

2018 2020 Geometric Design Three Year Planner 2018 2020 Monthly Schedule Organizer Agenda Planner For The Next Three Years 36 Months Calendar 3 Year Diary 3 Year Calendar Logbook

This two-volume book constitutes the refereed proceedings of the 3rd International Conference on Multimedia Technology and Enhanced Learning, ICMTLE 2021, held in April 2021. Due to the COVID-19 pandemic the conference was held virtually. The 97 revised full papers have been selected from 208 submissions. They describe new learning technologies which range from smart school, smart class and smart learning at home and which have been developed from new technologies such as machine learning, multimedia and Internet of Things.

The subjects of the first volume is the issues related to the components and systems of transport machines. Motor vehicle systems tests are described: suspension dampers, steering, brakes and differentials. Design issues of machine elements operating in extreme conditions are also addressed. The possibility of increasing wear resistance in high-speed and ethanol-powered engines is analyzed. An extensive part covers the dynamics of hydraulic, electro-hydraulic and mechanical-hydraulic systems and the issues of diagnostics and automatic control in such systems. Aspects of the regional system of motor transport, public transport and transport and logistics of agricultural machinery are also addressed. The volume also examines selected technical and economic issues of gas transport. Topics on modelling of production processes with the transport of products are a complement.

More than 40,000 people are killed on our highways each year, and millions more are injured. Bad drivers and bad vehicles alone do not account for this carnage. The highway itself is often a contributing -- even determining -- cause of accidents. Killer Roads provides comprehensive guidance on the many issues surrounding transportation facility negligence. It helps you pinpoint essential engineering issues and relevant road defects, assess the quality of maintenance, identify pertinent engineering standards, and understand the liability of all parties. However, Killer Roads goes beyond describing the legal basis for your courtroom strategy. It also provides helpful, hands-on guidance for implementing this strategy successfully. Written in straightforward language, Killer Roads demonstrates how highway liability issues impact your approach to jury selection, the opening statement, cross-examination, and expert witness testimony.

2nd IMA Conference on Mathematics of Robotics
Mechatronic Systems 1

13th International Conference on Human Haptic Sensing and Touch Enabled Computer Applications, EuroHaptics 2022, Hamburg, Germany, May 22–25, 2022, Proceedings
Third EAI International Conference, ICMTLE 2021, Virtual Event, April 8-9, 2021, Proceedings, Part 1

50th Anniversary Edition
A Policy on Geometric Design of Highways and Streets, 2018

Computer Aided Geometric Design covers the proceedings of the First International Conference on Computer Aided Geometric Design, held at the University of Utah on March 18-21, 1974. This book is composed of 15 chapters and starts with reviews of the properties of surface patch equation and the use of computers in geometrical design. The next chapters deal with the principles of smooth interpolation over triangles and without twist constraints, as well as the graphical representation of surfaces over triangles and rectangles. These topics are followed by discussions of the B-spline curves and surfaces; mathematical and practical possibilities of UNISURF; nonlinear splines; and some piecewise polynomial alternatives to splines under tension. Other chapters explore the smooth parametric surfaces, the space curve as a folded edge, and the interactive computer graphics application of the parametric bi-cubic surface to engineering design problems. The final chapters look into the three-dimensional human-machine communication and a class of local interpolating splines. This book will prove useful to design engineers.

INCLUDES: 1 three-year planner for 2018 to 2020 including December 2017 and January 2021. Cover is high gloss finish; inner pages are printed on thick acid-free, high quality durable paper. Perfect bound to secure pages for the next three years and beyond. USEFUL & HANDY GRID BOX DESIGN: Each monthly page has a grid design which affords enough room (large date boxes) to record and plot events for the future at a glance. Imagine, three calendars in one place with recording space. Functional and efficient, fits perfectly beside a desk, keyboard, nightstand, affords for daily notes. PLAN AHEAD: Use the 3-year planner to arrange and co-ordinate your important events. You will be sure never to forget important dates with this simple and easy to carry around planner. Perfect alternative or supplement to your phone or computer. GOAL SETTING: A goal without a deadline is a dream, says the old adage; so go ahead and set your goals, use the planner to keep you in check so that you will meet your deadline. Inspire action, remove procrastination and get things done with the Three Year Planner. ESSENTIAL FOR: Family appointments, Planning ahead, Scheduling of appointments and events, Volunteer support, Caring for the elderly in recording their appointments, medication, perfect for 'come-back' medical visits, upcoming weddings, anniversaries, holiday planning, work schedules, booking entertainment, business planning, long-term note taking, makes for easing reporting. SIZE: 8.5 X 11inches.

