

Foundation Engineering Varghese

This volume comprises the select proceedings of the Indian Geotechnical Conference (IGC) 2020. The contents focus on recent developments in geotechnical engineering for sustainable tomorrow. The volume covers the topics related advances in ground improvement of weak foundation soils for various civil engineering projects and design/construction of reinforced soil structures with different fill materials using synthetic and natural reinforcements in different forms.

This book presents a pragmatic engagement between the philosophy of Deleuze and Guattari and various facets of Indian society, culture and art. The universal appeal of the philosophy of Deleuze and Guattari finds its due place in India with a set of innovative analyses and radical interpretations that reimagine India as a complex multiplicity. The volume brings together scholars from various disciplines and theoretical orientations to explore a wide range of issues in contemporary India, like dalit and caste studies, nationalism, gender question, art and cinema, and so on under the rubric of Deleuzo-Guattarian philosophy. This interdisciplinary book will be useful to scholars and researchers of philosophy, anthropology, cultural studies, sociology, postcolonial studies and South Asian

studies.

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. In the alarming contemporary context of widespread corruption and fraudulence in the overseas labour recruitment system in India, this book attempts to understand the institution of emigration governance and recruitment practices in the country with a focus on the unskilled and semi-skilled sectors. It brings together the results of research in the major emigration hubs of India with the aid of quantitative and qualitative tools, drawing from all the major stakeholders —intending emigrants, recruiting agents, return emigrants, emigrant households, Protector of Emigrants, foreign employers, foreign recruiting agents, Indian missions and emigrant workers at the destination countries. The book unravels the underlying discriminatory rationality of the existing system of emigration governance, its logical and structural incoherencies and the consequent inefficacy in protecting the most vulnerable sections of workers leaving India for overseas employment, resulting in unaffordable levels of transaction and social costs. By outlining the institutional failure, the volume outlines the fundamental principles of a new institution which would facilitate orderly, safe and secure emigration, economically sustainable beneficial expatriate life and social

protection after the emigrants return. The book will be of interest to students and scholars of sociology, law, economics, demography, anthropology, history, gender studies, cultural studies, Diaspora studies, migration studies and international relations, apart from policy-makers and administrators of transnational migration and NGOs working in the field of migration.

The Deep Mixing Method (DMM), a deep in-situ soil stabilization technique using cement and/or lime as a stabilizing agent, was developed in Japan and in the Nordic countries independently in the 1970s. Numerous research efforts have been made in these areas investigating properties of treated soil, behavior of DMM improved ground under static and d

This text primarily analyses different methods of design of concrete structures as per IS 456: 2000 (Plain and Reinforced Concrete—Indian Standard Code of Practice, 4th revision, Bureau of Indian Standards). It gives greater emphasis on the limit state method so as to illustrate the acceptable limits for the safety and serviceability requirements of structures. Besides dealing with yield line analysis for slabs, the book explains the working stress method and its use for designing reinforced concrete tension members, theory of redistribution of moments, and earthquake resistant design of structures. This well-structured book develops an effective understanding of the theory through numerous solved problems,

presenting step-by-step calculations. The use of SP-16 (Design Aids for Reinforced Concrete to IS: 456–1978) has also been explained in solving the problems. KEY FEATURES : Instructional Objectives at the beginning of the chapter highlight important concepts. Summary at the end of the chapter to help student revise key points. Sixty-nine solved illustrative examples presenting step-by-step calculations. Chapter-end exercises to test student's understanding of the concepts. Forty Tests to enable students to gauge their preparedness for actual exams. This comprehensive text is suitable for undergraduate students of civil engineering and architecture. It can also be useful to professional engineers. This book gathers selected proceedings of the annual conference of the Indian Geotechnical Society, and covers various aspects of soil dynamics and earthquake geotechnical engineering. The book includes a wide range of studies on seismic response of dams, foundation-soil systems, natural and man-made slopes, reinforced-earth walls, base isolation systems and so on, especially focusing on the soil dynamics and case studies from the Indian subcontinent. The book also includes chapters addressing related issues such as landslide risk assessments, liquefaction mitigation, dynamic analysis of mechanized tunneling, and advanced seismic soil-structure-interaction analysis. Given its breadth of coverage, the book offers a useful guide for researchers and practicing civil

engineers alike.

