



ENGINEERING & TECHNOLOGY

ANNOTATED BIBLIOGRAPHY OF UiTM LIBRARIES

**ENGINEERING & TECHNOLOGY:
ANNOTATED BIBLIOGRAPHY OF UiTM LIBRARIES**

2023

**JABATAN SUMBER RUJUKAN UNIVERSITI
PERPUSTAKAAN TUN ABDUL RAZAK
UNIVERSITI TEKNOLOGI MARA
SHAH ALAM**

CONTENT

CONTENT	PAGE NO.
Preface	4
The Abbreviations for Library Location	5
Entry Detail	7
Engineering & Technology	
i. Electronic Computers	9
ii. Engineering	9
iii. Hydraulic Engineering	30
iv. Environmental Technology	32
v. Highway Engineering	46
vi. Building Construction	47
vii. Mechanical Engineering and Machinery	55
viii. Electrical Engineering	60
ix. Motor Vehicles. Aeronautics. Astronautics	84

PREFACE

“The Annotated Bibliography is a reading list or bibliography to elucidate, evaluate or describe the subject and contents of a book.” (Prytherch, 2005).

Guidelines for an Annotated Bibliography

An annotated bibliography does four important things:

1. It gives bibliographical entry to all your sources
2. It summarizes the contents of each book
3. It provide citation or reference of each source with a brief summary
4. Citation or reference organised alphabetically

Scope

An Annotated bibliography covers library collections for the subject of Engineering & Technology that are published once a year. The reading list is available in various formats obtained through the procurement process located at Perpustakaan Tun Abdul Razak in Shah Alam Campus and all other campuses in UiTM.

THE ABBREVIATIONS FOR LIBRARY LOCATION

BB	Perpustakaan UiTM Cawangan Terengganu Kampus Bukit Besi
FSPU	Perpustakaan Tun Abdul Razak Alam Bina
JOH1	Perpustakaan UiTM Cawangan Johor
JOH2	Perpustakaan UiTM Cawangan Johor
KAG	Perpustakaan UiTM Cawangan Melaka Kampus Alor Gajah
KB	Perpustakaan UiTM Cawangan Kelantan Kampus Kota Bahru
KDH	Perpustakaan UiTM Cawangan Kedah Kampus Sg. Petani
KJ	Perpustakaan UiTM Cawangan Melaka Kampus Jasin
KKP1	Bilik Koleksi Khas P1
KT	Perpustakaan UiTM Cawangan Terengganu Kampus Kuala Terengganu
LIBS	Perpustakaan UiTM Cawangan Perak Kampus Seri Iskandar
LIBT	Perpustakaan UiTM Cawangan Perak Kampus Tapah
LIJ	Perpustakaan UiTM Cawangan Pahang Kampus Jengka
MKH	Perpustakaan UiTM Cawangan Sarawak Kampus Mukah
ML	Perpustakaan UiTM Cawangan Kelantan Kampus Macang
P1	Perpustakaan Tun Abdul Razak Utama
P2	Perpustakaan Tun Abdul Razak Undang-Undang
P3	Perpustakaan Tun Abdul Razak Kejuruteraan
P4	Perpustakaan Tun Abdul Razak Sains dan Teknologi
PHU	Perpustakaan Hospital UiTM

PKAS	Perpustakaan UiTM Cawangan Selangor Kompleks Alam Bina dan Seni Reka
PKD	Perpustakaan UiTM Cawangan Selangor Kampus Dengkil
PLS	Perpustakaan UiTM Cawangan Perlis
PN9	Perpustakaan UiTM Cawangan Negeri Sembilan Kampus Kuala Pilah
PN9R	Perpustakaan UiTM Cawangan Negeri Sembilan Kampus Rembau
PN9S	Perpustakaan UiTM Cawangan Negeri Sembilan Kampus Seremban
PP	Perpustakaan Tun Abdul Razak UiTM Cawangan Selangor Kampus Puncak Perdana
PPA	Perpustakaan Tun Abdul Razak UiTM Cawangan Selangor Kampus Puncak Alam
PPKS	Perpustakaan Tun Abdul Razak UiTM Cawangan Selangor Kampus Selayang
PPSB	Perpustakaan Tun Abdul Razak UiTM Cawangan Selangor Kampus Sungai Buloh
PPTI	Perpustakaan Perubatan UiTM Cawangan Perak Kampus Teluk Intan
PUPP	Perpustakaan UiTM Cawangan Pulau Pinang
PUU	Perpustakaan Tun Abdul Razak Undang-Undang
RAU	Perpustakaan UiTM Cawangan Pahang Kampus Raub
SAB	Perpustakaan UiTM Cawangan Sabah Kampus Kota Kinabalu
SMH2	Perpustakaan UiTM Cawangan Sarawak Kampus Samarahan 2
SWK	Perpustakaan UiTM Cawangan Sarawak Kampus Samarahan
TRG	Perpustakaan UiTM Cawangan Terengganu Kampus Dungun
TWU	Perpustakaan UiTM Cawangan Sabah Kampus Tawau

ENTRY DETAIL

The example below shows an entry from an annotated bibliography with a citation in APA style. Each element of the entry has been identified and the main features of each element are:

- (1) Classification Number
- (2) Author (main entry)
- (3) Year of Publication
- (4) Title
- (5) Edition
- (6) Publisher
- (7) Summary
- (8) Location

LC212.4 A398 2020 (1)

(2) Ahmed, S. (2020). *On being included: racism and diversity in institutional life*. (3rd ed.). Duke University Press. (3) (4) (5) (6)

In this book of nonfiction based on the journalist's experiential research, Ehrenreich attempts to ascertain whether it is currently possible for an individual to live on a minimum-wage in America. Taking jobs as a waitress, a maid in a cleaning service, and a Walmart sales employee, the author summarizes and reflects on her work, her relationships with fellow workers, and her financial struggles in each situation. (7)

p1 (8)



ENGINEERING & TECHNOLOGY

ELECTRONIC COMPUTERS

1. QA76.625 .M47 2019

Messenlehner, Brian. (2019). *Building Web Apps with WordPress* (2nd ed.). O'Reilly Media.

WordPress is much more than a blogging platform. As this practical guide clearly demonstrates, you can use WordPress to build web apps of any type not mere content sites, but full-blown apps for specific tasks.

PUU

ENGINEERING

2. TA157 .F69 2019

Foxell, Simon. (2019). *Professionalism for the Built Environment*. Routledge.

In the aftermath of the Grenfell Tower tragedy, this new book provides thought provoking commentary on the nature of the relationship between society, the prevailing economic system and professionalism in the built environment. It is both an introduction Provided by publisher.

PKAS

3. TA157 .F69 2019

Foxell, Simon. (2019). *Professionalism for the Built Environment*. Routledge.

In the aftermath of the Grenfell Tower tragedy, this new book provides thought provoking commentary on the nature of the relationship between society, the prevailing economic system and professionalism in the built environment. It is both an introduction Provided by publisher

LIBS

4. TA157 .Z35 2022

Zalilah Sharer. (2022). *Jurutera Kerjaya Pilihan*. UiTM Press.

This Selected Career Engineer book was written to provide guidance and constructive guidance to students and graduates in the field of engineering. This book is also very suitable for individuals who are looking for information about studies in the field of engineering because the content is explained using easy-to-understand language. Each written topic also provides a specific approach to the life of students in the field of engineering, that is before and during lectures, as well as after they graduate. This book can also be used as a reference for teachers, counselors, and parents about learning and the career of an engineer.

P1

5. TA1632. N78 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB*. UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sector. The need for a practical introductory of understanding image processing concept is crucial as practice in image processing and the ability to solve real-world problems in the most practical manner. In this second edition, examples of different domain applications such as plant leaf recognition and orchid identifications are included with step-by-step instructions and MATLAB coding. Few classifiers used in the recognitions and identifications applications are also described.

PUPP

6. TA1632. P73 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB (2nd ed.)*. UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

PLS

7. TA1634 .M3354 2020

Malarvel, Muthukumaran. (2020). *Machine Vision Inspection Systems Image Processing, Concepts, Methodologies and Applications*. John Wiley & Sons. Inc.

"Machine Vision Inspection Systems (MVIS) is a multidisciplinary research field that emphasizes the image processing, machine vision and pattern recognition for industrial applications. Inspection techniques are generally used in destructive and non-destructive evaluation industry. Recently, the current automated vision research on machine inspection has gained more popularity with researchers and engineers, because the manual assessment of the inspection may fail and turn into false assessment due to a large number of examinations during the inspection process, leading to potential disaster. Machine Vision Inspection Systems (MVIS) is better able to avoid false assessment". The book brings together leading academic and industry researchers and scientists to share their experiences and research results on all aspects of an inspection system for detection analysis for various machine vision applications. It also presents and discusses the most recent innovations, trends, methodology, applications, and concerns as well as practical challenges encountered and solutions adopted in the inspection system in terms of image processing and analytics of machine vision for real and industrial application.

KJ

8. TA1637. B378 2021

Bauer, Peter. (2021). Adobe® Photoshop® CC (3rd ed.). John Wiley and Sons.

Get picture perfect with Photoshop CC Photoshop is a stunning program that puts the power of a professional photography studio into your hands, but it can also be a jungle to navigate-with a dense proliferation of menus, panels, shortcuts, plug-ins, and add-ons to get thoroughly lost in. Written by a literal Photoshop Hall of Famer, the new edition of Photoshop CC for Dummies is your experienced guide to the technical terrain, slashing away the foliage for a clear picture of how to produce the perfectly framed and beautifully curated images you want. Beginning with an overview of the basic kit bag you need for your journey toward visual mastery, Peter Bauer-Photoshop instructor and an award-winning fine art photographer in his own right-shows you how to build your skills and enrich your creative palette with enhanced colours and tone, filters and layering, and even how undertake a foray into digital painting. Add in instructions on combining text with images and the how-toss of video and animation editing, and you have all the tools you need to carve out a one-person multimedia empire. Master everything from the basics to professional insider tips Combine, layer, tone, and paint your images Explore the colourfully creative world of Photoshop filters Fix common problems You'll find everything on the latest version of the software that you could dream of-and an improved shot at artistic success.

PP

9. TA1637. G736 2020

Grant, Hector. (2020). *Adobe Photoshop for Beginners 2021 Learn the Amazing Features of Photoshop*. RS Publishing House.

Adobe Photoshop is a good graphics editor that Adobe Inc. developed and published for macOS and Windows. It was created initially by John and Thomas Knoll back in 1988. Since that time, this app is the standard software for graphics editing and digital artistry.

ML

10. TA1637. G86 2019

Gyncild, Brie. (2019). *Adobe after effects CC 2019 release*. Adobe Press.

Creative professionals seeking the fastest, easiest, most comprehensive way to learn Adobe After Effects CC (2019 release) choose Adobe After Effects CC Classroom in a Book (2019 release) from Adobe Press. The 15 project-based lessons in this book show students step-by-step the key techniques for working in After Effects and how to work efficiently and deliver in the widest possible range of media types.

PKAS

11. TA1637. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applicants requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manners. In this second edition, examples of different domain applications such as plant leaf recognition and orchid identification are included with step-by-step instructions MATLAB coding. Few classifiers used in the recognition and identification applications are also described.

LIBS

12. TA1637. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

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SAB

13. TA1637. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

TRG

14. TA1637. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

PN9

15. TA1637. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

LIJ

16. TA1637 .N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

ML

17. TA1637 .N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

JOH2

18. TA1637. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

KAG

19. TA1637.5 .N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

SMH2

20. TA1637.5. N87 2019

Nursuriati Jamil. (2019). *Practical Digital Image Processing with MATLAB* (2nd ed.). UiTM Press.

This book is written for beginners and intermediate students, academicians and researchers in educational institutions and private sectors. The need for a practical introductory of understanding image processing concepts is crucial as practice in image processing applications requires complete understanding of the mathematical concepts used in image processing and the ability to solve real-world problems in the most practical manner.

P1

21. TA164.4. F55 2021

Fillard, Jean Pierre. (2021). *Brain Vs Computer the Challenge of The Century is now launched* (2nd ed.). World Scientific Publishing Co Pte Ltd.

In this follow up to *Brain vs Computer: The Challenge of the Century*, Jean-Pierre Fillard brings together diverse perspectives to address the recurring theme of rivalry between man and machine. Accelerated by recent events such as the Covid-19 pandemic that caught the world by surprise and brought it to a standstill, the use of technology has become more relevant than ever. What new conclusions can we draw in this debate featuring humans (brain) on the one side, and artificial intelligence (computer) on the other? Featuring brand new content including a complementary perspective from the arts, the author balances the argument from the traditional scientific approach of logic, rationality, and computation with instinct, intuition, and emotion. Read together with his latest offerings *Longevity in a 2.0 World* and *Transhumanism: A Realistic Future?* this trilogy culminates in an attempt to answer one of the most exciting questions of our time.

ML

22. TA166 .H36 2021

Salvendy, Gavriel. (2021). *Handbook of human factors and ergonomics* (15th ed.). John Wiley.

Discover the latest developments in ergonomics and human factors with the newest edition of this market leading reference in the newly revised Fifth Edition of Handbook of Human Factors and Ergonomics, Drs. Gavriel Salvendy and Waldemar Karwowski deliver a comprehensive exploration of workplace environment design, human-machine interfaces, and cutting-edge research on the reduction of health and safety risks. The editors have compiled practical material from an international team of leading experts in ergonomics and human factors that will benefit specialists in the area, as well as safety engineers and human-computer interaction specialists. The Handbook includes information culled from over 7500 sources and features brand new coverage in areas like artificial intelligence, social media, information technology and cybersecurity, and data analytics. Numerous case studies demonstrate the real-world application of the concepts and methods discussed within and showcase the extraordinary developments in the field since the publication of the Fourth Edition in 2012. Readers will also benefit from the inclusion of: A thorough introduction to the human factors function, including the discipline of human factors and ergonomics and human systems design and integration An exploration of the fundamentals of human factors, including sensation and perception, selection and action control, information processing, and mental workload Discussions of the design of equipment, tasks, jobs, and environments, including workplace design, task analysis and design, and training systems An in-depth treatment of design for health, safety, and comfort, including low-back and upper extremity musculoskeletal disorders and the use of personal protective equipment Perfect for ergonomics and human factors engineers at any level of their careers, Handbook of Human Factors and Ergonomics will also earn a place in the libraries of design engineers, applied psychologists, human-computer interaction specialists, engineering and technology managers, and safety professionals and industrial hygienists.

PPSB

23. TA168. G85 2021

Gulati, Ramesh. (2021). *Maintenance and reliability best practices* (3rd ed.). Industrial Press.

Touted by maintenance and reliability professionals around the world as a “must-read for anyone who wants to stay competitive in today’s industrial environment,” and “By far the best book on maintenance management,” *Maintenance and Reliability Best Practices* is an even more useful resource in its new 3rd edition. Now in 2-colors to clearly identify main ideas and emphasize important data in illustrations, the book also includes additional self-assessment questions in each chapter. The entire work has been updated to reflect the latest developments in technology and thinking, with innovative material related to leadership, change management, ISO standards, maintenance optimization, and communication, while sticking to the practical, common-sense approach that led readers to call it “a great book for developing a road map to reliability,” and “the perfect guide for setting up an effective maintenance program.” For anyone in the fields of engineering, purchasing, finance, maintenance, reliability, or production, and especially for those preparing to sit for a professional maintenance and reliability certification, there’s simply no better tool or resource than renowned Ramesh Gulati’s *Maintenance and Reliability Best Practices*, 3e.

LIBS

24. TA170. T24 2019

Tang, Walter Z. (2019). *Sustainable environmental engineering, (Department of Civil and Environmental Engineering, College of Engineering and Computing)*. Wiley.

The important resource that explores the twelve design principles of sustainable environmental engineering Sustainable Environmental Engineering (SEE) is to research, design, and build Environmental Engineering Infrastructure System (EEIS) in harmony with nature using life cycle cost/benefit analysis and life cycle assessment and to protect human health and environments at minimal cost. The foundations of the SEE are the twelve design principles (TDPs) with three specific rules for each principle. The TDPs attempt to transform how environmental engineering could be taught by prioritizing six design hierarchies through six different dimensions. Six design hierarchies are prevention, recovery, separation, treatment, remediation, and optimization, while six dimensions are integrated system, material economy, energy efficiency, reliability on spatial scale, resiliency on temporal scale, and cost effectiveness. In addition, the authors, two experts in the field, introduce major computer packages that are useful to solve real environmental engineering design problems.

KPG

25. TA190. R57 2019

Boubaker, Sabri. (2019). *Risk management in emerging markets: issues, framework, and modelling*. Emerald Group Publishing.

This book addresses three main dimensions of risk management in emerging markets: 1) the effectiveness of risk management practices; 2) current issues and challenges in risk assessment and modelling in emerging market countries; 3) the responses of emerging markets to the recent financial crises and the design of risk management models.

P3

26. TA329 .M87 2019

Musto, Joseph C. (2019). *Engineering Computation an introduction using MATLAB and Excel*. McGraw-Hill Higher Education.

Focuses on the fundamentals of engineering computing: algorithm development, selection of appropriate tools, documentation of solutions, and verification and interpretation of results.

P3

27. TA330. J36 2020

James, Glyn. (2020). *Motden*. Pearson Education.

Modern Engineering Mathematics, 6th Edition, by Professors Glyn James and Phil Dyke, draws on the teaching experience and knowledge of three co-authors, Matthew Craven, John Searl and Yinghui Wei, to provide a comprehensive course textbook explaining the mathematics required for studying first-year engineering. No matter which field of engineering you will go on to study, this text provides a grounding of core mathematical concepts illustrated with a range

of engineering applications. Its other hallmark features include its clear explanations and writing style, and the inclusion of hundreds of fully worked examples and exercises which demonstrate the methods and uses of mathematics in the real world. Woven into the text throughout, the authors put concepts into an engineering context, showing you the relevance of mathematical techniques and helping you to gain a fuller appreciation of how to apply them in your studies and future career.

LIJ

28. TA330. S783 2021

Stroud, K.A. (2021). *Engineering mathematics* (18th ed.). Bloomsbury Academic.

The best-selling introductory mathematics textbook for students on engineering and science degree and pre-degree courses. Sales stand at more than half a million copies world-wide. Its unique programmed approach really works! Many thousands of students have found that they understand and excel through using this book. It takes you through the mathematics in a step-by-step fashion with a wealth of examples and exercises. The text demands that you engage with it by asking you to complete steps that you should be able to manage from previous examples or knowledge you have acquired, while carefully introducing new steps. By working with the authors through the examples, you become proficient as you go. By the time you come to trying examples on your own, confidence is high.

