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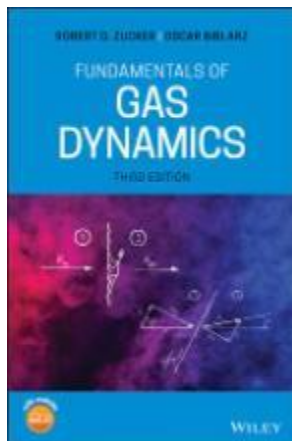
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Applied Mechanics

1



Fundamentals of gas dynamics by Robert D. Zucker and Oscar Biblarz, 3rd ed., Hoboken: Wiley, 2020. xix, 540 p.
Includes index (p. 535-540)

ISBN: 9781119481706

Subject Terms: Fanno flow; Fanno flow; Fluid dynamics; Supersonic airfoil; Pressure energy equation

533.7 ZUC-F

179369; CL

[Click for more details.](#)

2



Gas turbine engineering handbook by Meherwan P. Boyce, 4th ed., Waltham: Elsevier, 2012. xxxiv, 956 p.
Includes index (p. 929-956)

ISBN: 9780123838421

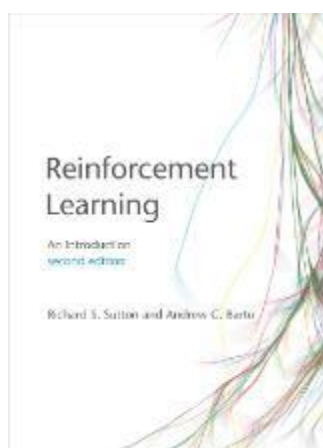
Subject Terms: Gas technology - Handbooks, manuals, etc.; Gas technology - Handbooks, manuals, etc.; Petroleum - Handbooks, manuals, etc.; Power networks systems - Handbooks, manuals, etc.; Axial-flow compressor - Handbooks, manuals, etc.

RL-HB 621.438 (021) BOY-G

179364; CL

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3



Reinforcement learning: an introduction by Richard S. Sutton and Andrew G. Barto, 2nd ed., Cambridge: MIT Press, 2020. xxii, 526p., Adaptive computation and machine learning.
Includes references and index (p. 481-526)

ISBN: 9780262039246

Subject Terms: Reinforcement learning; Deep learning; Artificial intelligence; Computer science; Machine learning

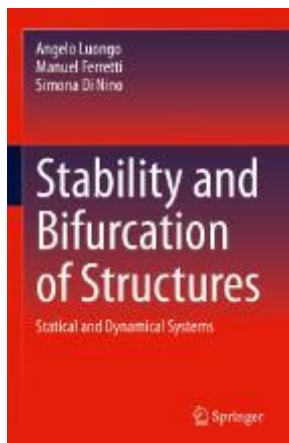
681.3 SUT-R

179474; CL

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4



Stability and bifurcation of structures: statical and dynamical systems by Angelo Luongo, Manuel Ferretti and Simona Di Nino, Cham: Springer, 2023. xvii, 706p.

Includes references and index (p. 699–706)

ISBN: 9783031275715

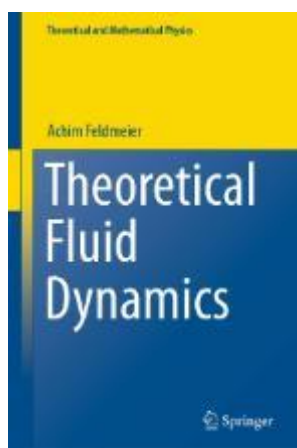
Subject Terms: Building materials; Solid Mechanics; Mechanical Engineering; Structural Materials; Building Construction and Design

517.938 LUO-S

179480; CL

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5



Theoretical fluid dynamics by Achim Feldmeier, Cham: Springer, 2020. xvi, 569p., Theoretical and mathematical physics.

Includes references and index (p. 545–569)

ISBN: 9783030310240

Subject Terms: Fluid flow; Fluid flow; Fluid equations-2D; Waves; Kelvin-helmholtz instability

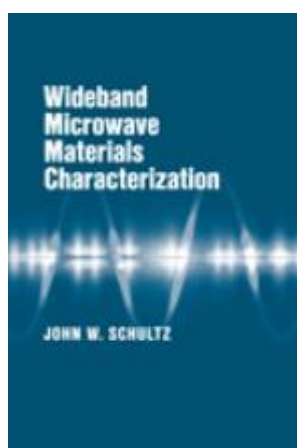
532 FEL-T

179370; CL

[Click for more details.](#)

Applied Research in Electronics

6



Wideband microwave materials characterization by John W. Schultz, Norwood: Artech House, 2023. xv, 310 p.

Includes index (p.307-310)

ISBN: 9781630819460

Subject Terms: Microwave measurements; Nondestructive testing; Electromagnetic materials; Time domain processing; Transmission line methods

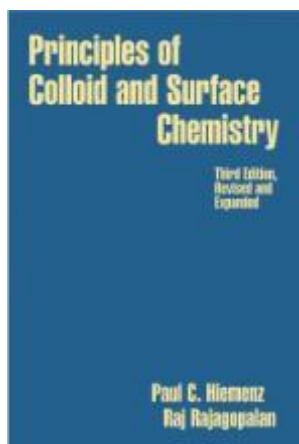
537-962 SCH-W

179494; CL

[Click for more details.](#)

Biochemical Engineering & Biotechnology

7



Principles of colloid and surface chemistry by Paul C. Hiemenz and Raj Rajagopalan, 3rd ed., Boca Raton: CRC Press, 1997. xix, 650p. Includes references and index (p. 641-650)

ISBN: 9780824793975

Subject Terms: Colloids; Surface chemistry; Colloid chemistry; Chemistry; Physical chemistry

544.7 HIE-P

179497; CL

[Click for more details.](#)

Biomedical Engineering

8



Deep learning: foundations and concepts by Christopher M. Bishop and Huge Bishop, Cham: Springer, 2024. xx, 649p. Includes bibliography and index (p. 625-649)

ISBN: 9783031454677

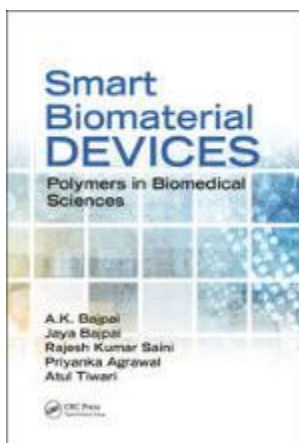
Subject Terms: Artificial Intelligence; Artificial Intelligence; Data Structures; Information Theory; Computer science

681.3:519.21 BIS -D

179424; CL

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9



Smart biomaterial devices: polymers in biomedical sciences by A.K. Bajpai... (et al.), Boca Raton: CRC Press, 2017. xiii, 227p. Included references and index (p. 219-227)

ISBN: 9781498706988

Subject Terms: Biomedical materials; Biomedical materials; Biomaterials; Devices-biomedical sciences; Polymers-biomaterial

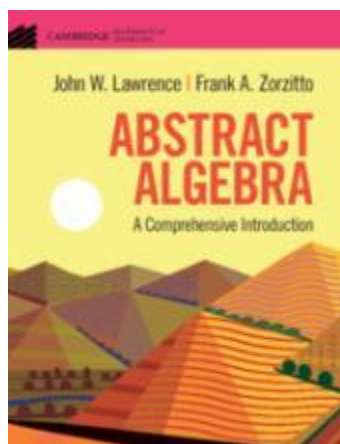
616-7:678.7 -SMA

179425; CL

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Central Library*

10



Abstract algebra: a comprehensive introduction by John W. Lawrence and Frank A. Zorzitto, Cambridge: Cambridge University Press, 2021. xviii, 619p., Cambridge mathematical textbooks. Includes index (p. 617–619)

ISBN: 9781108836654

Subject Terms: Algebra; Mathematics-algebra; Abstract algebra; Algebraic field; Division algorithms

512 LAW-A

179479; CL

[Click for more details.](#)

11



Algebraic groups: the theory of groups schemes of finite type over a field by J. S. Milne, Cambridge: Cambridge University Press, 2022. xvi, 644 p., Cambridge studies in advanced mathematics. Includes references and index (p. 627–644)

ISBN: 9781009018586

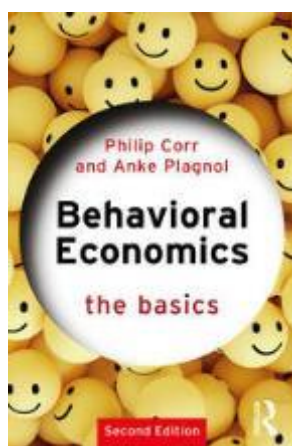
Subject Terms: Affine algebraic groups; Affine algebraic groups; Finite group schemes; Cohomology and extensions; 0

512.74 MIL-A

179413; CL

[Click for more details.](#)

12



behavioral economics: basics by Philip Corr and Anke Plagnol, 2nd ed., Abingdon: Routledge, 2023. ix, 256p., Basics series. Includes references and index (p. 251–256)

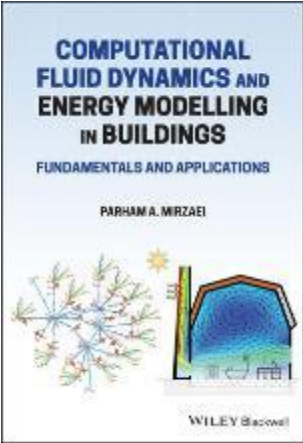
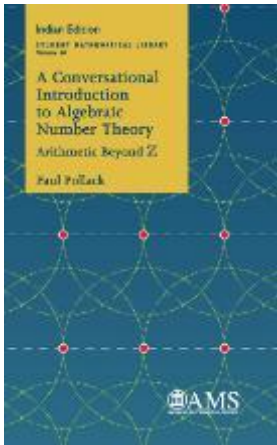
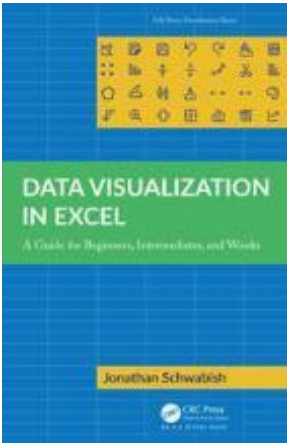
ISBN: 9780367764326