This textbook first published in 1992 now appearing in its third edition retains the best features from the earlier editions and adds significantly to the contents, which include developments in the 1990s.

This volume seeks to identify and explore the dynamics of global forces on the development of higher education in Asia, in particular, how neoliberalism has affected reforms on university governance and management in the region. It includes a set of country-specific studies on how various countries have responded to the dominant neoliberal ideology at the systemic, institutional, and process levels. The focus is on the relationship between the state and the universities, which is usually reflected in the degree of autonomy and accountability allowed in a particular higher education system. The selected countries are Cambodia, China, Indonesia, India, Japan, Malaysia, Singapore, South Korea, and Thailand. Each case study examines the establishment of corporatised or autonomous universities in the country focusing on (i) the acts, reports, and/or policies that led to such a move as well as the rationales behind the move; (ii) the changes in the governance and organisational structure of the universities, highlighting the kinds of autonomy that the universities have; (iii) the new management strategies, techniques, and practices that have been introduced to the university including the internal and external quality assurance mechanisms, and (iv) some of the tensions, conflicts, and acts of resistance that may have emerged.

This volume comprises select peer reviewed papers presented at the international conference - Advanced Research and Innovations in Civil Engineering (ARICE 2019). It brings together a wide variety of innovative topics and current developments in various branches of civil engineering. Some of the major topics covered include structural engineering, water resources engineering, transportation engineering, geotechnical engineering, environmental engineering, and remote sensing. The book also looks at emerging topics such as green building technologies, zero-energy buildings, smart materials, and intelligent transportation systems. Given its contents, the book will prove useful to students, researchers, and professionals working in the field of civil engineering.

This comprehensive text on foundation design is intended to introduce students of civil engineering, architecture, and environmental disciplines to the fundamentals of designing sound foundations and their implementation. It offers an in-depth coverage of pre- and post-design methodologies that include soil identification, site investigation, interpretation of soil data and design parameters, foundations on different soil types through to settlements, seismic responses, and construction concerns. Though the book is woven around principles of foundation design, it also incorporates application aspects that bridge theory and practice. As an issue of contemporary importance it discusses geotechnical details of developing earthquake resistant designs for different soil types. In addition, the authors provide an extensive account of ground improvement

techniques. Supported by the abundance of real-world events/situations and examples that help students master the text concepts, this volume becomes an incisive text and reference guide.

Earthquake Geotechnical Engineering for Protection and Development of Environment and Constructions contains invited, keynote and theme lectures and regular papers presented at the 7th International Conference on Earthquake Geotechnical Engineering (Rome, Italy, 17-20 June 2019). The contributions deal with recent developments and advancements as well as case histories, field monitoring, experimental characterization, physical and analytical modelling, and applications related to the variety of environmental phenomena induced by earthquakes in soils and their effects on engineered systems interacting with them. The book is divided in the sections below:

Invited papers
Keynote papers
Theme lectures
Special Session on Large Scale Testing
Special Session on Liquefact Projects
Special Session on Lessons learned from recent earthquakes
Special Session on the Central Italy earthquake
Regular papers

