

Fundamentals Of Geotechnical Engineering 4

GETTING THE BOOKS **FUNDAMENTALS OF GEOTECHNICAL ENGINEERING 4** NOW IS NOT TYPE OF INSPIRING MEANS. YOU COULD NOT ON YOUR OWN GOING PAST BOOK AMASSING OR LIBRARY OR BORROWING FROM YOUR ASSOCIATES TO RETRIEVE THEM. THIS IS AN AGREED EASY MEANS TO SPECIFICALLY GET GUIDE BY ON-LINE. THIS ONLINE DECLARATION **FUNDAMENTALS OF GEOTECHNICAL ENGINEERING 4** CAN BE ONE OF THE OPTIONS TO ACCOMPANY YOU AS SOON AS HAVING SUPPLEMENTARY TIME.

IT WILL NOT WASTE YOUR TIME. ACKNOWLEDGE ME, THE E-BOOK WILL UNCONDITIONALLY LOOK YOU ADDITIONAL CONCERN TO READ. JUST INVEST LITTLE MATURE TO EDIT THIS ON-LINE PUBLICATION **FUNDAMENTALS OF GEOTECHNICAL ENGINEERING 4** AS COMPETENTLY AS EVALUATION THEM WHEREVER YOU ARE NOW.

GEOTECHNICAL ENGINEERING - DONALD P. CODUTO 2011

GEOTECHNICAL ENGINEERING: PRINCIPLES AND PRACTICES, 2/E, IS IDEAL OR JUNIOR-LEVEL SOIL MECHANICS OR INTRODUCTORY GEOTECHNICAL ENGINEERING COURSES. THIS INTRODUCTORY GEOTECHNICAL ENGINEERING TEXTBOOK EXPLORES BOTH THE PRINCIPLES OF SOIL MECHANICS AND THEIR APPLICATION TO ENGINEERING PRACTICE. IT OFFERS A RIGOROUS, YET ACCESSIBLE AND EASY-TO-READ APPROACH, AS WELL AS TECHNICAL DEPTH AND AN EMPHASIS ON UNDERSTANDING THE PHYSICAL BASIS FOR SOIL BEHAVIOR. THE SECOND EDITION HAS BEEN REVISED TO INCLUDE UPDATED CONTENT AND MANY NEW PROBLEMS AND EXERCISES, AS WELL AS TO REFLECT FEEDBACK FROM REVIEWERS AND THE AUTHORS' OWN EXPERIENCES. **INTRODUCTION TO GEOTECHNICAL ENGINEERING** - BRAJA M. DAS 2015-01-01 WRITTEN IN A CONCISE, EASY-TO UNDERSTAND MANNER, **INTRODUCTION TO GEOTECHNICAL ENGINEERING, 2E**, PRESENTS INTENSIVE RESEARCH AND OBSERVATION IN THE FIELD AND LAB THAT HAVE IMPROVED THE SCIENCE OF FOUNDATION DESIGN. NOW PROVIDING BOTH U.S. AND SI UNITS, THIS NON-CALCULUS-BASED TEXT IS DESIGNED FOR COURSES IN CIVIL ENGINEERING TECHNOLOGY PROGRAMS WHERE SOIL MECHANICS AND FOUNDATION ENGINEERING ARE COMBINED INTO ONE COURSE. IT IS ALSO A USEFUL REFERENCE TOOL FOR CIVIL ENGINEERING PRACTITIONERS. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

SOIL MECHANICS AND FOUNDATIONS - B. C. PUNMIA 2005

RHEOLOGICAL FUNDAMENTALS OF SOIL MECHANICS - S.S. VYALOV 2013-10-22

SOIL RHEOLOGY IS A BRANCH OF SOIL MECHANICS INVESTIGATING THE ORIGIN OF, AND THE TIME-DEPENDENT CHANGES IN THE STRESSED AND STRAINED STATE OF SOIL. THE AUTHOR OF THIS BOOK HOWEVER INTERPRETS RHEOLOGY AS BEING THE SCIENCE CONCERNED ON THE ONE HAND WITH HOW THE STATE OF STRESS AND STRAIN IS FORMED AND ALTERED IN A BODY, AND ON THE OTHER, WITH THE PARTICULARS OF THE BODY'S BEHAVIOUR FAILING TO FIT THE TRADITIONAL CONCEPTS OF ELASTICITY AND PLASTICITY. THERE ARE MANY INSTANCES WHERE THE ACTUAL BEHAVIOUR OF SOIL DIFFERS SUBSTANTIALLY FROM SCHEMATIZED CONCEPTS AND BY TAKING INTO ACCOUNT ALL THE PECULIARITIES OF SOIL DEFORMATION, PRECISE KNOWLEDGE OF SOIL PROPERTIES CAN BE OBTAINED AND ANALYTICAL PREDICTION THUS IMPROVED. SUCH PROBLEMS ARE TACKLED IN THIS BOOK. THIS BOOK COMPRISES THREE MAIN PARTS. THE FIRST PART DEALS WITH BASIC RHEOLOGICAL CONCEPTS AND TERMS, THE PHYSICS OF SOIL, PRINCIPLES OF STRESS-STRAIN THEORY, ELASTICITY, PLASTICITY AND VISCOSITY - ALL CARDINAL RHEOLOGICAL PROPERTIES. THE SECOND PART EXPLAINS THE RHEOLOGICAL PROCESSES TAKING PLACE IN SOILS, SUCH AS CREEP AND LONG-TERM STRENGTH, WHICH ARE EXAMINED BY THE AUTHOR WITH ALLOWANCE FOR NONLINEAR DEFORMATION. ALONG WITH THE KNOWN PHENOMENOLOGICAL THEORIES, ATTENTION IS PAID TO THE NOVEL KINETIC (PHYSICAL) THEORY OF DEFORMATIONS AND LONG-TERM STRENGTH. THE THIRD PART OUTLINES THE GENERALIZED THEORY OF SOIL DEFORMATION. IT EXPLAINS WHY SOIL OFFERS DIFFERENT RESISTANCES TO TENSIONAL AND COMPRESSIONAL DEFORMATIONS AND DERIVES THE GENERALIZED RHEOLOGICAL EQUATION OF STATE, ENABLING THE EFFECT OF THE THREE STRESS TENSOR INVARIANTS ON THE CHANGES IN SHAPE AND VOLUME TO BE TAKEN INTO ACCOUNT. FROM THE STANDPOINT OF THE THEORY DISCUSSED, THE PENULTIMATE CHAPTER GIVES EXAMPLES OF SOLUTIONS TO SOME PROBLEMS FACING SOIL MECHANICS. THE FINAL CHAPTER REVIEWS MATHEMATICAL MODELS REPRESENTING THE ACTUAL BEHAVIOUR OF SOIL UNDER LOAD AND PROVIDES NUMERICAL SOLUTIONS FOR ENGINEERING PROBLEMS OBTAINED WITH THE AID OF COMPUTER MODELS. THUS THE BOOK PROVIDES A WEALTH OF INFORMATION WHICH WILL BE OF INTEREST BOTH TO THE PRACTISING GEOTECHNICAL ENGINEER AS WELL AS TO TEACHERS AND STUDENTS.