Subject Terms: Economics-Psychological aspects; Economics-Psychological aspects; ECON-Homo economicus; HUMAN- Homo psychologicus; Economics

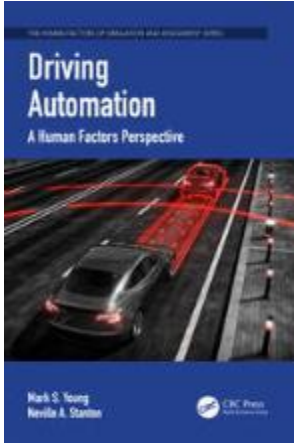
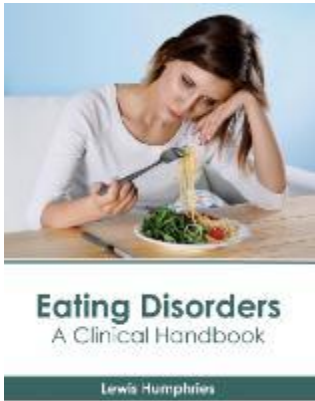
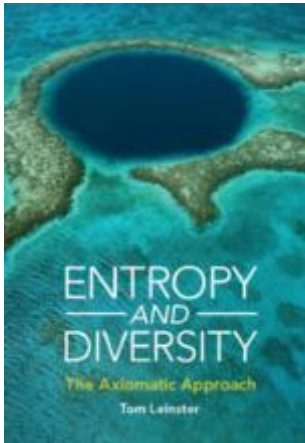
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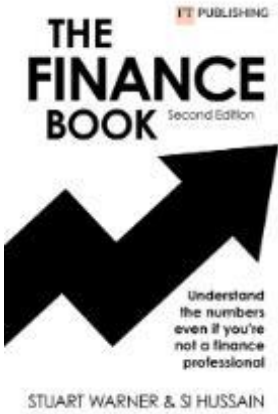
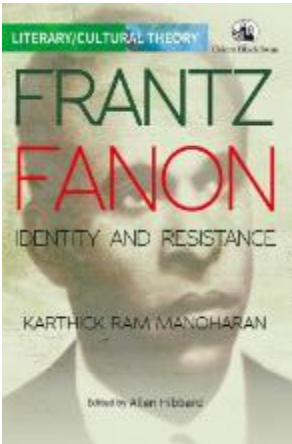
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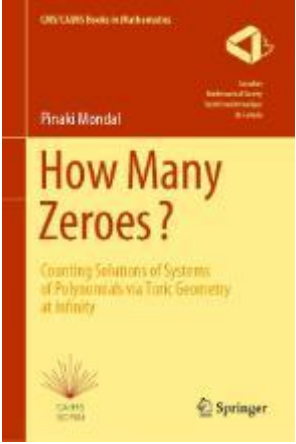
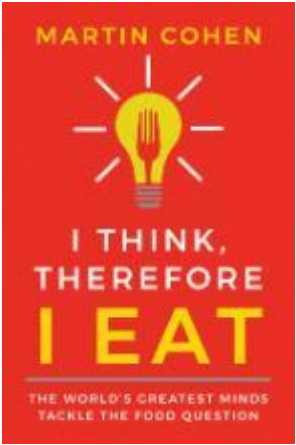
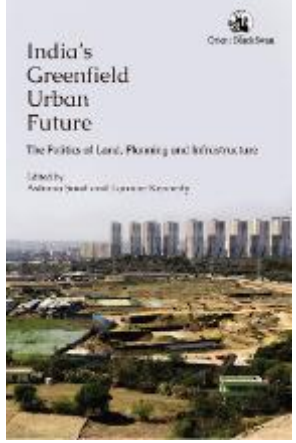
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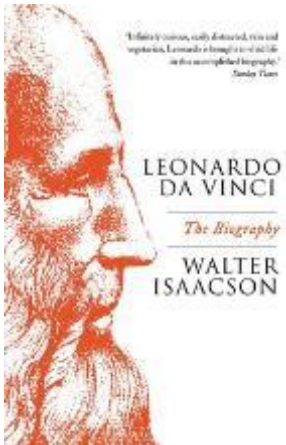
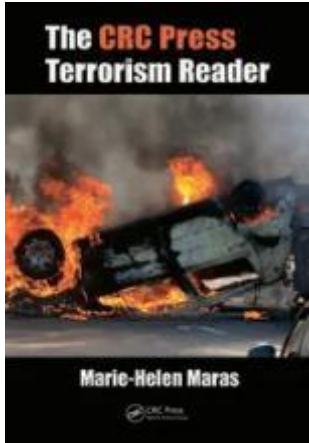
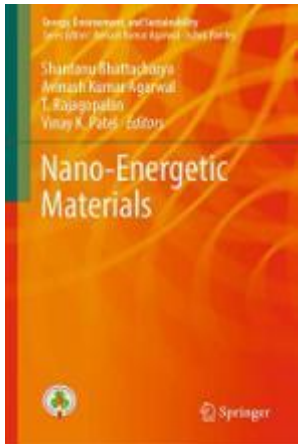
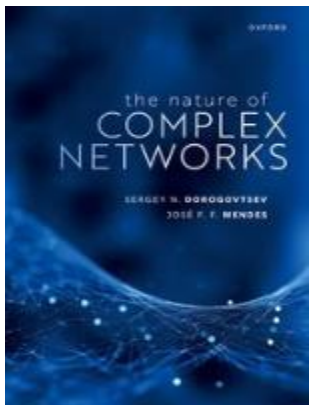
13 	Computational fluid dynamics and energy modelling in buildings: fundamentals and applications by Parham A. Mirzaei, Chichester: Wiley, 2023. xvii, 606 p. Includes index (p.589-606) ISBN: 9781119743514 Subject Terms: Buildings energy consumption; Buildings environmental engineering; Computational fluid dynamics; Heat transfer in buildings; Thermodynamics in buildings 696:532.5 179496; CL Click for more details.
14 	Conversational introduction to algebraic number theory: arithmetic beyond Z by Paul, Pollack, Providence: American Mathematical Society, 2023. ix, 316 p., Student mathematical library. Includes index (p. 313-316) ISBN: 9781470454890 Subject Terms: Quadratic number fields; Quadratic number fields; Factorization; Dirichlet's unit theorem; Discriminant theorem 511 POL-C 179414; CL Click for more details.
15 	Data visualization in excel: guide for beginners, intermediates, and woks by Jonathan Schwabish, Boca Raton: Routledge, 2023. xii, 383p., AK Peters visualization series. Includes references and index (p. 377–383) ISBN: 9781032343266 Subject Terms: Microsoft Excel (Computer file); Microsoft Excel (Computer file); Visual analytics; Data visualization; Excel 681.3 SCH-D 179436; CL Click for more details.

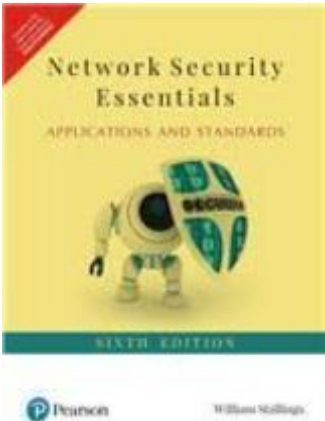
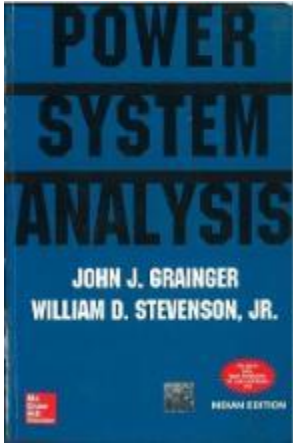
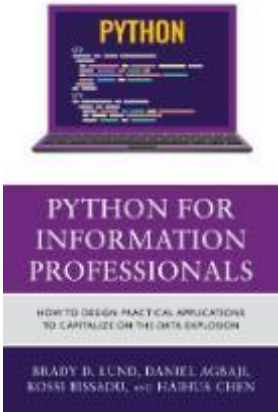
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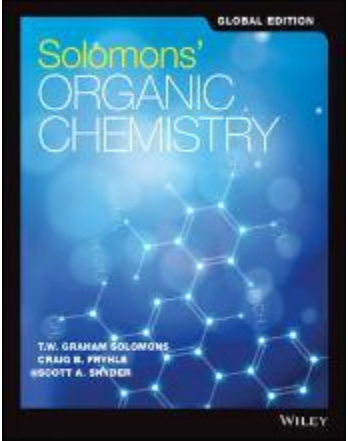
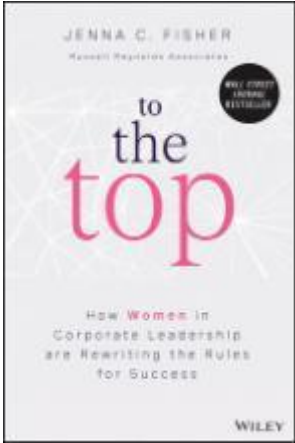
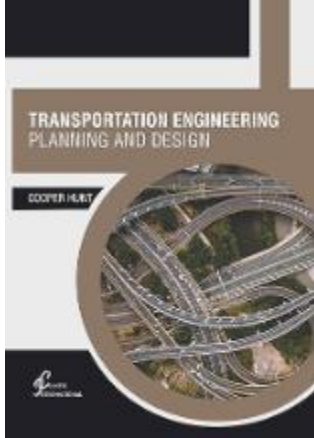
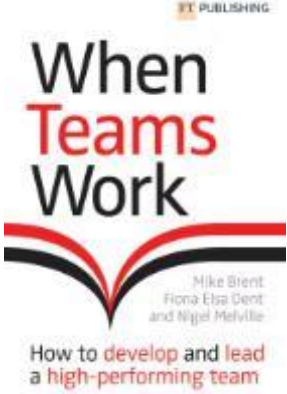
16 	Driving automation: human factors perspective by Mark S. Young and Neville A. Stanton, Boca Raton: CRC Press, 2023. xxii, 273p., Human factors of simulation and assessment series. Includes references and index (p. 231-273) ISBN: 9780367754457 Subject Terms: Automobiles-Automatic control; Automobiles-Automatic control; Automated vehicles; Human centred automation; Automobiles automation 629.05 YOU-D 179418; CL Click for more details.
17 	Eating disorders: a clinical handbook edited by Lewis Humphries, Brooklyn: States Academic Press, 2023. vii, 229 p. includea index (p. 228-229) ISBN: 9781639897926 Subject Terms: Eating behavior; Eating behavior; Health service; Bulimia nervous symptoms; Yale food addiction scale 2.0 RL-HB 612.3(021) -EAT 179351; CL Click for more details.
18 	Entropy and diversity: the axiomatic approach by Tom Leinster, Cambridge: Cambridge University Press, 2021. xiv, 442p. Includes references and index (p. 412-442) ISBN: 9781108832700 Subject Terms: Categories-mathematics; Biodiversity-mathematical models; Number of species-mathematical models; Entropy-information theory; Biodiversity-measurement 519.722 LEI-E 179477; CL Click for more details.