PUPP

29. TA330. S783 2021

Stroud, K.A. (2021). *Engineering mathematics* (18th ed.). Bloomsbury Academic.

The best-selling introductory mathematics textbook for students on engineering and science degree and pre-degree courses. Sales stand at more than half a million copies world-wide. Its unique programmed approach really works! Many thousands of students have found that they understand and excel through using this book. It takes you through the mathematics in a step-by-step fashion with a wealth of examples and exercises. The text demands that you engage with it by asking you to complete steps that you should be able to manage from previous examples or knowledge you have acquired, while carefully introducing new steps. By working with the authors through the examples, you become proficient as you go. By the time you come to trying examples on your own, confidence is high.

P1

30. TA330. T33 2019

Tabatabaian, Mehrzad. (2019). *Tensor analysis for Engineers, mercury learning and information*.

Tensor analysis is used in engineering and science fields. Calculations of physical quantities in different systems of coordinates and transformations are required in scientific computations.

KPG

31. TA330. Z55 2022

Zill, Dennis G. (2022). *Advanced engineering mathematics* (17th ed.). Jones & Bartlett learning.

This bundle includes the print edition of *Advanced Engineering Mathematics, Seventh Edition* with the Student Solutions Manual and Navigate Companion Website Access. The seventh edition of *Advanced Engineering Mathematics* provides learners with a modern and comprehensive compendium of topics that are most often covered in courses in engineering mathematics, and is extremely flexible to meet the unique needs of courses ranging from ordinary differential equations, to vector calculus, to partial differential equations. Acclaimed author, Dennis G. Zill's accessible writing style and strong pedagogical aids, guide students through difficult concepts with thoughtful explanations, clear examples, interesting applications, and contributed project problems.

PUPP

32. TA330. Z55 2022

Zill, Dennis G. (2022). *Advanced engineering mathematics* (17th ed.). Jones & Bartlett learning.

Advanced Engineering Mathematics covers ordinary and partial differential equations, matrix/linear algebra, Fourier series and transforms, and numerical methods. Examples include the singular value decomposition for matrices, least squares solutions, difference equations, the z-transform, Rayleigh methods for matrices and boundary value problems, the Galerkin method, numerical stability, splines, numerical linear algebra, curvilinear coordinates, calculus of variations, Liapunov functions, controllability, and conformal mapping.

PUPP

33. TA340. J66 2019

Johnson, Richard A. (2019). *Miller & Freund's Probability and Statistics for Engineers* (19th ed.). Pearson Education.

Miller & Freund's Probability and Statistics for Engineers is rich in exercises and examples, and explores both elementary probability and basic statistics, with an emphasis on engineering and science applications. Much of the data has been collected from the author's own consulting experience and from discussions with scientists and engineers about the use of statistics in their fields. In later chapters, the text emphasizes designed experiments, especially two-level factorial design. The Ninth Edition includes several new datasets and examples showing application of statistics in scientific investigations, familiarizing students with the latest methods, and readying them to become real-world engineers and scientists. KEY TOPICS: Introduction; Organization and Description of Data; Probability; Probability Distributions; Probability Densities; Sampling Distributions; Inferences Concerning a Mean; Comparing Two Treatments; Inferences Concerning Variances; Inferences Concerning Proportions; Regression Analysis; Analysis of Variance; Factorial Experimentation; Nonparametric Tests; The Statistical Content of Quality Improvement Programs; Application to Reliability and Life Testing MARKET: For all readers interested in probability and statistics for engineers.

JOH2

34. TA340. J66 2019

Johnson, Richard A. (2019). *Miller & Freund's Probability and Statistics for Engineers* (19th ed.). Pearson Education.

Miller & Freund's Probability and Statistics for Engineers is rich in exercises and examples, and explores both elementary probability and basic statistics, with an emphasis on engineering and science applications. Much of the data has been collected from the author's own consulting experience and from discussions with scientists and engineers about the use of statistics in their fields. In later chapters, the text emphasizes designed experiments, especially two-level factorial design. The Ninth Edition includes several new datasets and examples showing application of statistics in scientific investigations, familiarizing students with the latest methods, and readying them to become real-world engineers and scientists. KEY TOPICS: Introduction; Organization and Description of Data; Probability; Probability Distributions; Probability Densities; Sampling Distributions; Inferences Concerning a Mean; Comparing Two Treatments; Inferences Concerning Variances; Inferences Concerning Proportions; Regression Analysis; Analysis of Variance; Factorial Experimentation; Nonparametric Tests; The Statistical Content of Quality Improvement Programs; Application to Reliability and Life Testing MARKET: For all readers interested in probability and statistics for engineers.

SMH2

35. TA347. A78 A86 2022

Singla, Ruchi. (2022). *Artificial Intelligence, Machine Learning, and Data Science Technologies Future Impact and Well-Being for Society 5.0*. CRC Press.

Presents low-cost solutions which can be implemented even in developing countries. It highlights the significant impact these technologies have on various industries and on us as humans. It provides a virtual picture of forthcoming better human life shadowed by the new technologies and their applications and discusses the impact Data Science has on business applications. The book will also include an overview of the different AI applications and their correlation between each other.

KKB

36. TA347 .M334 2021

Creamer, German G. (2021). *Machine Learning and AI in Finance*. Taylor & Francis Ltd.

The significant amount of information available in any field requires a systematic and analytical approach to select the most critical information and anticipate major events. During the last decade, the world has witnessed a rapid expansion of applications of artificial intelligence (AI) and machine learning (ML) algorithms to an increasingly broad range of financial markets and problems. Machine learning and AI algorithms facilitate this process understanding, modelling and forecasting the behaviour of the most relevant financial variables.

KKB

37. TA347.A78 D84 2019

Duffey, Chris. (2019). *Superhuman Innovation Transforming Businesses with artificial intelligence*. Kogan Page Ltd.

Artificial Intelligence (AI) is the new electricity of our times. It is revolutionizing industries the world over, and changing how we fundamentally view and understand work. Superhuman Innovation argues that AI will supercharge the workforce and the world of work, can be harnessed to deliver powerful change to how companies innovate and gain competitive advantage. It is a practical guide to how AI and Machine Learning are impacting not only how businesses, brands, and agencies innovate, but also what they innovate: products, services and content.

PN9R

38. TA347.A78 D84 2019

Duffey, Chris. (2019). *Superhuman Innovation Transforming Businesses with artificial intelligence*. Kogan Page Ltd.

Artificial Intelligence (AI) is the new electricity of our times. It is revolutionizing industries the world over, and changing how we fundamentally view and understand work. Superhuman Innovation argues that AI will supercharge the workforce and the world of work, can be harnessed to deliver powerful change to how companies innovate and gain competitive advantage. It is a practical guide to how AI and Machine Learning are impacting not only how businesses, brands, and agencies innovate, but also what they innovate: products, services and content.

PPA

39. TA351. B44 2019

Beer, Ferdinand P. (2019). *Vector Mechanics for Engineers Statics and Dynamics*. (20th ed.). McGrawHill.

For the past forty years Beer and Johnston have been the uncontested leaders in the teaching of undergraduate engineering mechanics. Over the years their textbooks have introduced significant theoretical and pedagogical innovations in statics, dynamics, and mechanics of materials education. At the same time, their careful presentation of content, unmatched levels of accuracy, and attention to detail have made their texts the standard for excellence. The new Seventh Edition of *Vector Mechanics for Engineers: Statics and Dynamics* continues this tradition. The seventh edition is complemented by a media and supplement package that is targeted to address core course needs for both the student and the instructor.

KPG

40. TA357 .C46 2020

Cengel, Yunus A. (2020). *Fluid Mechanics Fundamentals and Applications* (40th ed in SI Units). McGraw Hill.

Cengel and Cimbala's *Fluid Mechanics Fundamentals and Applications*, communicates directly with tomorrow's engineers in a simple yet precise manner, while covering the basic principles and equations of fluid mechanics in the context of numerous and diverse real-world engineering examples. The text helps students develop an intuitive understanding of fluid mechanics by emphasizing the physics, using figures, numerous photographs and visual aids to reinforce the physics. The highly visual approach enhances the learning of fluid mechanics by students. This text distinguishes itself from others by the way the material is presented - in a progressive order from simple to more difficult, building each chapter upon foundations laid down in previous chapters. In this way, even the traditionally challenging aspects of fluid mechanics can be learned effectively.

LJ

41. TA357 .G47 2019

Gerhart, Philip M. (2019). *Munson, Young, and Okiishi's Fundamentals of Fluid Mechanics* (18th ed.). Hoboken, NJ , Wiley.

Fundamentals of Fluid Mechanics, Binder Ready Version, 8th Edition offers comprehensive topical coverage, with varied examples and problems, application of visual component of fluid mechanics, and strong focus on effective learning. The text enables the gradual development of confidence in problem solving. Each important concept is introduced in easy-to-understand terms before more complicated examples are discussed. A new team of authors updates the core original edition by Munson, Young, and Okiishi's and features a number of changes based on their experiences and on suggestions from colleagues and students.

P3

42. TA357 .G47 2021

Gerhart, Andrew L. (2021). *Munson, Young and Okiishi's Fundamentals of Fluid Mechanics*. (19th ed.). John Wiley & Sons.

Fundamentals of Fluid Mechanics offers comprehensive topical coverage, with varied examples and problems, application of visual component of fluid mechanics, and strong focus on effective learning. The text enables the gradual development of confidence in problem solving. Each important concept is introduced in easy-to-understand terms before more complicated examples are discussed.

KPG

43. TA403 .S65 2019

Smith, William. (2019). *Foundations of Materials Science and Engineering* (16th ed.). McGraw-Hill Education.

Foundations of Materials Science and Engineering. To prepare materials engineers and scientists of the future, Foundations of Materials Science and Engineering, Sixth Edition is designed to present diverse topics in the field with appropriate breadth and depth.

KPG

44. TA403 .S65 2019

Smith, William F. (2019). *Foundations of Materials Science and Engineering* (16th ed.). McGraw-Hill Education.

A race car is an example of a complex mechanical system that utilizes a variety of materials from all five classes in its structure. For instance, for the race car in the image, the body is made of lightweight carbon fiber composites to save weight, the chassis is made of strong and tough steel alloys, the tires are made of durable vulcanized rubber, key components in the engine and brake system are either made of or coated with ceramic materials to withstand high temperature, and a variety of sensors as well as the on-board computer system uses electronic materials. The design and selection of materials for the race car is based on many factors including safety, performance, durability, and cost.

LIBT

45. TA403.6 .D45 2019

Dhir OBE, Ravindra K. (2019). *Sustainable Construction Materials: Recycled Aggregates Woodhead Publishing Series in Civil and Structural Engineering*. Woodhead Publishing.

Sustainable Construction Materials: Recycled Aggregate focuses on the massive systematic need that is necessary to encourage the uptake of recycled and secondary materials (RSM) in the construction industry. This book is the fifth and the last of the series on sustainable construction materials and like the previous four, it is also different to the norm. Its uniqueness lies in using the newly developed, *Analytical Systemisation Method*, in building the data-matrix sourced from 1413 publications, contributed by 2213 authors from 965 institutions in 67 countries, from 1977 to 2018, on the subject of recycled aggregate as a construction material, and systematically analysing, evaluating and modelling this information for use of the material as an aggregate concrete and mortar, geotechnics and road pavement applications. Environmental issues, case studies and standards are also discussed. The work establishes what is already known and can be used to further progress the use of sustainable construction materials. It can also help to avoid repetitive research and save valuable resources. The book is structured in an incisive and easy to digest manner and is particularly suited for researchers, academics, design engineers, specifiers, contractors, and government bodies dealing with construction works.

LIBS

46. TA405 .H53 2019

Hibbeler, Russell C. (2019). *Statics and Mechanics of Materials* (15th ed in SI Units). Pearson Education Limited.

This book represents a combined abridged version of two of the author's book, namely Engineering Mechanics: Statics, Fourteenth Edition and Mechanics of Materials, Tenth Edition. It provides a clear and thorough presentation of both the theory and application of the important fundamental topics of these subjects, that are often used in many engineering disciplines. The development emphasises the importance of satisfying equilibrium, compatibility of deformation, and material behaviour requirements. The hallmark of the book, however, remains the same as the author's unabridged versions, and that is, strong emphasis is placed on drawing a free-body diagram, and the importance of selecting an appropriate coordinate system and an associated sign convention whenever the equations of mechanics are applied. Throughout the book, many analysis and design applications are presented, which involve mechanical elements and structural members often encountered in engineering practice.

KPG

47. TA418.9.N35 N63 2019

Mohapatra, Satyabrata. (2019). *Noble Metal - Metal Oxide Hybrid Nanoparticles Fundamentals and Applications*. Elsevier.

Noble Metal-Metal Oxide Hybrid Nanoparticles: Fundamentals and Applications sets out concepts and emerging applications of hybrid nanoparticles in biomedicine, antibacterial, energy storage and electronics. The hybridization of noble metals (Gold, Silver, Palladium and Platinum) with metal-oxide nanoparticles exhibits superior features when compared to individual nanoparticles. In some cases, metal oxides act as semiconductors, such as nano zinc oxide or titanium oxide nanoparticles, where their hybridization with silver nanoparticles, enhanced significantly their photocatalytic efficiency. The book highlights how such nanomaterials are used for practical applications. Examines the properties of metal-metal oxide hybrid nanoparticles that make them so adaptable Explores the mechanisms by which nanoparticles interact with each other, showing how these can be exploited for practical applications Shows how metal oxide hybrid nanomaterials are used in a range of industry sectors, including energy, the environment and healthcare.

LIJ

48. TA420 .J86 2019

Junaiza Ahmad Zaki. (2019). *Laboratory Manual on Wood Properties*. UiTM Press.

Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested to test the various properties of bio-based material. The knowledge captured in the manual provides the testing technique based on or modified to follow closely Technical Association of the Pulp and Paper Industry (TAPPI) protocols.

ML

49. TA420 .J86 2019

Junaiza Ahmad Zaki. (2019). Laboratory Manual on Wood Properties. UiTM PRESS.

Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested to test the various properties of bio-based material. The knowledge captured in the manual provides the testing technique based on or modified to follow closely Technical Association of the Pulp and Paper Industry (TAPPI) protocols.

PN9

50. TA420 .J86 2019

Junaiza Ahmad Zaki. (2019). Laboratory Manual on Wood Properties. UiTM Press.

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LIBS

51. TA420 .J86 2019

Junaiza Ahmad Zaki. (2019). Laboratory manual on wood properties. UiTM Press.

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BB

52. TA420. J86 2019

Junaiza Ahmad Zaki. (2019). *Laboratory Manual on Wood Properties*. UiTM Press.

Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested to test the various properties of bio-based material. The knowledge captured in the manual provides the testing technique based on or modified to follow closely Technical Association of the Pulp and Paper Industry (TAPPI) protocols.

KJ

53. TA420. J86 2019

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JOH2

54. TA420. J86 2019

Junaiza Ahmad Zaki. (2019). *Laboratory Manual on Wood Properties*. UiTM Press.

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SMH2

55. TA420. J86 2019

Junaiza Ahmad Zaki. (2019). *Laboratory Manual on Wood Properties*. UiTM Press.

Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested

PPA

56. TA420. J86 2019

Junaiza Ahmad Zaki. (2019). *Laboratory Manual on Wood Properties*. UiTM Press.

Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested to test the various properties of bio-based material. The knowledge captured in the manual provides the testing technique based on or modified to follow closely Technical Association of the Pulp and Paper Industry (TAPPI) protocols.

KDH

57. TA420. J86 2019

Junaiza Ahmad Zaki. (2019). *Laboratory Manual on Wood Properties*. UiTM Press.

Laboratory Manual of Wood Properties is designed for used by pre-diploma, diploma and degree students. The narrative section of the manual can be used as reference manual for research and development purpose by post-graduate and others who are interested to test the various properties of bio-based material. The knowledge captured in the manual provides the testing technique based on or modified to follow closely Technical Association of the Pulp and Paper Industry (TAPPI) protocols.

LIJ

58. TA460. W34 2019

Wahyu Kuntjoro. (2019). *Professorial Lecture UiTM Fatigue Life Monitoring of Fighter Air*. Penerbit UiTM, Universiti Teknologi MARA.

Fatigue failure can lead to catastrophic accident. Fighter airplanes belong to RMAF such as F-18, Sukhoi-30, and Hawk are designed based on the "safe Life" fatigue concept.

P3

59. TA633. G87 2020

Gupta, Ram S. (2020). *Principles of Structural Design Wood, Steel, and Concrete* (3rd ed.). CRC Press.

Timber, steel, and concrete are common engineering materials used in structural design. Material choice depends upon the type of structure, availability of material, and the preference of the designer. The design practices the code requirements of each material are very different. In this updated edition, the elemental designs of individual components of each material are presented, together with theory of structures essential for the design. Numerous examples of complete structural designs have been included. A comprehensive database comprising materials properties, section properties, specifications, and design aids, has been included to make this essential reading.

PKAS

60. TA645. K37 2020

Kassimali, Aslam. (2020). *Structural Analysis Aslam Kassimali* (16th ed.). Cengage.

Master the basic principles of structural analysis using the classical approach found in Kassimali's distinctive STRUCTURAL ANALYSIS, 6th Edition. This edition presents concepts in a logical order, progressing from an introduction of each topic to an analysis of statically determinate beams, trusses and rigid frames, and then to the analysis of statically indeterminate structures. Practical, solved problems integrated throughout the presentation help illustrate and clarify the book's fundamental concepts, while the latest examples and timely content reflect today's most current professional standards. For further support, you can download accompanying interactive software for analyzing plane framed structures from this edition's companion website. Trust Kassimali's STRUCTURAL ANALYSIS, 6th Edition for the tools and knowledge you need for advanced study and professional success.

LIJ

61. TA658. A79 2022

Arya, Chanakya. (2022). *Design of Structural Elements Concrete, Steelwork, Masonry and Timber Design to Eurocodes* (40th ed.). CRC Press.

The fourth edition of Design of Structural Elements: Concrete, Steelwork, Masonry and Timber Designs to Eurocodes is a concise single-volume introduction to the design of structural elements in concrete, steel, timber, masonry and composites. It provides design principles and guidance in line with Eurocodes, current as of 2021.

LIJ

62. TA660.C36 M66 2019

Moon, Kyoung Sun. (2019). *Cantilever Architecture*. Routledge.