This book (The AUN/SEED-Net Joint Regional Conference in Transportation, Energy, and Mechanical Manufacturing Engineering) gathers selected papers submitted to the 14th Regional Conference in Energy Engineering and the 13th Regional Conference in Mechanical Manufacturing Engineering in the fields related to intelligent equipment, automotive engineering, mechanical systems and sustainable manufacturing, renewable energy, heat and mass transfer. Under the theme of "Integration and Innovation for Sustainable Development," This book consists of papers in the aforementioned fields presented by researchers and scientists from universities, research institutes, and industry showcasing their latest findings and discussions with an emphasis on innovations and developments in embracing the new norm, resulting from the COVID-19 pandemic.

Encyclopedia of Geography
Proceedings of the 7th China High Resolution Earth Observation Conference (CHREOC 2020)

Proceeding of RCTEMME2021, Hanoi, Vietnam
The AUN/SEED-Net Joint Regional Conference in Transportation, Energy, and Mechanical Manufacturing Engineering

Between Disruptive Research and Industrial Applications, Volume 1
Electrochemical Carbon Dioxide Reduction

2018 - 2020 Geometric Design Three Year Planner2018-2020 Monthly Schedule Organizer - Agenda Planner for the Next Three Years/36 Months Calendar ? 8.5 X 11 Inches (12/2017 and 01/2021 Included)

The Light Metals symposia at the TMS Annual Meeting & Exhibition present the most recent developments, discoveries, and practices in primary aluminum science and technology. The annual Light Metals volume has become the definitive reference in the field of aluminum production and related light metal technologies. The 2021 collection includes contributions from the following symposia: Alumina and Bauxite · Aluminum Alloys, Processing, and Characterization · Aluminum Reduction Technology · Aluminum Reduction Technology Across the Decades: An LMD Symposium Honoring Alton T. Taberoux, Halvor Kvande and Harald A. Øye · Cast Shop Technology · Electrode Technology for Aluminum Production

Any time objects and their (self-)organization are to be put into use, their models and methods of thinking as well as their designing and manufacturing need to be reinvented. 4D printing is a future technology that is capable of bringing 3D objects to life. This ability, which gives objects the power to change shape or properties over time through energy stimulation from active materials and additive manufacturing, makes it possible to envisage technological breakthroughs while challenging the relationship between people and objects. 4D Printing 1 presents the different facets of this technology, providing an objective, critical and even disruptive viewpoint to enable its existence and development, and to stimulate the creative drive that industry, society and humanity need in the perpetual quest for evolution and transformation.

Contributions and Applications of Biomedical Engineering
BIM Teaching and Learning Handbook

Practical and Professional Ethics
Killer Roads: From Crash to Verdict 2nd Edition

ICCATS 2021
Select Proceedings of TIME 2021

This book reports on topics at the interface between mechanical and chemical engineering, emphasizing aspects related to design, simulation, and manufacturing. It covers recent findings concerning the mechanics of fluids, solids, and structures, and numerical and computational methods for solving coupled problems in manufacturing. Further, it reports on recent developments in chemical process technology, heat and mass transfer research, and energy-efficient technologies, describing applications in the food and energy production sector. Based on the 5th International Conference on Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE-2022), held on June 7-10, 2022, in Poznan, Poland, this second volume of a 2-volume set provides academics and professionals with extensive information on trends and technologies, and challenges and practice-oriented experience in all the above-mentioned areas.