19 	Everyone included: improve belonging, diversity and inclusion in your team by Helen May, Harlow: Pearson, 2022. xx, 179 p. Includes index (p.175-179) ISBN: 9781292342603 Subject Terms: Appreciation; Belonging - Social psychology; Corporate culture; Workplace diversity; Multiculturalism 005.551 MAY-E 179461; CL Click for more details.
20 	Finance book: understand the numbers even if you're not a finance professional by Stuart Warne and Si Hussain, 2nd ed., Harlow: Pearson, 2022. xxiii, 510 p. Includes index (p. 497-510) ISBN: 9781292401980 Subject Terms: Revenue recognition; Cash flow statement; Equity finance; Business finance; Stock 658.15 WAR-F 179462; CL Click for more details.
21 	Frantz Fanon: identity and resistance by Karthick Ram Manoharan; edited by Allen Hibbard, Hyderabad: Orient Blackswan, 2019. xvi, 119p., Literary/ cultural theory. Includes references ISBN: 9789352876877 Subject Terms: Cultural theory; Cultural theory; Anti casteism; Expansive identity; Ethics of resistance 304.4 MAN-F 179411; CL Click for more details.

22 	How many zeroes: counting solutions of systems of polynomials via toric geometry at infinity by Mondal Pinaki, Cham: Springer, 2021. xv, 352 p., CMS/CAIMS books in mathematics. Includes bibliography and index (p. 343-352) ISBN: 9783030751739 Subject Terms: Polynomials - Data processing.; Polynomials - Data processing.; Intersection mutlicity; Convex polyhedra; Milnor number 512.7 MON-H 179375; CL Click for more details.
23 	I think therefore I eat: the world's greatest minds tackle the food question by Martin Cohen, Suite: Turner, 2018. xix, 379 p. ISBN: 9781684421985 Subject Terms: Food-Philosophy; Food-Psychological aspects; Food preferences; Psychology-Food; Nutrition 159.9:641 COH-I 179491; CL Click for more details.
24 	India's greenfield urban future: politics of land, planning and infrastructure edited by Ashima Sood and Loraine Kennedy, Hyderabad: Orient Blackswan, 2023. xvii, 290p. Includes references and index (p. 279-290) ISBN: 9789354423611 Subject Terms: Highway urbanization; Highway urbanization; New town building; Roads-politics; Hlghways constructions- politics 711.4 (540) -IND 179412; CL Click for more details.

25 	Leonardo da Vinci: biography by Walter Isaacson, New York: Simon and Schuster, 2020. xiv, 599p. Includes index (p. 573-599) ISBN: 9781471166785 Subject Terms: Leonardo, da Vinci; Leonardo, da Vinci; Scientists-Italy-Biography; Gifted persons-Italy-Biography; Biography 929LEO ISA-L 179435; CL Click for more details.
26 	Mechanics of composite materials by Robert M. Jones, 2nd ed., Boca Raton: CRC Press, 1999. xvi, 519 p. Includes index (p. 507 -519) ISBN: 9781138571075 Subject Terms: Composite materials; Macromechanical behavior-Laminate; Beam equilibrium; Tensors; Plate blending 620.17 JON-M 179465; CL Click for more details.
27 	Nano-energetic materials edited by Shantanu Bhattacharya... (et. al.), Singapore: Springer, 2019. xv, 290p., Energy, environment, and sustainability. Includes references ISBN: 9789811332685 Subject Terms: Energy storage; Energy storage; Force and energy; Materials science; Nanotechnology 662.41 -NAN 179350; CL Click for more details.
28 	Nature of complex networks by Sergey N. Dorogovtsev and Jose F. F. Mendes, Oxford: Oxford University Press, 2022. xvi, 449p. Includes references and index (p. 410-449) ISBN: 9780199695119 Subject Terms: Neural networks-computer science; Graph theory-data processing; Mathematical & statistical physics; Graphs; Equilibrium networks 621.3.011.7 DOR-N 179478; CL Click for more details.

29 	Network security essentials: applications and standards by William Stallings, 6th ed., Noida: Pearson, 2018. 461 p. Includes index (p. 450-461) ISBN: 9789352866601 Subject Terms: Cryptography; Kerberos; Malicious software; Firewalls; IP security 681.3 STA-N 179442; CL Click for more details.
30 	Power system analysis by John J. Grainger, 1994: McGraw Hill Education, 2003. xix, 787 p., McGraw-Hill series in electrical and computer engineering Schaum's outline series in electronics and electrical engineering. Includes index (p.777-787) ISBN: 9780070585157 Subject Terms: Electric power distribution; Electric power distribution; Power flow solutions; Power system stsbility; Transformers 621.316 GRA-P BB76705-BB76709; BB Click for more details.
31 	Python for information professionals: how to design practical applications to capitalize on the data explosion / by Brady D. Lund ... (et al.), Lanham: Rowman & Littlefield Publishers, 2023. x, 161p, - . Includes references and index (p. 157-159) ISBN: 9781538178256 Subject Terms: Python-computer program language; Libraries-Data processing; Python-library professionals; Libraries-big data; Python-practical applications 02:004.43P -PYT 179348; CL Click for more details.

32 	Solomons' organic chemistry by T. W. Graham Solomons, Craig B. Fryhle and Scott A. Snyder, 12th ed., Singapore: Wiley, 2017. xxviii, 1124 p. Includes index (p. I-1-I23) ISBN: 9788126568116 Subject Terms: Biochemistry; Biochemistry; Structure of methane and ethane; Electron density surfaces; Energy changes 547 SOL-S BB76710-BB76714; BB Click for more details.
33 	To the top: how women in corporate leadership are rewriting the rules for success by Jenna C. Fisher, Hoboken: Wiley, 2023. xii, 222p. Includes index (p.211-222) ISBN: 9781119988083 Subject Terms: Women executives; Leadership; Leaders-women; Economics-women; Business-leaders-women 316.46-055.2 FIS-T 179463; CL Click for more details.
34 	Transportation engineering: planning and design by Cooper Hunt, New York: Clanrye International, 2023. vii, 251p. Includes index (p. 250-251) ISBN: 9781647266448 Subject Terms: Transportation engineering; Transportation engineering; Transpotation; Highway planning; Traffic engineering 629 HUN-T 179353; CL Click for more details.
35 	When teams work: how to develop and lead a high-performing team by Mike Brent, Fiona Elsa Dent and Nigel Melville, Harlow: Pearson, 2022. xx, 204 p. Includes references and index (p. 191-204) ISBN: 9781292278483 Subject Terms: Leadership; Teams in the workplace; Conflict management; Team environment; Change management 005.551 BRE-W 179464; CL Click for more details.

36



Zero to one: notes on startups, or how to build the future by Peter Thiel and Blake Masters, London: Penguin Random House, 2014. 210 p. Includes index (p. 201-210)

ISBN: 9780753555194

Subject Terms: Innovation; Entrepreneurship; New business enterprises; Monopoly selling; Business strategy

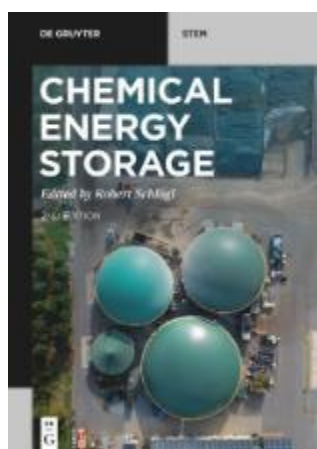
005.411 THI-Z

179440; CL

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Chemical Engineering

37



Chemical energy storage edited by Robert Schlogl, 2nd ed., Berlin: De Gruyter, 2022. xiv, 698p., De Gruyter STEM. Includes index (p. 687-698)

ISBN: 9783110608434

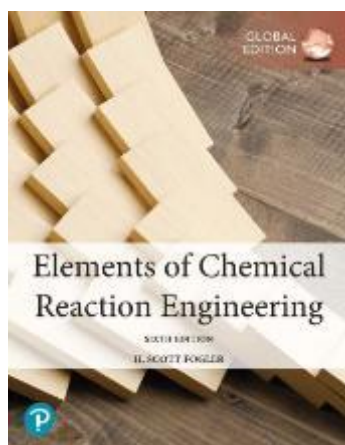
Subject Terms: Chemical kinetics; Fuel; Electrochemistry; Energy conversion; Chemical energy-storage

620.93 -CHE

179476; CL

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38



Elements of chemical reaction engineering by H. Scott Fogler, 6th ed., London: Pearson, 2020. 1078 p. Include index (p. 1063-1076)

ISBN: 9781292416663

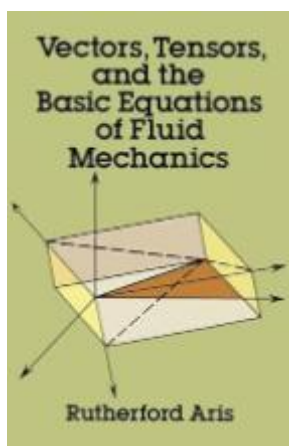
Subject Terms: Chemical reactors.; Chemical reactors.; Isothermal reactor design; Multiple reactions; Heterogenous data analysis

66.023 FOG-E

179382-179383; CL; CHE

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39



Vectors, tensors and the basic equations of fluid mechanics by Rutherford Aris, New Jersey: Dover Publications, 1989. xiv. 286 p. Includes index (p.281-286)

