Scientific and Technical Books and Serials in Print

Developments in Civil and Construction Engineering Computing

Raft Foundation Design And Analysis With A Practical Approach

Temporary Structures in Construction, Third Edition

Foundation Analysis and Design

The McGraw-Hill Civil Engineering PE Exam Depth Guide

Understanding Capitalism
Included in this volume are a selection of papers concerned with the application of computers to civil and construction engineering. The papers were presented at the Fifth International Conference on Civil and Structural Engineering Computing held 17-19 August 1993, Edinburgh.

The Indian Concrete Journal

Individual Studies by Participants to the International Institute of Seismology and Earthquake Engineering

Canadian Geotechnical Journal

Contains the results of a full scale load testing program used to predict and measure the behaviour of five spread footings on sand. This title presents the data upon which all predictions are based; describes methodologies and judgments used to make the predictions; and also summarizes the predictions and compares predicted responses.

Concrete Structures, Part-I

Includes authors, titles, subjects.

Exploring Education

Designed to complement the McGraw-Hill Civil Engineering PE Exam Guide: Breadth and Depth, this subject specific “depth” guide provides comprehensive coverage of the subject matter applicants will face in the afternoon portion of the PE exam. Each book, authored by an expert in the field, will feature example problems along with power study techniques for peak performance.

Dynamics of Structure and Foundation - A Unified Approach

Genesis and Spatial Distribution of Variability in the Lithostratigraphic, Geotechnical, Hydrogeological, and Geochemical Properties of the Oak Creek Formation in Southeastern Wisconsin

Foundation Analysis and Design

Determination of Pile Driveability and Capacity from Penetration Tests


Engineering Principles of Ground Modification

Available Textbooks, Handbooks, Various Publications And Papers Give Widely Different Approaches For Design Of Raft Foundations. These Approaches Make Their Own Assumptions And Deal With Ideal Raft, Symmetrical In Shape And Loading. In Actual Practice Rafts Are Rarely So. A Structural Designer Engaged In The Design Of Raft Foundations Finds It Hard To Select The Method That Can Be Carried Out Within The Time And Cost Available For Design And Give Adequate Safety And Economy. This Book Covers Complete Design Of Raft Foundations Including Piled Rafts, Starting From Their Need, Type, All The Approaches Suggested So Far In Published Literature, Effect Of Assumptions Made And Values Of Variables Selected, On The Design Values Of Stresses, And Brings Out The Limitations Of These Approaches Using Actually Constructed Rafts. Results Of Studies Carried Out By The Author Are Summarised And Final Recommendations Given. Solved Examples Are Included For Each Of The Methods Recommended. Comprehensive Treatment Of The Subject Makes The Book Helpful To The Design Engineers, Engineering Teachers, Students And Even Those Who Are Engaged In Further Research.

WRC Bulletin
The revision of this best-selling text for a junior/senior course in Foundation Analysis and Design now includes an IBM computer disk containing 16 compiled programs together with the data sets used to produce the output sheets, as well as new material on sloping ground, pile and pile group analysis, and procedures for an improved analysis of lateral piles. Bearing capacity analysis has been substantially revised for footings with horizontal as well as vertical loads. Footing design for overturning now incorporates the use of the same uniform linear pressure concept used in ascertaining the bearing capacity. Increased emphasis is placed on geotextiles for retaining walls and soil nailing.

Proceedings of the Annual Symposium on Engineering Geology & Geotechnical Engineering

EPMESC VII

The Quarterly Journal of Engineering Geology


Poplar Island Restoration Project, Beneficial Use of Dredged Material, Chesapeake Bay, Talbot County

Geotechnical Engineering Congress 1991

Proceedings

The most complete and current guide to temporary structures in design and construction With significant revisions, updates, and new chapters, Temporary Structures in Construction, Third Edition presents authoritative information on professional practice, codes, standards, design, erection, maintenance, and failures of temporary support and access structures used in construction. New developments and advancing technologies are discussed throughout the book, and new chapters on construction and environmental loads, cranes, and lessons learned from temporary structure failures have been added. Improve the quality, safety, speed, and financial success of construction projects with help from this practical resource. Inside, 26 expert contributors cover: Professional and business practices Standards, codes, and regulations Construction and environmental loads Construction site safety Legal aspects Cofferdams Earth-retaining structures Diaphragm/slurry walls Construction dewatering Underground/tunneling supports Underpinning Roadway decking Construction ramps, runways, and platforms Scaffolding Shoring/falsework Concrete formwork Bracing and guying for stability Bridge falsework Temporary structures in repair and restoration Cranes Protection of site, adjacent areas, and utilities Failure of temporary structures in construction

