

Dynamo Revit Excel

Thank you very much for reading **dynamo revit excel**. As you may know, people have search numerous times for their chosen readings like this dynamo revit excel, but end up in harmful downloads.

Rather than enjoying a good book with a cup of coffee in the afternoon, instead they are facing with some harmful virus inside their computer.

dynamo revit excel is available in our book collection an online access to it is set as public so you can get it instantly.

Our book servers spans in multiple countries, allowing you to get the most less latency time to download any of our books like this one.

Kindly say, the dynamo revit excel is universally compatible with any devices to read

Building Information Systems in the Construction Industry - A.

Galiano Garrigos 2018-01-24

The selected papers in this book deal with Building Information Modelling (BIM) in Design, Construction and Operations. Application of BIM throughout the construction industry is progressing at an accelerated rate, with the development of new software tools. BIM has the potential to alter the way in which different specialities interact before, during and after the construction project. BIM carries the data set for a particular asset through its full life cycle which has important consequences for operations and maintenance as well as for infrastructure planning. BIM emergence has been the result of advanced surveying techniques, powerful computer systems, better visualisation tools and new communication infrastructures. The papers included in this book demonstrate the interdisciplinary character of BIM, bringing together contributions from experts in industry, practice and academia.

Building Information Modelling (BIM) in Design, Construction and Operations IV - J. Casares 2021-12-29

Containing papers presented at the 4th International Conference on Building Information Modelling (BIM) in Design, Construction and Operations, this volume brings together the research of experts from industry, practice and academia. It describes innovative solutions and

predictions for future trends across key BIM-related topics. The modern construction industry and built environment disciplines have been transformed through the development of new and innovative BIM tools and techniques. These have fundamentally altered the manner in which construction teams operate; the processes through which designs are evolved; and the relationships between conceptual, detail, construction and life cycle stages. BIM is essentially value-creating collaboration throughout the entire life-cycle of an asset, underpinned by the data attached to them. BIM has far and reaching consequences on both building procurement and infrastructure. This recent emergence constitutes one of the most exciting developments in the field of the Built Environment. These advances have offered project teams multi-sensory collaborative tools and opportunities for new communication structures. The included papers cover such topics as: BIM in design coordination; BIM in construction operations; BIM in building operation and maintenance; BIM and sustainability; BIM and collaborative working and practices; BIM-Facilities management integration; BIM-GIS integration; BIM and automation in construction; BIM and health and safety; BIM standards; BIM and interoperability; BIM and life cycle project management; BIM and cultural heritage; BIM and robotics; BIM in risk analysis and management; BIM in building cost control; BIM and

building representation; Virtual design and construction (VDC); BIM in the execution phase; BIM for infrastructure development; Digital twins.

Managing and Visualizing Your BIM Data - Ernesto Pellegrino
2021-11-25

Learn how to make optimum use of your BIM data using Dynamo to make better design decisions and create feature-rich dashboards using Power BI to track your model's data Key Features A go-to guide for AEC professionals to analyze and manage their data Explore popular use cases and best practices from experts around the world Create efficient dashboards using Dynamo and Power BI Book Description Business intelligence software has rapidly spread its roots in the AEC industry during the last few years. This has happened due to the presence of rich digital data in BIM models whose datasets can be gathered, organized, and visualized through software such as Autodesk Dynamo BIM and Power BI. **Managing and Visualizing Your BIM Data** helps you understand and implement computer science fundamentals to better absorb the process of creating Dynamo scripts and visualizing the collected data on powerful dashboards. This book provides a hands-on approach and associated methodologies that will have you productive and up and running in no time. After understanding the theoretical aspects of computer science and related topics, you will focus on Autodesk Dynamo to develop scripts to manage data. Later, the book demonstrates four case studies from AEC experts across the world. In this section, you'll learn how to get started with Autodesk Dynamo to gather data from a Revit model and create a simple C# plugin for Revit to stream data on Power BI directly. As you progress, you'll explore how to create dynamic Power BI dashboards using Revit floor plans and make a Power BI dashboard to track model issues. By the end of this book, you'll have learned how to develop a script to gather a model's data and visualize datasets in Power BI easily. What you will learn Understand why businesses across the world are moving toward data-driven models Build a data bridge between BIM models and web-based dashboards Get to grips with Autodesk Dynamo with the help of multiple step-by-step exercises Focus on data gathering workflows with Dynamo Connect

Power BI to different datasets Get hands-on experience in data management, analysis, and visualization techniques with guidance from experts across the world Who this book is for This book is for BIM managers, BIM coordinators, design technology managers, and all AEC professionals who want to learn Autodesk Dynamo to analyze, manage, and visualize their BIM data as well as understand some associated computer science topics. You need to have a background in BIM and knowledge of what a BIM model is to make the most of this book.

Advances in Building Information Modeling - Ozan Önder Özener
2022-09-22

This book constitutes the refereed proceedings of the Second Eurasian BIM Forum on Advances in Building Information Modeling, EBF 2021, held in Istanbul, Turkey, during November 11-12, 2021. The 12 full papers included in this book were carefully reviewed and selected from 22 submissions. They were organized in topical sections as follows: BIM adoption and design process; BIM for project and facilities management; BIM education; and novel viewpoints on BIM.

Advances in Building Information Modeling - Salih Ofluoglu 2020-03-11
This book constitutes the refereed proceedings of the First Eurasian BIM Forum, EBF 2019, held in Istanbul, Turkey, in May 2019. The 16 full papers were carefully reviewed and selected from 44 submissions. The papers cover such topics as BIM adoption and implementation; BIM for project management; BIM for sustainability and performative design; BIM and facility management and infrastructural issues.

