

Staad Pro User Guide

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Pixologic ZBrush 4R8: A Comprehensive Guide, 4th Edition - Prof. Sham Tickoo

Pixologic ZBrush 4R8: A Comprehensive Guide book covers all features of ZBrush 4R8 in a simple, lucid, and comprehensive manner. It gives in-depth details of the concepts and explains the usage and functions of ZBrush such as DynaMesh, NanoMesh, ZRemesher, ZModeler, NanoMesh, and KeyShot renderer. In this edition, new features such as Gizmo 3D and the Live Boolean mode, which is used to generate boolean results, have been explained. This book will unleash your creativity and transform your imagination into reality, thus helping you create realistic 3D models. This book caters to the needs of both the novice and advanced users of ZBrush 4R8 and is ideally suited for learning at your convenience and at your pace. Salient Features: Consists of 12 chapters and 1 project that are organized in a pedagogical sequence covering various aspects of modeling, texturing, lighting, and animation. The author has followed the tutorial approach to explain various concepts of modeling, texturing, lighting, and animation. The first page of every chapter summarizes the topics that will be covered in it. Step-by-step instructions that guide the users through the learning process. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation test and Review Questions are given at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Exploring ZBrush Interface Chapter 2: Sculpting Brushes Chapter 3: Introduction to Digital Sculpting Chapter 4: SubTools and FiberMesh Chapter 5: ZSpheres Chapter 6: DynaMesh, NanoMesh, and ZRemesher Chapter 7: ShadowBox Chapter 8: Materials in ZBrush Chapter 9: Texturing in ZBrush Chapter 10: UV Master Chapter 11: Lighting Chapter 12: Rendering Project 1: Cartoon Character Modeling Index

BIM Handbook - Rafael Sacks 2018-07-03

Discover BIM: A better way to build better buildings Building Information Modeling (BIM) offers a novel approach to design, construction, and facility management in which a digital representation of the building product and process is used to facilitate the exchange and interoperability of information in digital format. BIM is beginning to change the way buildings look, the way they function, and the ways in which they are designed and built. The BIM Handbook, Third Edition provides an in-depth understanding of BIM technologies, the business and organizational issues associated with its implementation, and the profound advantages that effective use of BIM can provide to all members of a project team. Updates to this edition include: Information on the ways in which professionals should use BIM to gain maximum value New topics such as collaborative working, national and major construction clients, BIM standards and guides A discussion on how various professional roles have expanded through the widespread use and the new avenues of BIM practices and services A wealth of new case studies that clearly illustrate exactly how BIM is applied in a wide variety of conditions Painting a colorful and thorough picture of the state of the art in building information modeling, the BIM Handbook, Third Edition guides readers to successful implementations, helping them to avoid needless frustration and costs and take full advantage of this paradigm-shifting approach to construct better buildings that consume fewer materials and require less time, labor, and capital resources.

Exploring Bentley STAAD.Pro V8i (SELECTseries 6) - Prof. Sham Tickoo 2017-02-09

Exploring Bentley STAAD.Pro V8i (SELECTseries 6) is a comprehensive book that has been written to cater to the needs of the students and professionals. The chapters in this book are structured in a pedagogical sequence, which makes the learning process very simple and effective for both the novice as well as the advanced users of STAAD.Pro. In this book, the author explains in detail the procedure of creating 2D and 3D models, assigning material constants, assigning cross-section properties, assigning supports, defining different loads, performing analysis, viewing

results, and preparing report. The chapters in the book are punctuated with tips and notes, wherever necessary, to make the concepts clear, thereby enabling the user to create his own innovative projects. Salient Features: Detailed explanation of Bentley STAAD.Pro concepts Projects given as examples Step-by-step examples to guide the users through the learning process Tips and Notes throughout the book 282 pages of illustrated text Self-Evaluation Tests and Review Questions Table of Contents Chapter 1: Introduction to STAAD.Pro V8i Chapter 2: Structural Modeling in STAAD.Pro Chapter 3: Structural Modeling Using Tools Chapter 4: Defining Material Constants and Section Properties Chapter 5: Specifications and Supports Chapter 6: Loads Chapter 7: Performing Analysis, Viewing Results, and Preparing Report Chapter 8: Structural Modeling Using Building Planner Index

3D Max 2019 Training Guide - Linkan Sagar 2019-09-18

Let Your Creativity travel without moving your feet... DESCRIPTION Book is short, lively and based on practical platforms. Everything has been given step by step by using real-world and imagined examples. It takes the reader through the content design process explaining everything along the way. Welcome to the world of Autodesk 3ds Max, a 3D modeling, animation, and rendering software package developed by Autodesk Inc. It is widely used by architects, game developers, design visualization specialists, and visual effects artists. A wide range of modeling and texturing tools make it an ideal platform for 3D modelers and animators. The intuitive user interface and workflow tools of Autodesk 3ds Max have made the job of design visualization specialists easier. Autodesk 3ds Max 2019 Training guide is a tutorial-based textbook that introduces the readers to the basic features of 3ds Max 2019 created on real world model through tutorials. The textbook caters to the needs of both the novice and the advanced users of the software. This textbook will help you unleash your creativity and help you create simple and complete 3D models and animations. The textbook will help the learners transform their imagination into reality with ease. KEY FEATURES Step by step explanation. Tutorial book using real world example. Easy to Learn and simple to understand. WHAT WILL YOU LEARN 3Ds max, its graphical user interface. Standard, extended primitives. Spline, Nurb curves, object space modifiers. Basic and Advance modelling tools. WHO THIS BOOK IS FOR 3D designer, 3D modular and Interior designer Table of Contents 1. Introduction & Overview 2. Create-Geometry 3. Create-Shape and Basic Tool 4. Modify-Object Space Modifiers 5. Basic Tools 6. Advance Modeling Tools

AutoCAD 2022: A Problem - Solving Approach, Basic and Intermediate, 28th Edition - Prof. Sham Tickoo 2021-06-01

AutoCAD 2022: A Problem-Solving Approach, Basic and Intermediate, 28th Edition book contains a detailed explanation of AutoCAD commands and their applications to solve drafting and design problems. In this book, every AutoCAD command is thoroughly explained with the help of examples and illustrations. This makes it easy for the users to understand the functions of the tools and their applications in the drawing. After reading this book, the user will be able to use AutoCAD commands to make a drawing, dimension a drawing, apply constraints to sketches, insert symbols as well as create text, blocks, and dynamic blocks. The book also covers basic drafting and design concepts such as dimensioning principles and assembly drawings that equip the users with the essential drafting skills to solve the drawing problems in AutoCAD. While reading this book, you will discover some new tools introduced in AutoCAD 2022 such as DWG Compare, Save to Web & Mobile, and Shared Views that will enhance the usability of the software.