Cantilever Architecture shows you how to integrate cantilever designs into your building from conception, to help you create support-free structures without the need for columns or walls, whether for balconies, stairs, to occupy the air rights of the lot next door, or to build super tall buildings. The book includes 78 built case studies in 22 countries on 5 continents to illustrate various systems and their load carrying mechanisms at different scales. Includes an appendix on cantilevered furniture and more than 240 black and white images.

LIBS

63 TA683.7 .H66 2020

Hong, Won-Kee. (2020). *Hybrid Composite Precast Systems Numerical Investigation to Construction*. Woodhead Publishing.

Hybrid Composite Precast Systems: Numerical Investigation to Construction focuses on the design and construction of novel composite precast frame systems that permit almost effortless erection and structural efficiency. The precast frame systems discussed in the book are similar to that of steel frames, but offer similar savings to concrete frames. The design of connections and detailed analysis of their structural behaviour is discussed in detail. Fundamentals with regards to the post yield behaviour of concrete and metal are also presented to illustrate how these two different materials are integrated together to remove individual material drawbacks. Readers are given a broad introduction to existing technologies that are then combined with a description of the construction methods the author proposes. This book will help the end users become familiar with the existing types of structural forms, not just the "Lego" type frame system that the author proposes.

PKAS

64 TA705. P3713 2019

Parriaux, Aure`le. (2019). *Geology basics for engineers* (2nd ed.). Taylor & Francis Group.

presents the physical and chemical characteristics of the Earth, the nature and the properties of rocks and unconsolidated deposits/sediments, the action of water, how the earth is transformed by various phenomena at different scales of time and space.

KPG

65. TA710 .C685 2020

Knappett, Jonathan. (2020). (19th ed.). CRC Press.

Craig's Soil Mechanics continues to evolve and remain the definitive text for civil engineering students worldwide. It covers fundamental soil mechanics and its application in applied geotechnical engineering from A to Z and at the right depth for an undergraduate civil engineer, with sufficient extension material for supporting MSc level courses, and with practical examples and digital tools to make it a useful reference work for practising engineers.

LIJ

66. TA710 .C73 2020

Craig, R. F. (2020). *Craig's Soil Mechanics*. CRC Press.

Craig's Soil Mechanics continues to evolve and remain the definitive text for civil engineering students worldwide. It covers fundamental soil mechanics and its application in applied geotechnical engineering from A to Z and at the right depth for an undergraduate civil engineer, with sufficient extension material for supporting MSc level courses, and with practical examples and digital tools to make it a useful reference work for practising engineers.

PUPP

67. TA710. S557 2021

Ian Smith. (2021). *Smith's & Elements of Soil Mechanics* (10th ed.). John Wiley.

The revised and updated edition of *Smith's Elements of Soil Mechanics* continues to offer a core undergraduate textbook on soil mechanics. The author, a noted expert in geotechnical engineering, reviews all aspects of soil mechanics and provides a detailed explanation of how to use both the current and the next versions of Eurocode 7 for geotechnical design. Comprehensive in scope, the book includes accessible explanations, helpful illustrations, and worked examples and covers a wide range of topics including slope stability, retaining walls and shallow and deep foundations.

LIJ

68. TA715. P4313 2019

Petschek, Peter. (2019). *Grading BIM, landscaping SMART, 3D machine Control Systems, Stormwater Management* (3rd ed.). Birkhauser.

Along with vegetation, grading counts as one of the most important design tools for landscape architects. Landscape architects must be able to design using contour lines, develop alternatives, and examine these in respect to design, ecology, economy, and technology. This requires knowledge of terrain modelling. Peter Petschek's *Grading* defines basics, such as terrain, slope, elevation points, contour lines, and earth mass calculation, and introduces topics including ground stabilization, stormwater management, and terrain modelling on the construction site. This edition provides comprehensive insight into the BIM construction workflow in Landscape Architecture including "landscapingSMART" with digital terrain modelling (DTM) and 3D machine control systems. A case study by the internationally renowned landscape architecture firm, Ramboll Studio Dreiseitl (RSD), is included to better understand this workflow in one of their BIM projects. The book includes the basics of project planning for the terrain modelling of roads and parking lots, as well as numerous international case studies on grading, a glossary and a section of exercises. Taken as a whole, it gives you the theoretical foundations of grading and allows you to practice these acquired skills.

PKAS

69. TA775. D37 2019

Das, Braja M. (2019). *Principles of Foundation Engineering* (19th ed.). Cengage.

A must-have resource for all foundation engineering courses, *Principles of Foundation Engineering*, 9th Edition provides a careful balance between current research and practical field applications as it introduces civil engineering students to the core

LIJ

70. TA775. D37 2019

Das, Braja M. (2019). *Si Principles of Foundation Engineering* (19th ed.). Cengage.

Originally published in the fall of 1983, Braja M. Das' Seventh Edition of PRINCIPLES OF FOUNDATION ENGINEERING continues to maintain the careful balance of current research and practical field applications that has made it the leading text in foundation engineering courses. Featuring a wealth of worked-out examples and figures that help students with theory and problem-solving skills, the book introduces civil engineering students to the fundamental concepts and application of foundation analysis design. Throughout, Das emphasizes the judgment needed to properly apply the theories and analysis to the evaluation of soils and foundation design as well as the need for field experience.

KPG

71. TA775. D37 2019

Das, Braja M. (2019). *Principles of Foundation Engineering* (19th ed.). Cengage.

A must-have resource for all foundation engineering courses, PRINCIPLES OF FOUNDATION ENGINEERING, 9th Edition provides a careful balance between current research and practical field applications as it introduces civil engineering students to the core.

KPG

HYDRAULIC ENGINEERING

72. TC205. K36 2020

Kamphuis, J. William. (2020). *Introduction to Coastal Engineering and Management*. World Scientific Publishing.

This book is based on the author's 34 years of experience as a teacher/researcher of coastal engineering and management and on recent reflections on newly relevant issues, such as consequences of failure, impacts of rising sea levels, aging infrastructure, real estate development, and contemporary decision making, design and education. This textbook for undergraduate students, postgraduate students and practicing engineers covers waves, structures, sediment movement, coastal management, and contemporary coastal design and decision making, presenting both basic principles and engineering solutions. It discusses the traditional methods of analysis and synthesis (design), but also contemporary design taking into account environmental impacts, consequences of failure, and current concerns such as global warming, aging infrastructure, working with stakeholder groups, regulators, etc. This second edition expands greatly on the topics of failure and resilience that surfaced as a result of recent disasters from hurricane surges and tsunamis. It updates the discussion of design and decision making in the 21st century, with many new examples presented.

PLS

73. TC413 .M34 2021

Mahmudah Yahya. (2021). *Pengurusan Terbaik Sungai dan Lembangan*. Dewan Bahasa dan Pustaka.

Buku ini memuatkan perbincangan berkenaan peruntukan undang-undang berkaitan sungai serta menerangkan peranan dan pembahagian bidang kuasa Kerajaan Persekutuan, Kerajaan Negeri (Pihak Berkuasa Negeri) dan pihak berkuasa tempatan dalam hal pengurusan sungai dan lembangan. Aspek pengurusan sungai turut dibincangkan yang merangkumi garis panduan pelaksanaan pengurusan sungai, Pengurusan Lembangan Sungai Bersepadu, langkah pemuliharaan sungai yang tercemar dan konsep pembangunan sungai. Penulis turut menyentuh berkenaan pengurusan banjir di Malaysia yang merangkumi penyelesaian isu banjir, kesediaan kerajaan dalam menghadapi bencana ini dan pemulihan selepas banjir melanda. Isu yang diutarakan dalam buku ini amat penting untuk dibincangkan bagi menimbulkan kesedaran dalam kalangan masyarakat tentang peri pentingnya sungai dan lembangan diuruskan dengan baik.

LIBS

74. TC455. G57 2019

Beser de Deus, Leandro Andrei. (2019). *GIS for Water Resource Science and Engineering*. Press LLC.

The population on planet Earth will increase from 6 billion to 8.1 billion people in 2030 and will overlap with an augment in water demands to convene human needs, according to FAO forecasts. Fresh water has come to an end to be an unlimited resource.

LIJ

75. TC530. S55 2020

Silva, Maria Matos. (2020). *Public Spaces for Water A Design Notebook*. CRC Press.

"This illustrated notebook highlights the need for a change of paradigm in current flood management practices, one that acknowledges the wide-ranging and interdisciplinary benefits brought by public space design. Reassessing and improving established flood management methods, public spaces are faced with a new and enhanced role as mediators of flood adaptation able to integrate infrastructure and communities together in the management of flood water as an ultimate resource for urban resilience.

LIBS

ENVIRONMENTAL TECHNOLOGY

76. TD1052. A83 2019

Asante-Duah, D. Kofi. (2019). *Management of Contaminated Site Problems*. (2nd ed.). Taylor & Francis.

This book outlines the strategies used in the investigation, characterization, management, and restoration and remediation for various contaminated sites. It draws on real-world examples from across the globe to illustrate remediation techniques and discusses their applicability. It provides guidance for the successful corrective action assessment and response programs for any type of contaminated land problem, and at any location. The systematic protocols presented will aid environmental professionals in managing contaminated land and associated problems more efficiently. This new edition adds twelve new chapters, and is fully updated and expanded throughout.

PKAS

77. TD126.5 .C35 2019

Cairncross, Sandy. (2019). *Environmental Health Engineering in the Tropics water, sanitation and disease control* (13th ed.). Taylor & Francis Group.

This fully updated third edition of the classic text, widely cited as the most important and useful book for health engineering and disease prevention, describes infectious diseases in tropical and developing countries, and the effective measures that may be used against them. The infections described include the diarrhoeal diseases, the common gut worms, Guinea worm, schistosomiasis, malaria, Bancroftian filariasis and other mosquito-borne infections. The environmental interventions that receive most attention are domestic water supplies and improved excreta disposal. Appropriate technology for these interventions, and also their impact on infectious diseases, are documented in detail.

PPSB

78. TD159.4 .C74 2019

Coletta, Claudio. (2019). *Creating Smart Cities*. Routledge.

In cities around the world, digital technologies are utilized to manage city services and infrastructures, to govern urban life, to solve urban issues and to drive local and regional economies. While "smart city" advocates are keen to promote the benefits of smart urbanism – increased efficiency, sustainability, resilience, competitiveness, safety and security – critics point to the negative effects, such as the production of technocratic governance, the corporatization of urban services, technological lock-ins, privacy harms and vulnerability to cyberattack. This book, through a range of international case studies, suggests social, political and practical interventions that would enable more equitable and just smart cities, reaping the benefits of smart city initiatives while minimizing some of their perils. Included are case studies from Ireland, the United States of America, Colombia, the Netherlands, Singapore, India and the United Kingdom. These chapters discuss a range of issues including political economy, citizenship, standards, test bedding, urban regeneration, ethics, surveillance, privacy and

cybersecurity. This book will be of interest to urban policymakers, as well as researchers in Regional Studies and Urban Planning.

LIBS

79. TD159.4 .C74 2019

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PP

80. TD159.4. D65 2019

Doloi, Hemanta Kumar. (2019). *Planning, Housing and Infrastructure for Smart Villages*. Taylor & Francis Group.

Some 7.3 billion people currently live on the planet. Of these, 3.4 billion live in rural areas. In just a few regions—Latin America, the Middle East and North Africa—less than 50 per cent of poverty is now located in rural areas. But for the rest of the world's regions between 55 per cent and 80 per cent of the poor continue to live in the countryside. Progress is being made, but much of the knowhow needed is not disseminated outside of a small coterie of professionals who work in the area. With urban development attracting a great deal of attention lately, poorer rural areas deserve the same and new knowledge for empowerment of rural communities is urgently needed. This book provides an overview of current thinking and practices that have emerged over the last thirty years for uplifting rural communities in developing economies. Drawing on a body of knowledge across a spectrum of relevant disciplines, this book provides a range of innovative ideas for rural planning, housing and infrastructure development. Governments in many emerging economies, where rural poverty is often most acute, have attempted to improve livelihoods. Approaches and techniques that have been used for urban development are often not applicable to rural communities. Studies show that money allocated for rural development is often not effectively spent due to distance, lack of infrastructure, lack of education, poverty and other factors. Meanwhile, the gap in development between the city and country continues to grow, sometimes leading to social and political instability, in both developing and developed countries. This book seeks to provide a guidebook for meeting such challenges. Through in-depth enquiry of global practices and thinking about rural development, and selected case studies, the authors argue that careful consideration must be given to incorporating issues of resilience, resourcefulness and the involvement of communities at grassroots levels in realising the transformation of rural settlements into Smart Villages.

LIBS

81. TD159.4. G74 2020

Tomar, Pradeep. (2020). *Green and Smart Technologies for Smart Cities*. CRC Press.

The book starts with an overview of the role of cities in climate change and environmental pollution worldwide, followed by the concept description of smart cities and their expected features, focusing on green technology innovation. This book explores the energy management strategies required to minimize the need for huge investments in high-capacity transmission lines from distant power plants. A new range of renewable energy technologies modified for installation in cities like small wind turbines, micro-CHP and heat pumps are described. The overall objective of this book is to explore all the green and smart technologies for designing green smart cities.

LIBS

82. TD159.4. R54 2019

Cardullo, Paolo. (2019). *The Right to the Smart City*. Emerald Publishing.

Cities around the world are pursuing a smart cities agenda. In general, these initiatives are promoted and rolled-out by governments and corporations which enact various forms of top-down, technocratic governance and reproduce neoliberal governmentality. Despite calls for the smart city agenda to be more citizen-centric and bottom-up in nature, how this translates into policy and initiatives is still weakly articulated and practiced. Indeed, there is little meaningful engagement by key stakeholders with respect to rights, citizenship, social justice, communing, civic participation, co-creation, and how the smart city might be productively reimagined and remade. This book fills this lacuna by providing critical reflection on whether another smart city is possible and what such a city might look like, exploring themes such as how citizens are framed within it, the ethical implications of smart city systems, and whether injustices are embedded in city systems, infrastructures, services and their calculative practices. Contributors question whether the need for order, and the priorities of capital and property rights, trump individual and collective liberty. Ultimately considering what kind of smart city do individuals want to create, and how we create the most sustainable smart urban landscape.

KAG

83. TD159.4. R68 2020

Willis, Katharine S. (2020). *The Routledge Companion to Smart Cities*. Routledge.

"The volume explores the question of what it means for a city to be 'smart', raises some of the tensions emerging in smart city developments, and considers the implications for future ways of inhabiting and understanding the urban condition. It will appeal to academics and advanced undergraduates and postgraduates from across many disciplines including Urban Studies, Geography, Urban Planning, Sociology and Architecture by providing state of the art reviews of key themes by leading scholars in the field arranged under clearly themed sections".

LIBS

84. TD159.4. S63 2019

Visvizi, Anna. (2019). *Smart Cities Issues and Challenges: Mapping Political, Social and Economic Risks and Threats*. Elsevier.

Smart Cities: Issues and Challenges: Mapping Political, Social and Economic Risks and Threats serves as a primer on smart cities, providing readers with no prior knowledge on smart cities with an understanding of the current smart cities' debates. Gathering cutting-edge research and insights from academics, practitioners and policymakers around the globe, it identifies and discusses the nascent threats and challenges contemporary urban areas face, highlighting the drivers and ways of navigating these issues in an effective manner. Uniquely providing a blend of conceptual academic analysis with empirical insights, the book produces policy recommendations that boost urban sustainability and resilience.

LIBS

85. TD163. L38 2019

Laterrasse, Jean. (2019). *Transport and Town Planning the City in Search of Sustainable Development*. John Wiley & Sons.

In a context where climate change urgently requires us to alter our paradigms, this book explores the possibilities of cities that are both more energy efficient and more respectful of the environment. Based on the observation that urban planning has been detrimentally affected by the compartmentalization of knowledge and practices, this book is conceived as a dialog between transport and urban planning on the one hand, and between engineering and social science on the other. Systemic analysis and a historical approach, integrating the teachings of the last two centuries, constitute at the methodological level the framework in which this dialog unfolds. Based on examples of good practice, *Transport and Town Planning* identifies an effective set of levers of action and proposes an original method to guide and accompany urban transition with a large share of the initiative reserved for the actors concerned.

LIBS

86. TD170. E58 2019

Hendon, Jason. (2019). *Environmental Conservation and Management*. Syrawood Publishing House.

A healthy environment is fundamental to the survival of humans and other species of organisms. Environmental conservation is the protection of the environment on various levels for the continued sustainability of the varied ecosystems on Earth. Environmental management involves sustainability of the oceans, soil, freshwater systems and atmosphere. Some of the common practices to reduce the adverse impact of human activities include environmental resources management, environment-friendly engineering and environmental protection. Environmental conservation and management can also be achieved by living sustainably, through systematic changes to urban planning, transport, individual lifestyles, consumerism, etc. This book elucidates new techniques and their applications in a multidisciplinary manner. It presents some key concepts associated with environmental conservation and management while also focussing on the advancements made in this field of study. From theories to research to practical applications, case studies related to all contemporary topics of relevance to this

field have been included in this book. Scientists and students actively engaged in this field will find this book full of crucial and unexplored concepts.

LIJ

87. TD192.5. R43 2019

Bharagava, Ram Naresh. (2019). *Recent Advances in Environmental Management*. Taylor & Francis Group.

This book focuses on the toxicity of various organic and inorganic pollutants, their ecotoxicological effects and eco-friendly approaches for remediation of environmental pollutants. Extensive focus has been relied on the recent advances in ecofriendly approaches such as bioremediation and phytoremediation technologies, including the use of various group of microbes for remediation of environmental pollutants, etc. Researchers working in the field of bioremediation, phytoremediation, waste management and related fields will find this compilation most useful for further study to learn about the subject matter.

PN9

88. TD194.68. G7 G58 2019

Glasson, John. (2019). *Introduction to Environmental Impact Assessment* (5th ed.). Taylor & Francis Group.

A comprehensive, clearly structured and readable overview of the subject, *Introduction to Environmental Impact Assessment* has established itself as the leading introduction to EIA worldwide. This fifth edition is a major update reflecting many significant changes in EIA procedures, process, practice and prospects over the last decade.

IBS

89. TD194.68. G7 G58 2019

Glasson, John. (2019). *Introduction to Environmental Impact Assessment* (5th ed.). Taylor & Francis Group.