Highly regarded for its clarity and depth of coverage, the bestselling Principles of Highway Engineering and Traffic Analysis provides a comprehensive introduction to the highway-related problems civil engineers encounter every day. Emphasizing practical applications and up-to-date methods, this book prepares students for real-world practice while building the essential knowledge base required of a transportation professional. In-depth coverage of highway engineering and traffic analysis, road vehicle performance, traffic flow and highway capacity, pavement design, travel demand, traffic forecasting, and other essential topics equips students with the understanding they need to analyze and solve the problems facing America's highway system. This new Seventh Edition features a new e-book format that allows for enhanced pedagogy, with instant access to solutions for selected problems. Coverage focusses exclusively on highway transportation to reflect the dominance of U.S. highway travel and the resulting employment opportunities, while the depth and scope of coverage is designed to prepare students for success on standardized civil engineering exams.

Advancement in design and construction to embrace the impact of rapid global urbanization growth in infrastructure development is inevitable. This proceedings volume includes many smart and green solutions for civil infrastructures, incorporating geotechnical and engineering geology aspects. The articles presented in this volume are attempts made by the researchers and practitioners to address many geotechnical challenges, based on the state-of-the-art practices, innovative technologies, new research results and case histories in construction and design towards safer and cost effective infrastructures. This volume covers a wide range of topics with direct relevance to people within the broad field of geomechanics, including consultants, contractors, academics, materials suppliers and the owners and operators of civil infrastructures. Many papers associated with numerical modeling of transport infrastructure, advanced soil and rock testing, field monitoring, tunnelling, expansive soils, geo-center motion, triaxial and dynamic testing, piles etc. are included. The content is based on the contributions to the 6th GeoChina International Conference on Civil & Transportation Infrastructures: From Engineering to Smart & Green Life Cycle Solutions -- Nanchang, China, 2021.

Design of Two-Dimensional Functional Materials and Nanodevices
2018 - 2020 Geometric Design Three Year Planner

Smart and Green Solutions for Civil Infrastructures Incorporating Geological and Geotechnical Aspects
IJTEMAS 12(3) 2021

Geometric Partial Differential Equations - Part 2
Proceedings of the 5th International Conference on Design, Simulation, Manufacturing: The Innovation Exchange, DSMIE-2022, June 7–10, 2022, Poznan, Poland – Volume 2: Mechanical and Chemical Engineering

This book covers various aspects of Geometry and Graphics, from recent achievements on theoretical researches to a wide range of innovative applications, as well as new teaching methodologies and experiences, and reinterpretations and findings about the masterpieces of the past. It is from the 19th International Conference on Geometry and Graphics, which was held in São Paulo, Brazil. The conference started in 1978 and is promoted by the International Society for Geometry and Graphics, which aims to foster international collaboration and stimulate the scientific research and teaching methodology in the fields of Geometry and Graphics. Organized five topics, which are Theoretical Graphics and Geometry, Applied Geometry and Graphics; Engineering Computer Graphics; Graphics Education and Geometry; Graphics in History, the book is intended for the professionals, academics and researchers in architecture, engineering, industrial design, mathematics and arts involved in the multidisciplinary field.

This book is the proceedings of the 7th China High-resolution Earth Observation Conference (CHREOC). The series conference of China High Resolution Earth Observation has become an influential academic event in the earth detection area, attracting more and more top experts and industry users of related fields. The CHREOCs focus on the popular topics including military-civilian integration, the One Belt and One Road project, the transformation of scientific research achievements. They also discuss the new ideas, new technologies, new methods, and new developments. The CHREOCs have effectively promoted high-level institutional mechanisms, technological innovation, and industrial upgrading in the high-resolution earth observation area, and extend the influences of the state-sponsored major projects.