Brick and Block Masonry - Claudio Modena 2016-11-03
Brick and Block Masonry - Trends, Innovations and Challenges contains the lectures and regular papers presented at the 16th International Brick and Block Masonry Conference (Padova, Italy, 26-30 June 2016). The contributions cover major topics: - Analysis of masonry structures - Bond of composites to masonry - Building physics and durability - Case studies - Codes and standards - Conservation of historic buildings - Earthen constructions - Eco-materials and sustainability - Fire resistance, blasts, and impacts - Masonry bridges, arches and vaults - Masonry infill walls and RC frames - Masonry materials and testing - Masonry repair and

strengthening - New construction techniques and technologies - Reinforced and confined masonry - Seismic performance and vulnerability assessment In an ever-changing world, in which innovations are rapidly implemented but soon surpassed, the challenge for masonry, the oldest and most traditional building material, is that it can address the increasingly pressing requirements of quality of living, safety, and sustainability. This abstracts volume and full paper USB device, focusing on challenges, innovations, trends and ideas related to masonry, in both research and building practice, will prove to be a valuable source of information for researchers and practitioners, masonry industries and building management authorities, construction professionals and educators.

Renaissance Revit - Paul F. Aubin 2013-11-12

Leverage the power of the Revit family editor to create complex forms drawn from classical architecture. This book brings together three of the author's favorite things: architecture, history and Revit in a hands-on manual like nothing else available! From the foreword: "Paul Aubin has carved out a distinctive niche in the overlapping worlds of BIM, Revit & Education. He offers support to self-directed learners who have caught the BIM bug and are seeking greater fluency & deeper knowledge. To a large extent I think his success is rooted in his own eagerness to explore and learn; plus his ability to share that enthusiasm with others. In this book he has taken that approach to a new level, seizing on one of his long-term interests, embarking on a journey of discovery, and sharing the results with his audience...And there is no better way to deepen your insight than to build your own versions of the classical orders using a programme like Revit. I think Paul has hit upon an explosive combination. Let him draw you in and take you on two rides for the price of one. Let the synergy generated by the disparate worlds of software & history drive your learning experience forward. You may well find that, like a child, you learn new skills and knowledge in an effortless riot of exploratory play...So buy the book, make the journey and take your BIM pencil for a walk across the virtual pages of history."

Fonctionnalités avancées et gestion de projet avec Autodesk® Revit® -

Philippe Drouant 2022-04-27

Cet ouvrage propose d'apprendre à maîtriser les fonctionnalités avancées d'Autodesk® Revit® permettant d'améliorer et de personnaliser la présentation de toute modélisation. Conçu comme un guide, il décrit en détail les outils et fonctions qui peuvent être utilisées pour optimiser la gestion du projet. Tous les chapitres peuvent être abordés indépendamment les uns des autres. Ils ont été conçus pour répondre spécifiquement aux besoins des utilisateurs et les aider à progresser rapidement. Ils sont regroupés autour de ces deux thématiques et proposent les sujets suivants : • La gestion des vues (plage et profondeur de vue, filtres...), le contrôle du graphisme (options d'affichage, gabarits de vues...), les Textures et ressources (création/gestion des matériaux et textures, réalisme avancé...) et la visite virtuelle (création et export). • L'arborescence du projet (création et organisation), la gestion des fichiers liés (mise en place, options de liaison...), la gestion par Phases de construction (outils, échelle du temps...), les variantes (utilité, complexité...), les nomenclatures (création, export de données, avec Dynamo...), le géoréférencement et les systèmes de coordonnées (modification et partage...). Didactique, tout en couleur, ce manuel propose de nombreux conseils et astuces ainsi que des exercices téléchargeables qui vous permettront de placer une vue caméra sur une feuille, d'appliquer un filtre basé sur des règles à une vue, de récupérer un motif de remplissage issu d'AutoCAD®, de créer un motif de remplissage personnalisé, de gérer un projet par Phases de construction, d'utiliser un jeu de variantes sur un nouveau projet, de créer une empreinte au sol avec un import de fichier DWG, d'utiliser le partage des coordonnées, d'importer une nomenclature d'un autre projet, d'exporter une nomenclature vers Excel, avec Dynamo for Revit ou avec DB Link... Que vous soyez BIM Manager, Data Manager, architectes, ingénieurs ou techniciens de bureaux d'études ou encore étudiants, ce manuel vous accompagnera au quotidien pour tirer pleinement parti du potentiel métier offert par Autodesk® Revit®.

Modern Building Design - Ricardo Codinhoto 2019-11-28

Climate change, technology, and regulation are just some of the

challenges faced by the architecture, engineering and construction industry in the design and build of modern buildings. This book explores these trends, highlighting how higher education and the construction sector can address these challenges through modern design practices and integrated approaches. It explores the following topics: conflicting design tensions in projects; the concept of Deformocere ('ugly through harm'); the emerging role of the design manager; buildings and their impact on health and wellbeing, and the importance of information modelling for enhanced design. Energy modelling and life-cycle analysis along with multidisciplinary building design and design trade-offs are covered too. With case studies and supporting illustrations this book will guide you to a better understanding of modern building design.