Introduction to Environmental Impact Assessment 5th Edition provides a complete, and critical, introductory text that also supports further studies. Students in undergraduate and postgraduate planning programmes will find it essential as a course text, as will students of environmental management/policy, environmental sciences/studies, geography and built environment. Key stakeholders involved in assessment activities – planners, developers, community groups, pressure groups and decision-makers in government and business – will also welcome this latest edition as a very effective means of getting to grips with the many facets of this important and evolving subject that affects a widening range of development projects.

PKAS

90. TD195.C54 D49 2019

Dewberry (Firm). (2019). *Development for the built environment from Site Acquisition to Project Completion*. McGrawHill.

As real estate development evolves to accommodate increasingly more complex regulation and sophisticated built structures, so too must the roles of different members of the development team evolve. The entire development team, including architects and civil engineers, must participate actively in consulting throughout the entire lifecycle of modern development projects. This expanded role often means that contemporary design team members may find themselves involved in contentious, cross-disciplinary decisions that their predecessors did not have to address. This comprehensive textbook explores the entire development process from an applied perspective to provide architects, civil engineers, and other team members with an understanding of the context in which real estate development occurs. Presented by an industry-leading design firm, the book offers complete explanations of all business considerations that influence land development projects at every stage. *Development of the Built Environment: From Site Acquisition to Project Completion* provides a holistic view of the development process and enables the development team to more effectively complete projects of all sizes and budgets.

PKAS

91. TD201. S87835 2019 S

apkota, Mukta. (2019). *Sustainable Surface Water Management*. Excelic Press.

Surface water flooding has become more common due to the increased area of land which is hard surfaced for example new housing or business developments and block paved or tarmacked front gardens. Water planner can achieve a better management through basin- wide strategies that include integrated utilization of surface and groundwater to raises the overall productivity of irrigation systems, extends the area effectively commanded, helps in preventing water logging and can reduce drainage needs. Surface water management plans aims to investigate local flooding issues such as flooding from sewers, drains, groundwater, and runoff from land, small watercourses and ditches that occurs as a result of heavy rainfall. *Sustainable Surface Water Management* covers on water quality protection for the community by implementing programs to reduce pollution in our rivers, streams and wetlands caused by urban storm water runoff. It includes interaction between surface water and groundwater through groundwater recharge, hydrological cycle, water balance components etc. Water quality trading is a sustainable framework for surface water quality management. It uses discharge permits to reduce the total treatment costs. Chapters are included to cover surface water status, practical considerations for reducing public health risk, conjunctive use of surface water and groundwater for sustainable water management, a macro approach to analysing water resource issues under changing situations, and more. An assortment of diverse topics in the field of water quality modelling, statistical evaluation and guidelines pertaining to the best management practices in different locations around the world is given. The contributions from outstanding scientists and experts provide detailed information about different topics and give a general overview of the current issues in water management. The book covers a wide range of current concerns, reflecting on current problems and signifying the intricacy of water management

PPSB

92. TD345. Z35 2022

Zaini Ujang. (2022). *Air dan Pembentukan di Malaysia Sejarah Serta Perspektif Institut Penyelidikan Air Kebangsaan Malaysia*. Jabatan Perkhidmatan Pembentukan.

Water and sewerage books in Malaysia are written and published to describe various important developments involving the management and infrastructure of the water and sewerage sectors in Malaysia since the pre-independence era. Its content provides a general knowledge and information base from various sources. In terms of use, this book is suitable as a reference material to provide knowledge and basic information to the policy-making group, government officials, professionals, academics and students of various fields of knowledge.

KPG

93. TD345. Z35 2022

Zaini Ujang. (2022). *Air dan Pembentukan di Malaysia Sejarah Serta Perspektif Institut Penyelidikan Air Kebangsaan Malaysia*. Jabatan Perkhidmatan Pembentukan.

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JOH2

94. TD353. W38 2019

Mujtaba, I. M. (2019). *Water Management Social and Technological Perspectives*. Taylor And Francis Group.

Exponential growth in population and improved standards of living demand increasing amount of freshwater and are putting serious strain on the quantity of naturally available freshwater worldwide. *Water Management: Social and Technological Perspectives* discusses developments in energy-efficient water production, management, wastewater treatment, and social and political aspects related to water management and re-use of treated water. It features a scientific and technological perspective to meeting current and future needs, discussing such technologies as membrane separation using reverse osmosis, the use of nanoparticles for adsorption of impurities from wastewater, and the use of thermal methods for desalination. The book also discusses increasing the efficiency of water usage in industrial, agricultural, and domestic applications to ensure a sustainable system of water production, usage, and recycling. With 30 chapters authored by internationally renowned experts, this work offers readers a comprehensive view of both social and technological outlooks to help solve this global issue.

PPSB

95. TD353. W38 2019

Mujtaba, I. M. (2019). *Water Management Social and Technological Perspectives*. Taylor And Francis Group.

Exponential growth in population and improved standards of living demand increasing amount of freshwater and are putting serious strain on the quantity of naturally available freshwater worldwide. *Water Management: Social and Technological Perspectives* discusses developments in energy-efficient water production, management, wastewater treatment, and social and political aspects related to water management and re-use of treated water. It features a scientific and technological perspective to meeting current and future needs, discussing such technologies as membrane separation using reverse osmosis, the use of nanoparticles for adsorption of impurities from wastewater, and the use of thermal methods for desalination. The book also discusses increasing the efficiency of water usage in industrial, agricultural, and domestic applications to ensure a sustainable system of water production, usage, and recycling. With 30 chapters authored by internationally renowned experts, this work offers readers a comprehensive view of both social and technological outlooks to help solve this global issue.

PPA

96. TD370. W38 2019

Fraser, Stephanie. (2019). *Water Quality Assessment and Management*. Callisto Reference.

Water quality refers to the different chemical, radiological, physical and biological characteristics of water. It also refers to the measurement of the condition of water taking into consideration its usefulness and need for different purposes. Water is treated for three major utilizations of human consumption, industrial use, and environmental health. Different parameters such as pH, turbidity, dissolved oxygen, temperature, etc. are measured for determining water quality. Sample collection, chemical analysis and real-time monitoring are employed for the assessment of water quality. The objective of this book is to give a general view of the diverse assessment and management processes of water quality. Different approaches, evaluations, methodologies and advanced studies on water quality have been included herein. This book, with its detailed analyses and data, will prove immensely beneficial to professionals and students involved in this area at various levels.

PPSB

97. TD418. D38 2019

Datta, Partha Sarathi. (2019). *Water Harvesting for Groundwater Management Issues, Perspectives, Scope, and Challenges*. John Wiley & Sons.

This book is the first to fully outline the concept and principles of water harvesting for groundwater management for a global audience. It offers guidance to academics, students and researchers on effective water harvesting approaches for groundwater recharge, and educates them on the risks associated with managed aquifer recharge, as well as the causes of success or failure of particular management strategies, and demand management strategies and tools. The book is helpful to water managers, administrators, and professionals, to make decisions to allocate resources; developing innovative cost-effective measures and approaches to achieve demand-supply balance.

KJ

98. TD420. W384 2019

Wakeling, Bonnie. (2019). *Water Pollution Effects and Mitigation Strategies*. Callisto Reference.

Water pollution is caused by a variety of organic, inorganic and macroscopic contaminants from natural and anthropogenic sources. Some significant factors responsible for this contamination are industrial waste, oil spills, sewage discharge, chemicals and acid mine drainage. Water pollution is analysed for the nature of contamination by a variety of sampling and testing techniques, which can be divided into physical, chemical and biological testing methods. A lot of mitigation strategies, like instituting green infrastructure, municipal wastewater treatment, industrial pollution prevention, etc. are being investigated and implemented with varying degrees of success. This book contains some path-breaking studies in the field of water pollution, its effects and mitigation strategies. It unravels the recent advancements in the field of water pollution mitigation. This book will be immensely beneficial to students and researchers alike.

PPA

99. TD430. D78 2019

Droste, Ronald. (2019). *Theory and Practice of water and Wastewater Treatment* (2nd ed.). John Wiley & Sons.

Completely updated and expanded, this is the most current and comprehensive textbook available for the areas of water and wastewater treatment, covering the broad spectrum of technologies used in practice today ranging from commonly used standards to the latest state of the art innovations. The book begins with the fundamentals applied water chemistry and applied microbiology and then goes on to cover physical, chemical, and biological unit processes. Both theory and design concepts are developed systematically, combined in a unified way, and are fully supported by comprehensive, illustrative examples. *Theory and Practice of Water and Wastewater Treatment, 2nd Edition*: Addresses physical/chemical treatment, as well as biological treatment, of water and wastewater Includes a discussion of new technologies, such as membrane processes for water and wastewater treatment, fixed-film biotreatment, and advanced oxidation Provides detailed coverage of the fundamentals: basic applied water chemistry and applied microbiology Fully updates chapters on analysis and constituents in water; microbiology; and disinfection Develops theory and design concepts methodically and combines them in a cohesive manner.

LIJ

100. TD430. N36 2019

Amimul Ahsan. (2019). *Nanotechnology in water and wastewater treatment theory and applications*. Elsevier.

Nanotechnology in Water and Waste Water Treatment: Theory and Applications explores the unique physicochemical and surface properties of nanoparticles and highlights the advantages they provide for engineering applications. Applications covered include the generation of fresh water from surface water and seawater, the prevention of the contamination of the environment, and the creation of effective and efficient methods for remediation of polluted waters. Each chapter covers a different nanotechnology-based approach and examines the basic principles,

practical applications, recent breakthroughs and associated limitations. This book is ideal for researchers and professionals in the fields of nanotechnology, water treatment and desalination.

KPG

101. TD430. W38 2019

Emerson, Vincent. (2019). *Water Treatment Advanced Principles and Practices*. Callisto Reference.

Water treatment is a process that involves the treatment of water to render it acceptable for specific uses like drinking, irrigation, industrial water supply, etc. It involves either removal or reduction of the contaminants. Some of the contaminants of water include suspended solids, various microbes and minerals such as iron and magnesium. Different physical, chemical and biological processes such as filtration, disinfection, coagulation, etc. are used to treat water. Some of the key functional areas of water treatment include drinking water production, wastewater treatment, domestic water treatment, desalination and ultrapure water production. This book is a compilation of chapters that discuss the most vital concepts and emerging trends in the field of water treatment. The various advancements in treatment methods are glanced at and their applications as well as ramifications are looked at in detail. The extensive content herein provides the readers with a thorough understanding of the subject.

PPSB

102. TD434. R87 2019

Russell, David L. (2019). *Practical Wastewater Treatment*. John Wiley and Sons Ltd.

The updated and expanded guide for handling industrial wastes and designing a wastewater treatment plant. The revised and updated second edition of *Practical Wastewater Treatment* provides a hands-on guide to industrial wastewater treatment theory, practice and issues. It offers information for the effective design of water and wastewater treatment facilities and contains material on how to handle the wide-variety of industrial wastes. The book is based on a course developed and taught by the author for the American Institute of Chemical Engineers. The author reviews the most current industrial practices and goals, describes how the water industry works, and covers the most important aspects of the industry. In addition, the book explores a wide-range of approaches for managing industrial wastes such as oil, blood, protein and more. A comprehensive resource, the text covers such basic issues as water pollution, wastewater treatment techniques, sampling and measurement, and explores the key topic of biological modelling for designing wastewater treatment plants.

P3

103. TD434. R87 2019

Russell, David L. (2019). *Practical Wastewater Treatment* (2nd ed.). Wiley.

Practical Wastewater Treatment is designed as a teaching and training tool for chemical, civil, and environmental engineers. Based on an AIChE training course, developed and taught by the author, this manual equips readers with the skills and knowledge

KPG

104. TD479. A43 2020

Alasfour, Fuad Nesf. (2020). *Introduction to Desalination Systems, Processes and Environmental Impacts*. Wiley.

This book is an important resource for master students in engineering science, lecturers in chemical and mechanical engineering, engineers, environmental chemist, as well as process engineers, engineering scientists in industry and environmental consultants.

KPG

105. TD745. L533 2019

Li, Daoliang. (2019). *Water Quality Monitoring and Management Basic, Technology and Case Studies*. Academic Press.

Water Quality Monitoring and Management: Basis, Technology and Case Studies presents recent innovations in operations management for water quality monitoring. It highlights the cost of using and choosing smart sensors with advanced engineering approaches that have been applied in water quality monitoring management, including area coverage planning and sequential scheduling. In parallel, the book covers newly introduced technologies like bulk data handling techniques, IoT of agriculture, and compliance with environmental considerations. Presented from a system engineering perspective, the book includes aspects on advanced optimization, system and platform, Wireless Sensor Network, selection of river water quality, groundwater quality detection, and more. It will be an ideal resource for students, researchers and those working daily in agriculture who must maintain acceptable water quality.

PPA

106. TD772. S56 2019

Show, Kuan-Yeow. (2019). *Sustainable Sludge Management Resource Recovery for Construction Applications*, World Scientific.

Converting sludge into construction materials is deemed to be a sustainable approach to alleviating sludge disposal problems and conserving natural resources. This compendium presents the state-of-the-art development in recycling sludge into construction materials. A research-based development of engineering products made from sludge for common construction applications such as bricks, aggregates and cement-replacement materials is outlined. In-depth discussions on the properties of the products and their processing technology, the technical suitability for construction applications, and experimental study and assessment of toxic or hazardous chemicals leached from the products are prominently highlighted. Challenges and prospect of sludge recycling are also included. Contributed by eminent authors who are recognized authority in the field of sludge treatment and reuse, the unique monograph is a useful reference guide for professionals, researchers, academics and graduate students majoring in waste management, environmental engineering, civil engineering and materials engineering.

LIBS

107. TD794. W37 2019

Jacob-Lopes, Eduardo. (2019). *Waste-to-energy*. Nova Science Publishers.

The supply of sufficient quantities of energy with minimal environmental impact are among the key challenges of the macro energy world. The search for fossil energy substitutes that meet the energy requirements of sustainability directs the development to renewable energies. In this way, a waste-to-energy (WTE) approach has been considered as potentially attractive alternatives for the development of new sources of energy. The use of industrial and domestic wastes to produce energy and fuels is associated with a high yield per unit area, use of non-edible materials, use of non-agricultural land, use of non-potable water sources, parallel production of co-products and the potential for mitigation of pollutants. Thus, biomass and bioproducts supported in wastes, when processed by physical, chemical and/or biological operations may provide different types of bioenergy, including primarily biodiesel, biohydrogen, bioethanol, biomethane, synthesis gas, volatile organic compounds and electricity. Independent of the technological aspects, fundamental elements such as life cycle assessment, the bioeconomy of the processes, the process integration, the process intensification and the biorefinery concept were considered in the book. Given the book's breadth of coverage and extensive bibliography, it offers an essential resource for researchers and industry professionals working with energy from waste.

KPG

108. TD794.5. R43 2022

Ilyas, Rushdan Ahmad. (2022). *Recycling of Plastics, Metals, and Their Composites*. CRC Press.

This authoritative reference work provides a comprehensive review of the recycling of waste polymer and metal composites.

P1

109. TD795.7. K55 2021

Kim, Hye-Jeong. (2021). *Waste and Urban Regeneration an Urban Ecology of Seoul's Nanjido Post-Landfill Park*. Routledge.

"Waste and Urban Regeneration examines the Nanjido region on Seoul and its transformation from Nanjido Landfill to the World Cup Park, and its relation to the urban ecology within the context of the city's urban development during the late twentieth and early twenty-first centuries. The study analyses the urban ecological meanings of the site's two distinct forms by consolidating them with the Lefebvrian urban theory and relational ecological theories. This book looks at environmental transformations and their link to South Korea's political and economic changes; how Seoul City controlled waste populations, the borderline characterisations of the inhabited landfill and its community, the regeneration of the landfill into the post-landfill park, and site-specific artworks which explored the conflict between the invisible presence of the landfill's garbage and its history. As one of the first accounts of a landfill and landfill-turned-park of South Korea, this study is a must-read for academics and researchers interested in waste management, ecology, landscape theory, and history"--Provided by publisher.

PKAS

110. TD883. A4783 2019

Saxena, Pallavi. (2019). *Air Pollution Sources, Impacts and Controls*. CABI.

Air pollution has become a major global issue due to rapid industrialization, human population growth and increasing urbanization. The various sources of atmospheric pollutants, both those created by human activity and those from natural physical and biological processes, have become the focus of much scientific research and analysis. An understanding of how these many pollutants is affecting air quality is essential in order to design strategies to mitigate them. Written by a team of international experts, this book aims to provide a broad overview of the issues surrounding air pollution and how to control and monitor pollution levels. Beginning with a brief background on the subject, the book moves on to discuss global emissions, with an emphasis on megacities and their effects. Possible pollution control measures and methods of air pollution measurement and modelling are also explored. The book ends with descriptions of the various indices used for assessing air quality with a focus on human health impacts, and a discussion on policy making to control air pollution. The book will be useful to students of environmental science and atmospheric science, as well as environmental consultants and researchers interested in air quality.

IKJ

111. TD885.5 .G73 G74 2019

Garret, Joshua. (2019). *Greenhouse Gases a Global Overview*. Syrawood Publishing House.

Greenhouse gases are the gases which absorb and emit radiant energy in the thermal infrared zone. This mechanism is the primary cause of greenhouse effect, which causes critical environmental issues and threats to ecosystems, biodiversity and human life present on Earth. Some primary greenhouse gases are methane, ozone, carbon dioxide, nitrous oxide and water vapor. The contribution of each of these gases to the greenhouse effect depends on their atmospheric lifetime, radiative forcing and global warming potential. The main causes of

greenhouse gas emission are deforestation, burning of fossil fuels like oil, coal and natural gas, use of chlorofluorocarbons for refrigeration, livestock enteric fermentation, etc. This book presents researches and studies performed by experts across the globe on greenhouse gases and their effects on the environment. Different approaches, evaluations, methodologies and advanced studies on greenhouse gases have been included herein. Coherent flow of topics, student-friendly language and extensive use of examples make this book an invaluable source of knowledge.

LIJ

112. TD890 .A37 2019

Wilkins, Kylan. (2019). *Air Pollution Measurement, Impacts and Control*. Callisto Reference.