ACI Manual of Concrete Practice

Bioengineering

Unsaturated Soils

This volume will be an invaluable asset to all archaeologists involved in fieldwork and site management. In the modern environment of developer-funded archaeology, commercial development and site preservation, there are more and more cases where archaeological sites are being impacted upon by various forms of construction. In order to understand and protect the historic environment wherever possible, archaeologists are faced with the crucial task of making decisions on how best to combine the needs of development whilst maintaining our archaeological heritage. Yet the majority of archaeologists have only limited knowledge of the great range of construction practices and how these can impact upon archaeological deposits and structures. This book has been researched and produced with these problems in mind, to inform and assist archaeologists in making decisions where sites may be threatened by development. Extensive information on the range of construction techniques as well as a range of suggested strategies to mitigate the impact of the techniques outlined. The information on construction types and impacts is supported by an annotated literature review, case studies, a series of technical appendices of engineering processes and a data base of mitigation/preservation in situ case studies collected from the British archaeological community.
State-of-the-art of Designing and Constructing Berm Breakwaters

Large Scale Bridge Abutment Tests to Determine Stiffness and Ultimate Strength Under Seismic Loading

Foundation Engineering is of prime importance to undergraduate and postgraduate students of civil engineering as well as to practising engineers. For, there is no construction - be it buildings (government, commercial and residential), bridges, highways, or dams - that does not draw from the principles and application of this subject. Unlike many textbooks on Geotechnical Engineering that deal with both Soil Mechanics and Foundation Engineering, this text gives an exclusive treatment and an indepth analysis of Foundation Engineering. What distinguishes the text is that it not merely equips the students with the necessary knowledge for the course and examination, but provides a solid foundation for further practice in their profession later. In addition, as the book is based on the Codes prescribed by the Bureau of Indian Standards, students of Indian universities will find it particularly useful. The author is specialized in both Soil Mechanics and Structural Engineering; he studied Soil Mechanics under the guidance of Prof. Terzaghi and Prof. Casagrande of Harvard University - the pioneers of the subject. Similarly, he studied Structural Engineering under Prof. A.L.L. Baker of Imperial College, London, the pioneer of Limit State Design. These specializations coupled with over 50 years of teaching experience of the author make this text authoritative and exhaustive. Intended as a text for undergraduate (Civil Engineering) and postgraduate (Geotechnical Engineering and Structural Engineering) students, the book would also be found highly useful to practising engineers and young academics teaching the course.

Books in Print Supplement

Proceedings

Designed to provide engineers with quick access to current and practical information on the dynamics of structure and foundation, this 2-volume reference work is intended for engineers involved with earthquake or dynamic analysis, or the design of machine foundations in the oil, gas, and energy sector. Whereas the first volume deals with the fundamentals, this volume is dedicated to applications in various civil engineering problems, related to dynamic soil-structure interaction, machine foundation and earthquake engineering. It presents innovative, easy-to-apply and practical solutions to various problems and difficulties a design engineer will encounter. It allows quick access to targeted information; it includes a wealth of case studies and also examines geotechnical considerations with regard to dynamic soil-structure interaction. This book is concentrated on three major application areas: dynamic soil-structure interaction (DSSI), the analysis and design of machine foundations, and on the analytical and design concepts for earthquake engineering. Vol. 1 (ISBN 9780415471459) focusses on the theory and fundamentals book.

Analytical and Computer Methods in Foundation Engineering

Geotechnical Engineering Handbook

This project was aimed at evaluating and developing design methods for laterally loaded drilled shafts socketed in rock. Five lateral load tests on rock socketed drilled shafts with full range of instrumentation were conducted in Ohio. Detailed instrumentation included the use of vibrating wire strain gages, inclinometers, dial gages, and load cells. P-y curves representing site-specific lateral shaft-rock interaction were deduced from strain data. Field testing included the use of a borehole pressuremeter/dilatometer to obtain measurements that were correlated with rock mass strength and deformation parameters as well as with p-y curves. A comparison was made between the baseline p-y curves deduced from strain data of lateral load tests, the p-y curves predicted by using Reese's interim criterion, and the p-y curves from the pressuremeter tests in rock. A new hyperbolic p-y criterion for rock is proposed based on the field test data and extensive theoretical work. Validation of the proposed p-y criterion of rock was carried out by comparing the predictions of shaft deflections and bending moments using the hyperbolic p-y criterion against actual lateral load tests results. Based on the findings of this study, a complete solution for the design of drilled shafts socketed in rock or intermediate geomaterials under lateral loads is provided.

Ground Movement During Construction Induced by Shield Tunnelling

Evaluation of the Soil Stiffness Gauge

FOUNDATION ENGINEERING
Predicted and Measured Behavior of Five Spread Footings on Sand

For courses in Soil Mechanics and Foundations. Essentials of Soil Mechanics and Foundations: Basic Geotechnics, Seventh Edition, provides a clear, detailed presentation of soil mechanics: the background and basics, the engineering properties and behavior of soil deposits, and the application of soil mechanics theories. Appropriate for soil mechanics courses in engineering, architectural and construction-related programs, this new edition features a separate chapter on earthquakes, a more logical organization, and new material relating to pile foundations design and construction and soil permeability. It's rich applications, well-illustrated examples, end-of-chapter problems and detailed explanations make it an excellent reference for students, practicing engineers, architects, geologists, environmental specialists and more.

Mitigation of Construction Impact on Archaeological Remains

GSP 39 contains 17 papers on unsaturated soils presented at sessions of the ASCE National Convention, held in Dallas, Texas, October 24-28, 1993.

Design of Rock Socketed Drilled Shafts


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