

Learning Autodesk Alias Design 2016 5th Edition

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.

Autodesk Inventor Professional 2020 for Designers, 20th Edition CAD/CIM Technologies

The AutoCAD Plant 3D 2020 for Designers book introduces the readers to AutoCAD Plant 3D 2020, 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 2020 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 2020. 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 2020. 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:- Comprehensive coverage of AutoCAD Plant 3D 2020 concepts and techniques. Tutorial approach to explain the concepts of AutoCAD Plant 3D 2020. Detailed explanation of all commands and tools. Summarized content on the first page of the topics that are covered in the chapter. Step-by-step instructions to guide the users through the learning process. Real-world mechanical engineering designs as tutorials. 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 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

Creo Parametric 6.0 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric approach of Creo Parametric 6.0 effectively. This book provides detailed description of the tools that are commonly used in modeling, assembly, sheetmetal as well as in mold. This book also covers the latest surfacing techniques like Freestyle and Style with the help of relevant examples and illustrations. The Creo Parametric 6.0 for Designers book further elaborates on the procedure of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. It also includes the concept of Geometric Dimensioning and tolerancing. The examples and tutorials given in this book relate to actual mechanical industry designs. Salient Features: Comprehensive coverage of Creo Parametric 6.0 concepts and techniques. Tutorial approach to explain the concepts of Creo Parametric 6.0. 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, notes and tips, hundreds of illustrations for easy understanding of concepts. Real-world mechanical engineering designs as tutorials and exercises. 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. Additional learning resources at 'allaboutcadcam.blogspot.com'. Table of Contents Chapter 1: Introduction to Creo Parametric 6.0 Chapter 2: Creating Sketches in the Sketch Mode-I Chapter 3: Creating Sketches in the Sketch Mode-II Chapter 4: Creating Base Features Chapter 5: Datums Chapter 6: Options Aiding Construction of Parts-I Chapter 7: Options Aiding Construction of Parts-II Chapter 8: Options Aiding Construction of Parts-III Chapter 9: Advanced Modeling Tools Chapter 10: Assembly Modeling Chapter 11: Generating, Editing, and Modifying the Drawing Views Chapter 12: Dimensioning the Drawing Views Chapter 13: Other Drawing Options Chapter 14: Working with Sheetmetal Components * Chapter 15: Surface Modeling * Chapter 16: Introduction to Mold Design * Chapter 17: Concepts of Geometric Dimensioning and Tolerancing * Index

SOLIDWORKS 2018 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric and feature based approach of SOLIDWORKS 2018. This book provides detailed description of the tools that are commonly used in modeling, assembly, and sheet metal as well as in surfacing. The SOLIDWORKS 2018 for Designers book further elaborates on the procedure of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. Special emphasis has been laid on the introduction of concepts, which have been explained using text, along with graphical examples. The examples and tutorials used in this book ensure that the users can relate the information provided in this book with the practical industry designs. Salient Features: Consists of 21 chapters that are organized in a pedagogical sequence. The author has followed the tutorial approach to explain the concepts of SOLIDWORKS 2018. Detailed explanation of SOLIDWORKS 2018 tools. The first page of every chapter summarizes the topics that are covered in it. Consists of hundreds of illustrations and a comprehensive coverage of SOLIDWORKS 2018 concepts and techniques. Step-by-step instructions that guide the users through the learning process. Several real-world mechanical engineering designs as tutorials and projects. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of each chapter for the users to assess their knowledge. Technical support by contacting 'techsupport@cadcam.com'. Additional learning resources at 'allaboutcadcam.blogspot.com'. Table of Contents Chapter 1: Introduction to SOLIDWORKS 2018 Chapter 2: Drawing Sketches for Solid Models Chapter 3: Editing and Modifying Sketches Chapter 4: Adding Relations and Dimensions to Sketches Chapter 5: Advanced Dimensioning Techniques and Base Feature Options Chapter 6: Creating Reference Geometries Chapter 7: Advanced Modeling Tools-I Chapter 8: Advanced Modeling Tools-II Chapter 9: Editing Features Chapter 10: Advanced Modeling Tools-III Chapter 11: Advanced Modeling Tools-IV Chapter 12: Assembly Modeling-I Chapter 13: Assembly Modeling-II Chapter 14: Working with Drawing Views-I Chapter 15: Working with Drawing Views-II Chapter 16: Surface Modeling Chapter 17: Working with Blocks Chapter 18: Sheet Metal Design Chapter 19: Equations, Configurations, and Library Features (For free download) Chapter 20: Motion Study (For free download) Chapter 21: Introduction to Mold Design (For free download) Student Projects Index

SOLIDWORKS 2019 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric and feature-based approach of SOLIDWORKS 2019. This book provides a detailed description of the tools that are commonly used in modeling, assembly, and sheet metal as well as in surfacing. The SOLIDWORKS 2019 for Designers book further elaborates on the procedure of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. Special emphasis has been laid on the explanation of the concepts, which have been

described in detail using text as well as graphical examples, wherever required. The examples and tutorials used in this book ensure that the users can relate the information provided in this book with the practical industry designs. Salient Features: Consists of 21 chapters that are organized in a pedagogical sequence. Tutorial approach to explain the concepts of SOLIDWORKS 2019. Hundreds of illustrations and comprehensive coverage of SOLIDWORKS 2019 concepts and techniques. Detailed explanation of SOLIDWORKS 2019 tools. The first page of every chapter summarizes the topics that are covered in it. Real-world mechanical engineering designs as tutorials and projects. Table of Contents Chapter 1: Introduction to SOLIDWORKS 2019 Chapter 2: Drawing Sketches for Solid Models Chapter 3: Editing and Modifying Sketches Chapter 4: Adding Relations and Dimensions to Sketches Chapter 5: Advanced Dimensioning Techniques and Base Feature Options Chapter 6: Creating Reference Geometries Chapter 7: Advanced Modeling Tools-I Chapter 8: Advanced Modeling Tools-II Chapter 9: Editing Features Chapter 10: Advanced Modeling Tools-III Chapter 11: Advanced Modeling Tools-IV Chapter 12: Assembly Modeling-I Chapter 13: Assembly Modeling-II Chapter 14: Working with Drawing Views-I Chapter 15: Working with Drawing Views-II Chapter 16: Surface Modeling Chapter 17: Working with Blocks Chapter 18: Sheet Metal Design Chapter 19: Equations, Configurations, and Library Features Chapter 20: Motion Study Chapter 21: Introduction to Mold Design Index