Exploring Bentley STAAD.Pro CONNECT Edition, V22, Update 8, 5th Edition - Prof. Sham Tickoo 2022-05-02

Exploring Bentley STAAD.Pro CONNECT Edition, V22, Update 8 is a comprehensive book that has been written to cater to the needs of the students and professionals who are involved in the AEC profession. This textbook enables the users to harness the power of Structural Analysis

with Bentley STAAD.Pro Connect Edition, V22 Update 8 for their specific use. In this textbook, the author emphasizes on physical modelling, supports, loads, Structural Analysis, Structural Elements and Creating Reports. Also, Exploring Bentley STAAD.Pro Connect Edition book covers the description of various stages involved in analyzing and designing the model in a pedagogical order. This textbook is specially meant for professionals and students in structural engineering, civil engineering, and allied fields in the AEC industry. Salient Features Detailed explanation of concepts Real-world projects given as example Tips and Notes throughout the book 283 pages of heavily illustrated text Self-Evaluation Tests, Review Questions, and Exercises at the end of the chapters Table of Contents Chapter 1: Introduction to STAAD.Pro CONNECT Edition Chapter 2: Structural Modeling in STAAD.Pro Chapter 3: Structural Modeling Using Tools Chapter 4: Defining Material Constants and Section Properties Chapter 5: Specifications and Supports Chapter 6: Loads Chapter 7: Performing Analysis, Viewing Results, and Preparing Report Chapter 8: Physical Modeling Index

Autodesk Maya 2022: A Comprehensive Guide, 13th Edition - Prof. Sham Tickoo 2021-07-28

Autodesk Maya 2022 is a powerful, integrated 3D modeling, animation, visual effects, and rendering software developed by Autodesk Inc. This integrated node-based 3D software finds its application in the development of films, games, and design projects. The intuitive user interface and workflow tools of Maya 2022 have made the job of design visualization specialists a lot easier. Autodesk Maya 2022: A Comprehensive Guide book covers all features of Autodesk Maya 2022 software in a simple, lucid, and comprehensive manner. It aims at harnessing the power of Autodesk Maya 2022 for 3D and visual effects artists and designers. It caters to the needs of both the novice and advanced users of Maya 2022 and is ideally suited for learning at your convenience and at your pace. Our latest edition covers new tools and enhancements in modeling, animation, rigging and much more. The performance improvements in tools such as Bifrost, XGen, and Arnold renderer are covered in depth. The author has also explained the newly introduced tool, Sweep Mesh, with the help of suitable examples and tutorials. Salient Features Consists of 17 chapters that are organized in a pedagogical sequence covering a wide range of topics such as Maya interface, Polygon modeling, NURBS modeling, texturing, lighting, cameras, animation, Paint Effects, Rendering, nHair, XGen Fur, Fluids, Particles, nParticles and Bullet Physics, Motion Graphics, and MASH in Autodesk Maya 2022. The first page of every chapter summarizes the topics that are covered in it. Consists of hundreds of illustrations and a comprehensive coverage of Autodesk Maya 2022 concepts & commands. Real-world 3D models and examples focusing on industry experience. Step-by-step instructions that guide the user through the learning process. Additional information is provided throughout the book in the form of tips and notes. Self-Evaluation test, Review Questions, and Exercises are given at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Exploring Maya Interface Chapter 2: Polygon Modeling Chapter 3: NURBS Curves and Surfaces Chapter 4: NURBS Modeling Chapter 5: UV Mapping Chapter 6: Shading and Texturing Chapter 7: Lights and Cameras Chapter 8: Animation Chapter 9: Rigging, Constraints, and Deformers Chapter 10: Paint Effects Chapter 11: Rendering Chapter 12: Particle System Chapter 13: Introduction to nParticles Chapter 14: Fluids Chapter 15: nHair and XGen Chapter 16: Bifrost Chapter 17: Bullet Physics and Motion Graphics Index

Development of a Bridge Construction Live Load Analysis Guide - Michael J. Garlich 2011

Advanced AutoCAD 2018: A Problem-Solving Approach, 3D and Advanced, 24th Edition - Prof. Sham Tickoo 2017-07-31

The Advanced AutoCAD 2018: A Problem Solving Approach, 3D and Advanced, 24th Edition book contains detailed explanation of AutoCAD commands and their applications to solve design problems. Every AutoCAD command is thoroughly explained with the help of examples and illustrations. This makes it easy for the users to understand the functions and applications of the tools and commands. After reading this book, you will be able to create 3D objects, apply materials to objects, generate drafting views of a model, create surface or mesh objects, and render and animate designs, and understand 3D Printing. The book covers designing concepts in detail as well as provides elaborative description of technical drawing in AutoCAD including orthographic projections, dimensioning principles, sectioning, auxiliary views, and assembly drawings. While going through this book, you will discover

some new unique applications of AutoCAD that will have a significant effect on your drawings and designs. The book also covers the 3D printing tools introduced in AutoCAD. Salient Features: Comprehensive book consisting 14 chapters that are organized in a pedagogical sequence. Detailed explanation of all commands and tools. Summarized content on the first page of the topics that are covered in the chapter. Hundreds of illustrations for easy understanding of concepts. Step-by-step instructions to guide the users through the learning process. More than 25 real-world mechanical engineering designs as examples. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of the chapters to help the users assess their knowledge. Technical support by contacting 'techsupport@cadcam.com' Additional learning resources at 'https://allaboutcadcam.blogspot.com' Table of Contents Chapter 1: The User Coordinate System Chapter 2: Getting Started with 3D Chapter 3: Creating Solid Models Chapter 4: Editing 3D Objects-I Chapter 5: Editing 3D Objects-II Chapter 6: Surface Modeling Chapter 7: Mesh Modeling Chapter 8: Rendering and Animating Designs Chapter 9: AutoCAD on Internet and 3D Printing Chapter 10: Script Files and Slide Shows Chapter 11: Creating Linetypes and Hatch Patterns Chapter 12: Customizing the acad.pgp File Chapter 13: Conventional Dimensioning and Projection Theory Using AutoCAD Chapter 14: Isometric Drawings Index

Autodesk Maya 2020: A Comprehensive Guide, 12th Edition - Prof. Sham Tickoo 2020-04-08

Autodesk Maya 2020 is a powerful, integrated 3D modeling, animation, visual effects, and rendering software developed by Autodesk Inc. This integrated node based 3D software finds its application in the development of films, games, and design projects. The intuitive user interface and workflow tools of Maya 2020 have made the job of design visualization specialists a lot easier. Autodesk Maya 2020: A Comprehensive Guide covers all features of Autodesk Maya 2020 software in a simple, lucid, and comprehensive manner. It will unleash your creativity, thus helping you create realistic 3D models, animation, and visual effects. In this edition, new tools and enhancements in modeling, animation, rigging as well as performance improvements in bifrost are covered. Additionally, the newly introduced Mash module, which is used for creating motion graphics, is also covered in the book. Salient Features: Consists of 17 chapters that are organized in a pedagogical sequence covering a wide range of topics such as Maya interface, Polygon modeling, NURBS modeling, texturing, lighting, cameras, animation, Paint Effects, Rendering, nHair, Fur, Fluids, Particles, nParticles and Bullet Physics in Autodesk Maya 2020. The first page of every chapter summarizes the topics that are covered in it. Consists of hundreds of illustrations and a comprehensive coverage of Autodesk Maya 2020 concepts & commands. Real-world 3D models and examples focusing on industry experience. Step-by-step instructions that guide the user through the learning process. Additional information is provided throughout the book in the form of tips and notes. Self-Evaluation test, Review Questions, and Exercises are given at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Exploring Maya Interface Chapter 2: Polygon Modeling Chapter 3: NURBS Curves and Surfaces Chapter 4: NURBS Modeling Chapter 5: UV Mapping Chapter 6: Shading and Texturing Chapter 7: Lighting Chapter 8: Animation Chapter 9: Rigging, Constraints, and Deformers Chapter 10: Paint Effects Chapter 11: Rendering Chapter 12: Particle System Chapter 13: Introduction to nParticles Chapter 14: Fluids Chapter 15: nHair Chapter 16: Bifrost Chapter 17: Bullet Physics and Motion Graphics Index

