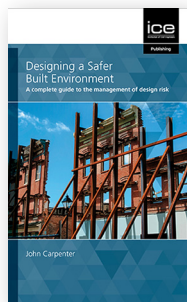


Books

REVIEWS

Designing a safer built environment

by John Carpenter,
ICE Publishing, 2021,
£60.00, reviewed
by **Sarah Melville-Crowe**, RAF (Ministry of Defence), UK



Subtitled *A complete guide to the management of design risk*, this book is written by a past fellow of the Institution of Structural Engineers and the Institution of Occupational Safety.

Its aim is to address the lack of practical advice available to designers on critical points in relation to the Construction (Design and Management) Regulations, as evidenced by recent events such as the Grenfell Tower fire.

The book provides a methodology for design risk management, with practical advice on how designers can effectively manage risks to safety and health throughout the life cycle of a project while also raising standards. It concludes with chapters on two of the most important aspects: communication and actions.

Overall, it is a well-thought-out book giving practical advice to built-environment designers in all fields and at all stages of their careers.

City and transportation planning

by Akinori Morimoto,
published by
Routledge, 2021,
£44.99, reviewed
by **Liz King**, Mott MacDonald, UK



This well-referenced book opens with the history of city planning and the part played by the development of roads and railways. The author outlines the reasons people travel and explains why future cities are more likely to be based on accessibility rather than mobility.

The interdependencies of land use and transportation are then explored, as neither can be planned in isolation. This is illustrated by an example of city adaptation due to a shrinking population in Japan.

The book then discusses how cities will need to adapt to future mobility modes and adoption of smart information and communication technology. With full connectivity between people and all modes of transport, outcomes for safety, efficiency, utilisation and society as a whole should improve.

The author suggests that increased data will make city planning more dynamic yet challenging in responding to an uncertain future. Ultimately, the book concludes that artificial intelligence is likely to replace human interventions in a cyber twin city model.

Soft clay engineering and ground improvement

Edited by Jay Ameratunga,
Nagaratnam Sivakugan
and Braja Das,
published by CRC Press, 2021, £130.00,
reviewed by **Colin Serridge**, Tritex Ground Engineering, UK



This book focuses on the design and implementation of ground improvement techniques applicable to soft clays. Early chapters cover the engineering geology of soft clay (emphasising the importance of the engineering geological model), basic soil mechanics, geotechnical testing and geotechnical parameter derivation for soft clays.

The following chapters cover the most popular ground improvement methods for soft clays, together with the observational approach and geotechnical instrumentation. The final chapter is on geotechnical risk management.

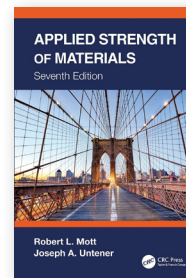
The contributing authors include both practitioners and academics from Australia.

The chapters are well structured and incorporate useful case history information or worked examples of design aspects. Understandably, not all the research associated with the wide subject matter is captured. The book would have benefitted from more photographs and the use of colour.

Overall, it provides a useful reference tool for consultants and contractors involved with soft ground engineering and ground improvement in soft clays. It should also appeal to post-graduate students and researchers.

Applied strength of materials (7th ed.)

by Robert Mott and Joseph Untener,
published by CRC Press, £56.00,
reviewed by **Bin Wang**, Sichuan University, China



Like its established predecessor, this new edition provides comprehensive coverage of design, application and problem-solving for material mechanics.

It introduces the basic mechanics of deformation and includes material strength in columns, pressure vessels and connections, offering readers a thorough and understandable approach to mechanics of materials.

A 'big picture' overview is included at the beginning of each chapter, and step-by-step problem-solving approaches are used throughout the book. A new chapter 14 is added in the new edition, which introduces thermal effects and elements of more than one material.

This excellent book is suitable for students who are new to the community of engineering technology and materials engineering, being practical and easy to understand.

MONITOR Books

The ICE Library maintains one of the most comprehensive collections of civil engineering books in the world, including all titles from ICE Publishing (shown in bold below). New books acquired in the past 3 months include the following (* indicates e-book only).

Advanced techniques for testing of cement-based materials*	M Serdar <i>et al.</i> (eds)	£119.99
Advances in carbon management technologies: Vol. 2: Biomass utilization, manufacturing, and electricity management	F Princiotta and S Sikdar (eds)	£105.00
Analysis of pile foundations subject to static and dynamic loading*	A Kaynia (ed.)	£88.99
Archaeology and construction: good practice guide (Ciria C799)	T Nixon <i>et al.</i>	£60.00
Audacious goals - remarkable results: how an explorer, an engineer and a statesman shaped our modern world	B Borkan and D Hirzel	£12.99
Cities for driverless vehicles	X Zhang (ed.)	£90.00
Climate change and extreme events*	A Fares (ed.)	£123.00
Climate change: a very short introduction (4th ed.)	M Maslin	£8.99
Computer-aided highway engineering*	S Goswami and P Sarkar	£130.00
Construction digitalisation: a capability maturity model for construction organisations*	D Aghimien <i>et al.</i>	£140.00
Design of hydroelectric power plants: step-by-step*	G Magela Pereira	£130.00
Design of integrally attached timber plate structures	Y Weinand	£44.99
Engineers fees 2022: a survey of the fees charged by consulting civil and structural engineers	Fees Bureau	£225.00
Fidic 2017: a definite guide to claims and disputes	N Brown	£125.00
Finite elements in structural analysis	H Werkle	£79.99
FRP composite structures: theory, fundamentals, and design*	H Gangarao and W Prachasaree	£99.99
Fundamentals of ground improvement engineering*	D Elton <i>et al.</i>	£125.00
Futureproof city: ten immediate paths to urban resilience	B Wilson	£29.99
Guidelines for thermography in architecture and civil engineering*	T Richter and N Fouad	£43.50
Handbook of contract management in construction*	A Haidar	£ 99.99
High Speed Two: infrastructure design and construction: Vol. 1	High Speed Two	£80.00
High Speed Two: infrastructure design and construction: Vol. 2	High Speed Two	£75.00
Highway engineering: planning, design, and operations (2nd ed.)	D Findley <i>et al.</i>	£130.00
How was that built? The stories behind awesome structures	R Agrawal and K Hickey	£14.99
ICE handbook of geosynthetic engineering: geosynthetics and their applications (3rd ed.)	S K Shukla (ed.)	£150.00
Illustrated history of cement and concrete - the exciting development of two outstanding building materials	R Nobis	£35.00
Innovative bridge design handbook: construction, rehabilitation and maintenance (2nd ed.)*	A Pipinato (ed.)	£150.00
Institute of Historic Building Conservation yearbook 2021	J Taylor (ed.)	£12.50
International construction arbitration law (3rd ed.)*	J Jenkins	£175.00
James Henry Greathead (1844–1896)	R Cartwright	£20.00
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Manual for the design of building structures to Eurocode 1 and basis of structural design (2nd ed.)	IstructE	£75.00
Materials for civil and highway engineers (5th ed.)	K Derucher <i>et al.</i>	£74.99
NCE4: defined cost and compensation events	P Waterhouse	£50.00
NEC4: a user's guide	J Broome	£55.00
Pavement design: materials, analysis, and highways	M Islam and R Tarefder	£99.99
Prefabricated and modular architecture	W Hogan-O'Neill	£20.00
Procurement and contract strategies for construction	I Heaphy	£45.00
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