Exploring Oracle Primavera P6 R8.4 book explains the concepts and principles of project management through practical examples, tutorials, and exercises. This enables the users to harness the power of managing projects with Oracle Primavera P6 for their specific use. In this book, the author emphasizes on planning, managing and controlling the projects, assigning resources and roles to a project, and producing schedule and resources reports and graphics. This book is specially meant for professionals and students in engineering, project management and allied fields in the building industry. Salient Features Detailed explanation of Oracle Primavera concepts Projects given as tutorials Tips and Notes throughout the textbook 273 pages of illustrated text Self-Evaluation Tests, Review Questions, and Exercises at the end of the chapters Table of Contents Chapter 1: Getting Started with Primavera P6 Chapter 2: Creating Projects Chapter 3: Defining Calendars and Work Breakdown Structure Chapter 4: Working with Activities and Establishing Relationships Chapter 5: Defining Resources and Roles Chapter 6: Risks and Issues, and Setting Baselines Chapter 7: Project Expenses and Tracking Progress of Project Chapter 8: Printing Layouts and Reports Index

AutoCAD 2020: A Problem-Solving Approach, Basic and Intermediate, 26th Edition Book contains a detailed explanation of all Major Concepts, Tools, and Commands of AutoCAD 2020 software and their applications to solve drafting and design problems. In this book, special emphasis has been laid on industrial applications and usage of AutoCAD tools so that it serves beginners as well as professionals to understand the functions these 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. This 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 2020 such as DWG Compare, Save to Web & Mobile, and Shared Views that will enhance the usability of the software. Salient Features: Comprehensive book that covers all major concepts and tools of AutoCAD used in industry. Detailed explanation of all commands and tools. Emphasis on illustrations and practical exercises for easy understanding of concepts. More than 30 real-world mechanical engineering designs as examples. Additional information throughout the book in the form of notes and tips. 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 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 from www.cadcim.com)

Exploring AutoCAD Civil 3D 2020 book introduces the users to the powerful Building Information Modeling (BIM) solution, AutoCAD Civil 3D. The book helps you learn, create and visualize a coordinated data model that can be used to design and analyze a civil engineering project for its optimum and cost-effective performance. This book has been written considering the needs of the professionals such as engineers, surveyors, watershed and storm water analysts, land developers, and CAD technicians, who wish to learn and explore the usage and abilities of AutoCAD Civil 3D in their respective domains. This book provides comprehensive text and graphical representation to explain concepts and procedures required in designing solutions for various infrastructure works. The tutorials and exercises, which relate to real-world projects, help you better understand the tools in AutoCAD Civil 3D.

Start modeling right away with this hands-on guide to learning Autodesk Maya 2016 Introducing Autodesk Maya 2016 is the official guide to the most popular and complex 3D application on the market. Building from the ground up, this book combines straightforward text with practical examples that make it easy to absorb the basics and start designing and animating your own digital models and scenes. The tutorials offer realistic challenges and clear explanations, laid out in fun, step-by-step lessons that help you gain confidence and learn by doing. You'll delve into CG and 3D core concepts and production workflows, then get right to work designing an animation of the solar system as you learn the interface and basic tools. As your modeling skills grow, you'll build a steam locomotive, a starfish, a table lamp, and much more as you learn to rig your model for animation, create fabric motion with nCloth, and add the lighting and effects that bring your scenes to life. The companion website features downloadable project files that help you see how the pros do it, and the book includes real-world examples from talented users who were beginners just like you. Master the Maya 2016 interface, menus, and plug-ins Begin building simple animations right away Explore modeling, rendering, animation, and cloth motion Add lighting, rendering, dynamics, simulations, and effects If you want to work like the pros, Introducing Autodesk Maya 2016 is the perfect primer for getting started.

CATIA V5-6R2020 for Designers is a comprehensive book written with the intention of helping the readers effectively use all solid modeling tools and other features of CATIA V5-6R2020. This book provides elaborative and clear explanation of the tools of all commonly used workbenches of CATIA V5-6R2020. After reading this book, you will be able to create, assemble, and draft models. The chapter on the DMU Kinematics workbench will enable the users to create, edit, simulate, and analyze different mechanisms dynamically. The chapter on the FreeStyle workbench will enable the users to dynamically design and manipulate surfaces. The book explains the concepts through real-world examples and the tutorials used in this book ensure that the users can relate the knowledge gained from this book with the actual mechanical industry designs. Salient Features Consists of 19 chapters that are organized in a pedagogical sequence Tutorial approach to explain the concepts of CATIA V5-6R2020 Detailed explanation of CATIA V5-6R2020 tools First page summarizes the topics covered in the chapter Step-by-step instructions that guide the users through the learning process More than 40 real-world mechanical engineering designs as tutorials and projects Additional information is provided throughout

the book in the form of notes and tips Self-Evaluation Tests and Review Questions provided at the end of each chapter to help users assess their knowledge Table of Contents Chapter 1: Introduction to CATIA V5-6R2020 Chapter 2: Drawing Sketches in the Sketcher Workbench-I Chapter 3: Drawing Sketches in the Sketcher Workbench-II Chapter 4: Constraining Sketches and Creating Base Features Chapter 5: Reference Elements and Sketch-Based Features Chapter 6: Creating Dress-Up and Hole Features Chapter 7: Editing Features Chapter 8: Transformation Features and Advanced Modeling Tools-I Chapter 9: Advanced Modeling Tools-II Chapter 10: Working with the Wireframe and Surface Design Workbench Chapter 11: Editing and Modifying Surfaces Chapter 12: Assembly Modeling Chapter 13: Working with the Drafting Workbench-I Chapter 14: Working with the Drafting Workbench-II Chapter 15: Working with Sheet Metal Components Chapter 16: DMU Kinematics Chapter 17: Introduction to Generative Shape Design Chapter 18: Working with the FreeStyle Workbench Chapter 19: Introduction to FEA and Generative Structural Analysis Student Projects Index