Infrastructure Health in Civil Engineering - Mohammed M. Ettouney 2011-09-27

Continually increasing demands on infrastructures mean that maintenance and renewal require timely, appropriate action that maximizes benefits while minimizing cost. To be as well informed as possible, decision-makers must have an optimal understanding of an infrastructure's condition—what it is now, and what it is expected to be in the future. Written by two highly respected engineers, the second volume, Infrastructure Health in Civil Engineering: Applications and Management, integrates the decision making concept into theoretical and practical issues. It covers: State-of-the-art practice and future directions Use of probability and statistics in areas including structural modeling Specific practical applications, including retrofitting and rehabilitation in response to earthquake damage, corrosion, fatigue, and bridge security Use of IHCE for management and maintenance of different types of structures using pre-stressed and reinforced concrete,

and fiber-reinforced polymers (FRPs) Numerous practical case studies, as well as coverage of the latest techniques in the use of sensors for damage detection and load testing Built to correspond to the ideas presented in its companion volume, Theory and Components, this is an invaluable guide to optimized, cost-saving methods that will help readers meet safety specifications for new projects, as well as the aging infrastructure at great risk of failure.

Exploring Bentley STAAD.Pro CONNECT Edition, V22, 4th Edition

- Prof. Sham Tickoo 2021-03-27

Exploring Bentley STAAD.Pro CONNECT Edition, V22 has been written to cater to the needs of the students and professionals. The chapters in this book are structured in a pedagogical sequence, which makes the learning process very simple and effective for both the novice as well as the advanced users of STAAD.Pro CONNECT Edition. In this book, the author explains in detail the procedure of creating 2D and 3D models, assigning material constants, assigning cross-section properties, assigning supports, defining different loads, performing analysis, viewing results, and preparing report. The chapters in the book are punctuated with tips and notes, wherever necessary, to make the concepts clear, thereby enabling the user to create his own innovative projects. Salient Features Detailed explanation of concepts Real-world projects given as example Tips and Notes throughout the book 283 pages of heavily illustrated text Self-Evaluation Tests, Review Questions, and Exercises at the end of the chapters Table of Contents Chapter 1: Introduction to STAAD.Pro CONNECT Edition Chapter 2: Structural Modeling in STAAD.Pro Chapter 3: Structural Modeling Using Tools Chapter 4: Defining Material Constants and Section Properties Chapter 5: Specifications and Supports Chapter 6: Loads Chapter 7: Performing Analysis, Viewing Results, and Preparing Report Chapter 8: Physical Modeling Index

AutoCAD LT 2020 for Designers, 13th Edition - Prof. Sham Tickoo

The AutoCAD LT 2020 for Designers, 13th Edition book explains commands, tools and their applications to solve drafting and design problems. In this book, every AutoCAD LT command is thoroughly explained with the help of examples and illustrations. This makes it easy for the users to understand the functions of the tools and their applications in the drawing. After reading this AutoCAD LT book, the user will be able to use AutoCAD LT commands to make a drawing, dimension a drawing, apply constraints to sketches, insert symbols as well as create text, blocks and dynamic blocks. This AutoCAD LT book also covers basic drafting and design concepts such as dimensioning principles and assembly drawings that equip the users with the essential drafting skills to solve the drawing problems in AutoCAD LT. While reading this book, you will learn about Blocks palette, Save to Web & Mobile, and Shared Views that will enhance the usability of the software. Salient Features: Comprehensive book with chapters organized in a pedagogical sequence. Detailed explanation of all commands and tools. Summarized content on the first page of the topics that are covered in the chapter. Hundreds of illustrations for easy understanding of concepts. Step-by-step instructions to guide the users through the learning process. More than 30 real-world mechanical engineering designs as examples. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of each chapter to help the users assess their knowledge. Table of Contents Chapter 1: Introduction to AutoCAD LT Chapter 2: Getting Started with AutoCAD LT Chapter 3: Getting started with Advanced Sketching Chapter 4: Working with Drawing Aids Chapter 5: Editing Sketched Objects-I Chapter 6: Editing Sketched Objects-II Chapter 7: Creating Texts and Tables Chapter 8: Basic Dimensioning, Geometric Dimensioning, and Tolerancing Chapter 9: Editing Dimensions Chapter 10: Dimension Styles, Multileader Styles, and System Variables Chapter 11: Hatching Drawings Chapter 12: Model Space Viewports, Paper Space Viewports, and Layouts Chapter 13: Plotting Drawings Chapter 14: Template Drawings Chapter 15: Working with Blocks Chapter 16: Defining Block Attributes Chapter 17: Understanding External References Chapter 18: Working with Advanced Drawing Options* Chapter 19: Grouping and Advanced Editing of Sketched Objects* Chapter 20: Working with Data Exchange & Object Linking and Embedding* Chapter 21: Conventional Dimensioning and Projection Theory using AutoCAD LT* Chapter 22: Concepts of Geometric Dimensioning and Tolerancing* Chapter 23: Isometric Drawings* Index (* For Free Download)

Autodesk Inventor Professional 2019 for Designers, 19th Edition - Prof. Sham Tickoo

Autodesk Inventor Professional 2019 for Designers is a comprehensive

book that introduces the users to Autodesk Inventor 2019, a feature-based 3D parametric solid modeling software. All environments of this solid modeling software are covered in this book with thorough explanation of commands, options, and their applications to create real-world products. The mechanical engineering industry examples that are used as tutorials and the related additional exercises at the end of each chapter help the users to understand the design techniques used in the industry to design a product. Additionally, the author emphasizes on the solid modeling techniques that will improve the productivity and efficiency of the users. After reading this book, the users will be able to create solid parts, sheet metal parts, assemblies, weldments, drawing views with bill of materials, presentation views to animate the assemblies, and apply direct modeling techniques to facilitate rapid design prototyping. Salient Features: Detailed explanation of all concepts, techniques, commands, and tools of Autodesk Inventor Professional 2019 Tutorial approach to explain the concepts Step-by-step instructions and real-world mechanical engineering designs as tutorials and projects Additional information in the form of notes and tips Self-Evaluation Test, Review Questions, and Exercises at the end of each chapter for the users can assess their knowledge. Technical support by contacting 'techsupport@cadcam.com' Additional learning resources at 'allaboutcadcam.blogspot.com'. Table of Contents Chapter 1: Introduction Chapter 2: Drawing Sketches for Solid Models Chapter 3: Adding Constraints and Dimensions to Sketches Chapter 4: Editing, Extruding, and Revolving the Sketches Chapter 5: Other Sketching and Modeling Options Chapter 6: Advanced Modeling Tools-I Chapter 7: Editing Features and Adding Automatic Dimensions to Sketches Chapter 8: Advanced Modeling Tools-II Chapter 9: Assembly Modeling-I Chapter 10: Assembly Modeling-II Chapter 11: Working with Drawing Views-I Chapter 12: Working with Drawing Views-II Chapter 13: Presentation Module Chapter 14: Working with Sheet Metal Components Chapter 15: Introduction to Stress Analysis Chapter 16: Introduction to Weldments * Chapter 17: Miscellaneous Tools * Chapter 18: Working with Special Design Tools * Chapter 19: Introduction to Plastic Mold Design * Index *(Free download from CAD/CIM Website) Free Teaching and Learning Resources Part files used in tutorials, exercises*, and illustrations Instructor Guide with solution to all review questions and exercises* (* For faculty only)