FUNDAMENTALS OF SOIL MECHANICS FOR SEDIMENTARY AND RESIDUAL SOILS - LAURENCE D. WESLEY 2009-08-24

INTRODUCING THE FIRST INTEGRATED COVERAGE OF SEDIMENTARY AND RESIDUAL SOIL ENGINEERING DESPITE ITS PREVALENCE IN UNDER-DEVELOPED PARTS OF THE UNITED STATES AND MOST TROPICAL AND SUB-TROPICAL COUNTRIES, RESIDUAL SOIL IS OFTEN CHARACTERIZED AS A MERE EXTENSION OF CONVENTIONAL SOIL MECHANICS IN MANY TEXTBOOKS. NOW, WITH THE RAPID GROWTH OF CONSTRUCTION IN THESE REGIONS, IT IS ESSENTIAL TO GAIN A FULLER UNDERSTANDING OF RESIDUAL SOILS AND THEIR PROPERTIES—ONE THAT'S BASED ON AN INTEGRATED APPROACH TO THE STUDY OF RESIDUAL AND SEDIMENTARY SOILS. ONE TEXT PUTS THIS UNDERSTANDING WELL WITHIN REACH: **FUNDAMENTALS OF SOIL MECHANICS FOR SEDIMENTARY AND RESIDUAL SOILS**. THE FIRST RESOURCE TO PROVIDE EQUAL TREATMENT OF BOTH RESIDUAL AND SEDIMENTARY SOILS AND THEIR UNIQUE ENGINEERING PROPERTIES, THIS SKILL-BUILDING GUIDE OFFERS: A CONCISE INTRODUCTION TO BASIC SOIL MECHANICS, STRESS-STRAIN BEHAVIOR, TESTING, AND DESIGN IN-DEPTH COVERAGE THAT SPANS THE FULL SCOPE OF SOIL ENGINEERING, FROM BEARING CAPACITY AND FOUNDATION DESIGN TO THE STABILITY OF SLOPES A FOCUS ON CONCEPTS AND PRINCIPLES RATHER THAN METHODS, HELPING YOU AVOID IDEALIZED VERSIONS OF SOIL BEHAVIOR AND MAINTAIN A DESIGN APPROACH THAT IS CONSISTENT WITH REAL SOILS OF THE NATURAL WORLD AN ABUNDANCE OF WORKED PROBLEMS THROUGHOUT, DEMONSTRATING IN SOME CASES THAT CONVENTIONAL DESIGN TECHNIQUES APPLICABLE TO SEDIMENTARY SOILS ARE NOT VALID FOR RESIDUAL SOILS NUMEROUS END-OF-CHAPTER EXERCISES SUPPORTED BY AN ONLINE SOLUTIONS MANUAL FULL CHAPTER-ENDING REFERENCES TAKEN TOGETHER, **FUNDAMENTALS OF SOIL MECHANICS FOR SEDIMENTARY AND RESIDUAL SOILS** IS A COMPREHENSIVE, BALANCED SOIL ENGINEERING SOURCEBOOK THAT WILL PROVE INDISPENSABLE FOR PRACTITIONERS AND STUDENTS IN CIVIL ENGINEERING, GEOTECHNICAL ENGINEERING,

STRUCTURAL ENGINEERING, AND GEOLOGY.

GEOTECHNICAL ENGINEERING HANDBOOK - BRAJA M. DAS 2011

THE **GEOTECHNICAL ENGINEERING HANDBOOK** BRINGS TOGETHER ESSENTIAL INFORMATION RELATED TO THE EVALUATION OF ENGINEERING PROPERTIES OF SOILS, DESIGN OF FOUNDATIONS SUCH AS SPREAD FOOTINGS, MAT FOUNDATIONS, PILES, AND DRILLED SHAFTS, AND FUNDAMENTAL PRINCIPLES OF ANALYZING THE STABILITY OF SLOPES AND EMBANKMENTS, RETAINING WALLS, AND OTHER EARTH-RETAINING STRUCTURES. THE HANDBOOK ALSO COVERS SOIL DYNAMICS AND FOUNDATION VIBRATION TO ANALYZE THE BEHAVIOR OF FOUNDATIONS SUBJECTED TO CYCLIC VERTICAL, SLIDING AND ROCKING EXCITATIONS AND TOPICS ADDRESSED IN SOME DETAIL INCLUDE: ENVIRONMENTAL GEOTECHNOLOGY AND FOUNDATIONS FOR RAILROAD BEDS.

FUNDAMENTALS OF GEOTECHNICAL ANALYSIS - IRVING S. DUNN 1980-09

EXAMINES THE MANY IMPORTANT ADVANCES IN GEOTECHNICAL ENGINEERING. SEPARATES THE BASIC IDEAS THAT ARE NEEDED FOR A GOOD UNDERSTANDING OF GEOTECHNICAL ANALYSIS AND TREATS THESE SUBJECTS IN A WAY DESIGNED FOR OPTIMUM UNDERSTANDING BY STUDENTS.

FUNDAMENTALS OF SUSTAINABILITY IN CIVIL ENGINEERING - ANDREW BRAHAM 2017-09-19

THIS BOOK WILL PROVIDE A FOUNDATION TO UNDERSTAND THE DEVELOPMENT OF SUSTAINABILITY IN CIVIL ENGINEERING, AND TOOLS TO ADDRESS THE THREE PILLARS OF SUSTAINABILITY: ECONOMICS, ENVIRONMENT, AND SOCIETY. IT WILL ALSO INCLUDE CASE STUDIES IN THE FOUR MAJOR AREAS OF CIVIL ENGINEERING: ENVIRONMENTAL, STRUCTURAL, GEOTECHNICAL, AND TRANSPORTATION, AND UTILIZE THE CONCEPTS FOUND ON THE **FUNDAMENTALS OF ENGINEERING (FE)** EXAM. IT IS INTENDED FOR UPPER-LEVEL CIVIL ENGINEERING SUSTAINABILITY COURSES. IN ADDITION, PRACTICAL REPORT WRITING AND PRESENTATION GIVING WILL BE PROPOSED AS EVALUATION METRICS VERSUS STANDARD NUMERICAL QUESTIONS AND EXAM-BASED EVALUATIONS FOUND IN MOST CIVIL ENGINEERING COURSES.

PRINCIPLES OF FOUNDATION ENGINEERING - BRAJA M. DAS 1999

BUILDING ON THE SUCCESS OF PRECEDING EDITIONS, THE FOURTH EDITION OF **PRINCIPLES OF FOUNDATION ENGINEERING** MAINTAINS THE CAREFUL BALANCE OF CURRENT RESEARCH AND PRACTICAL FIELD APPLICATIONS THAT HAS MADE IT A LEADING TEXT IN FOUNDATION ENGINEERING COURSES THROUGHOUT THE COUNTRY AND INTERNATIONALLY. STRENGTHENED WITH MANY MORE WORKED-OUT EXAMPLES AND FIGURES TO AID STUDENT COMPREHENSION OF THEORY AND PRACTICAL PROBLEM-SOLVING SKILLS, THE FOURTH EDITION FEATURES EXPANDED COVERAGE OF ULTIMATE AND ALLOWABLE BEARING CAPACITY (IN CHAPTERS 3 AND 4), AND NEW CHAPTERS 6 AND 7 ON LATERAL PRESSURE THEORY AND RETAINING WALL DESIGN. NEW FIELD OBSERVATIONS HAVE BEEN ADDED TO EACH CHAPTER. BOTH SI AND ENGLISH UNITS ARE USED THROUGHOUT.

SOIL MECHANICS AND FOUNDATION ENGINEERING: FUNDAMENTALS AND APPLICATIONS - NAGARATNAM SIVAKUGAN 2021-07-28

LEARN THE BASICS OF SOIL MECHANICS AND FOUNDATION ENGINEERING THIS HANDS-ON GUIDE SHOWS, STEP BY STEP, HOW SOIL MECHANICS PRINCIPLES CAN BE APPLIED TO SOLVE GEOTECHNICAL AND FOUNDATION ENGINEERING PROBLEMS. PRESENTED IN A STRAIGHTFORWARD, ENGAGING STYLE BY AN EXPERIENCED PE, **SOIL MECHANICS AND FOUNDATION ENGINEERING: FUNDAMENTALS AND APPLICATIONS** STARTS WITH THE BASICS, ASSUMING NO PRIOR KNOWLEDGE, AND GRADUALLY PROCEEDS TO MORE ADVANCED TOPICS. YOU WILL GET RICH ILLUSTRATIONS, WORKED-OUT EXAMPLES, AND REAL-WORLD CASE STUDIES THAT HELP YOU ABSORB THE CRITICAL POINTS IN A SHORT TIME. COVERAGE INCLUDES: PHASE RELATIONS SOIL CLASSIFICATION COMPACTION EFFECTIVE STRESSES PERMEABILITY AND SEEPAGE VERTICAL STRESSES UNDER LOADED AREAS CONSOLIDATION SHEAR STRENGTH LATERAL EARTH PRESSURES SITE INVESTIGATION SHALLOW AND DEEP FOUNDATIONS EARTH RETAINING STRUCTURES SLOPE STABILITY RELIABILITY-BASED DESIGN **SOIL MECHANICS** - A. AYSEN 2002-01-01