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 2020 for Designers is a comprehensive book that introduces the users to Autodesk Inventor 2020, 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 2020. Tutorial approach to explain the concepts. Step-by-step instructions that guide the users through the learning process. More than 54 real-world mechanical engineering designs as tutorials and projects. Self-Evaluation Test, Review Questions, and Exercises are given at the end of the chapters so that the users can assess their knowledge. Technical support by contacting 'techsupport@cadcim.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 (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

Exploring Autodesk Navisworks 2020 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 Autodesk Navisworks. In this book, the author emphasizes on creating 4D simulation, performing clash detection, performing quantity takeoff, rendering, creating animation, and reviewing models through tutorials and exercises. In addition, the chapters have been punctuated with tips and notes, wherever necessary, to make the concepts clear, thereby enabling you to create your own innovative projects. Salient Features Comprehensive book consisting of 404 pages of heavily illustrated text. Detailed explanation of the commands and tools of Autodesk Navisworks. Tips and Notes throughout the book for providing additional information. Self-Evaluation Tests, Review Questions, and Exercises at the end of the chapters. Table of Contents Chapter 1: Introduction to Autodesk Navisworks 2020 Chapter 2: Exploring the Navigation Tools in Navisworks Chapter 3: Selecting, Controlling, and Reviewing Objects Chapter 4: Viewpoints, Sections, and Animations Chapter 5: TimeLiner Chapter 6: Working with Animator and Scripser Chapter 7: Quantification Chapter 8: Clash Detection Chapter 9: Autodesk Rendering in Navisworks Case Study Index

Exploring Autodesk Revit 2018 for Structure is a comprehensive book that has been written to cater to the needs of the students and the professionals who are involved in the AEC profession. This book enables the users to harness the power of BIM with Autodesk Revit 2018 for Structure for their specific use. In this book, the author emphasizes on physical modeling, analytical

modeling, rebar modeling, and quantity scheduling. Also, Revit 2018 for Structure book covers the description of various stages involved in analyzing the model in Robot Structural Analysis software. This book is specially meant for professionals and students in structural engineering, civil engineering, and allied fields in the building industry. In this book, along with the main text, the chapters have been punctuated with tips and notes to give additional information on the concept, thereby enabling you to create your own innovative project. Salient Features Detailed explanation of structural tools of Autodesk Revit Real-world structural projects given as tutorials Tips and Notes throughout the book 546 pages of heavily illustrated text Self-Evaluation Tests, Review Questions, and Exercises at the end of each chapter Table of Contents Chapter 1: Introduction to Autodesk Revit 2018 for Structure Chapter 2: Getting Started with a Structural Project Chapter 3: Setting up a Structural Project Chapter 4: Structural Columns and Walls Chapter 5: Foundations, Beams, Floors, and Open Web Joists Chapter 6: Editing Tools Chapter 7: Documenting Models and Creating Families Chapter 8: Standard Views, Details, and Schedules Chapter 9: 3D Views, Sheets, Analysis, Reinforcements Chapter 10: Linking Revit Model with Robot Structural Analysis Student Project Index

Solid Edge 2021 for Designers book introduces the readers to Solid Edge 2021, one of the world's leading parametric solid modeling packages. Consisting of 15 chapters, the book covers the Part, Assembly, Drafting, and Sheet Metal environments of Solid Edge 2021. Both synchronous and ordered environments are discussed throughout this book. Also, 3D sketching is discussed in both synchronous and ordered environments. 3D sketching combines the speed and flexibility of modeling with precise control on dimension driven designs, thereby providing tremendous productivity gains over traditional methods. The author emphasizes on the solid modeling and editing techniques that enhance the productivity and efficiency of the users. In addition, chapters have tutorials and exercises that are based on the tools discussed in the chapter to help users initially learn the tools and concepts and then understand their practical usage and working. Salient Features Comprehensive coverage of Solid Edge 2021 concepts and techniques Detailed explanation of all commands and tools Tutorial approach to explain concepts Hundreds of illustrations for easy understanding of concepts Step-by-step instructions to guide the users through the learning process Additional information throughout the book in the form of notes and tips Real world mechanical engineering designs as tutorials, exercises, and projects Self-Evaluation Tests and Review Questions for tests Table of Contents Chapter 1: Introduction to Solid Edge 2021 Chapter 2: Drawing Sketches Chapter 3: Adding Relationships and Dimensions to Sketches Chapter 4: Editing, Extruding, and Revolving the Sketches Chapter 5: Working with Additional Reference Geometries Chapter 6: Advanced Modeling Tools-I Chapter 7: Editing Features Chapter 8: Advanced Modeling Tools-II Chapter 9: Advanced Modeling Tools-III Chapter 10: Assembly Modeling-I Chapter 11: Assembly Modeling-II Chapter 12: Generating, Editing, and Dimensioning Drawing Views Chapter 13: Surface Modeling Chapter 14: Sheet Metal Design Chapter 15: Introduction to Convergent Modeling Student Projects Index

Exploring Oracle Primavera P6 Professional 18 book explains the concepts and principles of project management through practical examples, tutorials, and exercises. This enables the users to harness the power of managing projects with Oracle Primavera P6 for their specific use. In this book, the author emphasizes on planning, managing and controlling the projects, assigning resources and roles to a project, and producing schedule and resources reports and graphics. This book is specially meant for professionals and students in engineering, project management and allied fields in the building industry. Salient Features: Detailed explanation of Oracle Primavera concepts. Real-world projects given as tutorials. Tips and Notes throughout the book. 264 pages of illustrated text. Self-Evaluation Tests, Review Questions, and Exercises at the end of the chapters Table of Contents: Chapter 1: Getting Started with Primavera P6 Professional 18 Chapter 2: Creating Projects Chapter 3: Defining Calendars and Work Breakdown Structure Chapter 4: Working with Activities and Establishing Relationships Chapter 5: Defining Resources and Roles Chapter 6: Risks and Issues, and Setting Baselines Chapter 7: Project Expenses and Tracking Progress of Project Chapter 8: Printing Layouts and Reports Index