This book covers recent achievements on the ever-expanding field of Geometry and Graphics on both analogical and digital fronts, from theoretical investigations to a broad range of applications, new teaching methodologies, and historical aspects. It is from 20th International Conference on Geometry and Graphics (ICGG2022), a series of conference that started in 1978 and promoted by International Society for Geometry and Graphics, which aims to foster international collaboration and stimulate the scientific research and teaching innovations in the multidisciplinary field. The contents of the book are organized in Theoretical Geometry and Graphics; Applied Geometry and Graphics; Engineering Computer Graphics; Graphics Education; Geometry and Graphics in History, and are intent for the academics, researchers, and professionals in architecture, engineering, industrial design, mathematics, and arts.

ICGG 2020 - Proceedings of the 19th International Conference on Geometry and Graphics
Deep Learning Applications, Volume 3

Key Concepts
Multimedia Technology and Enhanced Learning

Proceedings of the 6th GeoChina International Conference on Civil & Transportation Infrastructures: From Engineering to Smart & Green Life Cycle Solutions -- Nanchang, China, 2021

In 1920, state highway engineers, federal officials, and experts from academia were among a small group convened by the National Academy of Sciences to confront the problems of the highway. The public was entrusting them with billions of dollars for good roads, and World War I had proved the feasibility of moving freight long distances by truck. But even new solutions. The founders of the Transportation Research Board (TRB) and the generations that followed took on problems such as safety, social equity, and environmental issues. They embraced "total transportation," adapting their highway research model to urban transportation and then applying it to rail, marine, and aviation modes. Today TRB convenes thousands

year to advise the government, solve practical problems, foster innovation, and stimulate new research. In The Transportation Research Board, 1920ߤ Everyone interested is invited. Sarah Jo Peterson tells the story of how people and institutions created and have continued to shape TRB. In a compelling narrative accompanied by more than 150 images explaining that TRB can be best understood as an infrastructureߞone that people purposely designed and devoutly maintained. Despite TRB's institutional complexity, its unique mission, the vast collection of acronyms in its orbit, and the significant changes to the organization in its first 100 years, Dr. Peterson provides a view from 30,000 feet, deftly describing the social, TRB) functioned. At the same time, she attends to details of the key events, individuals, and human motivations that shaped TRB's evolution. The author's skills as a historian, her experience in the transportation field, and her manifest ability to tell a good story have produced a book that transportation professionals of all stripesߞand, for that matter, anyone interested

Statesߞshould find both engaging and informative and an essential addition to their library. Simply stated, geography studies the locations of things and the explanations that underlie spatial distributions. Profound forces at work throughout the world have made geographical knowledge increasingly important for understanding numerous human dilemmas and our capacities to address them. With more than 1,200 entries, the Encyclopedia of Geography reflects on intermediaries between the abstract language of academia and the ordinary language of everyday life. The six volumes of this encyclopedia encapsulate a diverse array of topics to offer a comprehensive and useful summary of the state of the discipline in the early 21st century. Key Features Gives a concise historical sketch of geography's long, rich, and fascinating history and GIS Provides succinct summaries of trends such as globalization, environmental destruction, new geospatial technologies, and cyberspace Decomposes geography into the six broad subject areas: physical geography; human geography; nature and society; methods, models, and GIS history of geography; and geographer biographies, geographic organizations, and illustrations and images that lend depth and realism to the text Includes a special map section Key Themes Physical Geography Human Geography Nature and Society Methods, Models, and GIS People, Organizations, and Movements History of Geography This encyclopedia strategically reflects the enormous diversity of the discipline, the multiple meanings of space it

together the diversity of geographical knowledge, making it an invaluable resource for any academic library. Before we can resolve or avoid an ethical problem, we need to understand what makes something ethical. Practical and Professional Ethics: Key Concepts introduces us to a series of real cases where the stakes can be high, the situations complex, and the ethical issues often difficult to see. Drawing on examples from medicine, law, science, and engineering, it offers problems that occur in our lives and professions, teaching us how to focus on the ethical aspects of any situation & distinguish between different kinds of ethical problems & tailor our response to the kind of problem we face & construct arguments we can plausibly attribute to those involved & identify the role of power, discretion and moral blindness By guiding us through an ethical problem, we learn how to find a solution. Ideal for students or professionals, this book provides the grounding required to become a more complex moral thinker, a quality that can be applied in a number of fields and jobs.