Computational Science and Its Applications - ICCSA 2021 - Osvaldo Gervasi 2021-09-11

The ten-volume set LNCS 12949 - 12958 constitutes the proceedings of the 21st International Conference on Computational Science and Its Applications, ICCSA 2021, which was held in Cagliari, Italy, during September 13 - 16, 2021. The event was organized in a hybrid mode due to the Covid-19 pandemic. The 466 full and 18 short papers presented in these books were carefully reviewed and selected from 1588 submissions. Part X of the set includes the proceedings of the following workshops: International Workshop on Smart and Sustainable Island Communities (SSIC 2021); International Workshop on Science, Technologies and Policies to Innovate Spatial Planning (STP4P 2021); International Workshop on Sustainable Urban Energy Systems (SUREN-SYS 2021); International Workshop on Ports of the future - smartness and sustainability (SmartPorts 2021); International Workshop on Smart Tourism (SmartTourism 2021); International Workshop on Space Syntax for Cities in Theory and Practice (Syntax_City 2021); International Workshop on Theoretical and Computational Chemistry and its Applications (TCCMA 2021); International Workshop on Urban Form Studies (UForm 2021); International Workshop on Urban Space Accessibility and Safety (USAS2021); International Workshop on Virtual and Augmented Reality and Applications (VRA 2021); International

Workshop on Advanced and Computational Methods for Earth Science applications (WACM4ES 2021).

Proceedings of 2021 4th International Conference on Civil Engineering and Architecture - Thomas Hyun-Koo Kang 2022

This book states that the proceedings gathers selected papers from 2021 4th International Conference on Civil Engineering and Architecture (ICCEA 2021), which was taken place in Seoul, South Korea, during July 10-12, 2021. The conference is the premier forum for the presentation of new advances and research results in the fields of theoretical, experimental, and practical civil engineering and architecture. And this proceedings from the conference mainly discusses architectural design and project management, environmental protection and spatial planning, design and analysis of building materials, and structural engineering and safety. And these materials can be useful and valuable sources for researchers and professionals working in the field of civil engineering and architecture.

Autodesk Revit and Dynamo - 2020-11

Dynamo and Excel with Revit

Smart Cities and Construction Technologies - Sara Shirowzhan 2020-05-13

This book includes nine chapters presenting the outcome of research projects relevant to building, cities, and construction. A description of a smart city and the journey from conventional to smart cities is discussed at the beginning of the book. Innovative case studies of underground cities and floating city bridges are presented in this book. BIM and GIS applications on different projects, and the concept of intelligent contract and virtual reality are discussed. Two concepts relevant to conventional buildings including private open spaces and place attachments are also included, and these topics can be upgraded in the future by smart technologies.

Microsoft Power BI Quick Start Guide Devin Knight 2018-07-30

Bring your data to life with Power BI Key Features Get to grips with the fundamentals of Microsoft Power BI and its Business Intelligence capabilities Build accurate analytical models, reports and dashboards

Get faster and more intuitive insights from your data using Microsoft Power BI Book Description Microsoft Power BI is a cloud-based service that helps you easily visualize and share insights using your organization's data. This book will get you started with business intelligence using the Power BI toolset, covering essential concepts such as installation, designing effective data models, as well as building basic dashboards and visualizations to make your data come to life You will learn how to get your data the way you want - connecting to data sources sources and how to clean your data with the Power BI Query Editor. You will next learn how to properly design your data model to make your data easier to work with.. You will next learn how to properly design your data model to navigate table relationships and build DAX formulas to make your data easier to work with. Visualizing your data is another key element of this book, and you will learn how to follow proper data visualization styles and enhanced digital storytelling techniques. By the end of this book, you will understand how to administer your organization's Power BI environment so deployment can be made seamless, data refreshes can run properly, and security can be fully implemented What you will learn Connect to data sources using both import and DirectQuery options Use the Query Editor to apply data transformations and data cleansing processes, including learning how to write M and R scripts Design optimized data models by designing relationships and DAX calculations Leverage built-in and custom visuals to design effective reports Use the Power BI Desktop and Power BI Service to implement Row Level Security on your model Administer a Power BI cloud tenant for your organization Deploy your Power BI Desktop files into the Power BI Report Server Who this book is for This book is for aspiring Business Intelligence professionals who want to get up and running with Microsoft Power BI. If you have a basic understanding of BI concepts and want to learn how to apply them using Microsoft Power BI, this book is for you.

Proceedings of the 26th International Symposium on Advancement of Construction Management and Real Estate -
Hongling Guo 2022

This book of CRIOCM 2021 (26th International Conference on Advancement of Construction Management and Real Estate) presents the latest developments in real estate and construction management around the globe. The conference was organized by the Chinese Research Institute of Construction Management (CRIOCM) working in close collaboration with Tsinghua University. Written by international academics and professionals, the book discusses the latest achievements, research findings and advances in frontier disciplines in the field of construction management and real estate. Covering a wide range of topics, including building information modeling, big data, geographic information systems, housing policies, management of infrastructure projects, intelligent construction and smart city, real estate finance and economics and urban planning and sustainability, the discussions provide valuable insights into the implementation of advanced construction project management and real estate market in China and abroad. The book offers an outstanding resource for academics and professionals.