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

SOLIDWORKS Simulation 2016: A Tutorial Approach book has been written to help the users learn the basics of FEA. In this book, the author has used the tutorial point of view and the learn-by-doing theme to explain the tools and concepts of FEA using SOLIDWORKS Simulation. Real-world mechanical engineering industry examples and tutorials have been used to ensure that the users can relate the knowledge gained through this book with the actual mechanical industry designs. This book covers all important topics and concepts such as Model Preparation, Meshing, Connections, Contacts, Boundary Conditions, Structural Analysis, Buckling Analysis, Fatigue Analysis, Thermal Analysis and Frequency Analysis. Salient Features Book consisting of 8 chapters that are organized in a pedagogical sequence Summarized content on the first page of the topics that are covered in the chapter. More than 25 real-world mechanical engineering simulation problems used as tutorials and projects with step-by-step explanation. 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. Technical support by contacting 'techsupport@cadcam.com'. Additional learning resources at 'allaboutcadcam.blogspot.com'. Table of Contents Chapter 1: Introduction to FEA and SOLIDWORKS Simulation Chapter 2: Defining Material Properties Chapter 3: Meshing Chapter 4: Linear

Static Analysis Chapter 5: Advanced Structural Analysis Chapter 6: Frequency Analysis Chapter 7: Thermal Analysis Chapter 8: Report and Interpretation Index

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

Exploring Autodesk Navisworks 2017 is a comprehensive book that has been written to cater to the needs of the students and the professionals who are involved in the AEC profession. In Navisworks 2017 book, the author has emphasized various hands-on tools for real-time navigation, reviewing models, creating 4D and 5D simulation, quantifying various elements, performing clash detection, rendering with Presenter and Autodesk Rendering graphics, creating animation, and advanced tools for selection through tutorials and exercises. In this book, along with the main text, the chapters have been punctuated with tips and notes to give additional information on the concept, thereby enabling you to create your own innovative projects. Salient Features 392 pages of heavily illustrated text Covers detailed description of the tools of Navisworks 2017 Explains the concepts using real-world projects and examples focusing on industry experience Covers advanced functions such as creating visualizations with Autodesk Rendering Covers topics such as how to import a file in different formats, navigate around the merged 3D model, manage annotations and documentation, coordinate schedules with TimeLiner, and estimate project with Quantification. Includes an exercise on creating car animation using Animator and Scripter tool. Provides step-by-step explanation that guide the users through the learning process Effectively communicates the utility of Navisworks 2017. Self-Evaluation Test and Review Questions at the end of chapters for reviewing the concepts learned in the chapters Table of Contents Chapter 1: Introduction to Autodesk Navisworks 2016 Chapter 2: Exploring the Navigation Tools in Navisworks Chapter 3: Selecting, Controlling, and Reviewing Objects Chapter 4: Viewpoints, Sections, and Animations Chapter 5: TimeLiner Chapter 6: Working with Animator and Scripter Chapter 7: Quantification Chapter 8: Clash Detection Chapter 9: Autodesk Rendering in Navisworks Index

This book is your AutoCAD 2017 Instructor. The objective of this book is to provide you with extensive knowledge of AutoCAD, whether you are taking an instructor-led course or learning on your own. AutoCAD 2017 Instructor maintains the pedagogy and in-depth coverage that have always been the hallmark of the Leach texts. As the top-selling university textbook for almost a decade, the AutoCAD Instructor series continues to deliver broad coverage of AutoCAD in a structured, easy-to-comprehend manner. AutoCAD 2017 Instructor is command-oriented, just like AutoCAD. Chapters are structured around related commands, similar to the organization of AutoCAD's menu system. The sequence of chapters starts with fundamental drawing commands and skills and then progresses to more elaborate procedures and specialized applications. The writing style introduces small pieces of information explained in simple form, and then builds on that knowledge to deliver more complex drawing strategies, requiring a synthesis of earlier concepts. Over 2000 figures illustrate the commands, features, and ideas. AutoCAD 2017 Instructor is an ideal reference guide, unlike tutorial-oriented books where specific information is hard to relocate. Because these chapters focus on related commands, and complete coverage for each command is given in one place, the commands, procedures, and applications are easy to reference. Tabbed pages help locate tables, lists, appendices, and the comprehensive index.

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.

SOLIDWORKS 2016: A Tutorial Approach introduces readers to SOLIDWORKS 2016 software, one of the world's leading parametric solid modeling packages. In this textbook, the author has adopted a tutorial-based approach to explain the fundamental concepts of SOLIDWORKS. This textbook has been written with the tutorial point of view and the learn-by-doing theme to help the users easily understand the concepts covered in it. The textbook consists of 12 chapters that are structured in a pedagogical sequence that makes the book very effective in learning the features and capabilities of the software. The textbook covers a wide range of topics such as Sketching, Part Modeling, Assembly Modeling, Drafting in SOLIDWORKS 2016. In addition, this textbook covers the basics of Mold Design, FEA, and SOLIDWORKS Simulation.

Autodesk® Revit® 2018 MEP Electrical: Review for Professional Certification is a comprehensive review guide to assist in preparing for the Autodesk Revit MEP Electrical Certified

Professional exam. It enables experienced users to review learning content from ASCENT that is related to the exam objectives. The content and exercises have been added to this training guide in the same order that the objectives are listed for the Autodesk Revit MEP Electrical Certificated Professional exam. This order does not necessarily match the workflow that should be used in the Autodesk® Revit® 2018 MEP software. New users of Autodesk Revit MEP 2018 software should refer to the following ASCENT learning guides: - Autodesk® Revit® 2018: MEP Fundamentals - Autodesk® Revit® 2018: BIM Management: Template and Family Creation - Autodesk® Revit® 2018: Collaboration Tools Prerequisites Autodesk® Revit® 2018 MEP Electrical: Review for Professional Certification is intended for experienced users of the Autodesk Revit software. Autodesk recommends 400 hours of hands-on software experience prior to taking the Autodesk Revit MEP Electrical Certified Professional exam.