A LOGICAL, INTEGRATED AND COMPREHENSIVE COVERAGE OF BOTH INTRODUCTORY AND ADVANCED TOPICS IN SOIL MECHANICS IN AN EASY-TO-UNDERSTAND STYLE. EMPHASIS IS PLACED ON PRESENTING FUNDAMENTAL BEHAVIOUR BEFORE MORE ADVANCED TOPICS ARE INTRODUCED. THE USE OF S.I. UNITS THROUGHOUT, AND FREQUENT REFERENCES TO CURRENT INTERNATIONAL CODES OF PRACTICE AND REFEREED RESEARCH PAPERS, MAKE THE CONTENTS UNIVERSALLY APPLICABLE. WRITTEN WITH THE UNIVERSITY STUDENT IN MIND AND PACKED FULL OF PEDAGOGICAL FEATURES, THIS BOOK PROVIDES AN INTEGRATED AND COMPREHENSIVE COVERAGE OF BOTH INTRODUCTORY AND ADVANCED TOPICS IN SOIL MECHANICS. IT INCLUDES: WORKED EXAMPLES TO ELUCIDATE THE TECHNICAL CONTENT AND FACILITATE SELF-LEARNING A CONVENIENT STRUCTURE (THE BOOK IS DIVIDED INTO SECTIONS), ENABLING IT TO BE USED THROUGHOUT SECOND, THIRD AND FOURTH YEAR UNDERGRADUATE COURSES UNIVERSALLY APPLICABLE CONTENTS THROUGH THE USE OF SI UNITS THROUGHOUT, FREQUENT REFERENCES TO CURRENT INTERNATIONAL CODES OF PRACTICE AND REFEREED RESEARCH PAPERS NEW AND ADVANCED TOPICS THAT EXTEND BEYOND THOSE IN STANDARD UNDERGRADUATE COURSES. THE PERFECT TEXTBOOK FOR A RANGE OF COURSES ON SOILS MECHANICS AND ALSO A VERY VALUABLE RESOURCE FOR PRACTISING PROFESSIONAL ENGINEERS.

PRINCIPLES OF APPLIED CIVIL ENGINEERING DESIGN - YING-KIT CHOI 2017

YING-KIT CHOI DETAILS THE GUIDELINES, PRINCIPLES, AND PHILOSOPHY NEEDED TO PRODUCE DESIGN DOCUMENTS FOR HEAVY CIVIL ENGINEERING PROJECTS.

GEOTECHNICS OF ROADS: ADVANCED ANALYSIS AND MODELING - BERNARDO CAICEDO 2021-04-16

AT FIRST GLANCE, ROADS SEEM LIKE THE SIMPLEST POSSIBLE GEOTECHNICAL STRUCTURES. HOWEVER, ANALYSIS OF THESE STRUCTURES RUNS UP AGAINST COMPLEXITIES RELATED TO THE INTENSE STRESSES EXPERIENCED BY ROAD SURFACES, THEIR INTENSE INTERACTION WITH CLIMATE, AND THE COMPLICATED BEHAVIOR OF THE MATERIALS USED IN ROAD CONSTRUCTION. MODERN MECHANISTIC APPROACHES TO ROAD DESIGN PROVIDE THE TOOLS CAPABLE OF DEVELOPING NEW TECHNICAL SOLUTIONS. HOWEVER, USE OF THESE APPROACHES REQUIRES DEEP UNDERSTANDING OF THE BEHAVIOR OF CONSTITUENT MATERIALS AND THEIR INTERACTION WITH WATER AND HEAT WHICH HAS RECENTLY BEEN ACQUIRED THANKS TO ADVANCES IN GEOTECHNICAL ENGINEERING. THE AUTHOR COMPREHENSIVELY DESCRIBES AND EXPLAINS THESE ADVANCES AND THEIR USE IN ROAD ENGINEERING IN THE TWO-VOLUME SET *GEOTECHNICS OF ROADS*, COMPILING INFORMATION THAT HAD HITHERTO ONLY BEEN AVAILABLE IN NUMEROUS RESEARCH PAPERS. *GEOTECHNICS OF ROADS: ADVANCED ANALYSIS AND MODELING* DEVELOPS 23 EXTENDED EXAMPLES THAT COVER MOST OF THE THEORETICAL ASPECTS PRESENTED IN THE BOOK *GEOTECHNICS OF ROADS: FUNDAMENTALS*. MOREOVER, FOR MOST EXAMPLES, VOLUME 2 DESCRIBES ALGORITHMS FOR SOLVING COMPLEX PROBLEMS AND PROVIDES MATLAB® SCRIPTS FOR THEIR SOLUTION. CONSEQUENTLY, VOLUME 2 IS A NATURAL COMPLEMENT OF THE BOOK *GEOTECHNICS OF ROADS: FUNDAMENTALS*. THIS UNIQUE BOOK WILL BE OF VALUE TO CIVIL, STRUCTURAL AND GEOTECHNICAL ENGINEERS WORLDWIDE.

PRINCIPLES OF GEOTECHNICAL ENGINEERING - BRAJA M. DAS 2013-07-16

INTENDED AS AN INTRODUCTORY TEXT IN SOIL MECHANICS, THE EIGHTH EDITION OF DAS, *PRINCIPLES OF GEOTECHNICAL ENGINEERING* OFFERS AN OVERVIEW OF SOIL PROPERTIES AND MECHANICS TOGETHER WITH COVERAGE OF FIELD PRACTICES AND BASIC ENGINEERING PROCEDURE. BACKGROUND INFORMATION NEEDED TO SUPPORT STUDY IN LATER DESIGN-ORIENTED COURSES OR IN PROFESSIONAL PRACTICE IS PROVIDED THROUGH A WEALTH OF COMPREHENSIVE DISCUSSIONS, DETAILED EXPLANATIONS, AND MORE FIGURES AND WORKED OUT PROBLEMS THAN ANY OTHER TEXT IN THE MARKET. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

PRINCIPLES OF FOUNDATION ENGINEERING - BRAJA M. DAS 2018-10-03

MASTER THE CORE CONCEPTS AND APPLICATIONS OF FOUNDATION ANALYSIS AND DESIGN WITH DAS/SIVAKUGAN'S BEST-SELLING *PRINCIPLES OF FOUNDATION ENGINEERING*, 9TH EDITION. WRITTEN SPECIFICALLY FOR THOSE STUDYING UNDERGRADUATE CIVIL ENGINEERING, THIS INVALUABLE RESOURCE BY RENOWNED AUTHORS IN THE FIELD OF GEOTECHNICAL ENGINEERING PROVIDES AN IDEAL BALANCE OF TODAY'S MOST CURRENT RESEARCH AND PRACTICAL FIELD APPLICATIONS. A WEALTH OF WORKED-OUT EXAMPLES AND FIGURES CLEARLY ILLUSTRATE THE WORK OF TODAY'S CIVIL ENGINEER, WHILE TIMELY INFORMATION AND INSIGHTS HELP READERS DEVELOP THE CRITICAL SKILLS NEEDED TO PROPERLY APPLY THEORIES AND ANALYSIS WHILE EVALUATING SOILS AND FOUNDATION DESIGN. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