Earthquake Geotechnical Engineering for Protection and Development of Environment and Constructions provides a significant up-to-date collection of recent experiences and developments, and aims at engineers, geologists and seismologists, consultants, public and private contractors, local national and international authorities, and to all those involved in research and practice related to Earthquake Geotechnical Engineering. This substantially revised second edition takes into account the provisions of the

revised Indian Code of practice for Plain and Reinforced Concrete IS 456 : 2000. It also provides additional data on detailing of steel to make the book more useful to practicing engineers. The chapter on Limit State of Durability for Environment has been completely revised and the new provisions of the code such as those for design for shear in reinforced concrete, rules for shearing main steel in slabs, lateral steel in columns, and stirrups in beams have been explained in detail in the new edition. This comprehensive and systematically organized book is intended for undergraduate students of Civil Engineering, covering the first course on Reinforced Concrete Design and as a reference for the practicing engineers. Besides covering IS 456 : 2000, the book also deals with the British and US Codes. Advanced topics of IS 456 : 2000 have been discussed in the companion volume Advanced Reinforced Concrete Design (also published by Prentice-Hall of India). The two books together cover all the topics in IS 456 : 2000 and many other topics which are so important in modern methods of design of reinforced concrete.

This practice-oriented book, now in its second edition, presents a lucid yet comprehensive coverage of the engineering properties and uses of the materials commonly used in building construction in India. Profusely illustrated with tables and diagrams, the book brings into light the basics of building materials and their specifications. Besides giving information regarding the traditional building materials, the text now acquaints the reader with up-to-date and in-depth information pertaining to

modern materials available in the market. The references to IS codes and standards make this text suitable for further study and field use. The second edition possesses some substantial changes in Chapters 12, 13, 14 and 20. Now, the book offers a new section on durability of concrete in Chapter 12; a modified section regarding revision of IS 10262 (1982) code on concrete mix design to IS 10262 (2009) and a new section on classification of exposure conditions in Chapter 13; and a new section relating to large advances made in concrete construction and repair chemicals in Chapter 14. Besides, the content of Chapter 20 has been completely updated, with a particular emphasis on the extensive use of aluminium in building construction. Primarily intended for the students pursuing undergraduate degree (B.E./B.Tech.) and diploma courses in civil engineering and architecture, the book, on account of lecture-based presentation of the subject, should also prove eminently utilitarian for the young teachers to use it in their classroom lectures as well as for practising engineers to get a clear understanding of the fundamentals of the subject. NEW TO THE SECOND EDITION Review questions at the end of each chapter enable the reader to recapitulate the topics Considerable attention is given on field practice Syllabus of laboratory work on construction materials and a model question paper (Anna University) are given in appendices to guide the reader.

Now in full colour, the third edition of this well established book provides a readable and highly illustrated overview of the aspects of geology that are most significant to civil

engineers. Sections in the book include those devoted to the main rock types, weathering, ground investigation, rock mass strength, failures of old mines, subsidence on peats and clays, sinkholes on limestone and chalk, water in landslides, slope stabilization and understanding ground conditions. The roles of both natural and man-induced processes are assessed, and this understanding is developed into an appreciation of the geological environments potentially hazardous to civil engineering and construction projects. For each style of difficult ground, available techniques of site investigation and remediation are reviewed and evaluated. Each topic is presented as a double page spread with a careful mix of text and diagrams, with tabulated reference material on parameters such as bearing strength of soils and rocks. This new edition has been comprehensively updated and covers the entire spectrum of topics of interest for both students and practitioners in the field of civil engineering.

Intergroup dialogue is a form of democratic engagement that fosters communication, critical reflection, and collaborative action across social and cultural divides. Engaging social identities is central to this approach. In recent years, intergroup dialogue has emerged as a promising social justice education practice that addresses pressing issues in higher education, school and community settings. This edited volume provides a thoughtful and comprehensive overview of intergroup dialogue spanning conceptual frameworks for practice, and most notably a diverse set of research studies which examine in detail the processes and learning that take place through dialogue. This

book addresses questions from the fields of education, social psychology, sociology, and social work, offering specific recommendations and examples related to curriculum and pedagogy. Furthermore, it contributes to an understanding of how to constructively engage students and others in education about difference, identities, and social justice. This book was originally published as a special issue of *Equity & Excellence in Education*.