Exploring Autodesk Revit 2021 for Structure is a comprehensive book that has been written to cater to the needs of the students and the professionals who are involved in the AEC profession. This book enables the users to harness the power of BIM with Autodesk Revit 2021 for Structure for their specific use. In this book, the author emphasizes on physical modeling, analytical modeling, rebar modeling, steel element cutting tools, structural steel connections and quantity scheduling. Also, Revit 2021 for Structure book covers the description of various stages involved in analyzing the model in Robot Structural Analysis software. This book is specially meant for professionals and students in structural engineering, civil engineering, and allied fields in the building industry. In this book, along with the main text, the chapters have been punctuated with tips and notes to give additional information on the concept, thereby enabling you to create your own innovative project. Salient Feature: Detailed explanation of structural tools of Autodesk Revit Real-world structural projects given as tutorials Tips & Notes throughout the book 560 pages of heavily illustrated text Self-Evaluation Tests, Review Questions, and Exercises at the end of each chapter Table of Contents Chapter 1: Introduction to Autodesk Revit 2021 for Structure Chapter 2: Getting Started with a Structural Project Chapter 3: Setting up a Structural Project Chapter 4: Structural Columns and Walls Chapter 5: Foundations, Beams, Floors, and Open Web Joists Chapter 6: Editing Tools Chapter 7: Documenting Models and Creating Families Chapter 8: Standard Views, Details, and Schedules Chapter 9: 3D Views, Sheets, Analysis and Reinforcements Chapter 10: Linking Revit Model with Robot Structural Analysis Index

AutoCAD MEP 2018 for Designers book is written to help the readers effectively use the designing and drafting tools of AutoCAD MEP 2018. This book provides detailed description of the tools that are commonly used in designing HVAC system, piping system, and plumbing system as well as in designing the electrical layout of a building. The AutoCAD MEP 2018 for Designers book further elaborates on the procedure of generating the schematic drawings of a system, which are used for schematic representation of a system. Special emphasis has been laid on the introduction of concepts, which have been explained using text, along with graphical examples. The examples and tutorials used in this book ensure that the users can relate the information provided in this textbook with the practical industry designs. Salient Features: Consists of 9 chapters and 2 real-world projects that are organized in pedagogical sequence. The author has followed the tutorial approach to explain various concepts of AutoCAD MEP 2018. Detailed explanation of AutoCAD MEP 2018 commands and tools. The first page of every chapter summarizes the topics that are covered in it. Consists of hundreds of illustrations and a comprehensive coverage of AutoCAD MEP 2018 concepts and techniques. Step-by-step instructions that guide the users through the learning process. More than 10 real-world mechanical engineering designs as tutorials and projects. Additional information is provided throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of each chapter so that the users can assess their knowledge. Technical support by contacting 'techsupport@cadcam.com'. Additional learning resources at '<https://allaboutcadcam.blogspot.com>'. Table of Contents Chapter 1: Introduction to AutoCAD MEP Chapter 2: Getting Started with AutoCAD MEP Chapter 3: Working with Architecture Workspace Chapter 4: Creating an HVAC System Chapter 5: Creating Piping System Chapter 6: Creating Plumbing System Chapter 7: Creating Electrical System Layout Chapter 8: Representation and Schedules Chapter 9: Working with Schematics Project 1: Creating Complete System of a Forging Plant Project 2: Creating Complete Commercial Office Building Index

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

This book is your AutoCAD 2016 Instructor. The objective of this book is to provide you with extensive knowledge of AutoCAD, whether you are taking an instructor-led course or learning on your own. AutoCAD 2016 Instructor maintains the pedagogy and in-depth coverage that have always been the hallmark of the Leach texts. As the top-selling university textbook for almost a decade, the AutoCAD Instructor series continues to deliver broad coverage of AutoCAD in a structured, easy-to-comprehend manner. AutoCAD 2016 Instructor is command-oriented, just like AutoCAD. Chapters are structured around related commands, similar to the organization of AutoCAD's menu system. The sequence of chapters starts with fundamental drawing commands and skills and then progresses to more elaborate procedures and specialized applications. The writing style introduces small pieces of information explained in simple form, and then builds on that knowledge to deliver more complex drawing strategies, requiring a synthesis of earlier concepts. Over 2000 figures illustrate the commands, features, and ideas. AutoCAD 2016 Instructor is an ideal reference guide, unlike tutorial-oriented books where specific information is hard to relocate. Because these chapters focus on related commands, and complete coverage for each command is given in one place, the commands, procedures, and applications are easy to

reference. Tabbed pages help locate tables, lists, appendices, and the comprehensive index. What makes this book unique? In depth coverage of AutoCAD 2016 commands and features Command Tables indicate where to locate and how to start each command TIP markers in the margin provide important tips, notes, reminders, short-cuts and identify what's new Complete chapter exercises with many multi-chapter "REUSE" problems Well suited for a two or three course sequence

Exploring Autodesk Revit 2021 for Architecture is a comprehensive book written to cater to the needs of the students and the professionals who are involved in Building Information Modeling (BIM) Profession. Revit 2021 book is a gateway to power, skill, and competence in the field of architecture and interior presentations, drawings, and documentations. In this book, the author has emphasized on the concept of designing, creating families, massing, documentation, rendering orthographic and perspective views of building, usage of other advanced tools. In addition, Revit 2021 for Architecture book covers the description of various stages involved in rendering the model in Enscape plug-in. In this book, the chapters have been punctuated with tips and notes that provide additional information on the concept. The highlight of Revit 2021 book is that each concept introduced in it is explained with the help of suitable examples for better understanding. The simple and lucid language used in Revit 2021 book makes it a ready reference for both beginners and intermediate users. Also, the book covers enhancements and new features in Revit 2020. This book is also an ideal guide for students who are appearing for Autodesk Revit Certified Professional and Revit Certified User Exams, especially for Architecture. This book can also be used as a guide for students and professionals who are planning to make their career in BIM industry through learning of Revit. Salient Features Detailed explanation of architectural tools of Autodesk Revit Heavily illustrated text Introduction to Enscape Rendering Real-world structural projects given as tutorials Tips and Notes throughout the book Self-Evaluation Tests, Review Questions, and Exercises at the end of the Chapters. Student Project for practice. Table of Contents: Chapter 1: Introduction to Autodesk Revit 2021 for Architecture Chapter 2: Starting an Architectural Project Chapter 3: Creating Walls Chapter 4: Using Basic Building Components-I Chapter 5: Using the Editing Tools Chapter 6: Working with Datum Plane and Creating Standard Views Chapter 7: Using Basic Building Components-II Chapter 8: Using Basic Building Components-III Chapter 9: Adding Site Features Chapter 10: Using Massing Tools Chapter 11: Adding Annotations and Dimensions Chapter 12: Creating Project Details and Schedules Chapter 13: Creating and Plotting Drawing Sheets Chapter 14: Creating 3D Views Chapter 15: Rendering Views and Creating Walkthroughs Chapter 16: Using Advanced Features * Student Project * Index (* For Free Download)