GEOTECHNICAL ENGINEERING CALCULATIONS AND RULES OF THUMB - RUWAN ABAY RAJAPAKSE 2011-04-08

GEOTECHNICAL ENGINEERING CALCULATIONS MANUAL OFFERS GEOTECHNICAL, CIVIL AND STRUCTURAL ENGINEERS A CONCISE, EASY-TO-UNDERSTAND APPROACH THE FORMULAS AND CALCULATION METHODS USED IN OF SOIL AND GEOTECHNICAL ENGINEERING. A ONE STOP GUIDE TO THE FOUNDATION DESIGN, PILE FOUNDATION DESIGN, EARTH RETAINING STRUCTURES, SOIL STABILIZATION TECHNIQUES AND COMPUTER SOFTWARE, THIS BOOK PLACES CALCULATIONS FOR ALMOST ALL ASPECTS OF GEOTECHNICAL ENGINEERING AT YOUR FINGER TIPS. IN THIS BOOK, THEORIES IS EXPLAINED IN A NUTSHELL AND THEN THE CALCULATION IS PRESENTED AND SOLVED IN AN ILLUSTRATED, STEP-BY-STEP FASHION. ALL CALCULATIONS ARE PROVIDED IN BOTH FPS AND SI UNITS. THE MANUAL INCLUDES TOPICS SUCH AS SHALLOW FOUNDATIONS, DEEP FOUNDATIONS, EARTH RETAINING STRUCTURES, ROCK MECHANICS AND TUNNELLING. IN THIS BOOK, THE AUTHOR'S DONE ALL THE HEAVY NUMBER-CRUNCHING FOR YOU, SO YOU GET INSTANT, READY-TO-APPLY DATA ON ACTIVITIES SUCH AS: HARD GROUND TUNNELLING, SOFT GROUND TUNNELLING, REINFORCED EARTH RETAINING WALLS, GEOTECHNICAL ASPECTS OF WETLAND MITIGATION AND GEOTECHNICAL ASPECTS OF LANDFILL DESIGN. • EASY-TO-UNDERSTAND APPROACH THE FORMULAS AND CALCULATIONS • COVERS CALCULATIONS FOR FOUNDATION, EARTHWORKS AND/OR PAVEMENT SUBGRADES • PROVIDES COMMON CODES FOR WORKING WITH COMPUTER SOFTWARE • ALL CALCULATIONS ARE PROVIDED IN BOTH US AND SI UNITS

ADVANCED SOIL MECHANICS, SECOND EDITION - BRAJA M. DAS 1997-07-01

THIS REVISED EDITION IS RESTRUCTURED WITH ADDITIONAL TEXT AND EXTENSIVE ILLUSTRATIONS, ALONG WITH DEVELOPMENTS IN GEOTECHNICAL LITERATURE. AMONG THE TOPICS INCLUDED ARE: SOIL AGGREGATES, STRESSES IN SOIL MASS, PORE WATER PRESSURE DUE TO UNDRAINED LOADING, PERMEABILITY AND SEEPAGE, CONSOLIDATION, SHEAR STRENGTH OF SOILS, AND EVALUATION OF SOIL SETTLEMENT. THE TEXT PRESENTS MATHEMATICAL DERIVATIONS AS WELL AS NUMEROUS WORKED-OUT EXAMPLES.

FUNDAMENTALS OF GROUND ENGINEERING - JOHN ATKINSON 2014-05-13

FUNDAMENTALS OF GROUND ENGINEERING IS AN UNCONVENTIONAL STUDY GUIDE THAT SERVES UP THE KEY PRINCIPLES, THEORIES, DEFINITIONS, AND ANALYSES OF GEOTECHNICAL ENGINEERING IN BITE-SIZED PIECES. THIS BOOK CONTAINS BRIEF-ONE OR TWO PAGES PER TOPIC-SNIPPETS OF INFORMATION COVERING THE GEOTECHNICAL ENGINEERING COMPONENT OF A TYPICAL UNDERGRADUATE COURSE IN

FUNDAMENTALS OF GEOTECHNICAL ENGINEERING - BRAJA M. DAS 2016-01-01

FUNDAMENTALS OF GEOTECHNICAL ENGINEERING, 5E OFFERS A POWERFUL COMBINATION OF ESSENTIAL COMPONENTS FROM BRAJA DAS' MARKET-LEADING BOOKS: *PRINCIPLES OF GEOTECHNICAL ENGINEERING* AND *PRINCIPLES OF FOUNDATION ENGINEERING* IN ONE COHESIVE BOOK. THIS UNIQUE, CONCISE GEOTECHNICAL ENGINEERING BOOK FOCUSES ON THE FUNDAMENTAL CONCEPTS OF BOTH SOIL MECHANICS AND FOUNDATION ENGINEERING WITHOUT THE DISTRACTION OF EXCESSIVE DETAILS OR CUMBERSOME ALTERNATIVES. A WEALTH OF WORKED-OUT, STEP-BY-STEP EXAMPLES AND VALUABLE FIGURES HELP READERS MASTER KEY CONCEPTS AND STRENGTHEN ESSENTIAL PROBLEM SOLVING SKILLS. PRESTIGIOUS AUTHORS DAS AND SIVAKUGAN MAINTAIN THE CAREFUL BALANCE OF TODAY'S MOST CURRENT RESEARCH AND PRACTICAL FIELD APPLICATIONS IN A PROVEN APPROACH THAT HAS MADE DAS' BOOKS LEADERS IN THE FIELD. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

GEOTECHNICAL ENGINEERING - NAGARATNAM SIVAKUGAN 2010

GEOTECHNICAL ENGINEERING: A PRACTICAL PROBLEM SOLVING APPROACH COVERS ALL OF THE MAJOR GEOTECHNICAL TOPICS IN THE SIMPLEST POSSIBLE WAY ADOPTING A HANDS-ON APPROACH WITH A VERY STRONG PRACTICAL BIAS. YOU WILL LEARN THE MATERIAL THROUGH WORKED EXAMPLES THAT ARE REPRESENTATIVE OF REALISTIC FIELD SITUATIONS WHEREBY GEOTECHNICAL ENGINEERING PRINCIPLES ARE APPLIED TO SOLVE REAL-LIFE PROBLEMS.

FUNDAMENTALS OF GROUND IMPROVEMENT ENGINEERING - JEFFREY EVANS 2021-09-17

GROUND IMPROVEMENT HAS BEEN ONE OF THE MOST DYNAMIC AND RAPIDLY EVOLVING AREAS OF GEOTECHNICAL ENGINEERING AND CONSTRUCTION OVER THE PAST 40 YEARS. THE NEED TO DEVELOP SITES WITH MARGINAL SOILS HAS MADE GROUND IMPROVEMENT AN INCREASINGLY IMPORTANT CORE COMPONENT OF GEOTECHNICAL ENGINEERING CURRICULA. *FUNDAMENTALS OF GROUND IMPROVEMENT ENGINEERING* ADDRESSES THE MOST EFFECTIVE AND LATEST CUTTING-EDGE TECHNIQUES FOR GROUND IMPROVEMENT. KEY GROUND IMPROVEMENT METHODS ARE INTRODUCED THAT PROVIDE READERS WITH A THOROUGH UNDERSTANDING OF THE THEORY, DESIGN PRINCIPLES, AND CONSTRUCTION APPROACHES THAT UNDERPIN EACH METHOD. MAJOR TOPICS ARE COMPACTION, PERMEATION GROUTING, VIBRATORY METHODS, SOIL MIXING, STABILIZATION AND SOLIDIFICATION, CUTOFF WALLS, DEWATERING, CONSOLIDATION, GEOSYNTHETICS, JET GROUTING, GROUND FREEZING, COMPACTION GROUTING, AND EARTH RETENTION. THE BOOK IS IDEAL FOR UNDERGRADUATE AND GRADUATE-LEVEL UNIVERSITY STUDENTS, AS WELL AS PRACTITIONERS SEEKING FUNDAMENTAL BACKGROUND IN THESE TECHNIQUES. THE NUMEROUS PROBLEMS, WITH WORKED EXAMPLES, PHOTOGRAPHS, SCHEMATICS, CHARTS AND GRAPHS MAKE IT AN EXCELLENT REFERENCE AND TEACHING TOOL.