This book is mainly intended to meet the needs of undergraduate students of Civil Engineering. In preparing the first edition of this book, I had two principal aims: firstly to provide the student with a description of soil behavior-and of the effects of the clay minerals and the soil water on such behavior-which was rather more detailed than is usual in an elementary text, and secondly to encourage him to look critically at the traditional methods of analysis and design. The latter point is important, since all such methods require certain simplifying assumptions without which no solution is generally possible. Serious errors in design are seldom the result of failure to understand the methods as such. They more usually arise from a failure to study and understand the geology of the site, or from attempts to apply analytical methods to problems for which the implicit assumptions make them unsuitable. In the design of foundations and earth structures, more than in most branches of engineering, the engineer must be continually exercising his judgment in making decisions. The analytical methods cannot relieve him of this responsibility but properly used, they should ensure that his judgment is based on sound knowledge and not on blind intuition. I hope that the book will prove to be of use to students when their courses are over, and help to bridge the awkward gap between

theory and practice.

This book comprises select proceedings of the 43rd National Systems Conference on Innovative and Emerging Trends in Engineering Systems (NSC 2019) held at the Indian Institute of Technology, Roorkee, India. The contents cover latest research in the highly multidisciplinary field of systems engineering, and discusses its various aspects like systems design, dynamics, analysis, modeling and simulation. Some of the topics covered include computing systems, consciousness systems, electrical systems, energy systems, manufacturing systems, mechanical systems, literary systems, social systems, and quantum and nano systems. Given the scope of the contents, this book will be useful for researchers and professionals from diverse engineering and management background.

This well recognized and established book, a companion volume to the author's book on Building Materials, explains the basics of building construction practices in an accessible style. It discusses in detail every element of building construction from start to the finish—from site preparation to provision of services (such as water supply, drainage and electricity supply). Besides, the text describes acoustics and maintenance of buildings, which are important considerations in building construction. This book is primarily designed as an introductory text for undergraduate students of civil engineering as well as those pursuing diploma courses in civil engineering and architecture. Practicing engineers and any person who has a keen interest in the construction and maintenance of his/her own building will also find the book very helpful.

The term Maintenance of a building refers to the work done for keeping an existing building in a condition where it can perform its intended functions. Usually, the buildings last only for 40 to

50 years in a good shape just because of regular inspection and maintenance that enable timely identification of deteriorated elements. Overlooked dilapidation, inadequate maintenance and lack of repair works may lead to limited life span of a building. This comprehensive book, striving to focus on the maintenance, repair & rehabilitation and minor works of a building, presents useful guidelines that acquaint the readers with the traditional as well as modern techniques for upkeeping and repairing of buildings already constructed. Dexterously organised into five parts, this book in Part I deals with the maintenance of buildings. Description of the construction chemicals, concrete repair chemicals, special materials used for repair, and repair of various parts of a building is given in Part II. Strengthening of reinforced concrete members by shoring, underpinning, plate bonding, RC jacketing and FRP methods are explored in Part III, which also highlights rebuilding of RC slabs and protection of earth slopes. Part IV of the book exposes the reader to the minor works done in a building such as construction of compound walls, gates, waters sumps, house garage, relaying of floors, joining two adjacent rooms and so on. Part V is based on some allied topics involving control on termites and fungus in buildings as well as introduction of Vaastu Shastra and its main recommendations for a single house in a plot. Using an engaging style, this book will prove to be a must-read for the undergraduate and postgraduate students of civil engineering as well as for the polytechnic and ITI diploma students. Besides, the book will also be of immense benefit to the technical professionals across the country. **KEY FEATURES** • The text displays several figures to make the concepts clear. • Chapter-end references make the text suitable for further study. • Appendices at the end of the text provide extra information on non-destructive field tests for survey of the condition of concrete buildings and rough estimation of the construction

and maintenance costs of buildings.

