cited in the book with universally accepted notations.

The book was first published in 1997, and has since been published several times in Great Britain, Canada, and United States.

The book contains the following divisions (chapters):

1. Introduction
2. Test equipment and procedure
3. Data confirmation, correction, and presentation
4. Test equipment and procedures
5. Data verification, correction, and formats
6. Standards and technical specifications
7. Interpretation of data derived from static cone-penetration testing with an electric cone (CPT), including a piezoconus (CPTU).
8. Direct use of CPT/CPTU
9. Auxiliary transducers
10. Application of cone-penetration testing to geoecology
11. Practical examples
12. Prospects for development of cone-penetration testing

A list of literature cited, including approximately 600 authors.

An alphabetized directory.

Appendix A. International standard procedures for cone-penetration testing developed by the International Society of Soil Mechanics and Foundation Engineering (ISSMFE).

Appendix B. Standard for cone-penetration testing (Swedish Geotechnical Society).

Appendix C. Calibration chamber for testing of sandy soils.

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