FUNDAMENTALS OF DISCRETE ELEMENT METHODS FOR ROCK ENGINEERING: THEORY AND APPLICATIONS - LANRU JING 2007-07-18

THIS BOOK PRESENTS SOME FUNDAMENTAL CONCEPTS BEHIND THE BASIC THEORIES AND TOOLS OF DISCRETE ELEMENT METHODS (DEM), ITS HISTORICAL DEVELOPMENT, AND ITS WIDE SCOPE OF APPLICATIONS IN GEOLOGY, GEOPHYSICS AND ROCK ENGINEERING. UNLIKE ALMOST ALL BOOKS AVAILABLE ON THE GENERAL SUBJECT OF DEM, THIS BOOK INCLUDES COVERAGE OF BOTH EXPLICIT AND IMPLICIT DEM APPROACHES, NAMELY THE DISTINCT ELEMENT METHODS AND DISCONTINUOUS DEFORMATION ANALYSIS (DDA) FOR BOTH RIGID AND DEFORMABLE BLOCKS AND PARTICLE SYSTEMS, AND ALSO THE DISCRETE FRACTURE NETWORK (DFN) APPROACH FOR FLUID FLOW AND SOLUTE TRANSPORT SIMULATIONS. THE LATTER IS ACTUALLY ALSO A DISCRETE APPROACH OF IMPORTANCE FOR ROCK MECHANICS AND ROCK ENGINEERING. IN ADDITION, BRIEF INTRODUCTIONS TO SOME ALTERNATIVE APPROACHES ARE ALSO PROVIDED, SUCH AS PERCOLATION THEORY AND COSSERAT MICROMECHANICS EQUIVALENCE TO PARTICLE SYSTEMS, WHICH OFTEN APPEAR HAND-IN-HAND WITH THE DEM IN THE LITERATURE. *FUNDAMENTALS OF THE PARTICLE MECHANICS APPROACH USING DEM FOR GRANULAR MEDIA* IS ALSO PRESENTED. • PRESENTS THE FUNDAMENTAL CONCEPTS OF THE DISCRETE MODELS FOR FRACTURED ROCKS, INCLUDING CONSTITUTIVE MODELS OF ROCK FRACTURES AND ROCK MASSES FOR STRESS, DEFORMATION AND FLUID FLOW • PROVIDES A COMPREHENSIVE PRESENTATION ON DISCRETE ELEMENT METHODS, INCLUDING DISTINCT ELEMENTS, DISCONTINUOUS DEFORMATION ANALYSIS, DISCRETE FRACTURE NETWORKS, PARTICLE MECHANICS AND COSSERAT REPRESENTATION OF GRANULAR MEDIA • FEATURES CONSTITUTIVE MODELS OF ROCK FRACTURES AND FRACTURE SYSTEM CHARACTERIZATION METHODS DETAILING THEIR SIGNIFICANT IMPACTS ON THE PERFORMANCE AND UNCERTAINTY OF THE DEM MODELS

PRINCIPLES OF GEOTECHNICAL ENGINEERING - BRAJA M. DAS 2016-12-05

READERS GAIN A VALUABLE OVERVIEW OF SOIL PROPERTIES AND MECHANICS TOGETHER WITH COVERAGE OF FIELD PRACTICES AND BASIC ENGINEERING PROCEDURES WITH DAS AND SOBHAN'S *PRINCIPLES OF GEOTECHNICAL ENGINEERING*, 9E. THIS INTRODUCTION TO GEOTECHNICAL ENGINEERING FORMS AN IMPORTANT FOUNDATION FOR FUTURE CIVIL ENGINEERS. THIS BOOK PROVIDES CRITICAL BACKGROUND KNOWLEDGE READERS NEED TO SUPPORT ANY ADVANCED STUDY IN DESIGN AS WELL AS TO PREPARE THEM FOR PROFESSIONAL PRACTICE. THE AUTHORS ENSURE A PRACTICAL AND APPLICATION-ORIENTED APPROACH TO THE SUBJECT BY INCORPORATING A WEALTH OF COMPREHENSIVE DISCUSSIONS AND DETAILED EXPLANATIONS. READERS FIND MORE FIGURES AND WORKED-OUT PROBLEMS THAN ANY OTHER BOOK FOR THE COURSE TO ENSURE UNDERSTANDING. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

SOIL MECHANICS AND FOUNDATIONS - MUNIRAM BUDHU 2010-12-21

DISCOVER THE PRINCIPLES THAT SUPPORT THE PRACTICE! WITH ITS SIMPLICITY IN PRESENTATION, THIS TEXT MAKES THE DIFFICULT CONCEPTS OF SOIL MECHANICS AND FOUNDATIONS MUCH EASIER TO UNDERSTAND. THE AUTHOR EXPLAINS BASIC CONCEPTS AND FUNDAMENTAL PRINCIPLES IN THE CONTEXT OF BASIC MECHANICS, PHYSICS, AND MATHEMATICS. FROM PRACTICAL SITUATIONS AND ESSENTIAL POINTS TO PRACTICAL EXAMPLES, THIS TEXT IS PACKED WITH HELPFUL HINTS AND EXAMPLES THAT MAKE THE MATERIAL CRYSTAL CLEAR.

GEOTECHNICS OF ROADS: FUNDAMENTALS - BERNARDO CAICEDO 2018-11-12

AT FIRST GLANCE, ROADS SEEM LIKE THE SIMPLEST POSSIBLE GEOTECHNICAL STRUCTURES. HOWEVER, ANALYSIS OF THESE STRUCTURES RUNS UP AGAINST COMPLEXITIES RELATED TO THE INTENSE STRESSES EXPERIENCED BY ROAD SURFACES, THEIR INTENSE INTERACTION WITH CLIMATE, AND THE COMPLICATED BEHAVIOR OF THE MATERIALS USED IN ROAD CONSTRUCTION. MODERN MECHANISTIC APPROACHES TO ROAD DESIGN PROVIDE THE TOOLS CAPABLE OF DEVELOPING NEW TECHNICAL SOLUTIONS. HOWEVER, USE OF THESE APPROACHES REQUIRES DEEP UNDERSTANDING OF THE BEHAVIOR OF CONSTITUENT MATERIALS AND THEIR INTERACTION WITH WATER AND HEAT WHICH HAS RECENTLY BEEN ACQUIRED THANKS TO ADVANCES IN GEOTECHNICAL ENGINEERING. THE AUTHOR COMPREHENSIVELY DESCRIBES AND EXPLAINS THESE ADVANCES AND THEIR USE IN ROAD ENGINEERING IN THE TWO-VOLUME SET *GEOTECHNICS OF ROADS*, COMPILING INFORMATION THAT HAD HITHERTO ONLY BEEN AVAILABLE IN NUMEROUS RESEARCH PAPERS. *GEOTECHNICS OF ROADS: FUNDAMENTALS* PRESENTS STRESSES AND STRAINS IN ROAD STRUCTURES, WATER AND HEAT MIGRATION WITHIN AND BETWEEN LAYERS OF ROAD MATERIALS, AND THE EFFECTS OF WATER ON THE STRENGTH AND STIFFNESS OF THOSE MATERIALS. IT INCLUDES A DEEP ANALYSIS OF SOIL COMPACTION, ONE OF THE MOST IMPORTANT ISSUES IN ROAD CONSTRUCTION. COMPACTION ACCOUNTS FOR ONLY A SMALL PROPORTION OF A CONSTRUCTION BUDGET BUT ITS EFFECTS ON THE LONG-TERM PERFORMANCE OF A ROAD ARE DECISIVE. IN ADDITION, THE BOOK DESCRIBES METHODOLOGIES FOR NONDESTRUCTIVE ROAD EVALUATION INCLUDING ANALYSIS

OF CONTINUOUS COMPACTION CONTROL, A POWERFUL TECHNIQUE FOR REAL-TIME QUALITY CONTROL OF ROAD STRUCTURES. THIS UNIQUE BOOK WILL BE OF VALUE TO CIVIL, STRUCTURAL AND GEOTECHNICAL ENGINEERS WORLDWIDE.

GEOTECHNICAL FUNDAMENTALS FOR ADDRESSING NEW WORLD CHALLENGES - NING LU 2019-05-24

THIS SINGLE-VOLUME THOROUGHLY SUMMARIZES ADVANCES IN THE PAST SEVERAL DECADES AND EMERGING CHALLENGES IN FUNDAMENTAL RESEARCH IN GEOTECHNICAL ENGINEERING. THESE FUNDAMENTAL RESEARCH FRONTIERS ARE CRITICALLY REVIEWED AND DESCRIBED IN DETAILS IN LIGHTS OF FOUR GRAND CHALLENGES OUR SOCIETY FACES: CLIMATE ADAPTATION, URBAN SUSTAINABILITY, ENERGY AND MATERIAL RESOURCES, AND GLOBAL WATER RESOURCES. THE SPECIFIC AREAS CRITICALLY REVIEWED, CAREFULLY EXAMINED, AND ENVISIONED ARE: SENSING AND MEASUREMENT, SOIL PROPERTIES AND THEIR PHYSICS ROOTS, MULTISCALE AND MULTIPHYSICS PROCESSES IN SOIL, GEOCHEMICAL PROCESSES FOR RESILIENT AND SUSTAINABLE GEOSYSTEMS, BIOLOGICAL PROCESSES IN GEOTECHNICS, UNSATURATED SOIL MECHANICS, COUPLED FLOW PROCESSES IN SOIL, THERMAL PROCESSES IN GEOTECHNICAL ENGINEERING, AND ROCK MECHANICS IN THE 21ST CENTURY.