This book is the first comprehensive effort to bring together Water, Food Security and Nutrition (FSN) in a way that goes beyond the traditional focus on irrigated agriculture. Apart from looking at the role of water and sanitation for human well-being, it proposes alternative and more locally appropriate ways to address complex water management and governance challenges from the local to global levels against a backdrop of growing uncertainties. The authors challenge mainstream supply-oriented and neo-Malthusian visions that argue for the need to increase the land area under irrigation in order to feed the world's growing population. Instead, they argue for a reframing of the debate concerning production processes, waste, food consumption and dietary patterns whilst proposing alternative strategies to improve water and land productivity, putting the interests of marginalized and disenfranchised groups upfront. The book highlights how accessing water for FSN can be challenging for small-holders, vulnerable and marginalized women and men, and how water allocation systems and reform processes can negatively affect local people's informal rights. The book argues for the need to improve policy coherence across water, land and food and is original in making a case for strengthening the relationship between the human rights to water and food, especially for marginalized women and men. It will be of great interest to practitioners, students and researchers working on water and food issues.

The International Conference on Emerging Trends in Engineering, Science and Technology (ICETEST) was held at the Government Engineering College, Thrissur, Kerala, India, from 18th to 20th January 2018, with the theme, "Society, Energy and Environment", covering related topics in the areas of Civil Engineering, Mechanical Engineering, Electrical

Engineering, Chemical Engineering, Electronics & Communication Engineering, Computer Science and Architecture. Conflict between energy and environment has been of global significance in recent years. Academic research needs to support the industry and society through socially and environmentally sustainable outcomes. ICETEST 2018 was organized with this specific objective. The conference provided a platform for researchers from different domains, to discuss and disseminate their findings. Outstanding speakers, faculties, and scholars from different parts of the world presented their research outcomes in modern technologies using sustainable technologies.

This volume offers a unified treatment and critical review of the literature related to the fluid dynamics, heat transfer, and mass transfer of single bubbles, drops, and particles. 1978 edition.

Technological advances and innovative perspectives constantly evolve the notion of what makes up a digital library. Archives and the Digital Library provides an insightful snapshot of the current state of archiving in the digital realm. Respected experts in library and information science present the latest research results and illuminating case studies to provide a comprehensive glimpse at the theory, technological advances, and unique approaches to digital information management as it now stands. The book focuses on digitally reformatted surrogates of non-digital textual and graphic materials from archival collections, exploring the roles archivists can play in broadening the scope of digitization efforts through creatively developing policies, procedures, and tools to effectively manage digital content. Many of the important advances in digitization of materials have little to do with the efforts of archivists. Archives and the Digital Library concentrates specifically on the developments in the world of

archives and the digitization of the unique content of information resources archivists deal with on a constant basis. This resource reviews the current issues and challenges, effective user assessment techniques, various digital resources projects, collaboration strategies, and helpful best practices. The book is extensively referenced and includes helpful illustrative figures. Topics in Archives and the Digital Library include: a case study of LSTA-grant funded California Local History Digital Resources Project expanding the scope of traditional archival digitations projects beyond the limits of a single institution a case study of the California Cultures Project the top ten themes in usability issues case studies of usability studies, focus groups, interviews, ethnographic studies, and web log analysis developing a reciprocal partnership with a digital library the technical challenges in harvesting and managing Web archives metadata strategies to provide descriptive, technical, and preservation related information about archived Web sites long-term preservation of digital materials building a trusted digital repository collaboration in developing and supporting the technical and organizational infrastructure for sustainability in both academic and state government the Archivists' Toolkit software application Archives and the Digital Library is timely, important reading for archivists, librarians, library administrators, library information educators, archival educators, and students.