ISBN: 9780486661100

Subject Terms: Fluid dynamics; Fluid dynamics; Vector analysis; Differential geometry; Algebra

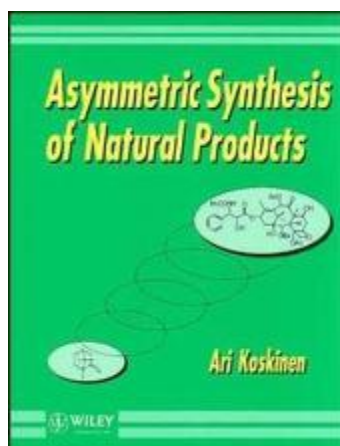
532:514.7 ARI-V

179402-179403; CL; CHE

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Chemistry

40



Asymmetric synthesis of natural products by Ari M. P. Koskinen, 3rd ed., Chichester: Wiley, 2023. xviii, 366 p. Includes index (p. 355-366)

ISBN: 9781119707028

Subject Terms: Chemical synthesis; Chemical synthesis; Asymmetric induction; Chemical structure; Amino acids - Chemical synthesis

577.15 KOS-A

179374; CL

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41



Chemoresponsive materials: smart materials for chemical and biological stimulation edited by Hans-Jorg Schneider, 2nd ed., Cambridge: RSC Publishing, 2022. xx, 645p., Smart materials series. Includes references and index (p. 637-645)

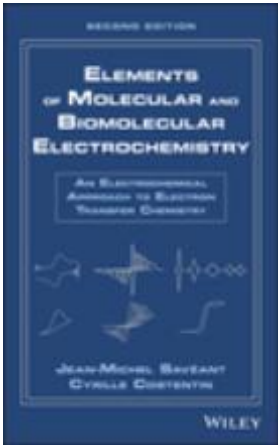
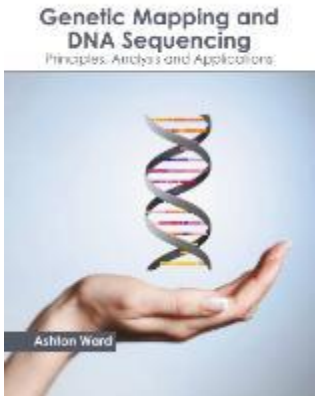
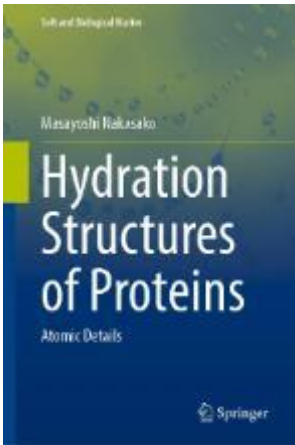
ISBN: 9781839162770

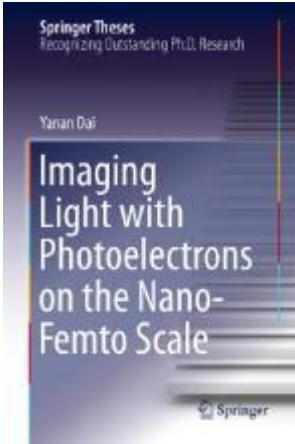
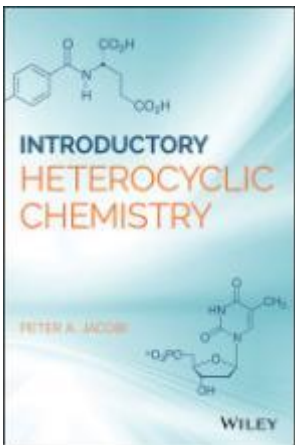
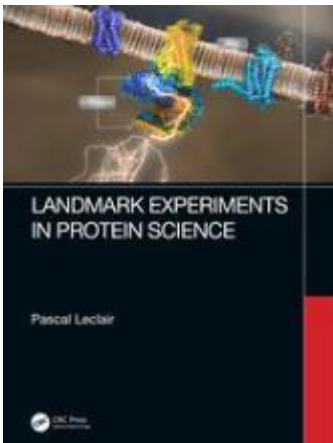
Subject Terms: Smart materials; Smart materials; Biological stimulation; Chemomechanical materials; Responsive membranes

620 -CHE

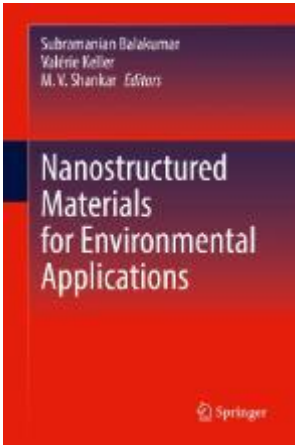
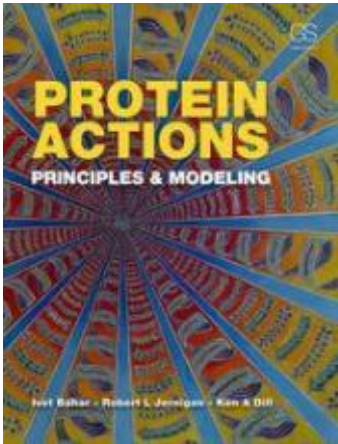
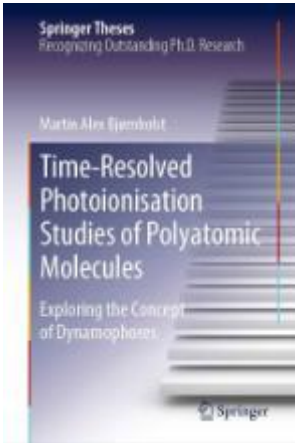
179388; CL

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42 	Elements of molecular and biomolecular electrochemistry: an electrochemical approach to electron transfer chemistry by Jean-Michel Savéant and Cyrille Costentin, 2nd ed., Hoboken: Wiley, 2019. xxiii,616 p. Includes index (p. 611-616) ISBN: 9781119292333 Subject Terms: Charge exchange; Charge exchange; Proton-coupled electron transfers; Homogenous enzymatic catalysis; Electrochemical reactions 544.6:577 SAV-E 179373; CL Click for more details.
43 	Genetic mapping and DNA sequencing: principles, analysis and applications edited by Ashton Ward, Suite: Callisto Reference, 2020. vi, 207 p. Includes index (p. 206-207) ISBN: 9781641163101 Subject Terms: Nucleotide sequence; Gene mapping - Methodology; Genetics -Technique; Genome wide identification - Phylogeny; Gender identification in date palm 601.4:577.212.3 -GEN 179501; CL Click for more details.
44 	Hydration structures of proteins: atomic details by Masayoshi Nakasako, Tokyo: Springer, 2021. xviii, 309p., Soft and biological matter. Includes references and index (p. 299–309) ISBN: 9784431569176 Subject Terms: Proteins; Proteins; Hydration structure; Energy landscape-proteins; Hydrogen bonds-proteins 543.384 NAK-H 179393; CL Click for more details.

45 	Imaging light with photoelectrons on the nano-femto scale by Yanan Dai, Cham: Springer, 2020. xv, 115p., Springer Theses: Recognizing Outstanding Ph.D. Research. Includes references ISBN: 9783030528355 Subject Terms: Photoelectrons; Photoelectrons; Surface plasmon polariton; Spin momentum; Photoemission microscopy 543.428.4:620.3 DAV-I 179394; CL Click for more details.
46 	Introduction to heterocyclic chemistry by Jacob Peter A., Hoboken: Wiley, 2019. xi, 257 p. Includes index (p. 251-257) ISBN: 9781119417590 Subject Terms: Heterocycles of nature; Chemical reactivity; Nucleophilic substitution; Heterocyclic N-oxides; Quinolines and isoquinolines 547.7/.8 JAC-I 179502; CL Click for more details.
47 	Landmark experiments in protein science by Pascal Leclair, Boca Raton: CRC Press, 2024. xiii, 238 p. Includes index (p. 325-238) ISBN: 9781032458694 Subject Terms: Biochemistry-history; Molecular biology; Biomedical research; Proteins and enzymes; Cell biology 577.112 LEC-L 179499; CL Click for more details.

[Back to Content](#)

48 	Nanostructured materials for environmental applications edited by Subramanian Balakumar, Valerie Keller and M. V. Shankar, Cham: Springer, 2021. xxii, 632p. Includes references and index (p. 611-632) ISBN: 9783030720780 Subject Terms: Environmental science; Environmental science; Nanostructures; Carbonaceous nanomaterials; Photocatalytic materials 620.3:502 -NAN 179390; CL Click for more details.
49 	Protein actions: principles and modeling by Ivet Bahar, Robert L. Jernigan and Ken A. Dill, New York: Garland Science, 2017. xii, 322 p. Includes index (p. 317-322) ISBN: 9780815341772 Subject Terms: Drug discovery; Models molecular; Protein binding; Protein conformation; Proteins - physiology 577.112 BAH-P 179500; CL Click for more details.
50 	Time-resolved photoionisation studies of polyatomic molecules: exploring the concept of dynamophores by Martin Alex Bjornholt, Cham: Springer, 2020. xxiv, 138p., Springer theses: recognizing outstanding Ph.D. research. Includes references ISBN: 9783030536282 Subject Terms: Polyatomic molecules; Polyatomic molecules; Dynamophores; Cyclic ketones-excited state; Photoelectron spectroscopy 544.522.43:544.15 BJO-T 179389; CL Click for more details.