Design of R.C.C. Buildings using Staad Pro V8i with Indian Examples - T S Sarma 2017-12-16

This book is intended to give a basic knowledge of design of R.C.C buildings using Staad Pro V8i, to those who already have some knowledge in working in this software. This is highly useful for Civil Engineering Students who want to develop design skills in R.C.C. by using Staad Pro. Indian Code references were given where ever necessary and many snapshots of working example are inserted in almost every page of the book so that the reader can understand easily. This book is highly suitable for Indian Civil Engineers, as all the examples are in Indian Code methods. This will greatly benefit practicing engineers and students in India as this is the first detailed book on R.C.C building design using Staad Pro, with Indian Examples. Static method and Dynamic method of analysis has been explained by taking the same example problem, so that the reader can understand the differences in those methods.

BIM Handbook - Charles M. Eastman 2011-04-19

"The BIM Handbook presents the technology and processes behind BIM and how architects, engineers, contractors and sub-contractors, construction and facility owners (AECO) can take advantage of the new technology and work process. Unlike CAD, BIM is a major paradigm shift in the documentation, work processes and exchange of project information. It facilitates collaboration and further automation, in both design and construction. AEC professionals need a handbook to guide them through the various BIM technologies and related processes. The collaborative nature of BIM requires professionals to view BIM from various industry perspectives and understand how BIM supports multiple project participants. The BIM Handbook reviews BIM processes and tools from multiple perspectives: the owner, architects and engineers, contractors, subcontractors and fabricators"--

Computational Analysis and Design of Bridge Structures - Chung C. Fu 2014-12-11

Gain Confidence in Modeling Techniques Used for Complicated Bridge Structures Bridge structures vary considerably in form, size, complexity, and importance. The methods for their computational analysis and design range from approximate to refined analyses, and rapidly improving computer technology has made the more refined and complex

methods of ana

Advances in Structural Engineering and Rehabilitation - Sondipon Adhikari 2019-06-12

This book comprises select papers presented at the International Conference on Trends and Recent Advances in Civil Engineering (TRACE 2018). The book covers a wide range of topics related to recent advancements in structural engineering, structural health monitoring, rehabilitation and retrofitting of structures, and earthquake-resistant structures. Based on case studies and laboratory investigations, the book highlights latest techniques and innovative methods for building repair and maintenance. Recent development in materials being used in structural rehabilitation and retrofitting is also discussed. The contents of this book can be useful for researchers and professionals working in structural engineering and allied areas.

FUNDAMENTALS OF SURVEYING - S.K. ROY 2010-10-11

Primarily aimed to be an introductory text for the first course in surveying for civil, architecture and mining engineering students, this book, now in its second edition, is also suitable for various professional courses in surveying. Written in a simple and lucid language, this book at the outset, presents a thorough introduction to the subject. Different measurement errors with their types and nature are described along with measurement of horizontal distances and electronic distances measurements. This text covers in detail the topics in levelling, angles and directions and compass survey. The functions and uses of different instruments, such as theodolites, tacheometers and stadia rods are also covered in the text. Besides, the book elaborates different fields of surveying, such as plane table surveying, topographical surveying, construction surveying and underground surveys. Finally, the book includes a chapter on computer applications in surveying. **KEY FEATURES** : Includes about 400 figures to explain the fundamentals of surveying. Uses SI units throughout the book. Offers more than 170 fully-solved examples including the questions generated from premier universities. Provides a large number of problems and answers at the end of each chapter. Incorporates objective questions from AMIE exams and Indian Engineering Services exams.

Autodesk Maya 2019: A Comprehensive Guide, 11th Edition - Prof. Sham Tickoo

Autodesk Maya 2019 is a powerful, integrated 3D modeling, animation, visual effects, and rendering software developed by Autodesk Inc. This integrated node based 3D software finds its application in the development of films, games, and design projects. A wide range of 3D visual effects, computer graphics, and character animation tools make it an ideal platform for 3D artists. The intuitive user interface and workflow tools of Maya 2019 have made the job of design visualization specialists a lot easier. Autodesk Maya 2019: A Comprehensive Guide book covers all features of Autodesk Maya 2019 software in a simple, lucid, and comprehensive manner. It aims at harnessing the power of Autodesk Maya 2019 for 3D and visual effect artists, and designers. This Autodesk Maya 2019 book will help you transform your imagination into reality with ease. Also, it will unleash your creativity, thus helping you create realistic 3D models, animation, and visual effects. It caters to the needs of both the novice and advanced users of Maya 2019 and is ideally suited for learning at your convenience and at your pace. **Salient Features:** Consists of 17 chapters that are organized in a pedagogical sequence covering a wide range of topics such as Maya interface, Polygon modeling, NURBS modeling, texturing, lighting, cameras, animation, Paint Effects, Rendering, nHair, Fur, Fluids, Particles, nParticles and Bullet Physics in Autodesk Maya 2019. The first page of every chapter summarizes the topics that are covered in it. Consists of hundreds of illustrations and a comprehensive coverage of Autodesk Maya 2019 concepts & commands. Real-world 3D models and examples focusing on industry experience. Step-by-step instructions that guide the user through the learning process. Additional information is provided throughout the book in the form of tips and notes. Self-Evaluation test, Review Questions, and Exercises are given at the end of each chapter so that the users can assess their knowledge. **Table of Contents** Chapter 1: Exploring Maya Interface Chapter 2: Polygon Modeling Chapter 3: NURBS Curves and Surfaces Chapter 4: NURBS Modeling Chapter 5: UV Mapping Chapter 6: Shading and Texturing Chapter 7: Lighting Chapter 8: Animation Chapter 9: Rigging, Constraints, and Deformers Chapter 10: Paint Effects Chapter 11: Rendering Chapter 12: Particle System Chapter 13: Introduction to nParticles Chapter 14: Fluids Chapter 15: nHair Chapter 16: Bifrost Chapter 17: Bullet Physics Index

Pixologic ZBrush 2020: A Comprehensive Guide, 6th Edition - Prof. Sham Tickoo 2020-05-04