At least 5 million people die each year from injuries, and about half the deaths in the 10-24 age group are accountable to them. This is a major health problem for which a number of strategies for prevention and control can be developed. This book presents a series of the plenary and state-of-the-art presentations from the 5th World Conference on Injury Prevention and Control. There is a focus on transportation, workplace, sport and leisure, and domestic sectors, and an

exploration of the legal, medical, environmental, safety and governmental issues which play a part in the subject. Practitioners and researchers in a variety of activities, including epidemiology and public health, occupational health and safety, ergonomics and product design, medicine, criminology, engineering and physical sciences, and the behavioural sciences, should find this a useful and challenging work.

This book, a companion volume to the author's book on Building Materials, explains the basics of building construction practices in an accessible style. It discusses in detail every element of building construction from start to the finish—from site preparation to provision of services (such as water supply, drainage and electricity supply). Besides, the text describes acoustics and maintenance of buildings, which are important considerations in construction of buildings. This book is primarily designed as an introductory textbook for under-graduate students of civil engineering as well as those pursuing diploma courses in civil engineering and architecture. Practising engineers and any person who has a keen interest in the construction and maintenance of his/her own building will also find the book very helpful. **KEY FEATURES :** ? Separate Appendix is given to discuss earthquake-resistant design of buildings. ? Review Questions provided at the end of each chapter enable the readers recapitulate the topics. ? The references to IS codes and standards make the text suitable for further study and field use. ? Because of the lecture-based presentation of the subject, the text will be of considerable benefit for the young teachers for their classroom lectures.

Geology is the science of earth's crust (lithosphere) consisting of rocks and soils. While mining and mineralogical engineers are more interested in rocks, their petrology (formation) and mineralogy, civil engineers are equally interested in soils and rocks, in their formations, and

also in their properties for civil engineering design and construction. This book is so written that the subject can easily be taught by a civil engineering faculty member specialised in soil mechanics. Dexterously organized into four parts, this book in Part I (Chapters 1 to 11) deals with the formation of rocks and soils. The classification of soils, lake deposits, coastal deposits, wind deposits along with marshes and bogs are described in Part II (Chapters 12 to 20). As the book advances, it deals with the civil engineering problems connected with soils and rocks such as landslides, rock slides, mudflow, earthquakes, tsunami and other natural phenomena in Part III (Chapters 21 to 24). Finally, in Part IV (Chapters 25 to 30), this text discusses the allied subjects like the origin and nature of cyclones, rock mass classification and soil formation. Designed to serve as a textbook for the undergraduate students of civil engineering, this book is equally useful for the practising civil engineers. SALIENT FEATURES : Displays plenty of figures to clarify the concepts Includes chapter-end review exercises to enhance the problem-solving skills of the students Summary at the end of each chapter brings into focus the essence of the chapter Appendices at the end of the text supply extra information on important topics

Intended as a companion volume to the author's Limit State Design of Reinforced Concrete (published by Prentice-Hall of India), the Second Edition of this comprehensive and systematically organized text builds on the strength of the first edition, continuing to provide a clear and masterly exposition of the fundamentals of the theory of concrete design. The text meets the twin objective of catering to the needs of the postgraduate students of Civil Engineering and the needs of the practising civil engineers as it focuses also on the practices followed by the industry. This text, along with Limit State Design, covers the entire design

practice of revised Code IS456 (2000). In addition, it analyzes the procedures specified in many other BIS codes such as those on winds, earthquakes, and ductile detailing. What's New to This Edition Chapter 18 on Earthquake Forces and Structural Response of framed buildings has been completely revised and updated so as to conform to the latest I.S. Codes 1893 (2002) entitled Criteria for Earthquake Resistant Design of Structures (Part I - Fifth Revision). Chapters 19 and 21 which too deal with earthquake design have been revised. A Summary of elementary design of reinforced concrete members is added as Appendix. Valuable tables and charts are presented to help students and practising designers to arrive at a speedy estimate of the steel requirements in slabs, beams, columns and footings of ordinary buildings. Nothing has been more prolific over the past century than human/machine interaction. Automobiles, telephones, computers, manufacturing machines, robots, office equipment, machines large and small; all affect the very essence of our daily lives. However, this interaction has not always been efficient or easy and has at times turned fairly hazardous. The unprecedented expansion of higher education in India and the proliferation of providers in turn have posed enormous challenges to equity, quality and financing of the sector. The India Higher Education Report 2015 traces the evolution of higher education and discusses the key role of committees and commissions whose reports and recommendations form the backdrop of contemporary developments. Authoritative and comprehensive, the volume examines a range of themes including equity, financing, employment, quality, and governance. It also engages with new and recent data as well as current issues and debates. The volume will be an important resource for academics, policy makers, civil society organisations, media and those concerned with higher education. It will also be useful to scholars and researchers of