Civil Engineering

51



Continuous cost improvement in construction: theory and practice by Temitope Omotayo, Udayangani Kulatunga and Bankole Awuzie, Oxon: Routledge, 2022. xxi, 265 p.
Includes index (p.255-265)

ISBN: 9780367774585

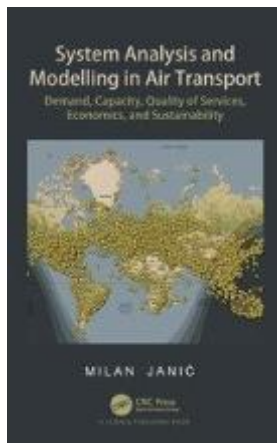
Subject Terms: Building - Cost effectiveness; Building - Cost effectiveness; Building project management; Construction business management; Construction and Heavy Industry

624.05:657.47 OMO-C

179423; CL

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52



System analysis and modelling in air transport: demand, capacity, quality of services, economic, and sustainability by Milan Janic, Boca Raton: CRC Press, 2021. x, 378 p.
Includes index (p. 360-378)

ISBN: 9780367632427

Subject Terms: Airlines - Management; Industrial efficiency - Mathematical models; Operations research; Air transport system; Air traffic control-management

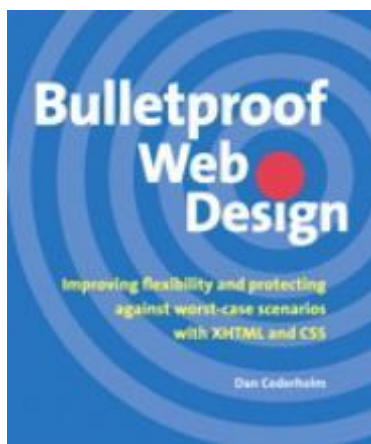
656.7 JAN-S

179445; CL

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Computer Service Centre

53



Bulletproof web design: improving flexibility and protecting against worst-case scenarios with XHTML and CSS by Dan Cederholm, Berkeley: New Riders, 2011. x, 270 p.
Includes index (p. 261-270)

ISBN: 9780321346933

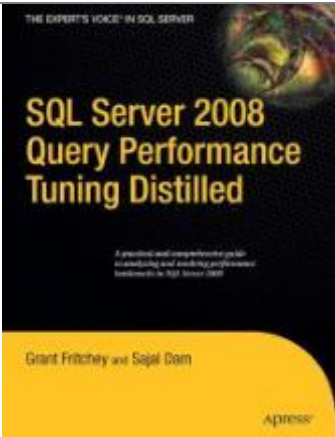
Subject Terms: Cascading style sheets; Internet languages; Data Processing - General; Web site development; Computer science

681.3 CED-B

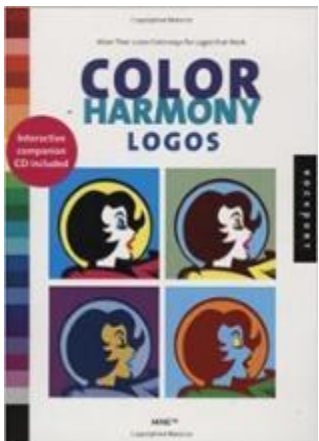
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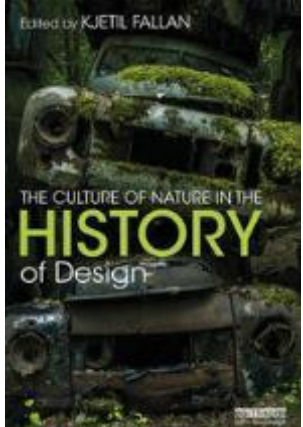
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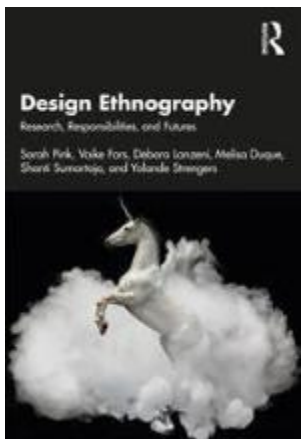
54 	Clean code: a handbook of agile software craftsmanship by Robert C. Martin, Boston: Pearson, 2008. xxviii, 431 p., Robert C. Martin series. Includes index (p. 413-431) ISBN: 9780132350884 Subject Terms: Agile software development - Handbooks, manuals, etc.; Computer programming - Handbooks, manuals, etc.; Program code - Handbooks, manuals, etc.; Computer software - Reliability - Handbooks, manuals, etc.; RL-HB 681.3 MAR-C 179450; CL Click for more details.
55 	Code: hidden language of computer hardware and software by Charles Petzold, 2nd ed., Hoboken: Microsoft Press, 2000. ix, 469p. Includes index (p. 461-469) ISBN: 9780137909100 Subject Terms: Computer programming; Computer programming; Computer Language-hardware; Computer Language-software; Binary codes 681.3 PET-C 179360; CL Click for more details.
56 	Magic garden explained: the internals of Unix system V release 4: an open systems design by Berny Goodheart and James Cox, Noida: Pearson, 2016. xxviii, 664p. x, 270p. Includes bibliography and index (p. 638-664) ISBN: 9789332559615 9789332559608 Subject Terms: UNIX kernel; Networking- Communication services; Memory subsystem; Algorithm; STREAMS 681.3 GOO-M 179486-179487; CL Click for more details.

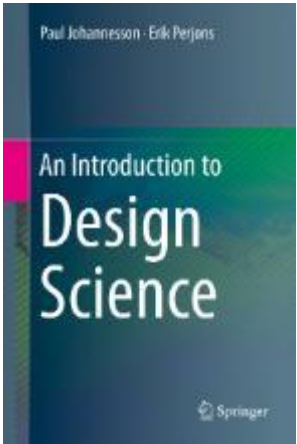
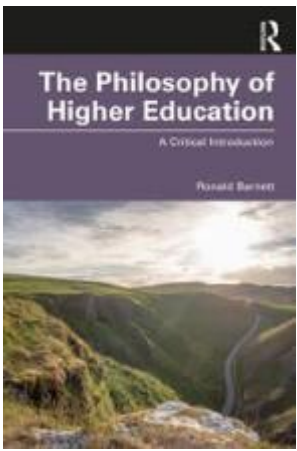
57 	SQL server query performance tuning distilled by Sajal Dam, 2nd ed., Berkeley: Apress, 2004. xxvi, 597p. Includes index (p. 567–597) ISBN: 9781590594216 Subject Terms: Database management; Software Engineering; Programming; Operating Systems; SQL 681.3S DAM-S 179447; CL Click for more details.
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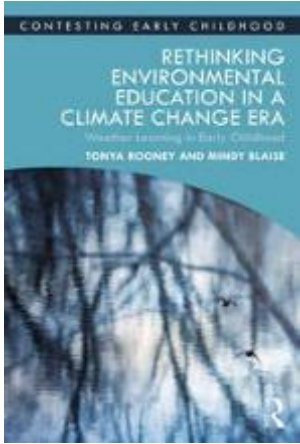
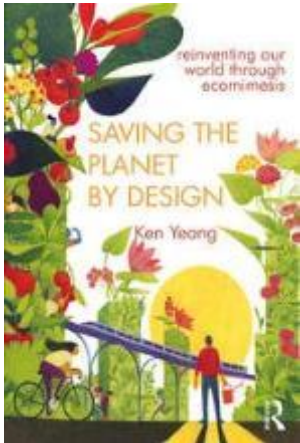
Design

58 	Color harmony logos: more than 1000 colorways for logos that work by Christopher Simmons, Tim Belonax and Kate Earhart, Massachusetts: Rockport, 2006. 157 p. ISBN: 9781592532445 Subject Terms: Art; Design; Color guides; Color - Psychological aspects; Color Theory 7.017.4:659.126 -COL 179466; CL Click for more details.
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59 	Culture of nature in the history of design edited by Kjetil Fallan, Oxon: Routledge, 2019. xvi, 257 p., - . Includes index (p.248-257) ISBN: 9781138601925 Subject Terms: Plant and animal ecology; Architectural design; Product design; Industrial design; Environment and society 72:502.12 -CUL 179467; CL Click for more details.
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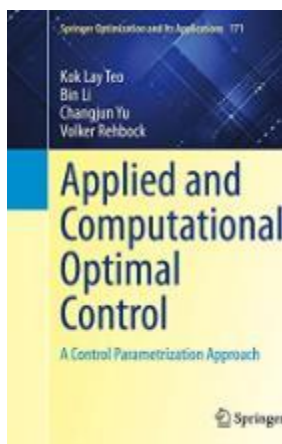
60 	Design ethnography: research, responsibilities and futures by Sarah Pink...(et. al.), London: Routledge, 2022. x, 226p. Includes references and index (p. 200-226) ISBN: 9780367539047 Subject Terms: Material culture; Ethnology-Methodology; Design-Anthropological aspects; Research-ethical and moral aspects; Social and cultural anthropology 74:39 -DES 179468; CL Click for more details.
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61 	Introduction to design science by Paul Johannesson and Erik Perjons, 2nd ed., Cham: Springer, 2021. xiv, 211, - . Includes references and index (p. 209–211) ISBN: 9783030781316 Subject Terms: Knowledge Types; Knowledge Types; Design Science Research; Artefact; Digital Consultations-Case Study 74:001.891 JOH-I 179420; CL Click for more details.
62 	Philosophy of higher education: a critical introduction by Ronald Barnett, New York: Routledge, 2022. ix, 289 p. includes bibliography and index (p. 247-289) ISBN: 9780367610289 Subject Terms: Social aspects; Social aspects; Ecological transdisciplinarity; Culture; Academic responsibility 378:1 BAR-P 179356; CL Click for more details.
63 	Pocket complete color harmony: 1,500 plus color palettes for designers, artists, architects, makers, and educators by Tina Sutton, Suite: Rockport, 2020. 192 p. ISBN: 9781631599200 Subject Terms: Color - Psychological aspects; Color chart; Basic color schemes; Color Palette; 7.017.4 SUT-P 179469; CL Click for more details.

64 	Research design: qualitative, quantitative, and mixed methods approaches by John W. Creswell, 4th ed., New Delhi: Sage publications, 2014. v.p. Includes references and index ISBN: 9789353287351 Subject Terms: Mixed methods; Research design; Research methods & evaluation; Quantitative research; Qualitative research 001.891 CRE-R 179470; CL Click for more details.
65 	Rethinking environmental education in a climate change era: weather learning in early childhood by Tonya Rooney and Mindy Blaise, New York: Routledge, 2023. xvi, 151 p., Contesting early childhood. includes index (p. 149-151) ISBN: 9780367713461 Subject Terms: Early childhood; Early childhood; Sustainability education; Training and leadership; Multi-species weather encounters 37.015:551.58 ROO-R 179357; CL Click for more details.
66 	Saving the planet by design: reinventing our world through ecomimesis by Ken Yeang, Abingdon: Routledge, 2020. xvi, 195 p. Includes bibliography and index (p. 183-195) ISBN: 9780415685818 Subject Terms: Architecture - Environmental aspects; Design - Environmental aspects; Sustainable design; Built environment; Green construction 72:502.1 YEA-S 179471; CL Click for more details.