Pixologic ZBrush 2020: A Comprehensive Guide covers all features of ZBrush 2020 in a simple, lucid, and comprehensive manner. It gives in-depth details of the concepts and explains the usage and tools of ZBrush such as DynaMesh, NanoMesh, ZRemesher, ZModeler, NanoMesh, and KeyShot renderer. This book will unleash your creativity and transform your imagination into reality, thus helping you create realistic 3D models. In this edition, the author has provided detailed explanation of some new and enhanced concepts such as CamView and Spotlight. Moreover, new sculpting brushes like XTractor and HistoryRecall have been covered. Additionally, the concepts like Array, ZPlugin, and FiberMesh are explained with the help of step by step instructions. **Salient Features** Consists of 12 chapters & 1 project that are organized in a pedagogical sequence. Covers all aspects such as modeling, texturing, lighting, & animation in ZBrush. Tutorial approach to explain the concepts and usage of tools. First page of every chapter summarizes the topics that are covered in the chapter. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation test & Review Questions at the end of each chapter so that the users can assess their knowledge. **Table of Contents** Chapter 1: Exploring ZBrush Interface Chapter 2: Sculpting Brushes Chapter 3: Introduction to Digital Sculpting Chapter 4: SubTools and FiberMesh Chapter 5: ZSpheres Chapter 6: DynaMesh, NanoMesh, and ZRemesher Chapter 7: ShadowBox Chapter 8: Materials in ZBrush Chapter 9: Texturing in ZBrush Chapter 10: UV Master Chapter 11: Lighting Chapter 12: Rendering Project 1: Cartoon Character Modeling Index

AutoCAD 2021: A Problem - Solving Approach, Basic and Intermediate, 27th Edition - Prof. Sham Tickoo 2020-06-16

AutoCAD 2021: A Problem-Solving Approach, Basic and Intermediate, 27th Edition book contains a detailed explanation of AutoCAD commands and their applications to solve drafting and design problems. In this book, every AutoCAD command is thoroughly explained with the help of examples and illustrations to make it easy for the users to understand the functions of the tools and their applications in the drawing. After reading this book, the user will be able to use AutoCAD commands to make a drawing, dimension a drawing, apply constraints to sketches, insert symbols as well as create text, blocks and dynamic blocks. The Autodesk AutoCAD 2021 book also covers basic drafting and design concepts such as dimensioning principles and assembly drawings that equip the users with the essential drafting skills to solve the drawing problems in AutoCAD. While reading this book, you will discover some new tools such as DWG Compare, Save to Web & Mobile, and Shared Views that will enhance the usability of the software. **Salient Features** Comprehensive book with chapters organized in a pedagogical sequence. Detailed explanation of all commands and tools. Summarized content on the first page of every chapter. Hundreds of illustrations and step-by-step instructions for easy learning. Notes and tips as additional information. Self-Evaluation Tests and Review Questions at the end of each chapter. **Table of Contents** Chapter 1: Introduction to AutoCAD Chapter 2: Getting Started with AutoCAD Chapter 3: Getting started with Advanced Sketching Chapter 4: Working with Drawing Aids Chapter 5: Editing Sketched Objects-I Chapter 6: Editing Sketched Objects-II Chapter 7: Creating Texts and Tables Chapter 8: Basic Dimensioning, Geometric Dimensioning, and Tolerancing Chapter 9: Editing Dimensions Chapter 10: Dimension Styles, Multileader Styles, and System Variables Chapter 11: Adding Constraints to Sketches Chapter 12: Hatching Drawings Chapter 13: Model Space Viewports, Paper Space Viewports, and Layouts Chapter 14: Plotting Drawings Chapter 15: Template Drawings Chapter 16: Working with Blocks Chapter 17: Defining Block Attributes Chapter 18: Understanding External References Chapter 19: Working with Advanced Drawing Options Chapter 20: Grouping and Advanced Editing of Sketched Objects Chapter 21: Working with Data Exchange & Object Linking and Embedding Chapter 22: Conventional Dimensioning and Projection Theory using AutoCAD * Chapter 23: Concepts of Geometric Dimensioning and Tolerancing * Chapter 24: Isometric Drawings * Index * (For free download) **Free Teaching and Learning Resources:** CADCIM Technologies provides the following free teaching and learning resources with this book: Technical support by contacting 'techsupport@cadcim.com' Part files used in examples, exercises*, and illustrations Instructor Guide with solution to all review questions and exercises* Additional learning resources at 'allaboutcadcam.blogspot.com' and 'youtube.com/cadcimtech' (* For Faculty only)

Pixologic ZBrush 2021: A Comprehensive Guide, 7th Edition - Prof. Sham Tickoo 2021-05-01

Pixologic ZBrush 2021: A Comprehensive Guide book covers all features

of ZBrush 2021 in a simple, lucid, and comprehensive manner. It provides in-depth details of the concepts and explains the usage and tools of ZBrush such as DynaMesh, NanoMesh, ZRemesher, ZModeler, NanoMesh, and KeyShot renderer. This book will unleash your creativity and transform your imagination into reality, thus helping you create realistic 3D models. This book caters to the needs of both the novice and advanced users of ZBrush 2021 and is ideally suited for learning at your convenience and pace. In this edition, cloth brushes and various other new brushes such as History, Recall, Hatch, and so on have also been explained with the help of suitable examples for the readers to enhance their skills. In addition, a new chapter on Dynamics describing in detail the realistic cloth simulation and fiber mesh simulation has been added to make this book an ideal resource for the ZBrush users. Salient Features Consists of 13 chapters & 1 project that are organized in a pedagogical sequence. Covers all aspects such as modeling, texturing, lighting, & animation in ZBrush. Tutorial approach to explain the concepts and usage of tools. First page of every chapter summarizes the topics that are covered in the chapter. Step-by-step instructions to guide the users through the learning process. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation test & Review Questions at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Exploring ZBrush Interface (Enhanced) Chapter 2: Sculpting Brushes (Enhanced) Chapter 3: Introduction to Digital Sculpting (Enhanced) Chapter 4: SubTools and FiberMesh Chapter 5: ZSpheres Chapter 6: DynaMesh, NanoMesh, and ZRemesher Chapter 7: ShadowBox Chapter 8: Materials in ZBrush Chapter 9: Texturing in ZBrush Chapter 10: UV Master Chapter 11: Lighting Chapter 12: Rendering (Enhanced) Chapter 13: Dynamics (New) Project 1: Cartoon Character Model with a Background Scene Index

Autodesk Maya 2018: A Comprehensive Guide, 10th Edition - Prof. Sham Tickoo 2017-08-29

Welcome to the world of Autodesk Maya 2018. Autodesk Maya 2018 is a powerful, integrated 3D modeling, animation, visual effects, and rendering software developed by Autodesk Inc. This integrated node based 3D software finds its application in the development of films, games, and design projects. A wide range of 3D visual effects, computer graphics, and character animation tools make it an ideal platform for 3D artists. The intuitive user interface and workflow tools of Maya 2018 have made the job of design visualization specialists a lot easier.