Welcome to the world of Autodesk Maya 2017. Autodesk Maya 2017 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 2017 have made the job of design visualization specialists a lot easier. Autodesk Maya 2017: A Comprehensive Guide textbook covers all features of Autodesk Maya 2017 in a simple, lucid, and comprehensive manner. It aims at harnessing the power of Autodesk Maya 2017 for 3D and visual effects artists, and designers. This textbook 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 2017 and is ideally suited for learning at your convenience and at your pace.

SOLIDWORKS 2021 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric and feature based approach of SOLIDWORKS 2021. This book provides detailed description of the tools that are commonly used in modeling, assembly, and sheet metal as well as in surfacing. This book further elaborates on the procedures of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. Special emphasis has been laid on the introduction of concepts, which have been explained using detailed textual description along with graphical examples. The examples and tutorials used in this book ensure that the users can relate the information provided in this textbook with the practical industry designs. In addition, two student projects and a SOLIDWORKS Certification Exam questions set have also been added in this edition for the students to practice and get familiarized with SOLIDWORKS certification questions. Salient Features Consists of 21 chapters that are organized in a pedagogical sequence. Comprehensive coverage of SOLIDWORKS 2021 concepts and techniques. Hundreds of illustrations and tutorial approach to explain the concepts of SOLIDWORKS 2021. Summary on the first page of the topics that are covered in the chapter. Step-by-step instructions that guide the users through the learning process. Real-world mechanical engineering designs as tutorials and projects. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of the chapters for the users to assess their knowledge. Table of Contents Chapter 1: Introduction to SOLIDWORKS 2021 Chapter 2: Drawing Sketches for Solid Models Chapter 3: Editing and modifying Sketches Chapter 4: Adding Relations and Dimensions to Sketches Chapter 5: Advanced Dimensioning Techniques and Base Feature Options Chapter 6: Creating Reference Geometries Chapter 7: Advanced Modeling Tools-I Chapter 8: Advanced Modeling Tools-II Chapter 9: Editing Features Chapter 10: Advanced Modeling Tools-III Chapter 11: Advanced Modeling Tools-IV Chapter 12: Assembly Modeling-I Chapter 13: Assembly Modeling-II Chapter 14: Working with Drawing View-I Chapter 15: Working with Drawing View-II Chapter 16: Surfacing Modeling Chapter 17: Working with Blocks Chapter 18: Sheet Metal Design Chapter 19: Equations, Configurations, and Library Features* Chapter 20: Motion Study* Chapter 21: Introduction to Mold Design* Student Projects SOLIDWORKS Certification Exam Index

Exploring AutoCAD Civil 3D 2018 book introduces the users to the powerful Building Information Modeling (BIM) solution, AutoCAD Civil 3D. The BIM solution in AutoCAD Civil 3D helps create and visualize a coordinated data model. This data model can then be used to design and analyze a civil engineering project for its optimum and cost-effective performance. This book has been written considering the needs of the professionals such as engineers, surveyors, watershed and storm water analysts, land developers and CAD technicians, who wish to learn and explore the usage and abilities of AutoCAD Civil 3D in their respective domains. This book provides comprehensive text and graphics to explain various concepts and procedures required in designing solutions for various infrastructure works. The accompanying tutorials and exercises, which relate to the real-world projects, help you better understand the tools in AutoCAD Civil 3D. This book consists of 13 Chapters covering Points Creations, Surface Creations, Surface Analysis, Corridor Modeling, Pipe Networks, Pressure Networks, Parcels, Corridor Bowties and Dynamic Profiles and so on. Each chapter begins with a command section that provides a detailed explanation of the commands and tools in AutoCAD Civil 3D. The chapters in this book cover the basic as well as advanced concepts in AutoCAD Civil 3D such as COGO points, surfaces and surface analysis, alignments, profiles, sections, grading, assemblies, corridor modeling, earthwork calculations, and pipe and pressure networks. This edition covers the description of all enhancements and newly introduced tools. Salient Features: Consists of 13 chapters that are arranged in pedagogical sequence covering the scope of the software Consists of 806 pages, more than 765 illustrations, and a comprehensive coverage of concepts and tools Consists of 38 tutorials and about 20 exercises which provide real-world experience of designing engineering projects using AutoCAD Civil 3D Step-by-step examples to guide the users through the learning process Additional information 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: Introduction to AutoCAD Civil 3D 2018 Chapter 2: Working with Points Chapter 3: Working with Surfaces Chapter 4: Surface Volumes and Analysis Chapter 5: Alignments Chapter 6: Working with Profiles Chapter 7: Working with Assemblies and Subassemblies Chapter 8: Working with Corridors and Parcels Chapter 9: Sample Lines, Sections, and Quantity Takeoffs Chapter 10: Feature Lines and Grading Chapter 11: Pipe Networks Chapter 12: Pressure Networks Chapter 13: Working with Plan Production