SOIL MECHANICS FUNDAMENTALS AND APPLICATIONS - ISAO ISHIBASHI 2015-03-24

HOW DOES SOIL BEHAVE AND WHY DOES IT BEHAVE THAT WAY? SOIL MECHANICS FUNDAMENTALS AND APPLICATIONS, SECOND EDITION EFFECTIVELY EXPLORES THE NATURE OF SOIL, EXPLAINS THE PRINCIPLES OF SOIL MECHANICS, AND EXAMINES SOIL AS AN ENGINEERING MATERIAL. THIS LATEST EDITION INCLUDES ALL THE FUNDAMENTAL CONCEPTS OF SOIL MECHANICS, AS WELL AS AN INTRODUCTION TO

METHODS OF FOUNDATION ENGINEERING - Z. BANT 2014-08-28

METHODS OF FOUNDATION ENGINEERING COVERS THE THEORY, ANALYSIS, AND PRACTICE OF FOUNDATION ENGINEERING, AS WELL AS ITS SOIL MECHANICS AND STRUCTURAL DESIGN ASPECTS AND PRINCIPLES. THE BOOK IS DIVIDED INTO FIVE PARTS ENCOMPASSING 21 CHAPTERS. PART A IS OF AN INTRODUCTORY CHARACTER AND PRESENTS A BRIEF REVIEW OF THE VARIOUS TYPES OF FOUNDATION STRUCTURES USED IN CIVIL ENGINEERING AND THEIR HISTORICAL DEVELOPMENT. PART B PROVIDES THE THEORETICAL FUNDAMENTALS OF SOIL AND ROCK MECHANICS, WHICH ARE OF IMPORTANCE FOR FOUNDATION DESIGN. PART C DEALS WITH THE DESIGN OF THE FOOTING AREA OF SPREAD FOOTINGS AND DISCUSSES THE SHALLOW FOUNDATION METHODS. PART D DESCRIBES THE METHODS OF DEEP FOUNDATIONS, WHILE PART E IS DEVOTED TO SPECIAL FOUNDATION METHODS. EACH CHAPTER IN PARTS C TO E STARTS WITH AN INTRODUCTION CONTAINING A SYNOPSIS OF THE MATTER BEING DISCUSSED AND GIVING SUGGESTIONS AS TO THE CHOICE OF A SUITABLE METHOD OF FOUNDATION. THIS IS FOLLOWED BY A DESCRIPTION OF THE METHODS GENERALLY USED IN PRACTICE. SIMPLE ANALYSES OF STRUCTURES, PRESENTED AT THE CONCLUSION OF EACH CHAPTER, CAN BE CARRIED OUT BY A POCKET CALCULATOR. THIS BOOK WILL PROVE USEFUL TO PRACTICING CIVIL AND DESIGN ENGINEERS.

THE MATERIAL POINT METHOD FOR GEOTECHNICAL ENGINEERING - JAMES FERN 2019-01-30

THIS PRACTICAL GUIDE PROVIDES THE BEST INTRODUCTION TO LARGE DEFORMATION MATERIAL POINT METHOD (MPM) SIMULATIONS FOR GEOTECHNICAL ENGINEERING. IT PROVIDES THE BASIC THEORY, DISCUSSES THE DIFFERENT NUMERICAL FEATURES USED IN LARGE DEFORMATION SIMULATIONS, AND PRESENTS A NUMBER OF APPLICATIONS -- PROVIDING REFERENCES, EXAMPLES AND GUIDANCE WHEN USING MPM FOR PRACTICAL APPLICATIONS. MPM COVERS PROBLEMS IN STATIC AND DYNAMIC SITUATIONS WITHIN A COMMON FRAMEWORK. IT ALSO OPENS NEW FRONTIERS IN GEOTECHNICAL MODELLING AND NUMERICAL ANALYSIS. IT REPRESENTS A POWERFUL TOOL FOR EXPLORING LARGE DEFORMATION BEHAVIOURS OF SOILS, STRUCTURES AND FLUIDS, AND THEIR INTERACTIONS, SUCH AS INTERNAL AND EXTERNAL EROSION, AND POST-LIQUEFACTION ANALYSIS; FOR INSTANCE THE POST-FAILURE LIQUID-LIKE BEHAVIOURS OF LANDSLIDES, PENETRATION PROBLEMS SUCH AS CPT AND PILE INSTALLATION, AND SCOURING PROBLEMS RELATED TO UNDERWATER PIPELINES. IN THE RECENT YEARS, MPM HAS DEVELOPED ENOUGH FOR ITS PRACTICAL USE IN INDUSTRY, APART FROM THE INCREASING INTEREST IN THE ACADEMIC WORLD.

ENGINEERING FUNDAMENTALS: AN INTRODUCTION TO ENGINEERING, SI EDITION - SAEED MOAVENI 2011-01-01

SPECIFICALLY DESIGNED AS AN INTRODUCTION TO THE EXCITING WORLD OF ENGINEERING, ENGINEERING FUNDAMENTALS: AN INTRODUCTION TO ENGINEERING ENCOURAGES STUDENTS TO BECOME ENGINEERS AND PREPARES THEM WITH A SOLID FOUNDATION IN THE FUNDAMENTAL PRINCIPLES AND PHYSICAL LAWS. THE BOOK BEGINS WITH A DISCOVERY OF WHAT ENGINEERS DO AS WELL AS AN INSIDE LOOK INTO THE VARIOUS AREAS OF SPECIALIZATION. AN EXPLANATION ON GOOD STUDY HABITS AND WHAT IT TAKES TO SUCCEED IS INCLUDED AS WELL AS AN INTRODUCTION TO DESIGN AND PROBLEM SOLVING, COMMUNICATION, AND ETHICS. ONCE THIS FOUNDATION IS ESTABLISHED, THE BOOK MOVES ON TO THE BASIC PHYSICAL CONCEPTS AND LAWS THAT STUDENTS WILL ENCOUNTER REGULARLY. THE FRAMEWORK OF THIS TEXT TEACHES STUDENTS THAT ENGINEERS APPLY PHYSICAL AND CHEMICAL LAWS AND PRINCIPLES AS WELL AS MATHEMATICS TO DESIGN, TEST, AND SUPERVISE THE PRODUCTION OF MILLIONS OF PARTS, PRODUCTS, AND SERVICES THAT PEOPLE USE EVERY DAY. BY GAINING PROBLEM SOLVING SKILLS AND AN UNDERSTANDING OF FUNDAMENTAL PRINCIPLES, STUDENTS ARE ON THEIR WAY TO BECOMING ANALYTICAL, DETAIL-ORIENTED, AND CREATIVE ENGINEERS. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

GEOTECHNICAL ENGINEERING - V.N.S. MURTHY 2002-10-25

A MUST HAVE REFERENCE FOR ANY ENGINEER INVOLVED WITH FOUNDATIONS, PIERS, AND RETAINING WALLS, THIS REMARKABLY COMPREHENSIVE VOLUME ILLUSTRATES SOIL CHARACTERISTIC CONCEPTS WITH EXAMPLES THAT DETAIL A WEALTH OF PRACTICAL CONSIDERATIONS, IT COVERS THE LATEST DEVELOPMENTS IN THE DESIGN OF DRILLED PIER FOUNDATIONS AND MECHANICALLY STABILIZED EARTH RETAINING WALL AND EXPLORES A PIONEERING APPROACH FOR PREDICTING THE NONLINEAR BEHAVIOR OF LATERALLY LOADED LONG VERTICAL AND BATTER PILES. AS COMPLETE AND AUTHORITATIVE AS ANY VOLUME ON THE SUBJECT, IT DISCUSSES SOIL FORMATION, INDEX PROPERTIES, AND CLASSIFICATION; SOIL PERMEABILITY, SEEPAGE, AND THE EFFECT OF WATER ON STRESS CONDITIONS; STRESSES DUE TO SURFACE LOADS; SOIL COMPRESSIBILITY AND CONSOLIDATION; AND SHEAR STRENGTH CHARACTERISTICS OF SOILS. WHILE THIS BOOK IS A VALUABLE TEACHING TEXT FOR ADVANCED STUDENTS, IT IS ONE THAT THE PRACTICING ENGINEER WILL CONTINUALLY BE TAKING OFF THE SHELF LONG AFTER SCHOOL LETS OUT. JUST THE QUICK REFERENCE IT

AFFORDS TO A HUGE RANGE OF TESTS AND THE APPENDICES FILLED WITH ESSENTIAL DATA, MAKES IT AN ESSENTIAL ADDITION TO AN CIVIL ENGINEERING LIBRARY.