Electrical Engineering

67



Applied and computational optimal control: control parameterization approach Kok Lay Teo...(et. al.), Cham: Springer, 2021. xv, 574p., Springer Optimization and Its Applications. Includes references (p. 555–574)

ISBN: 9783030699154

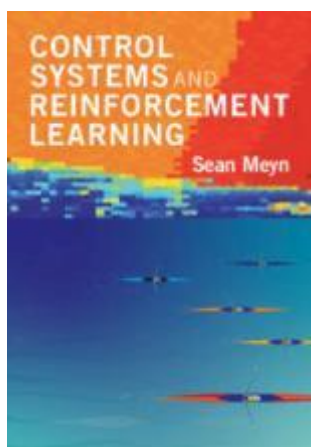
Subject Terms: Optimal control; Optimal control; Optimal control theory- elements; Time lag problems; Optimization

517.977 -APP

179376; CL

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68



Control systems and reinforcement learning by Sean Meyn, Cambridge: Cambridge University Press, 2022. xv, 435 p. Includes references and index (p. 415-435)

ISBN: 9781316511961

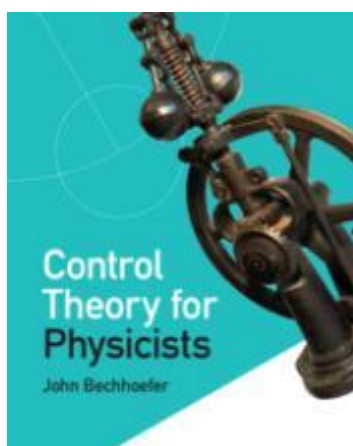
Subject Terms: Optimal control; Optimal control; Reinforcement learning; Temporal difference methods; Computers - Artificial intelligence

621.3-52 MEY-C

179371; CL

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69



Control theory physicists by John Bechhoefer, Cambridge: Cambridge University Press, 2021. xiii, 645p. Includes references and index (p. 619–645)

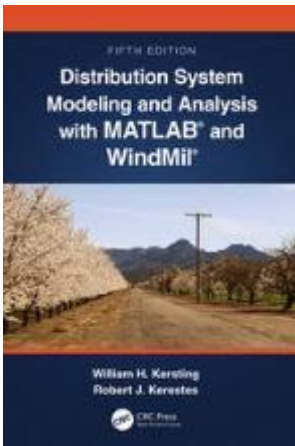
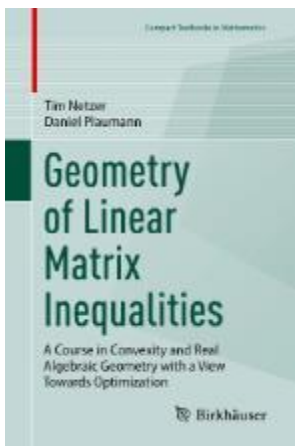
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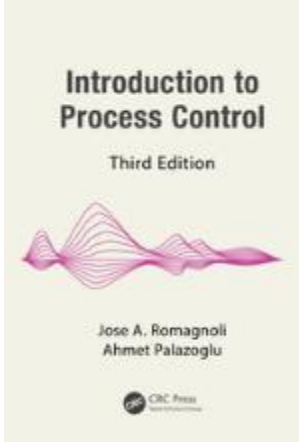
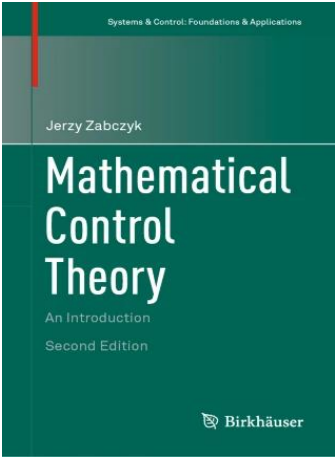
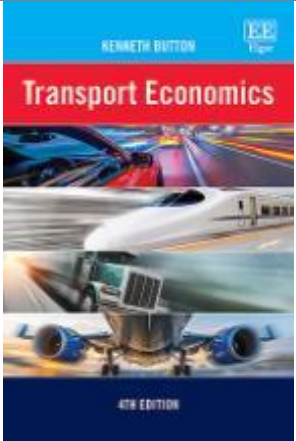
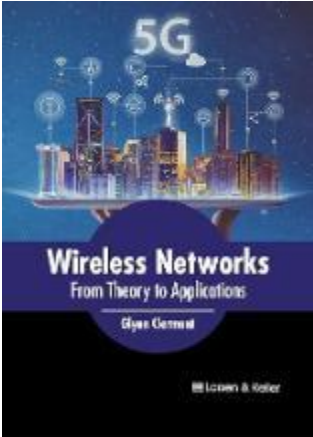
Subject Terms: Control theory; Control theory; Science- Physics; Science-Mathematical & Computational; Experimental physicist

519.71:53 BEC-C

179372; CL

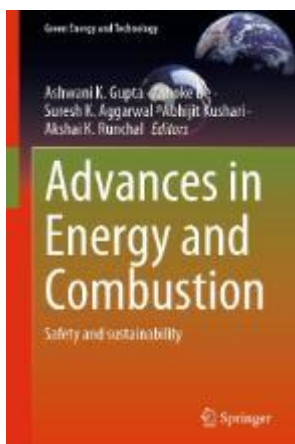
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70 	Design of three-phase AC power electronics converters by Fei "Fred" Wang, Zheyu Zhang and Ruirui Chen, New Jersey: Institute of Electrical and Electronics Engineers, 2023. xvii, 670 p. Includes references and index (p. 647-670) ISBN: 9781119794233 Subject Terms: Power semiconductor devices; AC-to-AC converters Design; Electric currents; Alternating Three-phase Electric inverters; Electric power systems 621.314.2 WAN-D 179495; CL Click for more details.
71 	Distribution system modeling and analysis with MATLAB and WindMil edited by William H. Kersting and Robert J. Kerestes, 5th ed., Boca Raton: CRC Press, 2023. xix, 475 p. Includes index (p. 475-476) ISBN: 9781032198361 Subject Terms: Electric power distribution; Electric power systems; Distribution transformer loading; Three-phase transformer models; Distribution feeder analysis 621.31:004.42M -DIS 179490; CL Click for more details.
72 	Geometry of linear matrix inequalities: a course in convexity and real algebraic geometry with a view towards optimization by Tim Netzer and Daniel Plaumann, Cham: Springer, 2023. viii, 161 p., Compact textbooks in mathematics. Includes references (p.157-161) ISBN: 9783031264542 Subject Terms: Algebraic geometry; Algebraic geometry; Mathematical optimization; Hyperbolic polynomials; Convex and discrete geometry 512.7 NET-G 179406; CL Click for more details.

73 	Introduction to process control by Jose A. Romagnoli and Ahmet Palazoglu, 3rd ed., Abingdon: CRC press, 2020. xxv, 712 p., Chemical industries. includes index (701-712) ISBN: 9780367367787 Subject Terms: Modeling for control; Modeling for control; Dynamic performance; Frequency response; Feed back contro design 66.012 ROM-I 179365; CL Click for more details.
74 	Mathematical control theory: an Introduction by Jerzy Zabczyk, 2nd ed., Cham: Springer, 2020. xxvi, 336p., Systems & Control: Foundations & Applications. Includes references and Index (p. 324–336) ISBN: 9783030447762 Subject Terms: Control theory; Systems Theory; Mathematics-Applications; Mechatronics; Robotics 517.977 ZAB-M 179493; CL Click for more details.
75 	Transport economics by Kenneth Button, 4th ed., Cheltenham: Edward Elgar, 2022. xiv, 574 p. Includes index (p.567-574) ISBN: 9781786435682 Subject Terms: Business logistics; Business logistics; Economics; Transport planning and forecasting; Optimizing traffic congestion 338.47 BUT-T 179361-179362; CL; TB Click for more details.
76 	Wireless networks: from theory to applications edited by Glynn Clermont, New York: Larsen and Keller, 2023. vii, 235 p. includes index (p. 238-239) ISBN: 9798888360705 Subject Terms: Industrial environments; Industrial environments; Acutator networks; Industrial automation; Wireless communications 681.3 -WIR 179352; CL Click for more details.

Energy Science and Engineering

77



Advances in energy and combustion: safety and sustainability edited by Ashwani K. Gupta...(et al.), Singapore: Springer, 2022. xvi, 600 p., Green energy and technology.

ISBN: 9789811626470

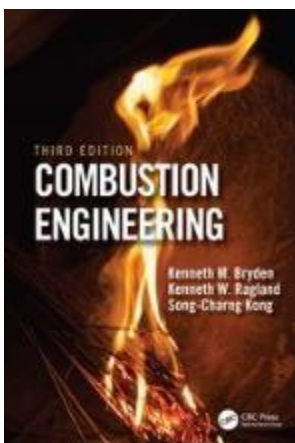
Subject Terms: Engine technology; Engineering thermodynamics; Nanotechnology; Renewable energy sources; Heat and mass transfer

662.61 -ADV

179481; CL

[Click for more details.](#)

78



Combustion engineering by Kenneth M. Bryden, Kenneth W. Ragland and Song-Chang Kong, 3rd ed., Boca Raton: CRC press, 2022. xxx, 462p.

Includes bibliography and index (p. 455–461)

ISBN: 9781138065383

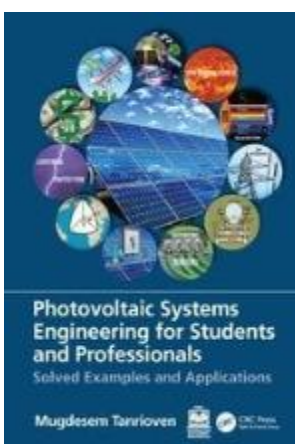
Subject Terms: Combustion engineering; Combustion engineering; Liquid fuels-combustion; Solid fuels-combustion; Gaseous and vaporized fuels-combustion

662.9 BRY-C

179355; CL

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79



Photovoltaic systems engineering for students and professionals: solved examples and applications by Mugdesem Tanrioven, Boca Raton: CRC Press, 2024. xvii, 601 p.