When excessive quantities of pollutants or harmful substances such as particulates, gases, etc. are introduced into the Earth's atmosphere, it leads to air pollution. It is damaging to the natural and built environment and may potentially result in allergies, diseases and death in humans. Pollutants can be natural or man-made. They can be further classified into primary and secondary pollutants. Carbon dioxide is a primary pollutant that has the most significant contribution to air pollution. Some secondary pollutants are ground-level ozone and peroxyacetyl nitrate. Reduction of fossil fuel use, transition to renewable and clean energy, use of particulate control devices, etc. are some of the techniques for the control of air pollution. This book elucidates the concepts and innovative models around prospective developments with respect to air pollution control. It aims to shed light on some of the unexplored aspects of air pollution and its impacts. It is an essential guide for both academicians and those who wish to pursue this discipline further.

PPSB

113. TD890 .H49 2019

Hess-Kosa, Kathleen. (2019). *Indoor Air Quality the Latest Sampling and Analytical Methods* (13th ed.). Taylor & Francis.

This is a practical, user-friendly guide to the identification and assessment of indoor air contaminants that contribute to building related illness in commercial buildings, institutions, and residences. The third edition covers basic concepts and details various approaches and up-to-date analytical methods, and it addresses some of the more recent, as well as less common, concerns on air pollutants. All chapters will be updated and also includes one completely new chapter on Inhalable Airborne Particles. All updates adhere to the latest National Ambient Air Quality Standards and other active standards.

LIBS

114. TD890 .H49 2019

Hess-Kosa, Kathleen. (2019). *Indoor Air Quality the Latest Sampling and Analytical Methods*. (13th ed). Taylor & Francis.

Indoor Air Quality: The Latest Sampling and Analytical Methods, Third Edition is a practical, user-friendly guide to the identification and assessment of the indoor air contaminants that contribute to building-related illness in commercial buildings, institutions, and residences. It covers the basic concepts of indoor air quality assessment, including its historic evolution. The book describes the most common substances encountered in an indoor air quality investigation, their health effects, and their occurrence in the environment. Drawing from the author's experience, observations, and extensive research, this easy-to-read guide provides readers with a working knowledge of the latest approaches to sampling protocols and cutting-edge trends as well as suggested sampling strategies, helpful experience related tips, and a means for interpreting results. Additionally, in the later part of the book, there is considerable discussion of failure modes of building materials and systems—sources of many indoor air quality problems.

PKAS

HIGHWAY ENGINEERING

115. TE145 .A43 2020

Al-Khateeb, Ghazi Gaseem. (2020). *Highway Planning, Survey, and Design*. CRC Press.

The book presents engineering concepts, techniques, practices, principles, standard procedures, and models that are applied and used to design and evaluate traffic systems, road pavement structures, alternatives of transportation systems, roadway and vertical alignments to ultimately achieve safety, sustainability, efficiency, and cost-effectiveness.

FSPU

116. TE180 .S732 2020

Malaysia. (2020). *Standard Specification for Road Works Section 2: Earthworks*. Jabatan Kerja Raya.

The JKR Standard Specification for Road Works is an essential component in the road infrastructure construction industry. This specification provides an improved guidance in the material selection and quality control of workmanship and products based on current best practices. The purpose is to establish uniformity in road construction practices to be used by road designers, road authorities, manufactures and suppliers of road related products.

PUPP

117. TE180 .S738 2020

Malaysia. (2020). *Standard Specification for Road Works Section 10: Foundation Works*. Jabatan Kerja Raya.

The JKR Standard Specification for Road Works is an essential component in the road infrastructure construction industry. This specification provides an improved guidance in the material selection and quality control of workmanship and products based on current best practices. The purpose is to establish uniformity in road construction practices to be used by road designers, road authorities, manufactures and suppliers of road related products.

PUPP

BUILDING CONSTRUCTION

118. TH151 .C52 2019

Chudley, R. (2019). *Chudley and Greeno's Building Construction Handbook* (20th ed.). Routledge.

The 12th edition of Chudley and Greeno's Building Construction Handbook remains THE authoritative reference for all construction students and professionals. The principles and processes of construction are explained with the concepts of design included where appropriate. Extensive coverage of building construction practice, techniques and regulations representing both traditional procedures and modern developments are included to provide the most comprehensive and easy to understand guide to building construction. This new edition has been updated to reflect recent changes to the building regulations, as well as new material on modern methods of construction, greater emphasis on sustainability and a new look interior. Chudley and Greeno's Building Construction Handbook is the essential, easy-to-use resource for undergraduate and vocational students on a wide range of courses including NVQ and BTEC National, through to Higher National Certificate and Diploma, to Foundation and three-year Degree level. It is also a useful practical reference for building designers, contractors and others engaged in the construction industry.

SMH2

119. TH151 .C52 2019

Chudley, R. (2019). *Chudley and Greeno's Building Construction Handbook* (20th ed.). Routledge.

The 12th edition of Chudley and Greeno's Building Construction Handbook remains THE authoritative reference for all construction students and professionals. The principles and processes of construction are explained with the concepts of design included where appropriate. Extensive coverage of building construction practice, techniques and regulations representing both traditional procedures and modern developments are included to provide the most comprehensive and easy to understand guide to building construction. This new edition has been updated to reflect recent changes to the building regulations, as well as new material on modern methods of construction, greater emphasis on sustainability and a new look interior. Chudley and Greeno's Building Construction Handbook is the essential, easy-to-use resource for undergraduate and vocational students on a wide range of courses including NVQ and BTEC National, through to Higher National Certificate and Diploma, to Foundation and three-

year Degree level. It is also a useful practical reference for building designers, contractors and others engaged in the construction industry.

LIBS

120. TH151 .C52 2019

Chudley, Roy. (2019). *Chudley and Greeno's Building Construction Handbook* (20th ed). New York, Routledge.

"The 12th edition of the Chudley and Greeno's Building Construction Handbook remains THE authoritative reference for all construction students and professionals. The principles and processes of construction are explained with the concepts of design included where appropriate. Extensive coverage of building construction practice, techniques, and regulations representing both traditional procedures and modern developments are included to provide the most comprehensive and easy to understand guide to building construction. This new edition has been updated to reflect recent changes to the building regulations, as well as new material on modern methods of construction, greater emphasis on sustainability and a new look interior. Chudley and Greeno's Building Construction Handbook is the essential, easy-to-use resource for undergraduate and vocational students on a wide range of courses including NVQ and BTEC National, through to Higher National Certificate and Diploma, to Foundation and three-year Degree level. It is also a useful practical reference for building designers, contractors and others engaged in the construction industry"

LIBS

121. TH2025 .C65 2021

Fordham, Clifton. (2021). *Constructing Building Enclosures*. Routledge.

Constructing Building Enclosures investigates and interrogates tensions between the disciplines of architecture and engineering as they wrestled with technology and building cultures that evolved to deliver structures in the modern era. At the center of this history are inventive architects, engineers and projects that did not settle for conventional solutions, technologies and methods. Comprised of twelve original essays by interdisciplinary scholars, this collection offers a critical look at the development and the purpose of building technology within a design framework. Through two distinct sections, the contributions first challenge notions of the boundaries between architecture, engineering and construction. The authors then investigate twentieth-century building projects exploring technological and aesthetic boundaries of post-war modernism, uncovering lessons relevant to enclosure design that are typically overlooked. Projects include Louis Kahn's Weiss House, Minoru Yamasaki's Science Center, Sigurd Lewerentz's Chapel of Hope, and more. An important read for students, educators, and researchers within architectural history, construction history, building technology and design, this volume sets out to disrupt common assumptions of how we understand this history.

PKAS

122. TH4311. T34 2019

Tagg, Adrian. (2019). *Technical Due Diligence and Building Surveying for Commercial Property*. Routledge.

Technical Due Diligence and Building Surveying for Commercial Property is the first book to introduce the process of technical due diligence (TDD) and examine the role of the building surveyor within the commercial property sector. The book outlines the processes that the surveyor must go through when performing a TDD inspection and report and, most importantly, covers in detail the typical pathology and defects encountered during TDD. Performing a TDD survey involves collecting, analysing and reporting on a huge amount of information, often under specific contractual conditions. The book covers everything the surveyor needs to know in order to do a proper job and includes analysis of materials, life cycles and potential defects on an elemental basis, with detail on individual components where necessary. Coverage includes: an introduction to the TDD process and types of commercial buildings encountered, chapters outlining the life cycle and defects of: structures, roofs, facades, finishes and services, hundreds of illustrations and photographs of defects, real-world case studies and suggestions for further reading, a final chapter covering legal issues and technical details. This book fills a clear gap in the literature and is the first fully illustrated book on TDD dedicated to commercial building stock. It will help students and professionals to understand the process, the science involved and the reasons why defects occur, as well as their evolution and long-term impact.

LIBS

123. TH438. F48 2019

Fewings, Peter. (2019). *Construction Project Management an Integrated Approach* (33th ed). Taylor & Francis Group.

Construction Project Management: An Integrated Approach is a management approach to leading projects and the effective choice and use of project management tools and techniques. It seeks to push the boundaries of project management to take on board future.

LIBS

124. TH438. F48 2019

Fewings, Peter. (2019). *Construction Project Management an Integrated Approach* (33th ed). Taylor & Francis Group.

Construction Project Management: An Integrated Approach is a management approach to leading projects and the effective choice and use of project management tools and techniques. It seeks to push the boundaries of project management to take on board future.

PKAS

125. TH438 .H65 2019

Holm, Len. (2019). *101 Case Studies in Construction Management*. Routledge.

This book provides 101 real life construction management case studies from an author with over 40 years' experience in the construction industry and as lecturer in construction management. Over 14 chapters Len Holm has included case studies from real jobs.

LIBS

126. TH438. K43 2019

Khan, Sharmin. (2019). *Constructability a Tool for Project Management*. Press Taylor & Francis Group.

This book focuses on Constructability, a project management tool and its effectiveness in promotion of sustainable development and architecture. Constructability concentrates on the optimum use of construction knowledge and experience in planning, engineer.

LIBS

127. TH438.13. L45 2020

Leite, Fernanda L. (2020). *BIM for Design Coordination a Virtual Design and Construction Guide for Designers, General Contractors, and MEP Subcont*. Wiley.

Helping readers gain the benefits of BIM-based design coordination, this practical guide covers areas such as setting up a project for success, model quality impacts on design coordination, carrying out a successful VDC session, and more. Specific guidelines for various project stakeholders are laid out in detail, while real-world examples of project design coordination workflows and templates for BIM Project Execution Plans are provided throughout the text.

PKAS

128. TH5 .M85 2019

Viswanath, H. R. (2019). *Multi-purpose High-rise Towers and Tall Buildings proceedings of the third international conference "Conquest of vertical space in the 21st century"*. CRC Press.

Interest continues to develop in the design and construction of high-rise towers and tall buildings, structures with heights ranging from 75m to 500m and even more. This volume presents the papers from the third in a series of international conferences.

PKAS

129. TH5311 .M37 2019

McMullin, Paul W. (2019). *Masonry Design*. Routledge.

Masonry is found extensively in construction throughout the world. It is economical and strong. *Masonry Design* part of the *Architects Guidebook to Structures* series presents the fundamentals in an accessible fashion through beautiful illustration.

PKAS

130. TH6010. S66 2020

AECOM. (2020). *Spon's Mechanical and Electrical Services Price Book 2020* (50th ed). Abingdon, CRC Press.

Spon's Mechanical and Electrical Services Price Book 2020 continues to be the most comprehensive and best annual services engineering price book currently available, providing detailed pricing information across the full range of mechanical and electrical.

PKAS

131. TH6012 .S53 2022

Swathika, O. V. Gnana. (2022). *Smart Buildings Digitalization IoT and Energy Efficient Smart Buildings Architecture and Applications*. CRC Press.

This book discusses various artificial intelligence and machine learning applications concerning smart buildings. It includes how renewable energy sources are integrated into smart buildings using suitable power electronic devices. The deployment of advanced technologies with monitoring, protection, and energy management features is included, along with a case study on automation. Overall, the focus is on architecture and related applications, such as power distribution, microgrids, photovoltaic systems, and renewable energy aspects. The chapters define smart building concepts and their related benefits.

LIBS

132. TH6021 .E66 2019

Santamouris, M (2019). *Environment Design of Urban Buildings an Integrated Approach*. Earthscan.

This book provides a review of environmental and energy research with respect to urban building projects. It describes how to overcome related challenges in environmental design of urban buildings. The book discusses the passive and active environmental.

PKAS

133. TH7413 .P3713 2019

O'Sullivan, Patrick Edmund. (2019). *Passive Solar Energy in Building*. Routledge.

This report indicates that the benefits that accrue to a building and its occupants from a consideration of solar radiation are greatest when the 'passive solar component' is seen in perspective, as a natural part of an integrated approach to climatically.

PKAS

134. TH7674 .N388 2019

Clements-Croome, Derek. (2019). *Naturally Ventilated Buildings for the senses, economy and society*. Routledge.

While there are many historical examples of successful naturally ventilated buildings, standards for indoor climate have tended to emphasize active, mechanical airflow systems rather than passive natural systems. Despite its importance, knowledge about the performance of naturally ventilated buildings has remained comparatively sparse.

PKAS

135. TH880 .G57 2019

Gobin, Christophe. (2019). *Successful Building Using Eco-design*. Taylor & Francis Group.

The object of this work is to review each of the stages in a building operation to illustrate the necessity of optimization and to observe the useful contribution that eco-design and its tools can make. Eco Design has been tackled from the professional.

IBS

136. TH880 .H35 2019

Halliday, Sandy. (2019). *Sustainable Construction* (2nd ed.). Taylor & Francis Taylor.

The second edition of *Sustainable Construction* provides a masterclass on the principles and techniques involved in the design and delivery of practical, affordable, high quality sustainable buildings and places.

LIBS

137. TH880 .H67 2019

Hossain, Md. Faruque. (2019). *Sustainable Design and Build Building, Energy, Roads, Bridges, Water and Sewer Systems*. Massachusetts.

Sustainable Design and Build provides a complete reference for engineers and scientists who want to conduct sustainability research. The book begins with a rudimentary discussion of environmental pollution and energy that is followed by their applications.

PPA

138. TH880 .H67 2019

Hossain, Md. Faruque. (2019). *Sustainable Design and Build Building, Energy, Roads, Bridges, Water and Sewer Systems*. Massachusetts.

Sustainable Design and Build provides a complete reference for engineers and scientists who want to conduct sustainability research. The book begins with a rudimentary discussion of environmental pollution and energy that is followed by their applications.

LIBS

139. TH880. I5847 2020

International Conference on Su. (2020). *Sustainable Building and Structures Building a Sustainable Tomorrow*. CRC Press/Balkema.

Sustainable Buildings and Structures: Building a Sustainable Tomorrow collects the contributions presented at the 2nd International Conference on Sustainable Buildings and Structures (Suzhou, China, 25-27 October 2019).

PKAS

140. TH880. S87 2019

Muhammad Najib Mohamed Razali. (2019). *Sustainable and Green Property Management*. UiTM Press.

This book provides a compilation of various literature and studies within the area of sustainable property. It has been shown that the three pillars of sustainable development which are economy, environment and social permeate various aspects of property including development, management and investment.

KPG

141. TH880. S87 2019

Muhammad Najib Mohamed Razali. (2019). *Sustainable and Green Property Management*. UiTM Press.

This book provides a compilation of various literature and studies within the area of sustainable property. It has been shown that the three pillars of sustainable development which are economy, environment and social permeate various aspects of property including development, management and investment.

FSPU

142. TH880. T96 2021

Tymkow, Paul. (2021). *Building Services Design for Energy Efficient Buildings* (2nd ed.). Routledge.

"This book provides a contemporary introduction and guide to building services design, for students and practitioners alike "Provided by publisher.

LIBS

143. TH880. T96 2021

Tymkow, Paul. (2021). *Building Services Design for Energy Efficient Buildings* (2nd ed.). Routledge.

The role and influence of building services engineers are undergoing rapid change and are pivotal to achieving low-carbon buildings. However, textbooks in the field have tended to remain fairly traditional with a detailed focus on the technicalities of heating, ventilation and air conditioning (HVAC) systems, often with little wider context. This book addresses that need by embracing a contemporary understanding of the urgent challenge to address climate change, together with practical approaches to energy efficiency and carbon mitigation for mechanical and electrical systems, in a concise manner.

LIJ

144. TH880. T96 2021

Tymkow, Paul. (2021). *Building Services Design for Energy Efficient Buildings* (2nd ed.). Routledge.

"This book provides a contemporary introduction and guide to building services design, for students and practitioners alike "Provided by publisher.

PKAS

MECHANICAL ENGINEERING AND MACHINERY

145. TJ1075. G74 2022

Rao, T.V.V.L.N. (2022). *Green Tribology Emerging Technologies and Applications*. CRC Press.

Green tribology includes focus on innovative surfaces, lubricants, and materials to reduce friction and wear for environmental conservation and sustainability. This book creates a platform for sharing knowledge emerging in the field of green tribology and focuses on advances and developments in technologies and applications. Aimed at advanced students, researchers, and industry professionals, this book will be of interest to readers seeking to understand and apply sustainable practices in tribology and lubrication engineering and related fields.

PUPP

146. TJ1075. S25 2021

Salmiah Kasolang. (2021). *Professorial Lecture UiTM My Story of Tribology*. UiTM Press.

My Story of Tribology contains five chapters on different but related tribology themes. Chapter 1 is dedicated to introducing Tribology including economic importance, how tribology affects our lives, and the GURUs. In Chapter 2, the theme is Journal Bearing, a machine component deployed by the author in her PhD work. Some of the topics highlighted are basic design, functions, bespoke journal bearing, benefits, and Raimondi & Boyd Charts. Journal bearing has to be supported with a hydrodynamic lubrication system, discussed in Chapter 3. Some important topics are leading lubricant companies, engine oils, Stribeck Curve, and properties of lubricants. In Chapter 4, Biomimetics is introduced and the intention is to learn from nature. Discussions include plant surface, adaptation of plants, surface wetting and surface angle as well as current research work. Chapter 5 ends the book with a discussion on Biotribology, exploring the use of a pulsating pump for cardiovascular devices.

LIBS

147. TJ1075 .S25 2021

Salmiah Kasolang. (2021). *Professorial Lecture UiTM My Story of Tribology*. UiTM Press.

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KAG

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LIJ

150. TJ1165 .P48 2019

Peterson, John C. (2019). *Introductory Technical Mathematics* (17th ed). Cengage.

Considering a career in today's sophisticated trade and technical work environments? This practical, easy-to-understand, and engaging text will help you build a solid understanding of essential math concepts and their real-world applications using step-by-step examples and problems drawn from a variety of occupations. Now updated with more than 1500 new exercises to introduce and reinforce key skills, *Introductory Technical Mathematics, Seventh Edition*, also features accurate, up-to-date information from the field, including expanded coverage of topics such as estimation usage, working with spreadsheets on tablets, and energy-efficient electrical applications.