The Transportation Research Board, 1920ߤ 4D Printing

Hydrogen Fuel Cell Technology for Stationary Applications
A Policy on Design Standards--Interstate System

Light Metals 2021
Proceedings of F-EIR Conference 2021

This fourth volume in the Archaeology of Anatolia series offers reports on the most recent discoveries from the western Anatolian peninsula. Periods covered span the Epipalaeolithic to the Medieval Age, and sites and regions range from the western Anatolian coast to Van, and on to the southeast. The breadth and depth of work reported within these pages testifies to the contributors' dedication and love of their work even during a global pandemic period. The volume includes reviews of recent work at on-going excavations and data retrieved from the last several years of survey projects. In addition, a "State of the Field" section offers up-to-the-moment data on specialized fields in Anatolian archaeology. The intention of this collection agrees with the purposes of the homonymous mini-symposium (MS) at ICIAM-2019, which were to overview the essentials of geometric calculus (GC) formalism, to report on state-of-the-art applications showcasing its advantages and to explore the bearing of GC in novel approaches to deep learning. The first three contributions, which correspond to lectures at the MS, offer perspectives on recent advances in the application GC in the areas of robotics, molecular geometry, and medical imaging. The next three, especially invited, heed the expressiveness of GC in orientation measurements under different metrics, the treatment of contact elements, and the investigation of efficient computational methodologies. The last two, which also correspond to lectures at the MS, deal with two aspects of deep learning: a presentation of a concrete quantum convolutional neural network layer for image classification that features contrast invariance and a general overview of automatic learning aimed at steering the development of neural networks whose units process elements of a suitable algebra, such as a geometric algebra. The book fits, broadly speaking, within the realm of mathematical engineering, and consequently, it is intended for a wide spectrum of research profiles. In particular, it should bring inspiration and guidance to those looking for materials and problems that bridge GC with applications of great current interest, including the auspicious field of GC-based deep neural networks.

This book comprises select papers presented at the conference on Technology Innovation in Mechanical Engineering (TIME-2021). The book discusses the latest innovation and advanced research in the diverse field of Mechanical Engineering such as materials, manufacturing processes, evaluation of materials properties for the application in automotive, aerospace, marine, locomotive and energy. The topics covered include advanced metal forming, Energy Efficient systems, Material Characterization, Advanced metal forming, bending, welding & coating techniques, Composite and Polymer Manufacturing, Intermetallics, Future generation materials, Laser Based Manufacturing, High-Energy Beam Processing, Nano materials, Smart Material, Super Alloys, Powder Metallurgy and Ceramic Forming, Aerodynamics, Biological Heat & Mass Transfer, Combustion & Propulsion, Cryogenics, Fire Dynamics, Refrigeration & Air Conditioning, Sensors and Transducers, Turbulent Flows, Reactive Flows, Numerical Heat Transfer, Phase Change Materials, Micro- and Nano-scale Transport, Multi-phase Flows, Nuclear & Space Applications, Flexible Manufacturing Technology & System, Non-Traditional Machining processes, Structural Strength and Robustness, Vibration, Noise Analysis and Control, Tribology. In addition, it discusses industrial applications and cover theoretical and analytical methods, numerical simulations and experimental techniques in the area of Mechanical Engineering. The book will be helpful for academics, including graduate students and researchers, as well as professionals interested in interdisciplinary topics in the areas of materials, manufacturing, and energy sectors.