Tunnels and Underground Cities: Engineering and Innovation Meet Archaeology, Architecture and Art - Daniele Peila 2020-07-03
Tunnels and Underground Cities: Engineering and Innovation meet Archaeology, Architecture and Art. Volume 12: Urban Tunnels - Part 2 contains the contributions presented in the eponymous Technical Session during the World Tunnel Congress 2019 (Naples, Italy, 3-9 May 2019). The use of underground space is continuing to grow, due to global urbanization, public demand for efficient transportation, and energy saving, production and distribution. The growing need for space at ground level, along with its continuous value increase and the challenges of energy saving and achieving sustainable development objectives, demand greater and better use of the underground space to ensure that it supports sustainable, resilient and more liveable cities. The contributions cover a wide range of topics, from construction techniques and settlement predictions, via red line tunnels, to the underground widening excavation method. The book is a valuable reference text for tunnelling specialists, owners, engineers, archaeologists, architects, artists and others involved in underground planning, design and building

around the world, and for academics who are interested in underground constructions and geotechnics.

eWork and eBusiness in Architecture, Engineering and Construction
ECPPM 2016 - Symeon Christodoulou 2017-03-27

eWork and eBusiness in Architecture, Engineering and Construction 2016 collects the papers presented at the 11th European Conference on Product & Process Modelling (ECPPM 2016, Cyprus, 7-9 September 2016), The contributions cover complementary thematic areas that hold great promise for the advancement of research and technological development in the modelling of complex engineering systems, encompassing a substantial number of high quality contributions on a large spectrum of topics pertaining to ICT deployment instances in AEC/FM, including: • Information and Knowledge Management • Construction Management • Description Logics and Ontology Application in AEC • Risk Management • 5D/nD Modelling, Simulation and Augmented Reality • Infrastructure Condition Assessment • Standardization of Data Structures • Regulatory and Legal Aspects • Multi-Model and distributed Data Management • System Identification • Industrialized Production, Smart Products and Services • Interoperability • Smart Cities • Sustainable Buildings and Urban Environments • Collaboration and Teamwork • BIM Implementation and Deployment • Building Performance Simulation • Intelligent Catalogues and Services
Industry 4.0 Solutions for Building Design and Construction
Pour Rahimian 2021-12-21

This book provides in-depth results and case studies in innovation from actual work undertaken in collaboration with industry partners in Architecture, Engineering, and Construction (AEC). Scientific advances and innovative technologies in the sector are key to shaping the changes emerging as a result of Industry 4.0. Mainstream Building Information Management (BIM) is seen as a vehicle for addressing issues such as industry fragmentation, value-driven solutions, decision-making, client engagement, and design/process flow; however, advanced simulation, computer vision, Internet of Things (IoT), blockchain, machine learning, deep learning, and linked data all provide immense opportunities for

dealing with these challenges and can provide evidenced-based innovative solutions not seen before. These technologies are perceived as the “true” enablers of future practice, but only recently has the AEC sector recognised terms such as “golden key” and “golden thread” as part of BIM processes and workflows. This book builds on the success of a number of initiatives and projects by the authors, which include seminal findings from the literature, research and development, and practice-based solutions produced for industry. It presents these findings through real projects and case studies developed by the authors and reports on how these technologies made a real-world impact. The chapters and cases in the book are developed around these overarching themes: • BIM and AEC Design and Optimisation: Application of Artificial Intelligence in Design • BIM and XR as Advanced Visualisation and Simulation Tools • Design Informatics and Advancements in BIM Authoring • Green Building Assessment: Emerging Design Support Tools • Computer Vision and Image Processing for Expediting Project Management and Operations • Blockchain, Big Data, and IoT for Facilitated Project Management • BIM Strategies and Leveraged Solutions This book is a timely and relevant synthesis of a number of cogent subjects underpinning the paradigm shift needed for the AEC industry and is essential reading for all involved in the sector. It is particularly suited for use in Masters-level programs in Architecture, Engineering, and Construction.

Life Cycle Analysis and Assessment in Civil Engineering: Towards an Integrated Vision - Robby Caspeele 2018-10-31

This volume contains the papers presented at IALCCE2018, the Sixth International Symposium on Life-Cycle Civil Engineering (IALCCE2018), held in Ghent, Belgium, October 28-31, 2018. It consists of a book of extended abstracts and a USB device with full papers including the Fazlur R. Khan lecture, 8 keynote lectures, and 390 technical papers from all over the world. Contributions relate to design, inspection, assessment, maintenance or optimization in the framework of life-cycle analysis of civil engineering structures and infrastructure systems. Life-cycle aspects that are developed and discussed range from structural

safety and durability to sustainability, serviceability, robustness and resilience. Applications relate to buildings, bridges and viaducts, highways and runways, tunnels and underground structures, off-shore and marine structures, dams and hydraulic structures, prefabricated design, infrastructure systems, etc. During the IALCCE2018 conference a particular focus is put on the cross-fertilization between different sub-areas of expertise and the development of an overall vision for life-cycle analysis in civil engineering. The aim of the editors is to provide a valuable source of cutting edge information for anyone interested in life-cycle analysis and assessment in civil engineering, including researchers, practising engineers, consultants, contractors, decision makers and representatives from local authorities.

eWork and eBusiness in Architecture, Engineering and Construction - Jan Karlshoj 2018-09-03

eWork and eBusiness in Architecture, Engineering and Construction 2018 collects the papers presented at the 12th European Conference on Product and Process Modelling (ECPPM 2018, Copenhagen, 12-14 September 2018). The contributions cover complementary thematic areas that hold great promise towards the advancement of research and technological development in the modelling of complex engineering systems, encompassing a substantial number of high quality contributions on a large spectrum of topics pertaining to ICT deployment instances in AEC/FM, including: • Information and Knowledge Management • Construction Management • Description Logics and Ontology Application in AEC • Risk Management • 5D/nD Modelling, Simulation and Augmented Reality • Infrastructure Condition Assessment • Standardization of Data Structures • Regulatory and Legal Aspects • Multi-Model and distributed Data Management • System Identification • Industrialized Production, Smart Products and Services • Interoperability • Smart Cities • Sustainable Buildings and Urban Environments • Collaboration and Teamwork • BIM Implementation and Deployment • Building Performance Simulation • Intelligent Catalogues and Services eWork and eBusiness in Architecture, Engineering and Construction 2018 represents a rich and comprehensive resource for

academics and researchers working in the interdisciplinary areas of information technology applications in architecture, engineering and construction. In the last two decades, the biennial ECPPM (European Conference on Product and Process Modelling) conference series, as the oldest BIM conference, has provided a unique platform for the presentation and discussion of the most recent advances with regard to the ICT (Information and Communication Technology) applications in the AEC/FM (Architecture, Engineering, Construction and Facilities Management) domains.