public policy, sociology and economics.

This edited volume addresses the pressing imperative to understand and attend to the needs of the fast-growing population of minority students who are increasingly considered "superdiverse" in their cultural, linguistic, and racial backgrounds. Superdiverse learners—including native-born learners (Indigenous and immigrant families), foreign-born immigrant students, and refugees—may fill multiple categories of "diversity" at once. This volume helps pre- and in-service teachers and teacher educators to move beyond the demographic backgrounds of superdiverse learners to consider not only their ways of being, motivations, and social processes, but also the ongoing systemic issues of marginalization and inequity that confront these learners. Challenging existing teaching and learning paradigms in the K-12 North American context, this volume provides new methods and examples for supporting superdiverse learners in a range of settings. Organized around different conceptual underpinnings of superdiversity, contributors identify the knowledge gaps and effective practices in engaging superdiverse learners, families and communities. With cutting-edge research on this growing topic, this text will appeal to researchers, scholars, educators, and graduate students in multilingual education, literacy education, teacher education, and international education.

This book gathers peer-reviewed contributions presented at the International Conference on Structural Engineering and Construction Management (SECON'21), held on 12-15 May 2021. The meeting served as a fertile platform for discussion, sharing sound knowledge and introducing novel ideas on issues related to sustainable construction and design for the future. The respective contributions address various aspects of numerical modeling and simulation in

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structural engineering, structural dynamics and earthquake engineering, advanced analysis and design of foundations, BIM, building energy management, and technical project management. Accordingly, the book offers a valuable, up-to-date tool and essential overview of the subject for scientists and practitioners alike, and will inspire further investigations and research. .

This contributed volume encompasses contributions by eminent researchers in the field of geotechnical engineering. The chapters of this book are based on the keynote and sub-theme lectures delivered at the Indian Geotechnical Conference 2017. The book provides a comprehensive overview of the current state-of-the-art research and practices in different domains of geotechnical engineering in the areas of soil dynamics, earth retaining structures, ground improvement, and geotechnical and geophysical investigations. It will serve as an ideal resource for academics, researchers, practicing professionals, and students alike.

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.

This is a concise, systematic and complete treatment of the design and construction of pile foundations. Discusses pile behavior under various loadings and types of piles and their installation, including consideration of soil parameters. It provides step-by-step design procedures for piles subject to vertical loading and pullout, lateral, inclined and eccentric loads, or dynamic loads, and for piles in permafrost. Also describes load test procedures and their interpretation and buckling of long, slender piles with and without supported length. The closing chapter presents case histories of prediction and performance of piles and pile groups. Includes numerous solved problems.

For nearly a decade, *Teaching for Diversity and Social Justice* has been the definitive sourcebook of theoretical foundations and curricular frameworks for social justice teaching practice. This thoroughly revised second edition continues to provide teachers and facilitators with an accessible pedagogical approach to issues of oppression in classrooms. Building on the groundswell of interest in social justice education, the second edition offers coverage of current issues and controversies while preserving the

hands-on format and inclusive content of the original. Teaching for Diversity and Social Justice presents a well-constructed foundation for engaging the complex and often daunting problems of discrimination and inequality in American society. This book includes a CD-ROM with extensive appendices for participant handouts and facilitator preparation.

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