A Decade of Integrated Aerospace Exploration
Proceedings of the 5th International Conference on Construction, Architecture and Technosphere Safety

Generation GrowBots: Materials, Mechanisms, and Biomimetic Design for Growing Robots
Applications in Transport, Logistics, Diagnostics, and Control

Systems, Patterns and Data Engineering with Geometric Calculi
The Archaeology of Anatolia, Volume IV

Highway engineers, as designers, strive to meet the needs of highway users while maintaining the integrity of the environment. Unique combinations of design controls and constraints that are often conflicting call for unique design solutions. A Policy on Geometric Design of Highways and Streets provides guidance based on established practices that are supplemented by recent research. This document is also intended as a comprehensive reference manual to assist in administrative, planning, and educational efforts pertaining to design formulation

Unconventional energy sources have gained and will continue to gain an increasing share of energy systems around the world. Today, hydrogen is recognized as a non-polluting energy carrier because it does not contribute to global warming if it is produced from renewable sources. Hydrogen is already part of today's chemical industry, but as an energy source, its rare advantages can only be obtained with the help of technologies. Currently, the fuel cell is considered the cleanest sustainable energy. With the development of fuel cells, hydrogen-based energy generation becomes a reality. Hydrogen Fuel Cell Technology for Stationary Applications is an essential publication that focuses on the advantages of hydrogen as a primary energy center and addresses its use in the sustainable future of stationary applications. While highlighting a broad range of topics including cost expectations, production methods, and social impact, this publication explores all aspects of the implementation and dissemination of fuel cell technology in the hope of establishing a sustainable marketplace for it. This book is ideally designed for fuel cell manufacturers, architects, electrical engineers, civil engineers, environmental engineers,

and researchers, academics, and students. This book covers the most important topics in the field of personalized orthopedics. It starts with the 3D geometry of the bones, focusing on the problem of reverse engineering of the bones. It also shows the application of a 3D geometric model of bone for the design of personalized implants and prostheses. This book covers the application of additive technologies in personalized orthopedics as well as prediction, simulation and optimization in personalized orthopedics. Its content provides the necessary knowledge for the transition from classical to personalized orthopedics. The authors present an original method for reverse bone engineering—the Method of Anatomical Features (MAF). This method is unique as it enables the reconstruction of the original geometry and topology of the bone, even when only data on its part are available. The application of this method is shown on the examples of human long bones, mandible and hip bone reconstruction. This book contains a review of several real cases of personalized implants. It gives several examples of prostheses for the design of which a 3D model of bones was used, as well as other patient data on the basis of which personalized prostheses were designed.

Design, Synthesis, and Application of Novel n-Conjugated Materials
Neutrosophic Sets and Systems, Vol. 32, 2020

Perry & co's monthly illustrated price current
Haptics: Science, Technology, Applications

Everyone Interested Is Invited
IJTEMAS 11(1) 2020

Besides their intrinsic mathematical interest, geometric partial differential equations (PDEs) are ubiquitous in many scientific, engineering and industrial applications. They represent an intellectual challenge and have received a great deal of attention recently. The purpose of this volume is to provide a missing reference consisting of self-contained and comprehensive presentations. It includes basic ideas, analysis and applications of state-of-the-art fundamental algorithms for the approximation of geometric PDEs together with their impacts in a variety of fields within mathematics, science, and engineering. About every aspect of computational geometric PDEs is discussed in this and a companion volume. Topics in this volume include stationary and time-dependent surface PDEs for geometric flows, large deformations of nonlinearly geometric plates and rods, level set and phase field methods and applications, free boundary problems, discrete Riemannian calculus and morphing, fully nonlinear PDEs including Monge-Ampere equations, and PDE constrained optimization Each chapter is a complete essay at the research level but accessible to junior researchers and students. The intent is to provide a comprehensive description of algorithms and their analysis for a specific geometric PDE class, starting from basic concepts and concluding with interesting applications. Each chapter is thus useful as an introduction to a research area as well as a teaching resource, and provides numerous pointers to the literature for further reading The authors of each chapter are world leaders in their field of expertise and skillful writers. This book is thus meant to provide an invaluable, readable and enjoyable account of computational geometric PDEs