The Routledge Companion to Paradigms of Performativity in Design and Architecture - Mitra Kanaani 2019-12-12

The Routledge Companion to Paradigms of Performativity in Design and Architecture focuses on a non-linear, multilateral, ethical way of design thinking, positioning the design process as a journey. It expands on the multiple facets and paradigms of performative design thinking as an emerging trend in design methodology. This edited collection explores the meaning of performativity by examining its relevance in conjunction with three fundamental principles: firmness, commodity and delight. The scope and broader meaning of performativity, performative architecture and performance-based building design are discussed in terms of how they influence today's design thinking. With contributions from 45 expert practitioners, educators and researchers, this volume engages theory, history, technology and the human aspects of performative design thinking and its implications for the future of design.

Increasing Autodesk Revit Productivity for BIM Projects - Fabio Roberti 2021-06-21

Implement Revit best practices with Dynamo and Power BI to visualize and analyze BIM information Key Features Boost productivity in Revit and apply multiple workflows to work efficiently on BIM projects Optimize your daily work in Revit to perform more tasks in less time Take a hands-on approach to improving your efficiency with useful explanations, which will step-change your productivity Book Description Increasing Autodesk Revit Productivity for BIM Projects takes a hands-on approach to implementing Revit effectively for everyone curious about

this new and exciting methodology. Complete with step-by-step explanations of essential concepts and practical examples, this Revit book begins by explaining the principles of productivity in Revit and data management for BIM projects. You'll get to grips with the primary BIM documentation to start a BIM project, including the contract, Exchange Information Requirements (EIR), and BIM Execution Plan (BEP/BXP). Later, you'll create a Revit template, start a Revit project, and explore the core functionalities of Revit to increase productivity. Once you've built the foundation, you'll learn about Revit plugins and use Dynamo for visual programming and Power BI for analyzing BIM information. By the end of this book, you'll have a solid understanding of Revit as construction and design software, how to increase productivity in Revit, and how to apply multiple workflows in your project to manage BIM. What you will learn Explore the primary BIM documentation to start a BIM project Set up a Revit project and apply the correct coordinate system to ensure long-term productivity Improve the efficiency of Revit core functionalities that apply to daily activities Use visual programming with Dynamo to boost productivity and manage data in BIM projects Import data from Revit to Power BI and create project dashboards to analyze data Discover the different Revit plugins for improved productivity, visualization, and analysis Implement best practices for modeling in Revit Who this book is for This book is for architects, designers, engineers, modelers, BIM coordinators, and BIM managers interested in learning Autodesk Revit best practices. Increasing Autodesk Revit Productivity for BIM Projects will help you to explore the methodology that combines information management and research for quality inputs when working in Revit.

Advances in Intelligent Systems and Interactive Applications - Fatos Xhafa 2019-11-16

This edited book is based on the research papers presented at the 4th International Conference on Intelligent, Interactive Systems and Applications (IISA2019), held on June 28-30, 2019 in Bangkok, Thailand. Interactive intelligent systems (IIS) are systems that interact with human beings, media or virtual agents in intelligent computing environments.

This book explores how novel interactive systems can intelligently address various challenges and also limitations previously encountered by human beings using different machine learning algorithms, and analyzes recent trends. The book includes contributions from diverse areas of IIS, here categorized into seven sections, namely i) Intelligent Systems; ii) Autonomous Systems; iii) Pattern Recognition and Computer Vision; iv) E-Enabled Systems; v) Internet & Cloud Computing; vi) Mobile & Wireless Communication; and vii) Various Applications. It not only presents theoretical knowledge on the intelligent and interactive systems but also discusses various applications pertaining to different domains.

Nouvelles perspectives du BIM - Collectif Eyrolles 2022-01-06

Les dernières avancées dans la modélisation des informations du bâtiment et la maquette numérique ont permis d'améliorer l'efficacité des livraisons et performances, en catalysant des méthodes de travail innovantes dans le domaine général de l'arc

Mastering Autodesk Revit 2018 - Lance Kirby 2017-07-17

The best-selling Revit guide, now more complete than ever with all-new coverage on the 2018 release Mastering Autodesk Revit 2018 for Architecture is packed with focused discussions, detailed exercises, and real-world examples to help you get up to speed quickly on the latest version of Autodesk Revit for Architecture. Organized according to how you learn and implement the software, this book provides expert guidance for all skill levels. Hands-on tutorials allow you to dive right in and start accomplishing vital tasks, while compelling examples illustrate how Revit for Architecture is used in every project. Available online downloads include before-and-after tutorial files and additional advanced content to help you quickly master this powerful software. From basic interface topics to advanced visualization techniques and documentation, this invaluable guide is your ideal companion through the Revit Architecture workflow. Whether you're preparing for Autodesk certification exams or just want to become more productive with the architectural design software, practical exercises and expert instruction will get you where you need to be. Understand key BIM and Revit concepts and master the Revit interface Delve into templates, work-

sharing, and managing Revit projects Master modeling and massing, the Family Editor, and visualization techniques Explore documentation, including annotation, detailing, and complex structures BIM software has become a mandatory asset in today's architecture field; automated documentation updates reduce errors while saving time and money, and Autodesk's Revit is the industry leader in the BIM software space.