Autodesk Maya 2018: A Comprehensive Guide book covers all features of Autodesk Maya 2018 in a simple, lucid, and comprehensive manner. It aims at harnessing the power of Autodesk Maya 2018 for 3D and visual effects artists, and designers. This book will help you transform your imagination into reality with ease. Also, it will unleash your creativity, thus helping you create realistic 3D models, animation, and visual effects. It caters to the needs of both the novice and advanced users of Maya 2018 and is ideally suited for learning at your convenience and at your pace. Salient Features Consists of 17 chapters that are organized in a pedagogical sequence covering a wide range of topics such as Maya interface, Polygon modeling, NURBS modeling, texturing, lighting, cameras, animation, Paint Effects, Rendering, nHair, Fur, Fluids, Particles, nParticles and Bullet Physics in Autodesk Maya 2018. The first page of every chapter summarizes the topics that are covered in it.

Consists of hundreds of illustrations and a comprehensive coverage of Autodesk Maya 2018 concepts and commands. Real-world 3D models and examples focusing on industry experience. Step-by-step instructions that guide the user through the learning process. Additional information is provided throughout the book in the form of tips and notes. Self-Evaluation test, Review Questions, and Exercises are given at the end of each chapter so that the users can assess their knowledge. Additional learning resources at 'mayaexperts.blogspot.com'. Table of Contents Chapter 1: Exploring Maya Interface Chapter 2: Polygon Modeling Chapter 3: NURBS Curves and Surfaces Chapter 4: NURBS Modeling Chapter 5: UV Mapping Chapter 6: Shading and Texturing Chapter 7: Lighting Chapter 8: Animation Chapter 9: Rigging, Constraints, and Deformers Chapter 10: Paint Effects Chapter 11: Rendering Chapter 12: Particle System Chapter 13: Introduction to nParticles Chapter 14: Fluids Chapter 15: nHair Chapter 16: Maya Fur Chapter 17: Bullet Physics Index

Exploring Bentley STAAD.Pro CONNECT Edition, 3rd Edition - Prof. Sham Tickoo 2018-01-17

Exploring Bentley STAAD.Pro CONNECT Edition is a comprehensive book that has been written to cater to the needs of the students and professionals. The chapters in this book are structured in a pedagogical

sequence, which makes the learning process very simple and effective for both the novice as well as the advanced users of STAAD.Pro. In this book, the author explains in detail the procedure of creating 2D and 3D models, assigning material constants, assigning cross-section properties, assigning supports, defining different loads, performing analysis, viewing results, and preparing report. The chapters in the book are punctuated with tips and notes, wherever necessary, to make the concepts clear, thereby enabling the user to create his own innovative projects. Salient Features: Detailed explanation of concepts Real-world projects given as example • Tips and Notes throughout the book 284 pages of illustrated text Self-Evaluation Tests and Review Questions Table of Contents: Chapter 1: Introduction to STAAD.Pro CONNECT Edition Chapter 2: Structural Modeling in STAAD.Pro Chapter 3: Structural Modeling Using Tools Chapter 4: Defining Material Constants and Section Properties Chapter 5: Specifications and Supports Chapter 6: Loads Chapter 7: Performing Analysis, Viewing Results, and Preparing Report Chapter 8: Physical Modeling Index

STAAD/Pro Core, Technical Reference Manual - 1999

Learn Yourself STAAD.Pro V8i - Sivakumar Naganathan 2012

"Learn Yourself STAAD.Pro V8i" is developed for the learners of the software to provide easy and clear understanding of various features and facilities available in this software. This book can be useful for students and practicing engineers of civil and structural engineering. Topics covered include model generation, loading and specifications, analysis methods, post processing of analysis results, concrete and steel design using Euro code and BS codes, report generation, wind load generation, seismic load generation, and error checking. The contents are presented a simple and lucid manner with screen shots of models wherever necessary. Each chapter contains various problems which are solved with step by step instructions. Sufficient review problems have also been listed at the end of each chapter. Key board short-cuts for various frequently used commands have been included in appendix.

Autodesk 3ds Max 2021: A Comprehensive Guide, 21st Edition - Prof. Sham Tickoo 2020-09-04

Autodesk 3ds Max 2021: A Comprehensive Guide aims at harnessing the power of Autodesk 3ds Max for modelers, animators, and designers. The book caters to the needs of both the novice and the advanced users of 3ds Max. Keeping in view the varied requirements of the users, the textbook first introduces the basic features of 3ds Max 2021 and then gradually progresses to cover the advanced 3D models and animations. In this textbook, one project which is based on the tools and concepts covered in the text has been added to enhance the knowledge of the users. Additionally, in this edition, the readers will be able to learn about some new and enhanced features of 3ds Max 2020 such as Compound Shapes and Chamfer Modifier. This book will help you unleash your creativity, thus helping you create stunning 3D models and animations. Salient Features Consists of 18 chapters and 1 project that are organized in a pedagogical sequence covering various aspects of modeling, texturing, lighting, and animation. The author has followed the tutorial approach to explain various concepts of modeling, texturing, lighting, and animation. The first page of every chapter summarizes the topics that are covered in it. Step-by-step instructions that guide the users through the learning process. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of each chapter to help the users assess their knowledge. Table of Contents Chapter 1: Introduction to Autodesk 3ds Max 2021 Chapter 2: Standard Primitives Chapter 3: Extended Primitives Chapter 4: Working with Architectural Objects Chapter 5: Splines and Extended Splines Chapter 6: Modifying Splines Chapter 7: Materials and Maps Chapter 8: Modifying 3D Mesh Objects Chapter 9: Graphite Modeling Technique Chapter 10: Compound Objects Chapter 11: Modifiers Chapter 12: Lights and Rendering Chapter 13: Animation Basics Chapter 14: Rigid Body Dynamics and Helpers Chapter 15: NURBS Modeling * Chapter 16: Systems, Hierarchy, and Kinematics * Chapter 17: Particle Systems and Space Warps-I * Chapter 18: Particle Systems and Space Warps-II * Project 1: Creating a Diner Index (*For free download) Free Teaching and Learning Resources: CAD/CIM Technologies provides the following free teaching and learning resources with this book: Technical support by contacting 'techsupport@cadcim.com' Max and Media files used in tutorials, exercises *, and illustrations Instructor Guide with solution to all review questions and instructions to create the models for exercises * Additional learning resources at '3dsmaxexperts.blogspot.com' and 'youtube.com/cadcimtech' (* For Faculty only) We also provide video

courses on Autodesk 3ds Max. To enroll, please visit the CAD/CIM website using the following link: 'www.cadcim.com/video-courses'

Staad Pro v8i for beginners - T.S.Sarma 2014
This book is intended to give a basic knowledge of Staad Pro V8i to those who do not have previous exposure to this software. This is highly useful for students of civil engineering who want to develop design skills by using this software. Concrete and steel modelling and design examples have been given to increase the readers' knowledge about both steel and concrete structures. Any civil engineer can learn Staad Pro by following the step by step procedures explained in this book. This book is highly suitable for Indian Engineers, as in all examples Indian code methods have been followed. This will greatly benefit practising engineers and students in India as this is the first book on Staad Pro V8i with Indian examples.