FUNDAMENTALS OF PLASTICITY IN GEOMECHANICS - S. PIETRUSZCZAK 2010-09-15

THE BOOK PRESENTS A CONCISE, YET REASONABLY COMPREHENSIVE, OVERVIEW OF FUNDAMENTAL NOTIONS OF PLASTICITY IN RELATION TO GEOMECHANICS. THE PRIMARY OBJECTIVE OF THIS WORK IS TO PROVIDE THE READER WITH A GENERAL BACKGROUND IN SOIL/ROCK PLASTICITY AND, AS SUCH, SHOULD BE PERCEIVED AS AN INTRODUCTION TO THE BROAD AREA OF INELASTIC RESPONSE OF GEOMATERIALS. THE BOOK IS DIVIDED INTO EIGHT CHAPTERS. CHAPTERS 1 & 2 START WITH AN OUTLINE OF THE BASIC CONCEPTS AND FUNDAMENTAL POSTULATES, FOLLOWED BY A REVIEW OF THE ELASTIC-PERFECTLY PLASTIC FORMULATIONS IN GEOMECHANICS. THE ISOTROPIC STRAIN-HARDENING FRAMEWORK AND ISOTROPIC-KINEMATIC HARDENING RULES, THE LATTER FORMULATED WITHIN THE CONTEXT OF BOUNDING SURFACE PLASTICITY, ARE DISCUSSED IN CHAPTERS 3 & 4. CHAPTER 5 OUTLINES THE BASIC TECHNIQUES FOR NUMERICAL INTEGRATION, WHEREAS CHAPTER 6 GIVES AN OVERVIEW OF PROCEDURES FOR LIMIT ANALYSIS THAT INCLUDE APPLICATIONS OF LOWER AND UPPER BOUND THEOREMS. BOTH THESE CHAPTERS ARE INTRODUCTORY IN NATURE AND ARE INTENDED TO PROVIDE A BASIC BACKGROUND IN THE RESPECTIVE AREAS. CHAPTER 7 DEALS WITH DESCRIPTION OF INHERENT ANISOTROPY IN GEOMATERIALS. FINALLY, CHAPTER 8 PROVIDES AN OVERVIEW OF THE EXPERIMENTAL RESPONSE OF GEOMATERIALS. THE TEXT IS INTENDED PRIMARILY FOR PH.D./M.SC. STUDENTS AS WELL AS RESEARCHERS WORKING IN THE AREAS OF SOIL/ROCK MECHANICS. IT MAY ALSO BE OF INTEREST TO PRACTICING ENGINEERS FAMILIAR WITH ESTABLISHED NOTIONS OF CONTEMPORARY CONTINUUM MECHANICS.

INTRODUCTORY GEOTECHNICAL ENGINEERING - HSAI-YANG FANG 2017-12-21

INTEGRATING AND BLENDING TRADITIONAL THEORY WITH PARTICLE-ENERGY-FIELD THEORY, THIS BOOK PROVIDES A FRAMEWORK FOR THE ANALYSIS OF SOIL BEHAVIOUR UNDER VARIED ENVIRONMENTAL CONDITIONS. THIS BOOK EXPLAINS THE WHY AND HOW OF GEOTECHNICAL ENGINEERING IN AN ENVIRONMENTAL CONTEXT. USING BOTH SI AND IMPERIAL UNITS, THE AUTHORS COVER: ROCK MECHANICS SOIL MECHANICS AND HYDROGEOLOGY SOIL PROPERTIES AND CLASSIFICATIONS AND ISSUES RELATING TO CONTAMINATED LAND. STUDENTS OF CIVIL, GEOTECHNICAL AND ENVIRONMENTAL ENGINEERING AND PRACTITIONERS UNFAMILIAR WITH THE PARTICLE-ENERGY-FIELD CONCEPT, WILL FIND THAT THIS BOOK'S NOVEL APPROACH HELPS TO CLARIFY THE COMPLEX THEORY BEHIND GEOTECHNICS.

SOIL MECHANICS IN ENGINEERING PRACTICE - KARL TERZAGHI 2010-11

THIS BOOK CONSTITUTES THE DEFINITIVE HANDBOOK TO SOIL MECHANICS, COVERING IN GREAT DETAIL SUCH TOPICS AS: PROPERTIES OF SOILS, HYDRAULIC AND MECHANICAL PROPERTIES OF SOILS, DRAINAGE OF SOILS, PLASTIC EQUILIBRIUM IN SOILS, EARTH STABILITY AND PRESSURE OF SLOPES, FOUNDATIONS, ETC. A VALUABLE COMPENDIUM FOR THOSE INTERESTED IN SOIL MECHANICS, THIS ANTIQUARIAN TEXT CONTAINS A WEALTH OF INFORMATION STILL VERY MUCH VALUABLE TO ENGINEERS TODAY. KARL VON TERZAGHI (1883 1963) WAS A CZECH GEOLOGIST AND CIVIL ENGINEER, HAILED AS THE "FATHER OF SOIL MECHANICS." THIS BOOK HAS BEEN ELECTED FOR REPUBLICATION DUE TO ITS EDUCATIONAL VALUE AND IS PROUDLY REPUBLISHED HERE WITH AN INTRODUCTORY BIOGRAPHY OF THE AUTHOR."

SOIL MECHANICS - WILLIAM POWRIE 2018-10-08

INSTEAD OF FIXATING ON FORMULAE, SOIL MECHANICS: CONCEPTS AND APPLICATIONS, THIRD EDITION FOCUSES ON THE FUNDAMENTALS. THIS BOOK DESCRIBES THE MECHANICAL BEHAVIOUR OF SOILS AS IT RELATES TO THE PRACTICE OF GEOTECHNICAL ENGINEERING. IT COVERS BOTH PRINCIPLES AND DESIGN, AVOIDS COMPLEX MATHEMATICS WHENEVER POSSIBLE, AND USES SIMPLE METHODS AND IDEAS TO BUILD A FRAMEWORK TO SUPPORT AND ACCOMMODATE MORE COMPLEX PROBLEMS AND ANALYSIS. THE THIRD EDITION INCLUDES NEW MATERIAL ON SITE INVESTIGATION, STRESS-DILATANCY, CYCLIC LOADING, NON-LINEAR SOIL BEHAVIOUR, UNSATURATED SOILS, PILE STABILIZATION OF SLOPES, SOIL/WALL STIFFNESS AND SHALLOW FOUNDATIONS. OTHER KEY FEATURES OF THE THIRD EDITION: • MAKES EXTENSIVE REFERENCE TO REAL CASE STUDIES TO ILLUSTRATE THE CONCEPTS DESCRIBED • FOCUSES ON MODERN SOIL MECHANICS PRINCIPLES, INFORMED BY RELEVANT RESEARCH • PRESENTS MORE THAN 60 WORKED EXAMPLES • PROVIDES LEARNING OBJECTIVES, KEY POINTS, AND SELF-ASSESSMENT AND LEARNING QUESTIONS FOR EACH CHAPTER • INCLUDES AN ACCOMPANYING SOLUTIONS MANUAL FOR LECTURERS THIS BOOK SERVES AS A RESOURCE FOR UNDERGRADUATES IN CIVIL ENGINEERING AND AS A REFERENCE FOR PRACTISING GEOTECHNICAL ENGINEERS.