SU+RE - John Nastasi 2018-04-02

In the 21st century, architects and engineers are being challenged to produce work that is concurrently sustainable and resilient. Buildings need to mitigate their impact on climate change by minimising their carbon footprint, while also countering the challenging new weather conditions. Globally, severe storms, extreme droughts and rising sea levels are becoming an increasingly reoccurring feature. To respond, a design process is required that seeks to integrate resiliency by building in the capacity to absorb the impacts of these disruptive events and adapt over time to further changes, while simultaneously being part of the solution to the problem itself. This issue of AD is guest-edited by the interdisciplinary team at Stevens Institute of Technology who developed the winning entry for the 2015 US Department of Energy Solar Decathlon competition, the SU+RE House. While particular focus is paid to this student designed and built prototype home, the publication also provides a broader discussion of the value of design-build as a model for tackling the issue of integrating sustainability and resilience, and what changes are required across education, policy, practice and industry for widespread implementation. Contributors include: Bronwyn Barry, Michael Bruno, Alex Carpenter, Adam Cohen, Ann Holtzman, Ken Levenson, Brady Peters, Terri Peters, Karin Stieldorf, Alex Washburn, Claire Weisz, and Graham Wright. Featured architects: 3XN/GXN, FXFOWLE Architects, Local Office Landscape Architecture (LOLA), Lateral Office, Skidmore, Owings & Merrill (SOM), Snohetta, Structures Design Build, and WXY Studio.

BESS SB13 - Pablo La Roche

Progress(es), Theories and Practices - Mário S. Ming Kong 2017-10-03

The texts presented in Proportion Harmonies and Identities (PHI) - Progress(es) - Theories and Practices were compiled with the intent to establish a platform for the presentation, interaction and dissemination of research. It aims also to foster the awareness of and discussion on the topics of Harmony and Proportion with a focus on different progress visions and readings relevant to Architecture, Arts and Humanities, Design, Engineering, Social and Natural Sciences, Technology and their importance and benefits for the community at large. Considering that the idea of progress is a major matrix for development, its theoretical and practical foundations have become the working tools of scientists, philosophers, and artists, who seek strategies and policies to accelerate the development process in different contexts.

Proceedings of the 18th International Conference on Computing in Civil and Building Engineering - Eduardo Toledo Santos
2020-07-14

This book gathers the latest advances, innovations, and applications in the field of information technology in civil and building engineering, presented at the 18th International Conference on Computing in Civil and Building Engineering (ICCCBE), São Paulo, Brazil, August 18-20, 2020. It covers highly diverse topics such as BIM, construction information modeling, knowledge management, GIS, GPS, laser scanning, sensors, monitoring, VR/AR, computer-aided construction, product and process modeling, big data and IoT, cooperative design, mobile computing, simulation, structural health monitoring, computer-aided structural control and analysis, ICT in geotechnical engineering, computational mechanics, asset management, maintenance, urban planning, facility management, and smart cities. Written by leading researchers and engineers, and selected by means of a rigorous international peer-review process, the contributions highlight numerous exciting ideas that will spur novel research directions and foster multidisciplinary collaborations.

Smart and Sustainable Cities and Buildings - Rob Roggema
2020-05-11

This book brings together the papers presented at the Smart and

Sustainable Built Environments Conference, 2018 (SASBE). This latest research falls into two tracks: smart and sustainable design and planning cities; and the technicalities of smart and sustainable buildings. The growth of smart cities is evident, but not always linked to sustainability. This book gives an overview of the latest academic developments in increasing the smartness and sustainability of our cities and buildings. Aspects such as inclusivity, smart cities, place and space, the resilient city, urbanity and urban ecology are prominently featured in the design and planning part of the book; while energy, educational buildings, comfort, building design, construction and performance form the sub-themes of the technical part of the book. This book will appeal to urban designers, architects, urban planners, smart city designers and sustainable building experts.

Mastering Autodesk Revit 2017 for Architecture - Marcus Kim
2016-06-10

The ultimate guide to Revit Architecture just got even better. Mastering Autodesk Revit 2017 for Architecture is the bestselling guide for Revit Architecture users of all levels, with focused discussions, detailed exercises, and compelling real-world examples. This new edition has been completely revamped based on reader and Revit Architecture instructor feedback to be more useful, more complete, and more approachable than ever. Organized by real-world workflow, practical tutorials guide you through each phase of a project to help you understand BIM concepts and quickly start accomplishing vital Revit Architecture tasks. From templates, work-sharing, and project management, to modeling, documentation, annotation, and complex structures, this book provides full coverage of essential Revit Architecture tools and processes. The companion website features before-and-after tutorials, additional advanced content, and an hour of video instruction to help you quickly master crucial techniques. Learn up-to-date Revit Architecture workflows and processes. Master modeling, massing, and other visualization techniques. Work with complex structural elements and advanced detailing. Prepare for Autodesk certification exams. Building information modeling pairs the visual design

representation with a parametric database that stores all geometry, spatial relationships, materials, and other data generated by the design process. Design changes instantly update all documentation, and it's this efficiency that makes BIM the new permanent paradigm. Whether you're studying for a certification exam or navigating the switch from CAD, Mastering Autodesk Revit 2017 for Architecture is your number-one guide to getting up and running quickly.