Includes index (p. 599-601)

ISBN: 9781032541853

Subject Terms: Photovoltaic power systems; Energy and energy conversion; Solar radiation; Solar radiation measurement; Photovoltaic technologies

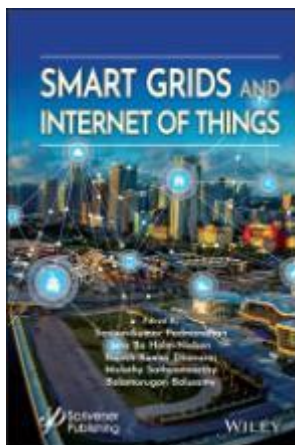
621.383.51 TAN-P

179492; CL

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80



Smart grids and internet of things an energy perspective edited by Padmanaban Sanjeevikumar... (et. al.), Hoboken: Wiley, 2023. xviii, 458p.

Includes references and index (p. 455–458)

ISBN: 9781119812449

Subject Terms: Internet of things; Internet of things; Smart grid; Energy management-IOT; IOT applications

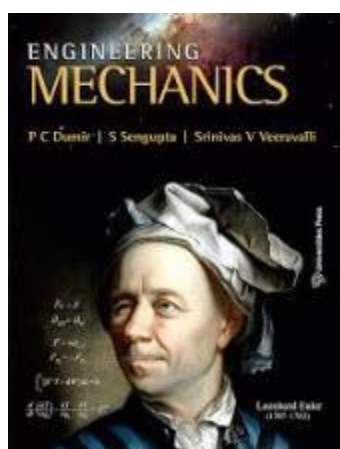
621.311.1:004.77 -SMA

179363; CL

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Gratis

81



Engineering mechanics by P C Dumir, S Sengupta and Srinivas V Veeravalli, Hyderabad: Universities Press, 2020. x, 830p.

ISBN: 9789389211573

Subject Terms: Euler's Axioms; Euler's Axioms; Mechanics; Vectors; Rigid body

531:62 DUM -E

G24026; CL

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Hindi Cell

82



Sophie Ka Sansar (सोफी का संसार) by Jostein Gaarder, translated by Satya Pal Gautam and Brijbhushan paliwal, New Delhi: Rajkamal Prakashan, 2019. 466 p., - .

ISBN: 9788126729333

Subject Terms: Philosophy; Philosophy

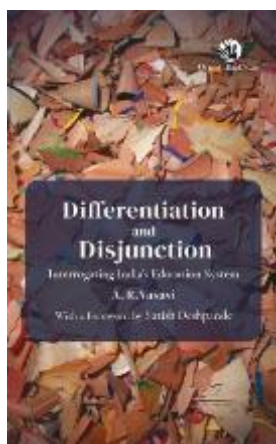
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Humanities & Social Sciences

83



Differentiation and disjunction: interrogating India's education system by A.R. Vasavi; foreword by Satish Deshpande, Hyderabad: Orient Blackswan, 2022. xxi, 214p.
Includes bibliography and index (p. 181-214)

ISBN: 9789354423062

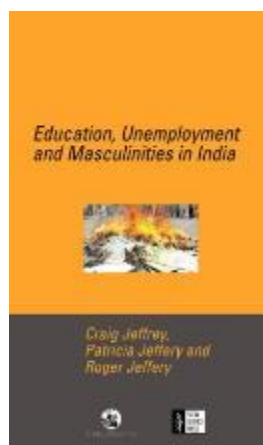
Subject Terms: Education; Education; Education-Social aspects-India; Education and state-India; Education-Social aspects

37 (540) VAS-D

179427; CL

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84



Education, unemployment and masculinities in India by Craig Jeffrey, Patricia Jeffery and Roger Jeffery, New Delhi: Social Science Press and Orient Blackswan, 2010. xiv, 240p.
Includes bibliography and index (p. 213-240)

ISBN: 9788187358589

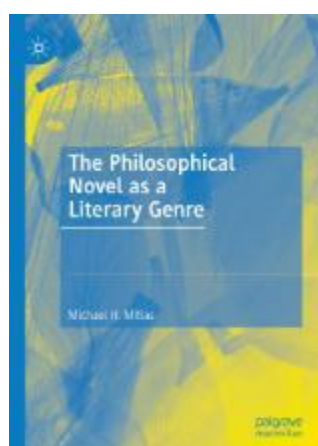
Subject Terms: Education-India; Education-India; Masculinities-India; Uttar Pradesh youth-case study; Rural youth

331.57:37-055 (540) JEF-E

179429; CL

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85



Philosophical novel as a literary genre by Michael H. Mitias, Cham: Springer, 2022. v, 145 p.
Includes references bibliography and index (p.139-145)

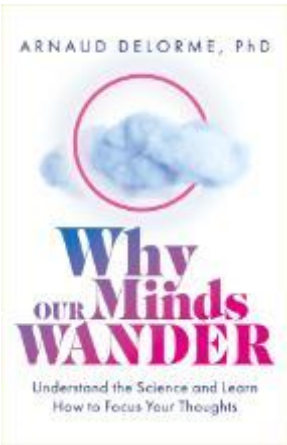
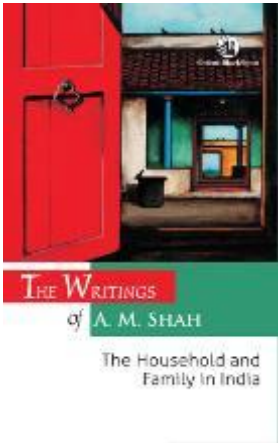
ISBN: 9783030973841

Subject Terms: Fiction - History and criticism; Philosophical literature; Creative vision; Literary exigency; Philosophical themes

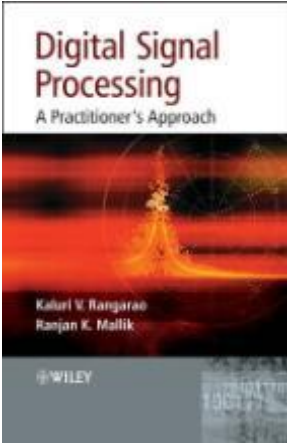
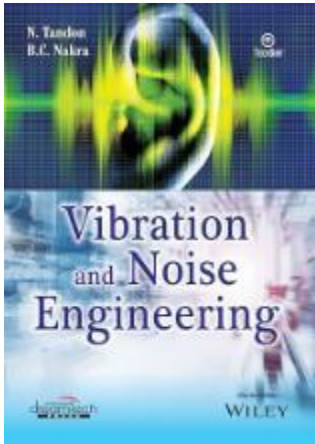
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179472; CL

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86	 Third eye and other works: Mahatma Phule's writings on education by Rohini Mokashi-Punekar; foreword by Bhalchandra Nemade, Hyderabad: Orient Blackswan, 2023. xxiv, 224p. Includes references and index (p. 204–224) ISBN: 9789354423802 Subject Terms: Phule, Jotirāva Govindarava; Phule, Jotirāva Govindarava; Education--India--History; Education in literature; Education 37:929 JOT MOK-T 179428; CL Click for more details.
87	 Why our minds wander: understand the science and learn how to focus your thoughts by Arnaud Delorme, London: Welbeck Balance, 2023. viii, 230 p. Includes references (p. 223-230) ISBN: 9781801292788 Subject Terms: Attention; Distraction - Psychology; Dreams and their interpretation; Neuro-psychology; Sleep and dreams 159.922 DEL-W 179488; CL Click for more details.
88	 Writings of A. M. Shah: household and family in India A.M. Shah, New Delhi: Orient Blackswan, 2014. xxvi, 507p. Includes references and index (p. 488–507) ISBN: 9788125053408 Subject Terms: Households-India; Households-India; Arvind Manilal Shah; Gujrat villages-field study; Sociological study 314.117.31:316.812 (540) SHA-W 179426; CL Click for more details.

IITD Faculty & Staff Authored Books

89 	Digital signal processing: a practitioner's approach by Kaluri V. Rangarao and Ranjan K. Mallik, Chichester: Wiley, 2005. xvi, 191 p. Includes index (p.187-191) ISBN: 9780470017692 Subject Terms: Computers - Information Theory; Computers - Information Theory; Digital filters; Fourier transform and singal spectrum; MATLAB and C programs 681.3 RAN-D 179367; CL Click for more details.
90 	Friedel-crafts alkylation of aromatics with alcohols and transalkylation reactions: from solid acid catalysts to green ionic liquids by Sreedevi Upadhyayula and Gul Afreen, Republica Moldova: Eliva Press, 2020. 35p. Includes references ISBN: 9781636480268 Subject Terms: Friedel-crafts alkylation; Friedel-crafts alkylation; Aromatics-transalkylation; Solid acid catalysts; Green ionic liquids 547.56 UPA-F 179430; CL Click for more details.
91 	Vibration and noise engineering by Naresh Tandon and B. C. Nakra, New Delhi: I.K. International Pvt. Ltd., 2017. ix, 193 p. Includes references bibliography and index (p. 184-193) ISBN: 9789389633047 Subject Terms: Vibration control; Noise pollution; Vibration measurement system; Noise measurement; Noise control measure 628.517.2 TAN-V 179441; CL Click for more details.

Management Studies

92



Business model transformation: the AI and cloud technology revolution by Danny Samson, Alon Ellis and Stuart Black, Oxon: Routledge, 2023. xx, 179 p.

Includes index (p. 178-179)

ISBN: 9781032186405

Subject Terms: Information technology - Management; Information technology - Management; Strategic planning Australia; Organizational change; Business model innovation

658:004.8 SAM-B

179417; CL

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93



Digital consumer management: understanding and managing consumer engagement in the digital environment by Emmanuel Mogaji, Oxon: Routledge, 2024. xv, 237 p.