"Neutrosophic Sets and Systems" has been created for publications on advanced studies in neutrosophy, neutrosophic set, neutrosophic logic, neutrosophic probability, neutrosophic statistics that started in 1995 and their applications in any field, such as the neutrosophic structures developed in the algebra, geometry, topology, etc. Some articles in this issue: Parameter Reduction of Neutrosophic Soft Sets and their Applications, Geometric Programming (NPF) Problems Subject to (∇.) Operator; the Minimum Solution, Nppr Homeomorphism in Neutrosophic Topological Spaces, Generalized Neutrosophic Separation Axioms in Neutrosophic Soft Topological Spaces

Carbon dioxide reduction is a key research challenge in the global mission to reduce CO2 emissions. The process presents a unique challenge in that it can produce several different products, presenting the user with the challenge of selectively and efficiently producing on single useful material. This book presents an introduction to the field, covering the chemical reactions involved, the range of innovative materials and reactor designs most recently developed, and the future targets that need to be met.

Roadside Design Guide
Advances in Design, Simulation and Manufacturing V

2018-2020 Monthly Schedule Organizer - Agenda Planner for the Next Three Years/36 Months Calendar ? 8.5 X 11 Inches (12/2017 and 01/2021 Included)
Computer Aided Geometric Design

ICGG 2022 - Proceedings of the 20th International Conference on Geometry and Graphics
Technology Innovation in Mechanical Engineering

This book is the essential guide to the pedagogical and industry-inspired considerations that must shape how BIM is taught and learned. It will help academics and professional educators to develop programmes that meet the competences required by professional bodies and prepare both graduates and existing practitioners to advance the industry towards higher efficiency and quality. To date, systematic efforts to integrate pedagogical considerations into the way BIM is learned and taught remain non-existent. This book lays the foundation for forming a benchmark around which such an effort is made. It offers principles, best practices, and expected outcomes necessary to BIM curriculum and teaching development for construction-related programs across universities and professional training programmes. The aim of the book is to: Highlight BIM skill requirements, threshold concepts, and dimensions for practice; Showcase and introduce tried-and-tested practices and lessons learned in developing BIM-related curricula from leading educators; Recognise and introduce the baseline requirements for BIM education from a pedagogical perspective; Explore the challenges, as well as remedial solutions, pertaining to BIM education at tertiary education; Form a comprehensive point of reference, covering the essential concepts of BIM, for students; Promote and integrate pedagogical consideration into BIM education. This book is essential reading for anyone involved in BIM education, digital construction, architecture, and engineering, and for professionals looking for guidance on what the industry expects when it comes to BIM competency.

This book highlights recent findings in civil and environmental engineering and urban planning, and provides an overview of the state of the art in these fields, mainly in Russia and Eastern Europe. A broad range of topics and issues in modern engineering are discussed, including construction, buildings and structures, advanced materials, innovative technology, methods and techniques in civil engineering, heating, gas supply, water supply and sewerage, foundation engineering, BIM, structural reliability, durability and monitoring, special and unique structures construction (bridge, tunnel, road, railway engineering), design and construction of hydraulic structures, concrete engineering, urban regeneration and sustainable development, urban transport system, engineering structure safety and disaster prevention, water resources engineering, water and wastewater treatment, recycling and reuse of wastewater, etc. The volume gathers selected papers from the 5th International Conference on Construction, Architecture and Technosphere Safety (ICCATS), held in Sochi, Russia in September 2021. The authors are experts in various fields of engineering, and all papers have been carefully reviewed.

International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies publishes a wide spectrum of research and technical articles as well as reviews, experiments, experiences, modelings, simulations, designs, and innovations from engineering, sciences, life sciences, and related disciplines as well as interdisciplinary/cross-disciplinary/multidisciplinary subjects. Original work is required. Article submitted must not be under consideration of other publishers for publications.

Personalized Orthopedics
Implementation for Students and Educators

Environmental Restoration
Principles of Highway Engineering and Traffic Analysis

Recent Discoveries (2018-2020)