SOIL MECHANICS FUNDAMENTALS - MUNI BUDHU 2015-05-14

AN ACCESSIBLE, CLEAR, CONCISE, AND CONTEMPORARY COURSE IN GEOTECHNICAL ENGINEERING, THIS KEY TEXT: STRIKES A BALANCE BETWEEN THEORY AND PRACTICAL APPLICATIONS FOR AN INTRODUCTORY COURSE IN SOIL MECHANICS KEEPS MECHANICS TO A MINIMUM FOR THE STUDENTS TO APPRECIATE THE BACKGROUND, ASSUMPTIONS AND LIMITATIONS OF THE THEORIES DISCUSSES IMPLICATIONS OF THE KEY IDEAS TO PROVIDE STUDENTS WITH AN UNDERSTANDING OF THE CONTEXT FOR THEIR APPLICATION GIVES A MODERN EXPLANATION OF SOIL BEHAVIOUR IS PRESENTED PARTICULARLY IN SOIL SETTLEMENT AND SOIL STRENGTH OFFERS SUBSTANTIAL ON-LINE RESOURCES TO SUPPORT TEACHING AND LEARNING

FUNDAMENTALS OF SOIL DYNAMICS AND EARTHQUAKE ENGINEERING - BHARAT BHUSHAN PRASAD 2009-01-19

THE MAJORITY OF THE CASES OF EARTHQUAKE DAMAGE TO BUILDINGS, BRIDGES, AND OTHER RETAINING STRUCTURES ARE INFLUENCED BY SOIL AND GROUND CONDITIONS. TO ADDRESS SUCH PHENOMENA, SOIL DYNAMICS AND EARTHQUAKE ENGINEERING IS THE APPROPRIATE DISCIPLINE. THIS TEXTBOOK PRESENTS THE FUNDAMENTALS OF SOIL DYNAMICS, COMBINED WITH THE BASIC PRINCIPLES, THEORIES AND METHODS OF GEOTECHNICAL EARTHQUAKE ENGINEERING. IT IS DESIGNED FOR SENIOR UNDERGRADUATE AND POSTGRADUATE STUDENTS IN CIVIL ENGINEERING & ARCHITECTURE. THE TEXT WILL ALSO BE USEFUL TO YOUNG FACULTY MEMBERS, PRACTISING ENGINEERS AND CONSULTANTS. BESIDES, TEACHERS WILL FIND IT A USEFUL REFERENCE FOR PREPARATION OF LECTURES AND FOR DESIGNING SHORT COURSES IN SOIL DYNAMICS AND GEOTECHNICAL EARTHQUAKE ENGINEERING. THE BOOK FIRST PRESENTS THE THEORY OF VIBRATIONS AND DYNAMICS OF ELASTIC SYSTEM AS WELL AS THE FUNDAMENTALS OF ENGINEERING SEISMOLOGY. WITH THIS BACKGROUND, THE READERS ARE INTRODUCED TO THE CHARACTERISTICS OF STRONG GROUND MOTION, AND DETERMINISTIC AND PROBABILISTIC SEISMIC HAZARD ANALYSIS. THE RISK ANALYSIS AND THE RELIABILITY PROCESS OF GEOTECHNICAL ENGINEERING ARE PRESENTED IN DETAIL. AN IN-DEPTH STUDY OF

DYNAMIC SOIL PROPERTIES AND THE METHODS OF THEIR DETERMINATION PROVIDE THE BASICS TO TACKLE THE DYNAMIC SOIL-STRUCTURE INTERACTION PROBLEMS. PRACTICAL PROBLEMS OF DYNAMICS OF BEAM-FOUNDATION SYSTEMS, DYNAMICS OF RETAINING WALLS, DYNAMIC EARTH PRESSURE THEORY, WAVE PROPAGATION AND LIQUEFACTION OF SOIL ARE TREATED IN DETAIL WITH ILLUSTRATIVE EXAMPLES.

FUNDAMENTALS OF ENGINEERING FE CIVIL ALL-IN-ONE EXAM GUIDE - INDRANIL GOSWAMI
2018-03-23

THIS HIGHLY EFFECTIVE STUDY GUIDE OFFERS 100% COVERAGE OF EVERY SUBJECT ON THE FE CIVIL EXAM THIS SELF-STUDY RESOURCE CONTAINS ALL OF THE INFORMATION YOU NEED TO PREPARE FOR AND PASS THE CHALLENGING FE CIVIL EXAM ON THE FIRST TRY. THE BOOK FEATURES CLEAR EXPLANATIONS OF EVERY TOPIC ON THE EXAM AS WELL AS HANDS-ON EXAM STRATEGIES AND ACCURATE PRACTICE PROBLEMS WITH FULLY WORKED SOLUTIONS.

ORGANIZED TO FOLLOW THE ORDER OF THE OFFICIAL EXAM SYLLABUS, THE BOOK INCLUDES REFERENCES TO THE OFFICIAL FE REFERENCE HANDBOOK ALONG WITH TIPS ON HOW TO UTILIZE THAT RESOURCE DURING THE EXAM ITSELF. WRITTEN BY A LEADING CIVIL ENGINEERING EDUCATOR AND EXAM COACH, FUNDAMENTALS OF ENGINEERING FE CIVIL ALL-IN-ONE EXAM GUIDE HELPS YOU PASS THE EXAM WITH EASE. *CONTAINS COMPLETE COVERAGE OF ALL OBJECTIVES FOR THE FE CIVIL EXAM*FOLLOWS THE EXACT ORDER OF THE OFFICIAL EXAM SYLLABUS *WRITTEN BY AN EXPERIENCED EDUCATOR AND RESEARCHER

AN INTRODUCTION TO GEOTECHNICAL ENGINEERING - ROBERT D. HOLTZ 2011

"INTENDED FOR USE IN THE FIRST OF A TWO COURSE SEQUENCE IN GEOTECHNICAL ENGINEERING USUALLY TAUGHT TO THIRD- AND FOURTH-YEAR UNDERGRADUATE CIVIL ENGINEERING

STUDENTS. AN INTRODUCTION TO GEOTECHNICAL ENGINEERING OFFERS A DESCRIPTIVE, ELEMENTARY INTRODUCTION TO GEOTECHNICAL ENGINEERING WITH APPLICATIONS TO CIVIL ENGINEERING PRACTICE."--PUBLISHER'S WEBSITE.

- DEB DEBASIS 2016-03-12

ROCK MECHANICS IS A FIRST COURSE IN THE FIELD OF MINING AND GEOTECHNICAL ENGINEERING. OVER THE LAST DECADES, THE CONCEPTS AND APPLICATIONS OF ROCK MECHANICS HAVE EVOLVED TREMENDOUSLY FOR UNDERSTANDING THE STABILITY AND SAFETY OF STRUCTURES MADE OF/ON THE ROCK MASSES. THIS BOOK ELABORATES THE FUNDAMENTAL CONCEPTS OF ROCK MECHANICS FOR DESIGNING AND ANALYSIS OF STRUCTURES AND EXCAVATIONS FOR A VARIETY OF APPLICATIONS. THE TEXT INCLUDES A FINE BLEND OF THEORY AND WORKED-OUT EXAMPLES AND APPLICATIONS, AND ALSO EMPHASISES THE BASICS OF STRESS AND STRAIN ANALYSIS, VOLUME-WEIGHT RELATIONSHIP, ROCK MASS CLASSIFICATION SYSTEMS, IN SITU STRESS MEASUREMENTS, STRESSES AROUND UNDERGROUND OPENING, PILLAR AND SUPPORT DESIGN, SUBSIDENCE, SLOPE STABILITY, ROCK FAILURE CRITERIA AND BEHAVIOUR OF JOINTED ROCK MASS. NUMERICAL ANALYSIS PROCEDURES AND INTERACTION BETWEEN ROCK BOLTS AND ROCK MASSES ARE ALSO INTRODUCED EMPHASISING THE MECHANICS AND APPLICATIONS IN ROCK ENGINEERING. BESIDES UNDERGRADUATE AND POSTGRADUATE STUDENTS OF CIVIL (INCLUDING GEOTECHNICAL), MINING AND PETROLEUM ENGINEERING, THE BOOK WILL ALSO BENEFIT THE PRACTICING ENGINEERS AND RESEARCHERS, WHO WISH TO ACQUAINT THEMSELVES WITH STATE-OF-THE-ART TECHNIQUES OF ROCK MECHANICS AND ITS APPLICATIONS. OVERALL, THIS TEXTBOOK IS USEFUL FOR BOTH ELEMENTARY AS WELL AS ADVANCED LEARNING.

FUNDAMENTALS AND APPLICATIONS OF ROCK MECHANICS