Sustainability Trends and Challenges in Civil Engineering - Lakshman Nandagiri 2021-09-02

This book presents the select proceedings of the International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2020). The chapters discuss emerging and latest research and advances in sustainability in different areas of civil engineering, which aim to provide solutions to sustainable development. The contents are broadly divided into the following categories: construction technology and building materials, structural engineering, transportation and geotechnical engineering, environmental and water resources engineering, and RS-GIS applications. This book will be of potential interest to beginners, researchers, and professionals working in the area of sustainable civil engineering and related fields.

North American Tunneling 2022 Proceedings - Paul Madsen 2022-06-03
Your timely source for more cost-effective and less disruptive solutions to your underground infrastructure needs. The North American Tunneling Conference is the premier biennial tunneling event for North America, bringing together the brightest, most resourceful, and innovative minds in the tunneling industry. It underscores the important role that the industry plans in the development of underground spaces, transportation and conveyance systems, and other forms of sustainable underground infrastructure. With every conference, the number of attendees and breadth of topics grows. The authors—expert and leaders in the industry—share the latest case histories, expertise, lessons learned, and real-world applications from around the globe. Crafted from a collection of 92 papers presented at the conference, this book takes you deep inside the projects. It includes sections on technology, planning, design, and case histories.

SolidWorks 2019 Training Guide - Sagar Linkan 2019-09-20

Designed to provide an insight into the Mechanical Design concept Key features Each command is explained in a simple and understandable manner Step-by-step explanation Practical knowledge rather than theoretical knowledge Covers all the modules of SolidWorks 2019 Description The book promises to make you understand and practice the SolidWorks framework. The aim of this book is to take you on a journey to all the phases of SolidWorks. SolidWorks is an innovative, next-generation industry software that allows you to solve and understand the designing and mechanical problems. SolidWorks uses a technical implementation approach for sketching, surfacing, and sheet metal drafting in an incremental and easy way. The main objective of this book is to make the reader understand the concepts of design based on practical knowledge rather than theoretical knowledge. What will you learn SolidWorks and its GUI Sketches (Line, Rectangle, Slot, Circle, ARC, Polygon, and Spline) Extrude, Revolved, Swept, Loft, Boundary, Filt, and Chamfer) Surface (Extruded, Revolved, Swept, Lofted, Boundary, Filled, and Planner) Sheet metal (Base flange/tab, Edge flange, Miter flange, and Hem) Weldments (Structural member, Trim/Extend, End cap, and Gusset) Curves Mold design Drafting Assembly Who this book is for Mechanical engineers and designers, automobile engineers, product designers, heavy vehicle designers. Table of contents 1. Introduction and Overview 2. Sketch 3. Features 4. Surface 5. Sheet Metal 6. Weldments 7. Curves 8. Mold Design 9. Assembly 10. Drafting About the author Linkan Sagar has done B.tech from UPTU, Lucknow. He has extensively worked on various software like solidworks, catia, staad-pro, and revit. He is having wide industry experience and worked on more than 18 major live projects. He has delivered approximately 280 presentation in sector of engineering and designing. His LinkedIn: linkedin.com/in/linkan-sagar-4b16a7a7

Autodesk 3ds Max 2019: A Comprehensive Guide, 19th Edition - Prof. Sham Tickoo 2018-07-19

Autodesk 3ds Max 2019: A Comprehensive Guide book aims at

harnessing the power of Autodesk 3ds Max for modelers, animators, and designers. The book caters to the needs of both the novice and the advanced users of 3ds Max. Keeping in view the varied requirements of the users, the book first introduces the basic features of 3ds Max 2019 and then gradually progresses to cover the advanced 3D models and animations. In this book, two projects based on the tools and concepts covered in the book have been added to enhance the knowledge of users. This book will help you unleash your creativity, thus helping you create stunning 3D models and animations. The book will help the learners transform their imagination into reality with ease. Also, it takes the users across a wide spectrum of animations through progressive examples, numerous illustrations, and ample exercises. Salient Features: Consists of 18 chapters, 1 project, and 1 student project that are organized in a pedagogical sequence covering various aspects of modeling, texturing, lighting, and animation. The author has followed the tutorial approach to explain various concepts of modeling, texturing, lighting, and animation. The first page of every chapter summarizes the topics that are covered in it. Step-by-step instructions that guide the users through the learning process. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation Test and Review Questions are given at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Introduction to Autodesk 3ds Max 2019 Chapter 2: Standard Primitives Chapter 3: Extended Primitives Chapter 4: Working with Architectural Objects Chapter 5: Splines and Extended Splines Chapter 6: Modifying Splines Chapter 7: Materials and Maps Chapter 8: Modifying 3D Mesh Objects Chapter 9: Graphite Modeling Technique Chapter 10: Compound Objects Chapter 11: Modifiers Chapter 12: Lights and Rendering Chapter 13: Animation Basics Chapter 14: Rigid Body Dynamics and Helpers Chapter 15: NURBS Modeling Chapter 16: Systems, Hierarchy, and Kinematics Chapter 17: Particle Systems and Space Warps-I Chapter 18: Particle Systems and Space Warps-II Project 1: Creating a Diner Student Project Index Free Teaching and Learning Resources Technical support by contacting 'techsupport@cadcim.com'. Max files used in tutorials, exercises, and illustrations. Customizable PowerPoint presentations of all chapters*. Instructor Guide with solution to all review questions and instructions to create the models for exercises*. Additional learning resources at 'https://3dsmaxexperts.blogspot.com' and 'youtube.com/cadcimtech'. (* For faculty only)

Pixologic ZBrush 2018: A Comprehensive Guide, 5th Edition - Prof. Sham Tickoo

Pixologic ZBrush 2018: A Comprehensive Guide covers all features of ZBrush 2018, which is a powerful modeling and sculpting software developed by Pixologic Inc. and is used for developing highly detailed characters for movies, games, and digital design projects. The book provides in-depth details of the concepts and explains the usage and functions of the most commonly used tools of ZBrush. In this edition, new feature such as, ZModeler, NanoMesh, and KeyShot renderer have been also been explained. This book will unleash your creativity and transform your imagination into reality, thus helping you create realistic 3D models. This book caters to the needs of both the novice and advanced users of ZBrush 2018 and is ideally suited for learning at your convenience and at your pace. Salient Features: Consists of 12 chapters & 1 project that are organized in a pedagogical sequence. Covers all aspects such as modeling, texturing, lighting, & animation in ZBrush. Tutorial approach to explain the concepts and usage of tools. First page of every chapter summarizes the topics that are covered in the chapter. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation test & Review Questions at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Exploring ZBrush Interface Chapter 2: Sculpting Brushes Chapter 3: Introduction to Digital Sculpting Chapter 4: SubTools and FiberMesh Chapter 5: ZSpheres Chapter 6: DynaMesh, NanoMesh, and ZRemesher Chapter 7: ShadowBox Chapter 8: Materials in ZBrush Chapter 9: Texturing in ZBrush Chapter 10: UV Master Chapter 11: Lighting Chapter 12: Rendering Project 1: Cartoon Character Modeling Index

Analysis and Design of Structures - D. Trevor Jones 2012

Written for engineers of all skill levels, Analysis and Design of Structures A Practical Guide to Modeling is a technical reference guide focused on relating code and design requirements with Bentley's structural analysis software STAAD.Pro. This book provides the structural engineer with a technical reference on the theory and procedures for a structural design, as well as the necessary steps to properly incorporate construction details within STAAD.Pro. It gives the reader a detailed look at how the

structural analysis software handles the modeling of beams, plates, and end connections and the distribution of forces and structure displacements. It includes details of STAAD.Pro's ability to export to other programs, such as STAAD.foundation, RAM Connection, and Microsoft Excel, and examples of complete steel and concrete buildings. Analysis and Design of Structures A Practical Guide to Modeling is an essential resource for all structural engineers wanting practical guidance and details for the application of theoretical concepts.--Back cover.