LIJ

151. TJ211 .N46 2019

Nenchev, Dragomir N. (2019). *Humanoid Robots Modeling and Control*. Elsevier.

Humanoid Robots: Modelling and Control provides systematic presentation of the models used in the analysis, design and control of humanoid robots. The book starts with a historical overview of the field, a summary of the current state of the art achievement.

PPA

152. TJ211.35 .B44 2019

Behera, Laxmidhar. (2019). *Intelligent Control of Robotic Systems*. Taylor & Francis Group.

This book illustrates basic principles, along with the development of the advanced algorithms, to realize smart robotic systems. It speaks to strategies by which a robot (manipulators, mobile robot, quadrotor) can learn its own kinematics and dynamics.

KJ

153. TJ211.35 .C645 2019

Colledanchise, Michele. (2019.) *Behavior Trees in Robotics and AI an Introduction*. Taylor & Francis Group.

Behaviour Trees (BTs) provide a way to structure the behaviour of an artificial agent such as a robot or a non-player character in a computer game. Traditional design methods, such as finite state machines, are known to produce brittle behaviours when complexity increases, making it very hard to add features without breaking existing functionality. BTs were created to address this very problem, and enables the creation of systems that are both modular and reactive. Behaviour Trees in Robotics and AI: An Introduction provides a broad introduction as well as an in-depth exploration of the topic, and is the first comprehensive book on the use of BT.

KJ

154. TJ211.49 .B37 2020

Bartneck, Christoph. (2020). *Human-Robot Interaction an Introduction*. Cambridge University Press.

The role of robots in society keeps expanding and diversifying, bringing with it a host of issues surrounding the relationship between robots and humans. This introduction to human-robot interaction (HRI), written by leading researchers in this developing.

KJ

155. TJ223.P76 M66 2019

Monk, Simon. (2019). *Programming Arduino Next Steps : Going Further with Sketches* (2nd ed). McGraw Hill.

This fully updated TAB guide picks up where Dr. Simon Monk's bestselling *Programming Arduino: Getting Started with Sketches* leaves off. Aimed at programmers and hobbyists who have mastered the fundamentals, *Programming Arduino Next Steps: Going Further with Sketches, Second Edition* takes you to the next level and reveals professional-level programming secrets. You will learn how to work with interrupts, manage memory, use high speed digital writes, program Ethernet and Bluetooth, handle serial communications, perform digital signal processing, and much more. This up-to-date edition refocuses the network programming chapter on the Internet of Things and offers new chapters on interfacing basics and using the Arduino IDE with other microcontrollers. All concepts are illustrated with working, downloadable code examples. Works as a standalone volume or as a companion to *Programming Arduino: Getting Started with Sketches*.

KPG

156. TJ223.P76 M6653 2019

Monk, Simon. (2019). *Programming Arduino Next Steps Going Further with Sketches* (2nd ed.). McGraw-Hill Education.

Go beyond the basics with this up-to-date Arduino programming resource. Take your Arduino programming skills to the next level using the hands-on information contained in this thoroughly revised, easy to follow TAB guide. Aimed at programmers and hobbyists.

KJ

157. TJ265 .C42 2022

Cengel, Yunus A. (2022). *Fundamentals of Thermal-Fluid Sciences* (16th ed). McGraw-Hill Education.

Fundamentals of Thermal-Fluid Sciences, Sixth Edition, is an abbreviated version of standard thermodynamics, fluid mechanics, and heat transfer texts, covering topics that the majority of engineering students will need in their professional lives. The text is well-suited for curriculums that have a common introductory course or a two-course sequence on thermal-fluid sciences. The book addresses tomorrow's engineers in a simple, yet precise manner, and it leads students toward a clear understanding and firm grasp of the basic principles of thermal-fluid sciences. Special effort has been made to appeal to readers' natural curiosity and to help students explore the various facets of the exciting subject area of thermal-fluid sciences.

PUPP

158. TJ808 .D86 2019

Dunlap, Richard. A. (2019). *Sustainable Energy* (2nd ed.). Cengage.

Help students explore present and future energy needs as well as options for continued use of fossil fuels and alternative energy sources with Dunlap's SUSTAINABLE ENERGY, 2nd Edition. Individual chapters thoroughly investigate each energy approach as the book covers both current energy production and future strategies. Readers only need to be familiar with freshman-level physics and chemistry. The text emphasizes the complexity of energy issues and the need for a multidisciplinary approach to solve today's energy problems. Quantitative end-of-chapter problems require students to analyze information, use material from previous chapters, correlate data from various sources, and interpret graphical data and interpolate values. Students see real problems encountered in producing and using energy and realize that while exact calculations are important, a broad-based analysis is often most appropriate.

KPG

159. TJ808 .D86 2019

Dunlap, Richard A. (2019). *Sustainable energy* (2nd ed.). Cengage.

Help students explore present and future energy needs as well as options for continued use of fossil fuels and alternative energy sources with Dunlap's Sustainable Energy, 2nd Edition. Individual chapters thoroughly investigate each energy approach.

TRG

160. TJ808 .D86 2019

Dunlap, Richard A. (2019). *Sustainable energy* (2nd ed.). Cengage.

Help students explore present and future energy needs as well as options for continued use of fossil fuels and alternative energy sources with Dunlap's Sustainable Energy, 2nd Edition. Individual chapters thoroughly investigate each energy approach.

KPG

161. TJ808 .D86 2019

Dunlap, Richard A. (2019). *Sustainable Energy* (2nd ed.). Cengage.

Help students explore present and future energy needs as well as options for continued use of fossil fuels and alternative energy sources with Dunlap's Sustainable Energy, 2nd Edition. Individual chapters thoroughly investigate each energy approach.

LIJ

162. TJ828 .W36 2019

Wang, Tongguang. (2019). *Structure Design for Wind Turbine Blade*. Alpha Science.

Discusses the design and verification of composite materials and components. The blade is the basic and the most important component of wind turbine. Blade structure reliability is an important feature to ensure the safe operation of blades in a turbine.

LIBS

ELECTRICAL ENGINEERING

163. TK1087 .W45 2019

White, Sean. (2019). *Solar Photovoltaic Basics a Study Guide for the NABCEP Associate Exam (2nd ed.)*. Routledge.

This book explains the science of photovoltaics (PV) in a way that most people can understand, using the curriculum which reflects the core modules of the NABCEP Associate Exam. Whether or not you are taking the NABCEP Associate Exam, learning the material.

LIBS

164. TK195.I4 K68 2019

Kothari, D. P. (2019). *Power System Engineering (3rd ed.)*. McGraw-Hill Education.

This hallmark text on power system Engineering provides the readers a comprehensive account of all key concepts in the field. The book includes latest technology developments and talks about some crucial areas of power system, such as transmission and distribution, analysis and stability and protection and switchgear.

P3

165. TK2211 .M85 2020

Mukerji, Saurabh Kumar. (2020). *Electromagnetics for Electrical Machines*. CRC Press.

This book offers a comprehensive yet accessible treatment of the linear theory of electromagnetics and its application to the design of electrical machines.

P3

166. TK275 .B35 2020

Bakshi, Uday A. (2020). *Electrical Measurements*. Technical Publications.

The importance of Electrical Measurements is well known in various engineering fields. The book is structured to cover the key aspects of the subject Electrical Measurements. The book uses plain, lucid language to explain fundamentals of this subject. The book provides logical method of explaining various complicated concepts and stepwise methods to explain the important topics.

KPG

167. TK2851 .A67 2020

Saifullah Khalid. (2020). *Applications of Artificial Intelligence in Electrical Engineering*. IGI Global.

This book explores advancements in artificial intelligence with a focus on its application engineering.

P3

168. TK3105 .B54 2019

Zobaa, Ahmed F. (2019). *Big Data Analytics in Future Power Systems*. Taylor & Francis Group.

Power systems are increasingly collecting large amounts of data due to the expansion of the Internet of Things into power grids. In a smart grid's scenario, a huge number of intelligent devices will be connected with almost no human intervention characterizing a machine-to-machine scenario, which is one of the pillars of the Internet of Things. The book characterizes and evaluates how the emerging growth of data in communications networks applied to smart grids will impact the grid efficiency and reliability. Additionally, this book discusses the various security concerns that become manifest with Big Data and expanded communications in power grids.

KJ

169. TK3271 .S33 2019

Scaddan, Brian. (2019). *18th Edition IET Wiring Regulations Explained and Illustrated* (11th ed.). Taylor & Francis Group.

This popular guide focuses on common misconceptions in the application of the IET Wiring Regulations. It explains in clear language those parts of the regulations that most need simplifying, outlining the correct procedures to follow and those to avoid.

PUPP

170. TK4058 .M64 2021

Mohan, Ned. (2021). *Analysis and Control of Electric Drives Simulations and Laboratory Implementation*. Wiley.

Electric machines, particularly AC machines, consume over 40% of globally generated electric power. With rapid electrification of the transportation sector, to reduce emission of greenhouse gases, these machines are set to consume most of the power that is generated.

P3

171. TK5102.9 .A78 2022

Sharma, Abhinav. (2022). *Artificial Intelligence for Signal Processing and Wireless Communication*. de Gruyter.

This book focuses on artificial intelligence in the field of digital signal processing and wireless communication.

P4

172. TK5102.9 .S74 2020

Steiglitz, Ken. (2020). *Digital Signal Processing Primer with Applications to Digital Audio and Computer Music*, Dover Publications.

An informal and easy-to-understand introduction to digital signal processing, this treatment emphasizes digital audio and applications to computer music.

P4

173. TK5102.92 .H78 2020

Hsu, Hwei P. (2019). *Signals and Systems MATLAB Examples* (40th ed.). McGraw-Hill Education.

This book is to provide the concepts and theory of signals and systems needed in almost all electrical engineering fields and in many other engineering and science disciplines as well

.KPG

174. TK5102.92 .H78 2020

Hsu, Hwei P. (2019). *Signals and Systems MATLAB Examples* (40th ed.). McGraw-Hill Education.

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P3

175. TK5102.92 .H78 2020

Hsu, Hwei P. (2019). *Signals and Systems MATLAB Examples* (40th ed.). McGraw-Hill Education.

This book provides the concepts and theory of signals and systems needed in almost all electrical engineering fields and in many other engineering and science disciplines as well.

KPG

176. TK5102.94 .S73 2019

Stapleton, Jeffrey James. (2019). *Security without Obscurity A Guide to Cryptographic Architectures*. Taylor & Francis Group.

Information security has a major gap when cryptography is implemented. Cryptographic algorithms are well defined, key management schemes are well known, but the actual deployment is typically overlooked, ignored, or unknown. Cryptography is everywhere. Application and network architectures are typically well-documented but the cryptographic architecture is missing. This book provides a guide to discovering, documenting, and validating cryptographic architectures. Each chapter builds on the next to present information in a sequential process. This approach not only presents the material in a structured manner, it also serves as an ongoing reference guide for future use.

KJ

177. TK5103 .B76 2019

Brochard, Luigi. (2019). *Energy-Efficient Computing and Data Centers*. ISTE, Ltd.

Data centers consume roughly 1% of the total electricity demand, while ICT as a whole consumes around 10%. Demand is growing exponentially and, left unchecked, will grow to an estimated increase of 20% or more by 2030. This book covers the energy consumption and minimization of the different data center components when running real workloads, taking into account the types of instructions executed by the servers. It presents the different air- and liquid-cooled technologies for servers and data centers with some real examples, including waste heat reuse through adsorption chillers, as well as the hardware and software used to measure, model and control energy. It computes and compares the Power Usage Effectiveness and the Total Cost of Ownership of new and existing data centers with different cooling designs, including free cooling and waste heat reuse leading to the Energy Reuse Effectiveness. The book concludes by demonstrating how a well-designed data center reusing waste heat to produce chilled water can reduce energy consumption by roughly 50%, and how renewable energy can be used to create net-zero energy data centers.

KJ

178. TK5103.2 .D314 2020

Dahane, Amine. (2019). *Mobile, Wireless and Sensor Networks a Clustering Algorithm for Energy Efficiency and Safety*. Apple Academic Press.

"Wireless networking covers a variety of topics involving many challenges. The main concern of clustering approaches for mobile wireless sensor networks (WSNs) is to prolong the battery life of the individual sensors and the network lifetime. For a successful clustering approach, the need of a powerful mechanism to safely elect a cluster head remains a challenging task in many research works that take into account the mobility of the network. In *Mobile, Wireless and Sensor Networks: A Clustering Algorithm for Energy Efficiency and Safety*, the authors use an approach based on computing of the weight of each node in the network as the proposed technique to deal with this problem. They present a virtual laboratory platform (VLP) of baptized mercury, allowing students and researchers to make practical work (PW) on different aspects of mobile wireless sensor networks. The authors' choice of WSNs is motivated mainly by the use of real experiments needed in most college courses on WSNs. These usual experiments, however, require an expensive investment and many nodes in the classroom. The platform presented here aims to show the feasibility, the flexibility, and the reduced cost using the authors' approach. The authors demonstrate the performance of the proposed algorithms that contribute to the familiarization of the learners in the field of WSNs" Provided by publisher.

ML

179. TK5103.484 .F33 2019

Fadhil, Mohammed Khalid Salman. (2019). *Mobile WiMAX Systems Performance Analysis of Fractional Frequency Reuse*. Taylor & Francis Group.

This book presents new models to enhance both capacity and coverage area in WiMAX FFR cellular network by considering the effect of interference of 18 base stations on the cell border users. The concepts provide a solid scientific base for analyzing and understanding WiMAX technology. This book enables the audience or researchers to understand the concept of the FFR technique. These basic concepts represent the important features of WiMAX technology which have been used to create new algorithms.

KJ

180. TK5104 .M37 2020

Maral, G, Bousquet, M, & Sun, Z. (2020). *Satellite communications systems: systems, techniques and technology*. John Wiley & Sons.

The revised and updated sixth edition of *Satellite Communications Systems* contains information on the most recent advances related to satellite communications systems, technologies, network architectures and new requirements of services and applications. The authors -- noted experts on the topic -- cover the state-of-the-art satellite communication systems and technologies and examine the relevant topics concerning communication and network technologies, concepts, techniques and algorithms. New to this edition is information on internet working with the broadband satellite systems, more intensive coverage of Ka band technologies, GEO high throughput satellite (HTS), LEO constellations and the potential to support the current new broadband Internet services as well as future developments for global information infrastructure. The authors offer details on digital communication systems and broadband networks in order to provide high-level researchers and professional engineers an authoritative reference. The companion website provides slides for instructors to teach and for students to learn. In addition, the book is designed in a user-friendly format.

P3

181. TK5105 .F553 2019

Jerry FitzGerald, Alan Dennis. (2019). *Business Data Communications and Networking*. John Wiley & Sons.

As the world grows increasingly interconnected, data communications have become a critical aspect of business operations. Wireless and mobile technology allows us to seamlessly transition from work to play and back again, and the Internet of things has brought our appliances, vehicles, and homes into the network; as life increasingly takes place online, businesses recognize the opportunity for a competitive advantage. Today's networking professionals have become central to nearly every aspect of business, and this book provides the essential foundation needed to build and manage the scalable, mobile, secure networks these businesses require. Although the technologies evolve rapidly, the underlying concepts are more constant. This book combines the foundational concepts with practical exercises to provide a well-grounded approach to networking in business today. Key management and technical issues are highlighted and discussed in the context of real-world applications, and hands-on exercises reinforce critical concepts while providing insight into day-to-day operations. Detailed technical descriptions reveal the trade-offs not presented in product summaries, building the analytical capacity needed to understand, evaluate, and compare current and future technologies.

JOH2

182. TK5105 .F553 2021

Dennis, Alan. (2021). *Business Data Communications and Networking* (40th ed.). Wiley.

Acclaimed for its accuracy, cutting-edge orientation and clarity of presentation, this best-selling text in its new edition is better still. It covers everything MIS professionals need to know about data communications and networks - from hardware and network design to security and LANs.

KDH

183. TK5105 .M35 2020

Maivald, James J. (2020). *Adobe Dreamweaver classroom in a book (2020 release) The official training workbook from Adobe*. Pearson Education, Inc.

The fastest, easiest, most comprehensive way to learn Adobe Dreamweaver. [...] Adobe Dreamweaver Classroom in a Book (2020 release) contains 11 lessons that cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. You can follow the book from start to finish or choose only those lessons that interest you. The online assets also include two bonus lessons for working with mobile design, animation, and video.

P1

184. TK5105.5 .P36 2020

Panek, Crystal. (2020). *Networking Fundamentals*. A Wiley Brand.

A clear and concise resource on Windows networking, perfect for IT beginners Did you know that nearly 85% of IT support roles require a good understanding of networking concepts? If you are looking to advance your IT career, you will need a foundational understanding of Windows networking. Network Fundamentals covers everything you need to know about network infrastructures, hardware, protocols, and services. You will learn everything you need to gain the highly in-demand Networking Fundamentals MTA Certification. This entry-level credential could be your first step into a rewarding, stable and lucrative IT career. This new Sybex guide covers the basics of networking starting from the “ground level,” so no previous IT knowledge is required. Each chapter features approachable discussion of the latest networking technologies and concepts, closing with a quiz so you can test your knowledge before moving to the next section. Even if you are brand new to computers, Network Fundamentals will guide you to confidence and mastery. Understand wired and wireless networks in every detail Learn everything you need to attain the Networking Fundamentals MTA Certification Test your knowledge with end-of-chapter quiz questions Understand internet protocol (IP) and categorize IPv4 addresses Work with networking services and area networks Define network infrastructures and network security, including intranets, extranets, and VPNs Beginning and established IT professionals looking to understand more about networking will gain the knowledge to create a network diagram and confidently explain basic networking concepts. Thanks to the features in this book, you will be able to apply your new networking skills in real world situations and feel confident when taking the certification test

KJ

185. TK5105.5 .S26 2021

Santos, Omar. (2021). *Cisco CyberOps Associate CBROPS 200-201 Official Cert Guide*. Cisco Press.

Modern organizations rely on Security Operations Center (SOC) teams to vigilantly watch security systems, rapidly detect breaches, and respond quickly and effectively.

P3

186. TK5105.5 .W47 2023

West, Jill. (2020). *Data Communications & Computer Networks a Business User's Approach* (9th ed.). Cengage.