Tools, and Data Shortcuts Index

The AutoCAD Electrical 2018 for Electrical Control Designers book has been written to assist the engineering students and the practicing designers who are new to AutoCAD Electrical. Using this book, the readers can learn the application of basic tools required for creating professional electrical control drawings with the help of AutoCAD Electrical. Keeping in view the varied requirements of the users, this book covers a wide range of tools and features such as schematic drawings, Circuit Builder, panel drawings, parametric and nonparametric PLC modules, stand-alone PLC I/O points, ladder diagrams, point-to-point wiring diagrams, report generation, creation of symbols, and so on. This will help the readers to create electrical drawings easily and effectively. Special emphasis has been laid on the introduction of concepts, which have been explained using text and supported with graphical examples. The examples and tutorials used in this book ensure that the users can relate the information provided in this book with the practical industry designs. Salient Features: Consists of 13 chapters and 2 projects that are organized in a pedagogical sequence. Comprehensive coverage of AutoCAD Electrical 2018 concepts and techniques. Tutorial approach to explain the concepts of AutoCAD Electrical 2018. 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. Emphasis on Why and How with explanation. More than 45 tutorials and projects. 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. Technical support by contacting 'techsupport@cadcim.com'. Table of Contents Chapter 1: Introduction to AutoCAD Electrical 2018 Chapter 2: Working with Projects and Drawings Chapter 3: Working with Wires Chapter 4: Creating Ladders Chapter 5: Schematic Components Chapter 6: Schematic Editing Chapter 7: Connectors, Point-to-Point Wiring Diagrams, and Circuits Chapter 8: Panel Layouts Chapter 9: Schematic and Panel Reports Chapter 10: PLC Modules Chapter 11: Terminals Chapter 12: Settings, Configurations, Templates, and Plotting Chapter 13: Creating Symbols Project 1 Project 2 Index

Blackmagic Design Fusion 7 Studio is one of the world's leading node-based compositing software. It is a powerful VFX production application. It comprises of flexible, precise, and powerful compositing tools. This software uses various techniques such as color-correction, 2D tracking, keying, masking, depth-based compositing, 3D compositing, and stereo 3D for compositing. This software has been used in many movies such as Avatar, 300, Terminator Salvation, Final Destination II, and so on. Capability of using a wide range of techniques makes this software application an ideal platform for compositing and the first choice for compositors and visual effect artists. Blackmagic Design Fusion 7 Studio: A Tutorial Approach textbook has been written to enable the users to learn the techniques and enhance creativity required to create a composition. The textbook caters to the needs of compositors and visual effects artists. This textbook will help users learn how to create different effects such as of rain, snow, fireworks, smoke, and so on. Also, they will learn to composite 3D objects with 2D images, create moving water effect, track and stabilize a footage, create volume fog, and convert day scene to night scene. In totality, this book covers each and every concept of the software with the help of progressive examples and numerous illustrations.

SOLIDWORKS 2020 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric and feature based approach of SOLIDWORKS 2020. This book provides detailed description of the tools that are commonly used in modeling, assembly, and sheet metal as well as elaborates on the procedures of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. Special emphasis has been laid on the introduction of concepts, which have been explained using detailed textual description along with graphical examples. The examples and tutorials used in this book ensure that the users can relate the information provided in this book with the practical industry designs. In addition, two student projects and a SOLIDWORKS Certification Exam questions set have also been added in this edition for the students to practice and get familiarized with SOLIDWORKS certification questions. Salient Features: Consists of 21 chapters that are organized in a pedagogical sequence. Tutorial approach to explain various concepts of SOLIDWORKS 2020. Detailed explanation of SOLIDWORKS 2020 tools. Hundreds of illustrations and a comprehensive coverage of SOLIDWORKS 2020 concepts and techniques. Step-by-step instructions to 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 students assess their knowledge. Table of Contents Chapter 1: Introduction to SOLIDWORKS 2020 Chapter 2: Drawing Sketches for Solid Models Chapter 3: Editing and modifying Sketches Chapter 4: Adding Relations and Dimensions to Sketches Chapter 5: Advanced Dimensioning Techniques and Base Feature Options Chapter 6: Creating Reference Geometries Chapter 7: Advanced Modeling Tools-I Chapter 8: Advanced Modeling Tools-II Chapter 9: Editing Features Chapter 10: Advanced Modeling Tools-III Chapter 11: Advanced Modeling Tools-IV Chapter 12: Assembly Modeling-I Chapter 13: Assembly Modeling-II Chapter 14: Working with Drawing View-I Chapter 15: Working with Drawing View-II Chapter 16: Surfacing Modeling Chapter 17: Working with Blocks Chapter 18: Sheet Metal Design Chapter 19: Equations, Configurations, and Library Features* Chapter 20: Motion Study* Chapter 21: Introduction to Mold Design* Student Projects SOLIDWORKS Certification Exam Index (* For free download from 'cadcim.com')

SOLIDWORKS 2018: A Tutorial Approach introduces readers to SOLIDWORKS 2018 software, one of the world's leading parametric solid modeling packages. In this book, the author has adopted a tutorial-based approach to explain the fundamental concepts of SOLIDWORKS. This book has been written with the tutorial point of view and the learn-by-doing theme to help the users easily understand the concepts covered in it. The book consists of 12 chapters that are structured in a pedagogical sequence that makes the book very effective in learning the features and capabilities of the software. The book covers a wide range of topics such as Sketching, Part Modeling, Assembly Modeling, Drafting in SOLIDWORKS 2018. In addition, this book covers the basics of Mold Design, FEA, and SOLIDWORKS Simulation. Salient Features: Consists of 12 chapters that are organized in a pedagogical sequence. Tutorial approach to explain various concepts of SOLIDWORKS 2018. 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. Several real-world mechanical engineering designs as tutorials and projects. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of the chapters for the users to assess their knowledge. Technical support by contacting 'techsupport@cadcim.com'. Additional learning resources at <http://allaboutcadcam.blogspot.com>. Table of Contents Chapter 1: Introduction to SOLIDWORKS 2018 Chapter 2: Drawing Sketches for Solid Models Chapter 3: Editing and Modifying Sketches Chapter 4: Adding Relations and Dimensions to Sketches Chapter 5: Advanced Dimensioning Techniques and Base Feature Options Chapter 6: Creating Reference Geometries Chapter 7: Advanced Modeling Tools-I Chapter 8: Advanced Modeling Tools-II Chapter 9: Assembly Modeling Chapter 10: Working with Drawing Views Chapter 11: Introduction to FEA and SOLIDWORKS Simulation Chapter 12: Introduction to Mold Design Student Project Index