Handbook of Research on Developing Smart Cities Based on Digital Twins - Del Giudice, Matteo 2021-01-15

The advent of connected, smart technologies for the built environment may promise a significant value that has to be reached to develop digital city models. At the international level, the role of digital twin is strictly related to massive amounts of data that need to be processed, which proposes several challenges in terms of digital technologies capability, computing, interoperability, simulation, calibration, and representation. In these terms, the development of 3D parametric models as digital twins to evaluate energy assessment of private and public buildings is considered one of the main challenges of the last years. The ability to gather, manage, and communicate contents related to energy saving in buildings for the development of smart cities must be considered a specificity in the age of connection to increase citizen awareness of these fields. The Handbook of Research on Developing Smart Cities Based on Digital Twins contains in-depth research focused on the description of methods, processes, and tools that can be adopted to achieve smart city goals. The book presents a valid medium for disseminating innovative data management methods related to smart city topics. While highlighting topics such as data visualization, a web-based ICT platform, and data-sharing methods, this book is ideally intended for researchers in the building industry, energy, and computer science fields; public administrators; building managers; and energy professionals along with practitioners, stakeholders, researchers, academicians, and students interested in the implementation of smart technologies for the built environment.

Humanizing Digital Reality - Klaas De Rycke 2017-09-15

This book aims at finding some answers to the questions: What is the influence of humans in controlling CAD and how much is human in control of its surroundings? How far does our reach as humans really go? Do the complex algorithms that we use for city planning nowadays live up to their expectations and do they offer enough quality? How much data do we have and can we control? Are today's inventions reversing the humanly controlled algorithms into a space where humans are controlled by the algorithms? Are processing power, robots for the digital environment and construction in particular not only there to rediscover what we already knew and know or do they really bring us further into the fields of constructing and architecture? The chapter authors were invited speakers at the 6th Symposium "Design Modelling Symposium: Humanizing Digital Reality", which took place in Ensa-Versailles, France from 16 - 20 September 2017.

Mastering Autodesk Revit 2020 - Robert Yori 2019-11-12

The best-selling Revit guide, now more complete than ever with all-new coverage on the 2020 release Mastering Autodesk Revit 2020 is packed with focused discussions, detailed exercises, and real-world examples to help you get up to speed quickly on the latest version of Autodesk Revit. Organized according to how you learn and implement the software, this book provides expert guidance for all skill levels. Hands-on tutorials allow you to dive right in and start accomplishing vital tasks, while compelling examples illustrate how Revit for Architecture is used in every project. Available online downloads include before-and-after tutorial files and additional advanced content to help you quickly master this powerful software. From basic interface topics to advanced visualization techniques and documentation, this invaluable guide is your ideal companion through the Revit workflow. Whether you're preparing for Autodesk certification exams or just want to become more productive with the architectural design software, practical exercises and expert instruction will get you where you need to be. Understand key BIM and Revit concepts and master the Revit interface Delve into templates, work-sharing, and managing Revit projects Master modeling and massing, the Family Editor, and visualization techniques Explore

documentation, including annotation, detailing, and complex structures BIM software has become a mandatory asset in today's architecture field; automated documentation updates reduce errors while saving time and money, and Autodesk's Revit is the industry leader in the BIM software space.

Dynamo and Grasshopper for Revit Cheat Sheet Reference Manual Marcello Sgambelluri 2020-12-15

The Dynamo and Grasshopper for Revit Cheat Sheet Reference Manual is a collection of side by side Dynamo and Grasshopper examples in a one-page summary format also referred to as "Cheat Sheets".

Dynamo pour Autodesk® Revit® - Ahmed Halim 2021-05-05

Dynamo est un outil encore peu connu des professionnels et dont le potentiel est, pour le moment, sous-exploité. Doté d'un moteur de calcul très puissant, il permet pourtant de réaliser des actions sophistiquées simplement et rapidement et, ce, quel que soit le volume des données à traiter. Développé spécifiquement pour Autodesk® Revit®, Dynamo for Revit permet de mettre en place facilement des routines ou des fonctions complexes de traitement. On peut, sans avoir besoin de maîtriser un langage de programmation, importer des données Excel, importer des fichiers AutoCAD sans perte, modéliser des formes de géométrie libres, éviter des tâches répétitives, modifier des éléments par groupe, sélectionner des éléments par matériaux, personnaliser des traitements pour un projet... Conçu pour apprendre à maîtriser l'interface de programmation visuelle de Dynamo et développer son usage au quotidien, cet ouvrage détaille : • la programmation visuelle, l'environnement et la configuration de base de Dynamo ; • l'interopérabilité du système et un panorama des formats de fichiers pris en charge ; • la sauvegarde et la gestion des scripts notamment en cas de travail collaboratif ; • la gestion des données sous Excel via Dynamo – que ce soit d'Excel vers Revit en import ou de Revit vers Excel en export ; • la sélection et la modification des paramètres des éléments de la maquette Revit. • l'automatisation des tâches répétitives sous Revit ; • l'utilisation du lecteur Dynamo et des scripts pour tous les utilisateurs ; • la modélisation des éléments 3D et l'analyse d'une géométrie ; • les

principes fondamentaux de la conception générative ou Generative Design. Didactique, tout en couleur, cet ouvrage propose de nombreux exercices pratiques dont les scripts sont téléchargeables : centrer automatiquement les étiquettes des pièces dans la vue active Revit, exporter une liste des pièces avec les surfaces programme et projet, contrôler la hauteur des pièces dans la maquette, déplacer plusieurs éléments vers un sous-projet spécifique, modéliser des toits de forme libre, modifier de manière aléatoire les largeurs des panneaux de murs-rideaux... Ce manuel s'adresse à tous les utilisateurs d'Autodesk® Revit® qui souhaitent faire évoluer leurs pratiques métier vers plus d'interopérabilité et d'optimisation.