Whether you are preparing for a career as a business manager, computer programmer or system designer, or you simply want to be an informed home computer user, West's DATA COMMUNICATIONS AND COMPUTER NETWORKS, 9th Edition provides an understanding of the essential features, operations and limitations of today's computer networks. You learn about systems both on premises and in the cloud as the author balances technical concepts with practical, everyday issues. Updates address the latest developments and practices in cloud business principles and security techniques, software-defined networking, 5G, the Internet of Things, data analytics and supporting remote workforces. This edition also covers the CompTIA's Cloud Essentials+ exam to help you prepare for this vendor-neutral, business-oriented cloud computing certification. Hands-on learning features and thought-provoking content also guide you through virtual networking technologies, industry convergence and wired and wireless LAN technologies.

KJ

187. TK5105.5 .W47 2023

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KKB

188. TK5105.5 .W47 2023

West, Jill. (2020). *Data Communications & Computer Networks A Business User's Approach* (9th ed.). Cengage.

Whether you are preparing for a career as a business manager, computer programmer or system designer, or you simply want to be an informed home computer user, West's data communications and computer networks, 9th Edition provides an understanding of the essential features, operations and limitations of today's computer networks. You learn about systems both on premises and in the cloud as the author balances technical concepts with practical, everyday issues. Updates address the latest developments and practices in cloud business principles and security techniques, software-defined networking, 5G, the Internet of Things, data analytics and supporting remote workforces. This edition also covers the CompTIA's Cloud Essentials+ exam to help you prepare for this vendor-neutral, business-oriented cloud computing certification. Hands-on learning features and thought-provoking content also guide you through virtual networking technologies, industry convergence and wired and wireless LAN technologies

ML

189. TK5105.585 .I68 2019

Erman Hamid. (2019). *IPv6: Migrating to the New Internet*. Universiti Teknikal Malaysia Melaka.

IPv6: migrating to the new internet the main goal of this book is to encourage both researchers and practitioners to share and exchange their experiences and recent studies between academia

KJ

190. TK5105.59 .B76 2020

Brooks, Richard R. (2020). *Distributed Denial of Service Attacks Real-world Detection and Mitigation*. Taylor & Francis Group.

Distributed Denial of Service (DDoS) attacks have become more destructive, wide-spread and harder to control over time. This book allows students to understand how these attacks are constructed, the security flaws they leverage, why they are effective,

KJ

191. TK5105.59 .C53 2022

Ciampa, Mark. (2022). *CompTIA Security + Guide to Network Security Fundamentals (17th ed.)*. Boston, Cengage.

Mapped to the new CompTIA Security+ SY0-601 Certification Exam, best-selling CompTia Security+ Guide to Network Security Fundamentals, Seventh Edition, thoroughly prepares readers for professional certification and career success.

P4

192. TK5105.59 .C79 2020

Hodorogea, Tatiana. (2020). *Cryptography And Network Security*. Excelic Press LLC.

With current network, Internet, and distributed system, cryptography has become a key technology to ensure the security of today's web-software applications.

KJ

193. TK5105.59 .D37 2021

Das, Ravi. (2021). *Testing and Securing Web Applications*. Taylor & Francis Group.

Web applications occupy a large space within the IT infrastructure of a business or a corporation. They simply just don't touch a front end or a back end; today's web apps impact just about every corner of it. Today's web apps have become complex, which has made them a prime target for sophisticated cyberattacks. As a result, web apps must be literally tested from the inside and out in terms of security before they can be deployed and launched to the public for business transactions to occur. The primary objective of this book is to address those specific areas that require testing before a web app can be considered to be completely secure. The book specifically examines five key areas: Network security: This encompasses the various network components that are involved in order for the end user to access the particular web app from the server where it is stored at to where it is being transmitted to, whether it is a physical computer itself or a wireless device (such as a smartphone). Cryptography: This area includes not only securing the lines of network communications between the server upon which the web app is stored at and from where it is accessed from but also ensuring that all personally identifiable information (PII) that is stored remains in a ciphertext format and that its integrity remains intact while in transmission. Penetration testing: This involves literally breaking apart a Web app from the external environment and going inside of it, in order to discover all weaknesses and vulnerabilities and making sure that they are patched before the actual Web app is launched into a production state of operation. Threat hunting: This uses both skilled analysts and tools on the Web app and supporting infrastructure to continuously monitor the

environment to find all security holes and gaps. The Dark Web: This is that part of the Internet that is not openly visible to the public. As its name implies, this is the "sinister" part of the Internet, and in fact, where much of the PII that is hijacked from a web app cyberattack is sold to other cyberattacks in order to launch more covert and damaging threats to a potential victim. Testing and Securing Web Applications breaks down the complexity of web application security testing so this critical part of IT and corporate infrastructure remains safe and in operation

KJ

194. TK5105.59 .H83 2020

Huang, Dijiang. (2020). *Attribute-Based Encryption and Access Control*. CRC Press.

This book covers a broader scope of Attribute-Based Encryption (ABE), from the background knowledge, to specific constructions, theoretic proofs, and applications. The goal is to provide in-depth knowledge usable for college students and researchers who want to have a comprehensive understanding of ABE schemes and novel ABE-enabled research and applications. The specific focus is to present the development of using new ABE features such as group-based access, ID-based revocation, and attributes management functions such as delegation, federation, and interoperability. These new capabilities can build a new ABE-based Attribute-Based Access Control (ABAC) solution that can incorporate data access policies and control into ciphertext. This book is also ideal for IT companies to provide them with the most recent technologies and research on how to implement data access control models for mobile and data-centric applications, where data access control does not need to rely on a fixed access control infrastructure. It's also of interested to those working in security, to enable them to have the most recent developments in data access control such as ICN and Blockchain technologies.

KJ

195. TK5105.59 .M3284 2019

Gupta, Brij. (2019). *Machine Learning for Computer and Cyber Security Principles, Algorithms, and Practies*. Taylor & Francis Group.

While Computer Security is a broader term which incorporates technologies, protocols, standards and policies to ensure the security of the computing systems including the computer hardware, software and the information stored in it, Cyber Security

ML

196. TK5105.59 .M33 2019

McDonough, Bart R. (2019). *Cyber Smart Five habits to protect your family, money, and identity from cyber criminals*. Wiley.

"In Cyber Smart, author Bart McDonough uses his extensive cybersecurity experience speaking at conferences for the FBI, major financial institutions, and other clients to answer the most common question he hears: "How can I protect myself at home, on a personal level, away from the office?" McDonough knows cybersecurity and online privacy are daunting to the average person so Cyber Smart simplifies online good hygiene with five simple "Brilliance in the Basics" habits anyone can learn. With those habits and his careful debunking of common cybersecurity myths you'll be able to protect yourself and your family from: identity theft, compromising your children, lost money, and lost access to email and social media accounts.

KJ

197. TK5105.59 .M86 2021

Muniz, Joseph. (2021). *The Modern Security Operations Center the People, Process, and Technology for Operating SOC Services*. Addison-Wesley Professional.

This is the definitive, vendor-neutral guide to building, maintaining, and operating a modern Security Operations Center (SOC)

P3

198. TK5105.87 .N498 2022

Ahmed, Mohiuddin. (2022). *Next-Generation Enterprise Security and Governance*. CRC Press.

The Internet is making our daily lives as digital as possible, and this new era is called the Internet of Everything (IoE). The key force behind the rapid growth of the Internet is the technological advancement of enterprises. The digital world we live in is facilitated by these enterprises' advances and business intelligence. These enterprises need to deal with gazillions of bytes of data, and in today's age of General Data Protection Regulation, enterprises are required to ensure privacy and security of large-scale data collections. However, the increased connectivity and devices used to facilitate IoE are continually creating more room for cybercriminals to find vulnerabilities in enterprise systems and flaws in their corporate governance.

KKB

199. TK5105.875.I57 C664 2019

Comer, Douglas. (2019). *The Internet Book Everything You Need to Know about Computer Networking and How the Internet Works* (19th ed.). Taylor & Francis Group.

The Internet Book, Fifth Edition explains how computers communicate, what the Internet is, how the Internet works, and what services the Internet offers. It is designed for readers who do not have a strong technical background - early chapters clearly explain the terminology and concepts needed to understand all the services. It helps the reader to understand the technology behind the Internet, appreciate how the Internet can be used, and discover why people find it so exciting. In addition, it explains the origins of the Internet and shows the reader how rapidly it has grown. It also provides information on how to avoid scams and exaggerated marketing claims.

ML

200. TK5105.875.I57 C664 2019

Comer, Douglas. (2019). *The Internet Book Everything You Need to Know about Computer Networking and How the Internet Works* (19th ed.). Taylor & Francis Group.

The Internet Book, Fifth Edition explains how computers communicate, what the Internet is, how the Internet works, and what services the Internet offers. It is designed for readers who do not have a strong technical background - early chapters clearly explain the terminology and concepts needed to understand all the services. It helps the reader to understand the technology behind the Internet, appreciate how the Internet can be used, and discover why people find it so exciting. In addition, it explains the origins of the Internet and shows the reader how rapidly it has grown. It also provides information on how to avoid scams and exaggerated marketing claims.

PP

201. TK5105.875.I57 N4863 2021

Shrivastava, Gulshan. (2021). *New Age Analytics Transforming the Internet through Machine Learning, IoT and Trust Modeling*. Apple Academic Press, Inc.

This comprehensive and timely book, *New Age Analytics: Transforming the Internet through Machine Learning, IoT, and Trust Modeling*, explores the importance of tools and techniques used in machine learning, big data mining, and more. The book explains how advancements in the world of the web have been achieved and how the experiences of users can be analyzed. It looks at data gathering by the various electronic means and explores techniques for analysis and management, how to manage voluminous data, user responses, and more. This volume provides an abundance of valuable information for professionals and researchers working in the field of business analytics, big data, social network data, computer science, analytical engineering, and forensic analysis. Moreover, the book provides insights and support from both practitioners and academia in order to highlight the most debated aspects in the field

KJ

202. TK5105.8857 .C438 2019

Chaudhuri, Abhik. (2019). *Internet of Things, for Things, and by Things*. CRC Press/Taylor & Francis Group.

This book discusses the necessary behavioural attributes for smart living and the policy implications necessary to develop it in order to help citizens be as ready as possible for smart living. It covers the aspect of defects in IoT design and implementation for cyber defence of Smart Services. Includes an in-depth discussion of the role of strategic communication in creating safe and secure smart services, with privacy, security and trust. The book aims to help policy makers, engineers, and educators support an ethical, safe, and secure digitally-enhanced environment in which all can live smarter.

PP

203. TK5105.8857 .C438 2019

Chaudhuri, Abhik. (2019). *Internet of Things, for Things, and by Things*. CRC Press/Taylor & Francis Group.

This book discusses the necessary behavioural attributes for smart living and the policy implications necessary to develop it in order to help citizens be as ready as possible for smart living. It covers the aspect of defects in IoT design and implementation for cyber defence of Smart Services. Includes an in-depth discussion of the role of strategic communication in creating safe and secure smart services, with privacy, security and trust. The book aims to help policy makers, engineers, and educators support an ethical, safe, and secure digitally-enhanced environment in which all can live smarter.

ML

204. TK5105.8857 .C438 2019

Chaudhuri, Abhik. (2019). *Internet of Things, for Things, and by Things*. CRC Press/Taylor & Francis Group.

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RAU

205. TK5105.8857 .H325 2019

Hammons, Rebecca Lee. (2019). *Fundamentals of Internet of Things for Non-Engineers*. CRC Press.

The IoT is the next manifestation of the Internet. The trend started by connecting computers to computers, progressed to connecting people to people, and is now moving to connect everything to everything. The movement started like a race—with a lot of fanfare, excitement, and cheering. We're now into the work phase, and we have to figure out how to make the dream come true. The IoT will have many faces and involve many fields as it progresses. It will involve technology, design, security, legal policy, business, artificial intelligence, design, Big Data, and forensics; about any field that exists now. This is the reason for this book. There are books in each one of these fields, but the focus was always "an inch wide and a mile deep." There's a need for a book that will introduce the IoT to non-engineers and allow them to dream of the possibilities and explore the work venues in this area. The book had to be "a mile wide and a few inches deep." The editors met this goal by engaging experts from a number of fields and asking them to come together to create an introductory IoT book.

ML

206. TK5105.8857 .I58 2020

Davies, John. (2020). *The Internet of Things from Data to Insight*. John Wiley & Sons, Inc.

Provides comprehensive coverage of the current state of IoT, focusing on data processing infrastructure and techniques. Written by experts in the field, this book addresses the IoT technology stack, from connectivity through data platforms to end-user case studies, and considers the trade-offs between business needs and data security and privacy throughout. There is a particular emphasis on data processing technologies that enable the extraction of actionable insights from data to inform improved decision making. These include artificial intelligence techniques such as stream processing, deep learning and knowledge graphs, as well as data interoperability and the key aspects of privacy, security and trust. Additional aspects covered include: creating and supporting IoT ecosystems; edge computing; data mining of sensor datasets; and crowd-sourcing, amongst others. The book also presents several sections featuring use cases across a range of application areas such as smart energy, transportation, smart factories, and more. The book concludes with a chapter on key considerations when deploying IoT technologies in the enterprise, followed by a brief review of future research directions and challenges. The Internet of Things: From Data to Insight Provides a comprehensive overview of the Internet of Things technology stack with focus on data driven aspects from data modelling and processing to presentation for decision making Explains how IoT technology is applied in practice and the benefits being delivered. Acquaints readers that are new to the area with concepts, components, technologies, and verticals related to and enabled by IoT Gives IoT specialists a deeper insight into data and decision-making aspects as well as novel technologies and application areas analyses and presents important emerging technologies for the IoT arena Shows how different objects and devices can be connected to decision making processes at various levels of abstraction The Internet of Things: From Data to Insight will appeal to a wide audience, including IT and network specialists seeking a broad and complete understanding of IoT, CIOs and CIO teams, researchers in IoT and related fields, final year undergraduates, graduate students, post-graduates, and IT and science media professionals.

KJ

207. TK5105.8857 .I58 2021

Gandhi, Parul. (2021). *Internet of Things in Business Transformation Developing an Engineering and Business Strategy for Industry 5.0*. John Wiley & Sons.

The objective of this book is to teach what IoT is, how it works, and how it can be successfully utilized in business. This book helps to develop and implement a powerful IoT strategy for business transformation as well as project execution. Digital change, business creation/change and upgrades in the ways and manners in which we work, live, and engage with our clients and customers, are all enveloped by the Internet of Things which is now named "Industry 5.0" or "Industrial Internet of Things." The sheer number of IoT (a billion+), demonstrates the advent of an advanced business society led by sustainable robotics and business intelligence. This book will be an indispensable asset in helping businesses to understand the new technology and thrive.

JOH1

208. TK5105.8857 .P384 2019

Patel, Chintan. (2019). *Internet of Things Security Challenges, Advances and Analytics*. Taylor & Francis Group.

This book focuses on the use of Elliptic Curve Cryptography with different authentication architectures and authentication schemes using various security algorithms to secure the Internet of Things. It also includes mathematics from basic level to advance

PP

209. TK5105.8857 .P384 2019

Patel, Chintan. (2019). *Internet of Things Security Challenges, Advances and Analytics*. Taylor & Francis Group.

This book focuses on the use of Elliptic Curve Cryptography with different authentication architectures and authentication schemes using various security algorithms to secure the Internet of Things. It also includes mathematics from basic level to advance

ML

210. TK5105.8857 .R36 2019

Ramakrishnan, Ravi. (2019). *Internet of Thing Approach and Applicability in Manufacturing*. Taylor & Francis Group.

The concept of Internet of Things has silently existed since the late nineteenth century but in the current decade expectations and excitement has peaked. However not many have understood the profound change that it can usher in. How big this change can be and how it can transform our working!! This book aims to bring in this realization with illustrative and practical case studies with comprehensive concepts. From beginners to practitioners in the field of academics or industry, it serves as a comprehensive yet easy to comprehend source of information on the multiple facets of IoT. Simplistic but comprehensive introduction of the facets of primarily the industrial IoT Practical adoption cases explaining the Core technology stack and business application's Comprehensive view of current technologies which complete the IoT delivery ecosystem, followed by overview of IoT enabled new business models. Realistic view of how industrial firms can evolve into the next stage of maturity along with determinants influencing this transformation since manufacturing is envisioned to be a key segment to adopt and benefit from IoT. Detailed analysis of IoT benefits for the universal triad-energy management, logistics optimization and distribution channel management. A full-fledged case study on Adoption of Green manufacturing using IoT. Real world example of gauging End User perception using different models which is important for a successful adoption of IoT. A futuristic visionary view of IoT as comprehended based on evolution of technology and platforms, and finally analysis of the extremely crucial concepts of security, privacy and governance.

ML

211. TK5105.8857 .S62 2019

Al-Turjman, Fadi. (2019). *Smart Things & Femtocells from Hype to Reality*. Taylor & Francis Group.

This book provides a comprehensive overview for the use of femtocells in smart Internet of Things (IoT) environments. Femtocells will help mobile operators to provide a basis for the next generation of services which are a combination of voice, video, and data services to mobile users. This book discusses modelling traffic and deployment strategies in femtocells and provides a review for the use of femtocells and their applications in IoT environments. Moreover, it highlights the efficient real-time medium access, data delivery, caching and security aspects in smart spaces. It concludes by presenting open research issues associated with smart IoT-femtocell based applications.

RAU

212. TK5105.8857 .T75 2019

Tsiatsis, Vlasios. (2019). *Internet of Things Technologies and Applications for a New Age of Intelligence* (2nd ed.). Elsevier.

Internet of Things: Technologies and Applications for a New Age of Intelligence outlines the background and overall vision for the Internet of Things (IoT) and Cyber-Physical Systems (CPS), as well as associated emerging technologies. Key technologies are described including device communication and interactions, connectivity of devices to cloud-based infrastructures, distributed and edge computing, data collection, and methods to derive information and knowledge from connected devices and systems using artificial intelligence and machine learning. Also included are system architectures and ways to integrate these with enterprise architectures, and considerations on potential business impacts and regulatory requirements.

PPA

213. TK5105.8857 .W576 2021

Bhagirathi Nayak. (2021). *Wireless Sensor Network and the Internet of Things Future Directions and Application*. Apple Academic Press Inc.