Learning SOLIDWORKS 2019: A Project Based Approach book introduces the readers to SOLIDWORKS 2019, the world's leading parametric solid modeling package. In this

book, the author has adopted a project-based approach to explain the fundamental concepts of SOLIDWORKS. This unique approach has been used to explain the creation of parts, assemblies, and drawings of a real-world model. The Learning SOLIDWORKS 2019 book will provide the users a sound and practical knowledge of the software while creating a motor cycle as the real-world model. This knowledge will guide the users to create their own projects in an easy and effective manner. Salient Features: Chapters organized in a pedagogical sequence Summarized content on the first page of the topics that are covered in the chapter Real-world mechanical engineering problems used as tutorials and projects with step-by-step explanation 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 SOLIDWORKS 2019 Chapter 2: Creating Front Axle, Rear Axle and Disc Plate Chapter 3: Creating Rim ,Front Tire and Rear Tire Chapter 4: Creating Caliper Piston, Pad, and Body Chapter 5: Creating Fork Tube, Holder, and Bodies Chapter 6: Creating Handlebar and Handle Holders Chapter 7: Creating Muffler, Clamp, Swing Arm and Headlight Clamp Chapter 8: Creating Shock Absorber and Engine Parts Chapter 9: Creating Mudguard, Fuel Tank, Headlight Mask, and Seat Cover Chapter 10: Creating Weldment Structural Frame and Seat frame Chapter 11: Creating Motorcycle Assembly Chapter 12: Generating Drawing Views Index

CATIA V5-6R2018 for Designers is a comprehensive book written with the intention of helping the readers effectively use all solid modeling tools and other features of CATIA V5-6R2018. This book provides elaborative and clear explanation of the tools of all commonly used workbenches of CATIA V5-6R2018. After reading this book, you will be able to create, assemble, and draft models. The chapter on the DMU Kinematics workbench will enable the users to create, edit, simulate, and analyze different mechanisms dynamically. The chapter on the FreeStyle workbench will enable the users to dynamically design and manipulate surfaces. The book explains the concepts through real-world examples and the tutorials ensure that the users can relate the knowledge gained from this book with the actual mechanical industry designs. Salient Features: Consists of 19 chapters that are organized in a pedagogical sequence. Hundreds of illustrations and a comprehensive coverage of CATIA V5-6R2018 Concepts & Techniques. Self-Evaluation Tests and Review Questions provided at the end of each chapter to help users assess their knowledge. Additional learning resources at 'allaboutcadcam.blogspot.com' Table of Contents Chapter 1: Introduction to CATIA V5-6R2018 Chapter 2: Drawing Sketches in the Sketcher Workbench-I Chapter 3: Drawing Sketches in the Sketcher Workbench-II Chapter 4: Constraining Sketches and Creating Base Features Chapter 5: Reference Elements and Sketch-Based Features Chapter 6: Creating Dress-Up and Hole Features Chapter 7: Editing Features Chapter 8: Transformation Features and Advanced Modeling Tools-I Chapter 9: Advanced Modeling Tools-II Chapter 10: Working with the Wireframe and Surface Design Workbench Chapter 11: Editing and Modifying Surfaces Chapter 12: Assembly Modeling Chapter 13: Working with the Drafting Workbench-I Chapter 14: Working with the Drafting Workbench-II Chapter 15: Working with Sheet Metal Components Chapter 16: DMU Kinematics Chapter 17: Introduction to Generative Shape Design Chapter 18: Working with the FreeStyle Workbench Chapter 19: Introduction to FEA and Generative Structural Analysis Student Projects Index

Exploring Autodesk Revit 2019 for MEP textbook covers the detailed description of all basic and advanced workflows and tools to accomplish an MEPF (Mechanical, Electrical, Plumbing, and Fire Fighting) project in a BIM environment. It explores the processes involved in Building Information Modeling. The topics covered in this textbook range from creating building components, HVAC system, electrical system, plumbing system, and Fire protection system to designing conceptual massing, performing HVAC heating and loading analysis, and creating rich construction documentation. Salient Features: Comprehensive textbook that covers all major Revit MEP tools and concepts. Coverage of advanced concepts such as worksharing, families, and system creation. Detailed description on building envelope, spaces and zones, HVAC system, electrical system, fire fighting system, and plumbing system. Step-by-step explanation that guides the users through the learning process. Effectively communicates the utility of Revit 2019 for MEP. Self-Evaluation Test and Review Questions at the end of chapters for self assessment Table of Contents Chapter 1: Introduction to Autodesk Revit 2019 for MEP Chapter 2: Getting Started with an MEP Project Chapter 3: Creating Building Envelopes Chapter 4: Creating Spaces and Zones, and Performing Load Analysis Chapter 5: Creating an HVAC System Chapter 6: Creating an Electrical System Chapter 7: Creating Plumbing Systems Chapter 8: Creating Fire Protection System Chapter 9: Creating Construction Documents Chapter 10: Creating Families and Worksharing Index

Autodesk Fusion 360: A Tutorial Approach Introduces the readers to Autodesk Fusion 360, the first 3D/CAD/CAM/CAE tool that connects the entire product development process in a single cloud-based platform where different design teams work together in hybrid environment and harness the power of the cloud when necessary as well as use local resources. The chapters in this book are arranged in pedagogical sequence that makes it very effective in learning the features and capabilities of the software. This book covers all important topics and concepts such as Part Design, Assembly Design, Drafting, Animation, Basics of Sheet Metal. Salient Features Book consisting of 10 chapters that are organized in a pedagogical sequence. Summarized content on the first page of the topics that are covered in the chapter. More than 40 real-world mechanical engineering problems used as tutorials and projects with step-by-step explanation. 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. Technical support by contacting techsupport@cadcam.com. Additional learning resources at 'https://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: Advance Modeling-I Chapter 5: Creating Reference Geometries Chapter 6: Advance Modeling-II Chapter 7: Assembling Components Chapter 8: Working with Drawing and Animation Workspace Chapter 9: Working with Sheet Metal Components Chapter 10: Managing and Collaborating on the Cloud Index Free Teaching and

Learning Resources CAD/CIM Technologies provides the following free teaching and learning resources with this textbook: Technical support by contacting 'techsupport@cadcim.com' Part files used in tutorials, exercises*, and illustrations Instructor Guide with solution to all review questions and exercises* Additional learning resources at '<https://allaboutcadcam.blogspot.com>' and 'youtube.com/cadcimtech' (* For faculty only)

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