EG-ICE 2020 Workshop on Intelligent Computing in Engineering - Ungureanu, Lucian Constantin 2020-06-30

The 27th EG-ICE International Workshop 2020 brings together international experts working at the interface between advanced computing and modern engineering challenges. Many engineering tasks require open-world resolutions to support multi-actor collaboration, coping with approximate models, providing effective engineer-computer interaction, search in multi-dimensional solution spaces, accommodating uncertainty, including specialist domain knowledge, performing sensor-data interpretation and dealing with incomplete knowledge. While results from computer science provide much initial support for resolution, adaptation is unavoidable and most importantly, feedback from addressing engineering challenges drives fundamental computer-science research. Competence and knowledge transfer goes both ways. Der 27. Internationale EG-ICE Workshop 2020 bringt internationale Experten zusammen, die an der Schnittstelle zwischen fortgeschrittener Datenverarbeitung und modernen technischen Herausforderungen arbeiten. Viele ingenieurwissenschaftliche Aufgaben erfordern Open-World-Resolutionen, um die Zusammenarbeit mehrerer Akteure zu unterstützen, mit approximativen Modellen umzugehen, eine effektive Interaktion zwischen Ingenieur und Computer zu ermöglichen, in mehrdimensionalen Lösungsräumen zu suchen, Unsicherheiten zu berücksichtigen, einschließlich fachspezifischen Domänenwissens,

Sensordateninterpretation durchzuführen und mit unvollständigem Wissen umzugehen. Während die Ergebnisse aus der Informatik anfänglich viel Unterstützung für die Lösung bieten, ist eine Anpassung unvermeidlich, und am wichtigsten ist, dass das Feedback aus der Bewältigung technischer Herausforderungen die computer-wissenschaftliche Grundlagenforschung vorantreibt. Kompetenz und Wissenstransfer gehen in beide Richtungen.

Digital Heritage. Progress in Cultural Heritage: Documentation, Preservation, and Protection - Marinos Ioannides 2018-10-15

This two-volume set LNCS 11196 and LNCS 11197 constitutes the refereed proceedings of the 7th International Conference on Digital Heritage, EuroMed 2018, held in Nicosia, Cyprus, in October/November 2018. The 21 full papers, 47 project papers, and 29 short papers presented were carefully reviewed and selected from 537 submissions. The papers are organized in topical sections on 3D Digitalization, Reconstruction, Modeling, and HBIM; Innovative Technologies in Digital Cultural Heritage; Digital Cultural Heritage -Smart Technologies; The New Era of Museums and Exhibitions; Digital Cultural Heritage Infrastructure; Non Destructive Techniques in Cultural Heritage Conservation; E-Humanities; Reconstructing the Past; Visualization, VR and AR Methods and Applications; Digital Applications for Materials Preservation in Cultural Heritage; and Digital Cultural Heritage Learning and Experiences.

ECPPM 2021 - eWork and eBusiness in Architecture, Engineering and Construction - Vitaly Semenov 2021-04-28

eWork and eBusiness in Architecture, Engineering and Construction 2021 collects the papers presented at the 13th European Conference on Product and Process Modelling (ECPPM 2021, Moscow, 5-7 May 2021). The contributions cover a wide spectrum of thematic areas that hold great promise towards the advancement of research and technological development targeted at the digitalization of the AEC/FM (Architecture, Engineering, Construction and Facilities Management) domains. High quality contributions are devoted to critically important problems that arise, including: Information and Knowledge Management Semantic Web

and Linked Data Communication and Collaboration Technologies
Software Interoperability BIM Servers and Product Lifecycle
Management Systems Digital Twins and Cyber-Physical Systems Sensors
and Internet of Things Big Data Artificial and Augmented Intelligence in
AEC Construction Management 5D/nD Modelling and Planning Building
Performance Simulation Contract, Cost and Risk Management Safety and
Quality Sustainable Buildings and Urban Environments Smart Buildings
and Cities BIM Standardization, Implementation and Adoption
Regulatory and Legal Aspects BIM Education and Training Industrialized
Production, Smart Products and Services Over the past quarter century,
the biennial ECPPM conference series, as the oldest BIM conference, has
provided researchers and practitioners with a unique platform to present
and discuss the latest developments regarding emerging BIM
technologies and complementary issues for their adoption in the AEC/FM
industry.

Cooperative Design, Visualization, and Engineering - Yuhua Luo
2019-10-01

This book constitutes the proceedings of the 16th International
Conference on Cooperative Design, Visualization, and Engineering,
CDVE 2019, held in Alcudia, Mallorca, Spain, in October 2019. The 26
revised full papers and 6 short papers presented were carefully reviewed
and selected from 68 submissions. The achievement, progress and future
challenges are reported in areas such as aerospace engineering, remote
medical monitoring, automatic machine monitoring, cooperative personal
data analytics, mobile banking, remote cooperative art performance
management etc. In traditional areas such as architecture, civil
engineering and construction, cooperative learning, enterprise
management etc. authors also show new findings and new methodologies
in their papers. This gives the readers a fresh look of how the CDVE
technology is shaping our industry and daily life.