Wireless Sensor Networks and the Internet of Things: Future Directions and Applications explores a wide range of important and real-time issues and applications in this ever-advancing field. Different types of WSN and IoT technologies are discussed in order to provide a strong framework of reference, and the volume places an emphasis on solutions to the challenges of protection, conservation, evaluation, and implementation of WSN and IoT that lead to low-cost products, energy savings, low carbon usage, higher quality, and global competitiveness. The volume is divided into four sections that cover Wireless sensor networks and their relevant applications Smart monitoring and control systems with the Internet of Things Attacks, threats, vulnerabilities, and defensive measures for smart systems Research challenges and opportunities This collection of chapters on an important and diverse range of issues presents case studies and applications of cutting-edge technologies of WSN and IoT that will be valuable for academic communities in computer science, information technology, and electronics, including cyber security, monitoring, and data collection. The informative material presented here can be applied to many sectors, including agriculture, energy and power, resource management, biomedical and health care, business management, and others.

SWK

214. TK5105.888 .C37 2021

Casabona, Joe. (2021). *HTML and CSS* (19th ed.). Peachpit Press.

Visual QuickStart Guide is an easy, visual approach to learning. Concise steps and explanations, using pictures to guide you through HTML and CSS and show you what to do, getting you up and running in no time. In addition, the free Web Edition of the book includes more than six hours of video, enhancing and expanding the information in the book while providing an alternative method for learning. HTML and CSS remain the linchpin of the Web. Every beginning web developer needs to understand them thoroughly, including the latest advances in these technologies, and the newest functionality that they enable.

SWK

215. TK5105.888 .C37 2021

Casabona, Joe. (2021). *HTML and CSS* (19th ed.). Peachpit Press.

Visual QuickStart Guide is an easy, visual approach to learning. Concise steps and explanations, using pictures to guide you through HTML and CSS and show you what to do, getting you up and running in no time. In addition, the free Web Edition of the book includes more than six hours of video, enhancing and expanding the information in the book while providing an alternative method for learning. HTML and CSS remain the linchpin of the Web. Every beginning web developer needs to understand them thoroughly, including the latest advances in these technologies, and the newest functionality that they enable.

PP

216. TK5105.8883 S75 2019

Stiller, Evelyn. (2019). *An Introduction to Web Development a Conceptual Approach* (2nd ed.). Cognella Academic Publishing.

An Introduction to Web Development: A Conceptual Approach introduces students to essential concepts of web development like design, copyright, netiquette, accessibility, and privacy and to essential content types like text, image, animation, sound, and video. Students explore topics such as: Internet cookies and how these may help or harm; avoiding Internet-based threats, like viruses, ransomware, and phishing attacks; ethics of image editing and selection; how web filtering provides different results of searches, newsfeeds, and other recommendations based on user characteristics; and the role of web-based applications and fake news. The second edition features new content focused on recent web-based threats to democratic societies. Events involving ransomware attacks, fake news, Russian disinformation campaigns, United States voter manipulation, social media-based harassment of individuals, as well as the consequences of phishing certain high-profile individuals are discussed. Additionally, concepts central to media literacy are covered to help students counteract the influence of fake news and voter manipulation. Each chapter concludes with a self-quiz that contains topics for further discussion. The second edition contains an added chapter that introduces students to coding and web interactivity by encouraging students to adapt simple examples. By making use of free software in the embedded examples, An Introduction to Web Development allows students to learn important web development tools without incurring excessive expenses. The text effectively blends technical information and practical instruction. The book can be used in courses on introductory web development, digital literacy, and computer literacy with an internet focus.

LIBS

217. TK5105.8885.J38 F75 2020

Frisbie, Matt. (2020). *Professional Javascript for Web Developers* (14th ed.). A Wiley Brand.

Professional JavaScript for Web Developers is the essential guide to next-level JavaScript development. At 1,200 pages, this book is the most comprehensive JavaScript reference available anywhere. Written for intermediate-to-advanced programmers, this book jumps right into the technical details to help you clean up your code and become a more sophisticated JavaScript developer. This new fourth edition has been updated to cover through ECMAScript 2019; new frameworks and libraries, new techniques, new APIs, and more are explained in detail for the professional developer, with a practical focus that helps you put your new skills to work on real-world projects. The latest--and most dramatic--ES release is already being incorporated into JavaScript engines in major browsers; this, coupled with the rise in mobile web traffic increasing demand for responsive, dynamic web design, means that all web developers need to update their skills--and this book is your ideal resource for quick, relevant guidance. Get up to date on ECMAScript through ES2019, including classes, promises, async/await, proxies, iterators, generators, symbols, modules, and spread/rest operators. Delve into fundamental web development concepts such as the document object model (DOM), browser object model (BOM), events, forms, JSON, error handling, and web animation. Learn about advanced browser APIs such as geolocation, web workers, service workers, fetch, atomics, streams, message channels, performance timelines, and web cryptography. Work hands-on with hundreds of working code examples that demonstrate concepts clearly and concisely. Even if you think you know JavaScript, new ES releases bring big changes that will affect the way you work. For a professional-level update that doesn't waste time on coding fundamentals, *Professional JavaScript for Web Developers* is the ultimate resource to bring you up to speed.

KJ

218. TK6570.M6 M39 2019

Mazliza Othman. (2019). *Principles of Mobile Computing and Communications*. CRC Press.

Provides an understanding of wireless networks and relevant standards, highlighting issues in the mobile computing environment and exploring the differences between conventional and mobile applications. This book covers wireless network standards for cellular networks, WLANs, WPANs, wireless sensor networks, MANETs, and mobile IPs.

PLS

219. TK7816 .M84 2022

Muhammad Rajaei Dzulkifli. (2022). *Professional Certificate in Electrical & Electronic Technology Phase 3, Electrical Engineering*. Universiti Teknologi Mara.

This book is a compilation of course modules for the Professional Certificate in Electrical and Electronics Technology program for phase 3, which is determined based on the requirements and needs of the industry by experts from UiTM Cawangan Johor Kampus Pasir Gudang.

KPG

220. TK7816 .T43 2021

Thahira Bibi TK Muthukoya Than. (2021). *Professional Certificate in Electrical & Electronic Technology Phase 2, School of Electrical Engineering*. Universiti Teknologi Mara.

This book is a compilation of course modules for the Professional Certificate in Electrical and Electronics Technology program for phase 2, which is determined based on the requirements and needs of the industry by experts from UiTM Cawangan Johor Kampus Pasir Gudang.

KPG

221. TK7867 .A51 2021

Wan Muhamad Amir W Ahmad. (2021). *Reka Bentuk dan Analisis Eksperimen Menggunakan SPSS*. Universiti Sains Malaysia.

Buku ini bertujuan untuk memberi pendedahan kepada penyelidik mengenai kepelbagaian reka bentuk dan analisis eksperimen yang boleh digunakan dalam menganalisis data. Secara umumnya, prosedur pelaksanaan analisis yang ditunjukkan di dalam buku ini adalah menerusi penggunaan perisian SPSS. Ia dipersembahkan secara langkah demi langkah dengan terperinci. Teknik dalam menganalisis data secara reka bentuk dan analisis eksperimen banyak diguna pakai terutamanya apabila penyelidik berhadapan dengan set data yang diperoleh secara eksperimen ataupun set data daripada uji kaji secara makmal. Justeru, buku ini memberi pendedahan dan pilihan kepada penyelidik untuk memilih jenis reka bentuk eksperimen yang bersesuaian dengan eksperimen yang dijalankan. Penyelidik boleh mengikut tatacara kajian yang dipersembahkan dan menyesuaikannya dengan data kajian. Selain itu, buku ini juga menggunakan bahasa yang ringkas serta mudah difahami bagi meningkatkan kefahaman penyelidik terhadap dapatan eksperimen yang diperoleh. Dengan adanya buku panduan sebegini, secara tidak langsung ia dapat membantu para penyelidik dan pelajar dalam menganalisis data serta menjayakan projek penyelidikan agar penyelidikan yang dijalankan lebih teratur dan efektif.

LIBS

222. TK7867 .G54 2022

Gift, Stephan J. G. (2022). *Electronic Circuit Design and Application* (2nd ed). Springer.

This textbook for core courses in Electronic Circuit Design teaches students the design and application of a broad range of analog electronic circuits in a comprehensive and clear manner

P3

223. TK7867 .M53 2020

Sedra, Adel S. (2020). *Microelectronic Circuits* (18th ed.). Oxford University Press.

Microelectronic Circuits by Sedra and Smith has served generations of electrical and computer engineering students as the best and most widely-used text for this required course. Respected equally as a textbook and reference, "Sedra/Smith" combines a thorough presentation of fundamentals with an introduction to present-day IC technology. It remains the best text for helping students progress from circuit analysis to circuit design, developing design skills and insights that are essential to successful practice in the field. Significantly revised with the input of two new coauthors, slimmed down, and updated with the latest innovations, *Microelectronic Circuits*, Eighth Edition, remains the gold standard in providing the most comprehensive, flexible, accurate, and design-oriented treatment of electronic circuits available today.

KPG

224. TK7867.M53 2019

Microelectronic Circuits. (2019). Scitus Academics.

Over the past five decades, microelectronics has transformed our lives. While beyond the realm of possibility a few decades ago, cell phones, digital cameras, laptop computers, and many other electronic products have now become an integral part of our daily interactions. As we learn how each device operates, how devices contain circuits that perform interesting and useful functions, and how circuits form sophisticated systems, we begin to see the beauty of microelectronics and appreciate the reasons for its explosive growth. In the field of microelectronics, many of the early low dielectric materials have been satisfactory in covering the required properties. But as the microelectronics industry continuously boomed through the 21st century, more and more advanced processes and materials have been in demand. Since the invention of microprocessor, the number of active devices on a chip has been exponentially increasing, approximately doubling every year, famously forecast by Gordon Moore in 1965. All of this is driven by the need for optimal electrical and functional performance. *Microelectronic Circuits* is intended to present comprehensive coverage on research and applications of microelectronic systems, circuits, and emerging technologies. It is dedicated to advanced engineering methods for micro- and nanofabrication of electronic devices, circuits and systems for electronics, electromechanics, and bioelectronics. It covers the physical, technological, and some VLSI and ULSI circuit-technical aspects of microelectronics and nanoelectronics. The main challenge for researchers in the microelectronic industry is not to develop materials with the lowest dielectric constant, but to find materials that satisfy all of the electrical, thermal, chemical, and mechanical properties required for optimal device performance. This serves as valuable guide for specialists at research institutes, universities, and other educational institutions; for graduate students; and for those working at industrial laboratories.

KPG

225. TK7868.D5 H37 2019

Rosen, Kenneth H. (2019). *Discrete Mathematics and Its Applications* (18th ed.). McGraw Hill.

The eighth edition of Kenneth Rsen's Discrete Mathematics and Its Applications is a substantial revision of the most widely used textbook in its field. This new edition reflects extensive feedback from instructors, students and more than 50 reviewers.

SMH2

226. TK7868.D5 H37 2022

Harris, Sarah L. (2022). *Digital Design and Computer Architecture Risc-V Edition*. Morgan Kaufmann Pub.

The newest addition to the Harris and Harris family of Digital design and computer architecture books, this RISC-V edition covers the fundamentals of digital logic design and reinforces logic concepts through the design of a RISC-V microprocessor.

P3

227. TK7872.D48 V47 2022

Verma, Parag. (2022). *Security Issues for Wireless Sensor Networks*. CRC Press.

This book covers a comprehensive discussion on state-of-the-art security technologies for WSNs. It identifies various possible attacks at different layers of the communication protocol stack in a typical WSN and presents their possible countermeasures. A brief discussion on the future direction of research in WSN security is also included.

P4

228. TK7872.P38 R39 2020

Razavi, Behzad. (2020). *Design of Cmos Phase-Locked Loops from Circuit Level to Architecture Level*. Cambridge University Press.

Using a modern, pedagogical approach, this textbook gives students and engineers a comprehensive and rigorous knowledge of CMOS phase-locked loop (PLL) design for a wide range of applications. It features intuitive presentation of theoretical concepts, built up gradually from their simplest form to more practical systems; broad coverage of key topics, including oscillators, phase noise, analog PLLs, digital PLLs, RF synthesizers, delay-locked loops, clock and data recovery circuits, and frequency dividers; tutorial chapters on high-performance oscillator design, covering fundamentals to advanced topologies; and extensive use of circuit simulations to teach design mentality, highlight design flaws, and connect theory with practice. Provided by publisher.

PUPP

229 TK7881.15 .E75 2020

Erickson, Robert W. (2020). *Fundamentals of Power Electronics*. Springer.

Fundamentals of Power Electronics, Third Edition, is an up-to-date and authoritative text and reference book on power electronics. This new edition retains the original objective and philosophy of focusing on the fundamental principles, models, and technical requirements needed for designing practical power electronic systems while adding a wealth of new material.

P3

230. TK7881.4 .J24 2019

Jago, Maxim. (2019). *Adobe Audition Cc Classroom in a Book the Official Training Workbook from Adobe* (2nd ed.). Adobe Press.

"The fastest, easiest, most comprehensive way to learn Adobe Audition CC. Classroom in a Book®, the best-selling series of hands-on software training workbooks, offers what no other book or training program does -- an official training series from Adobe, developed with the support of Adobe product experts. Adobe Audition CC Classroom in a Book contains 17 lessons that cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. You can follow the book from start to finish or choose only those lessons that interest you. Purchasing this book includes valuable online extras. Follow the instructions in the book's "Getting Started" section to unlock access to: Downloadable lesson files you need to work through the projects in the book, Web Edition containing the complete text of the book, interactive quizzes, videos that walk you through the lessons step by step, and updated material covering new feature releases from Adobe. What you need to use this book: Adobe Audition CC software, for either Windows or macOS. (Software not included.) Note: Classroom in a Book does not replace the documentation, support, updates, or any other benefits of being a registered owner of Adobe Audition CC software." -- "Learn how to use Audition CC from the ground up to edit audio efficiently and creatively, enhance video soundtracks, and craft inspired music. Explore the features of the Audition workspace to perform audio tasks. Discover new restoration tools, diagnostic tools, and workflow enhancements. Adobe Audition CC Classroom in a Book contains 17 lessons that cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program.

JOH2

231. TK7887 .A5295 2020

Andrews, Jean. (2020). *CompTIA A+ guide to IT technical support* (10th ed.). Cengage Learning.

This step-by-step, highly visual text provides a comprehensive introduction to managing and maintaining computer hardware and software. Written by best-selling author and educator Jean Andrews, *A+ Guide to IT Technical Support*, 9th Edition closely integrates the CompTIA+ Exam objectives to prepare you for the 220-901 and 220-902 certification exams. The new Ninth Edition also features extensive updates to reflect current technology, techniques, and industry standards in the dynamic, fast-paced field of PC repair and information technology. Each chapter covers both core concepts and advanced topics, organizing material to facilitate practical application and encourage you to learn by doing. The new edition features more coverage of updated hardware, security, virtualization, new coverage of cloud computing, Linux and Mac OS, and increased emphasis on mobile devices. Supported by a wide range of supplemental resources to enhance learning with Lab Manuals, CourseNotes online labs and

the optional MindTap that includes online labs, certification test prep and interactive exercises and activities, this proven text offers students an ideal way to prepare for success as a professional IT support technician and administrator.

PP

232. TK7895 .E42 E45 2019

Elk, Klaus. (2019). *Embedded Software for the IoT* (3rd ed.). De G PRESS.

With a mixture of theory, examples, and well-integrated figures, *Embedded Software for the IoT* helps the reader understand the details in the technologies behind the devices used in the Internet of Things. It provides an overview of IoT, parameters.

KJ

233. TK7895 .E42 E45 2019

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PN9S

234. TK7895.E42 K86 2020

Kumar, Neeraj. (2020). *Machine Learning in Cognitive IoT*. Taylor & Francis Group.

This book covers the different technologies of Internet, and machine learning capabilities involved in Cognitive Internet of Things (CIoT). Machine learning is explored by covering all the technical issues and various models used for data analytics during decision making at different steps. It initiates with IoT basics, its history, architecture and applications followed by capabilities of CIoT in real world and description of machine learning (ML) in data mining. Further, it explains various ML techniques and paradigms with different phases of data pre-processing and feature engineering. Each chapter includes sample questions to help understand concepts of ML used in different applications. Explains integration of Machine Learning in IoT for building an efficient decision support system Covers IoT, CIoT, machine learning paradigms and models Includes implementation of machine learning models in R Help the analysts and developers to work efficiently with emerging technologies such as data analytics, data processing, Big Data, Robotics Includes programming codes in Python / Matlab / R along with practical examples, questions and multiple-choice questions

KJ

235. TK7895.E42 V35 2019

Valvano, Jonathan W. (2019). *Embedded Systems Introduction to Arm® Cortex™-M Microcontrollers* (15th ed.). Jonathan W. Valvano.

This fifth edition focuses on the LaunchPads based on the TM4C123, TM4C1294, and MSP432E4 microcontrollers. This first volume is an introduction to computers and interfacing focusing on assembly language and C programming.

PUPP

236. TK7895.M5 .G63 2020

Godse, Atul P. (2020). *Microprocessors and Microcontrollers*. Technical Publications.

The book uses plain, lucid language to explain fundamentals of this subject. The book provides logical method of explaining various complicated concepts and stepwise methods to explain the important topics. Each chapter is well supported with necessary illustrations, practical examples and solved problems. All the chapters in the book are arranged in a proper sequence that permits each topic to build upon earlier studies

KPG

237. TK7895.M5 .G63 2020

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KPG

MOTOR VEHICLES. AERONAUTICS. ASTRONAUTICS

238. TL152.8 .M49 2019

Meyboom, AnnaLisa. (2019). *Driverless Urban Futures a Speculative Atlas for Autonomous Vehicles*. Routledge.

Since the industrial revolution, innovations in transportation technology have continued to reshape the spatial organization and temporal occupation of the built environment. Today, autonomous vehicles (AVs, also referred to as self-driving cars) represent the next disruptive innovation in mobility, with particularly profound impacts for cities. At a moment of the fast-paced development of AVs by auto-making companies around the world, policymakers, planners, and designers need to anticipate and address the many questions concerning the impacts of this new technology on urbanism and society at large. Conceived as a speculative atlas –a roadmap to unknown territories– this book presents a series of drawings and text that unpack the potential impacts of AVs on scales ranging from the metropolis to the street. The work is both grounded in a study of the history of urban transportation and current trajectories of technological innovation, and informed by an open-ended attitude of future envisioning and design. Through the drawings and essays, *Driverless Urban Futures* invites readers into a debate of how our future infrastructure could benefit all members of the public and levels of society.

LIBS

239. TL152.8 .M49 2019

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