Autodesk Inventor Professional 2021 for Designers, 21st Edition - Prof. Sham Tickoo 2020-06-21

Autodesk Inventor Professional 2021 for Designers is a comprehensive book that introduces the users to Autodesk Inventor 2021, a feature-based 3D parametric solid modeling software. All environments of this solid modelling software are covered in this book with a thorough explanation of commands, options, and their applications to create real-world products. The mechanical engineering industry examples that are used as tutorials and the related additional exercises at the end of each chapter help the users to understand the design techniques used in the industry to design a product. Additionally, the author emphasizes on the solid modelling techniques that will improve the productivity and efficiency of the users. After reading this book, the users will be able to create solid parts, sheet metal parts, assemblies, weldments, drawing views with bill of materials, presentation views to animate the assemblies and apply direct modelling techniques to facilitate rapid design prototyping. Also, the users will learn the editing techniques that are essential for making a successful design. Salient Features:

Comprehensive book consisting of 19 chapters organized in a pedagogical sequence. Detailed explanation of all concepts, techniques, commands, and tools of Autodesk Inventor Professional 2021. Tutorial approach to explain the concepts. Step-by-step instructions that guide the users through the learning process. Real-world mechanical engineering designs as tutorials and projects. Self-Evaluation Test, Review Questions, and Exercises are given at the end of the chapters Table of Contents Chapter 1: Introduction Chapter 2: Drawing Sketches for Solid Models Chapter 3: Adding Constraints and Dimensions to Sketches Chapter 4: Editing, Extruding, and Revolving the Sketches Chapter 5: Other Sketching and Modeling Options Chapter 6: Advanced Modeling Tools-I Chapter 7: Editing Features and Adding Automatic Dimensions to Sketches Chapter 8: Advanced Modeling Tools-II Chapter 9: Assembly Modeling-I Chapter 10: Assembly Modeling-II Chapter 11: Working with Drawing Views-I Chapter 12: Working with Drawing Views-II Chapter 13: Presentation Module Chapter 14: Working with Sheet Metal Components Chapter 15: Introduction to Stress Analysis Chapter 16: Introduction to Weldments (For free download) Chapter 17: Miscellaneous Tools (For free download) Chapter 18: Working with Special Design Tools For free download) Chapter 19: Introduction to Plastic Mold Design (For free download) Index

Autodesk 3ds Max 2018: A Comprehensive Guide, 18th Edition - Prof. Sham Tickoo 2017-08-29

Autodesk 3ds Max 2018: A Comprehensive Guide aims at harnessing the power of Autodesk 3ds Max for modelers, animators, and designers. The book caters to the needs of both the novice and the advanced users of 3ds Max. Keeping in view the varied requirements of the users, the book first introduces the basic features of 3ds Max 2018 and then gradually progresses to cover the advanced 3D models and animations. In this book, two projects based on the tools and concepts covered in the book have been added to enhance the knowledge of users. This book will help you unleash your creativity, thus helping you create stunning 3D models and animations. The book will help the learners transform their imagination into reality with ease. Also, it takes the users across a wide

spectrum of animations through progressive examples, numerous illustrations, and ample exercises. Salient Features Consists of 18 chapters and 1 project that are organized in a pedagogical sequence covering various aspects of modeling, texturing, lighting, and animation. The author has followed the tutorial approach to explain various concepts of modeling, texturing, lighting, and animation. The first page of every chapter summarizes the topics that are covered in it. Step-by-step instructions that guide the users through the learning process. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation test and Review Questions are given at the end of each chapter so that the users can assess their knowledge. Table of Contents Chapter 1: Introduction to Autodesk 3ds Max 2018 Chapter 2: Standard Primitives Chapter 3: Extended Primitives Chapter 4: Working with Architectural Objects Chapter 5: Splines and Extended Splines Chapter 6: Modifying Splines Chapter 7: Materials and Maps Chapter 8: Modifying 3D Mesh Objects Chapter 9: Graphite Modeling Technique Chapter 10: NURBS Modeling Chapter 11: Compound Objects Chapter 12: Modifiers Chapter 13: Lights and Cameras Chapter 14: Animation Basics Chapter 15: Systems, Hierarchy, and Kinematics Chapter 16: Rigid Body Dynamics and Helpers Chapter 17: Particle Systems and Space Warps-I (For free download) Chapter 18: Particle Systems and Space Warps-II (For free download) Project 1: Creating a Diner Index

A Commands Guide Tutorial for SolidWorks 2007 - David C. Planchard 2007

AutoCAD Plant 3D 2021 for Designers, 6th Edition - Prof. Sham Tickoo 2020-10-18

AutoCAD Plant 3D 2021 for Designers book introduces the readers to AutoCAD Plant 3D 2021, one of the world's leading application, designed specifically to create and modify P&ID's and plant 3D models. In this book, the author emphasizes on the features of AutoCAD Plant 3D 2021 that allow the user to design piping & instrumentation diagrams and 3D piping models. Also, the chapters are structured in a pedagogical sequence that makes this book very effective in learning the features and capabilities of AutoCAD Plant 3D 2021. Special emphasis has been laid in this book on tutorials and exercises, which relate to the real world projects, help you understand the usage and abilities of the tools available in AutoCAD Plant 3D 2021. You will learn how to setup a project, create and edit P&IDs, design a 3D Plant model, generate isometric/orthographic drawings, as well as how to publish and print drawings. Salient Features: - Consists of 10 chapters that are organized in a pedagogical sequence. - Comprehensive coverage of AutoCAD Plant 3D 2021 concepts and techniques. - Tutorial approach for better learning. - Detailed explanation of all commands and tools. - Summarized content on the first page of every chapter. - Hundreds of illustrations for easy understanding of concepts. - Step-by-step instructions to guide the users through the learning process. - Real-world mechanical engineering designs as tutorials. - Additional information in the form of notes and tips. - Self-Evaluation Tests and Review Questions at the end of each chapter to help the users assess their knowledge. Table of Contents Chapter 1: Introduction to AutoCAD Plant 3D Chapter 2: Creating Project and P&IDs Chapter 3: Creating Structures Chapter 4: Creating Equipment Chapter 5: Editing Specifications and Catalogs Chapter 6: Routing Pipes Chapter 7: Adding Valves, Fittings, and Pipe Supports Chapter 8: Creating Isometric Drawings Chapter 9: Creating Orthographic Drawings Chapter 10: Managing Data and Creating Reports Project: Thermal Power Plant (For free download) Index

STAAD/Pro Core, Getting Started and Examples - 1999