Includes index (p. 233-237)

ISBN: 9781032486024

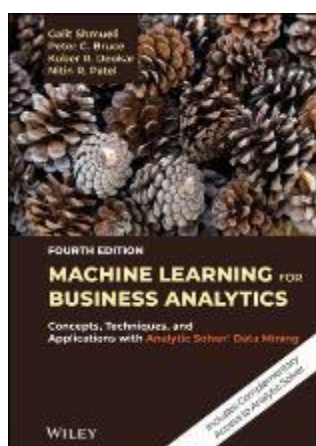
Subject Terms: Industrial management Data processing; Industrial management Data processing; Technological innovations Management; Business and economics - Consumer behavior; 0

658.89:004 MOG-D

179407; CL

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94



Machine learning for business analytics: concepts, techniques, and applications with analytic solver data mining by Galit Shmueli... (et al.), 4th ed., Hoboken: Wiley, 2023. xxvii, 589p.

Includes references and index (p. 575-589)

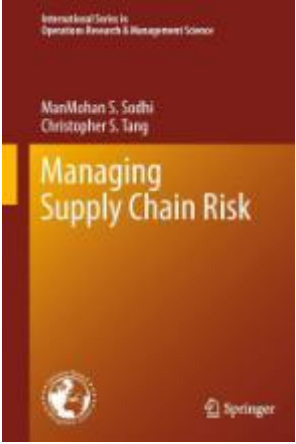
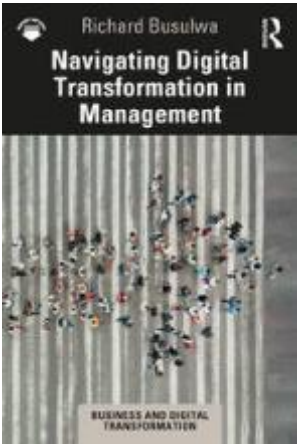
ISBN: 9781119829836

Subject Terms: Business-Data processing; Business-Data processing; Analytic solver data mining-ASDM; Machine learning-applications; Business- computer applications

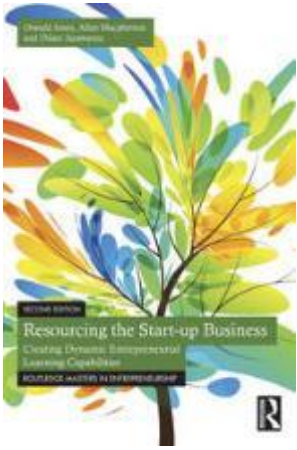
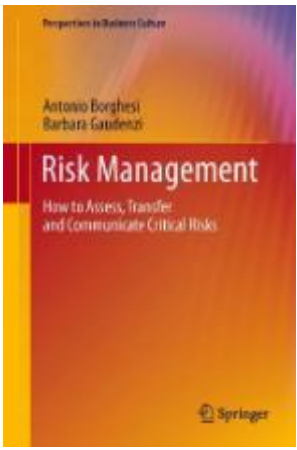
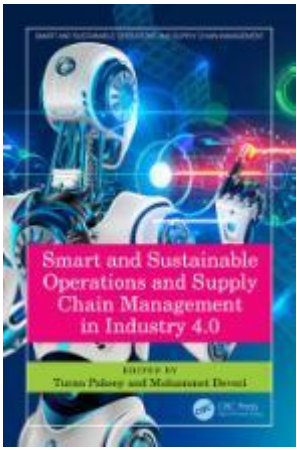
658:004.43 -MAC

179387; CL

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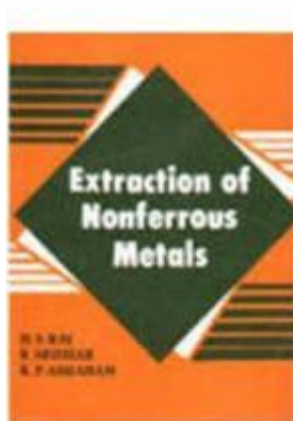
95 	Managing supply chain risk by ManMohan S. Sodhi and Christopher S. Tang, New York: Springer, 2012. xx, 331p., International series in operations research & management science. Includes references (p. 311-331) ISBN: 9781461432371 Subject Terms: Business logistics; Business logistics; Risk management; Risk identification; Risk modals 658.5/.8 SOD-M 19378-179379; CL; DMS Click for more details.
96 	Materials and supply chain management by D.J. Syam, New Delhi: Ane Books, 2023. v. p. Includes index ISBN: 9789382127819 Subject Terms: Materials management; Materials management; Inventory managements; Business logistics; E-Commerce 658.5/.8 SYA-M 179384; DMS Click for more details.
97 	Navigating digital transformation in management by Richard Busulwa, New York: Routledge, 2023. xxix, 476p., Business and digital transformation. Includes index (p. 466-476) ISBN: 9781032184043 Subject Terms: Management-Technological innovations; Management-Technological innovations; Organizational change; Digital Management; Management-digital technologies 658:004 BUS-N 179408; CL Click for more details.

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98 	Resourcing the start-up business: creating dynamic entrepreneurial learning capabilities by Oswald Jones, Allan Macpherson and Dilani Jayawarna, 2nd ed., Oxon: Routledge, 2023. x, 554 p., Routledge masters in entrepreneurship. Includes index (p. 528-554) ISBN: 9781032320038 Subject Terms: Entrepreneurship; Entrepreneurship; Finance and business life cycle; Human capital and business start-up; Business planning 005.411 JON-R 179409; CL Click for more details.
99 	Risk management: how to assess, transfer and communicate critical risks by Antonio Borghesi and Barbara Gaudenzi, Milan: Springer, 2013. x, 137p., Perspectives in business culture. Included references ISBN: 9788847025301 Subject Terms: Risk management; Risk management; Business culture; Risk identification; Risk treatment 005.52:005.334 BOR-R 179385-179386; CL; DMS Click for more details.
100 	Smart and sustainable operations and supply chain management in industry 4.0 edited by Turan Paksoy and Muhammet Deveci, Boca Raton: CRC Press, 2023. ix, 448p., Smart and sustainable operations and supply chain management. Includes references and index (p. 447-448) ISBN: 9781032018430 Subject Terms: Operations research; Operations research; Industry 4.0; Sustainable engineering; Supply chain management 658.7/.8:004.8 -SMA 179404; CL Click for more details.

Materials Science & Engineering

101



Extraction of nonferrous metals by H.S. Ray, R. Sridhar and K.P. Abraham, New Delhi: Affiliated East-west press, 2008. x, 531p. Includes references and index (p. 526-531)

ISBN: 9788185095639

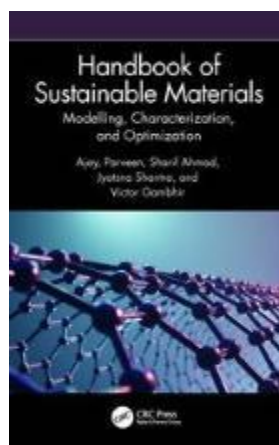
Subject Terms: Nonferrous metals; Nonferrous metals; Metal extraction; Minerals; Ores

669.2/.8 RAY-E

179401; DMSE

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102



Handbook of sustainable materials: modelling, characterization, and optimization Edited by Ajay... (et al.), Boca Raton: CRC Press, 2023. xx, 485p.

Includes references and index (p. 469–485)

ISBN: 9781032286327

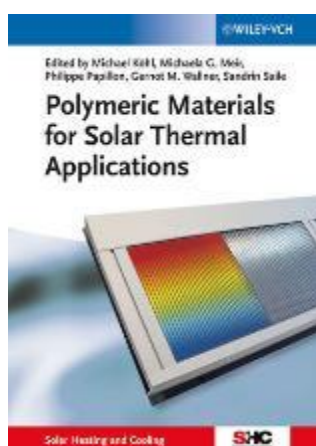
Subject Terms: Green products-materials; Green products-materials; Materials-environmental aspects; Sustainable biodegradable; Bio-based polymers

RL-HB 620.11 (021) -HAN

179419; CL

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103



Polymeric materials for solar thermal applications edited by Michael Kohl ... (et al.), Weinheim: Wiley, 2012. xxiii, 393p., Solar Heating and Cooling.

Includes references and index (p. 385–393)

ISBN: 9783527332465

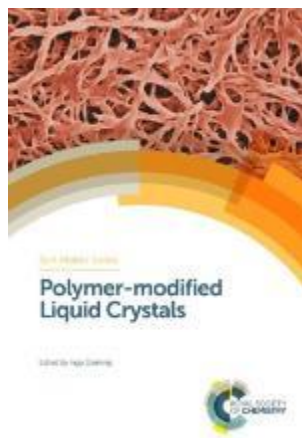
Subject Terms: Solar heating; Solar heating; Solar energy- applications; Polymeric materials; Solar cooling

678.7:697.329 -POL

179377; CL

[Click for more details.](#)

104



Polymer-modified liquid crystals edited by Ingo Dierking, London: RSC Publishing, 2019. xiii, 371p., Soft matter series.
Includes references and index (p. 367–371)

ISBN: 9781782629825

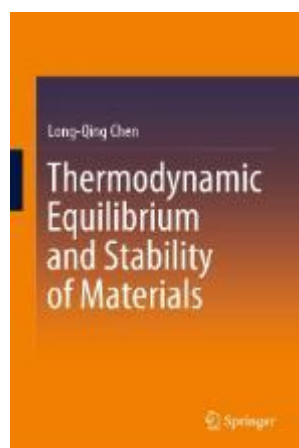
Subject Terms: Polymer liquid crystals; Polymer liquid crystals; Phase separation mechanism; Liquid crystalline; Photo-reactive mesogens

544.022.5:678.8 -POL

179380; CL

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105



Thermodynamic equilibrium and stability of materials by Long-Qing Chen, Singapore: Springer, 2022. xix, 455p.
Includes index (p. 453-455)

ISBN: 9789811386909 (Hardback) 9789811386930 (Softcover)

Subject Terms: Materials thermal properties; Thermodynamics; Engineering thermodynamics; Heat and mass transfer; Computational chemistry

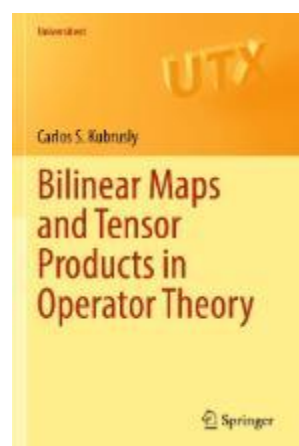
620.1:536.7 CHE-T

179503-179504; CL; DMSE

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Mathematics

106



Bilinear maps and tensor products in operator theory by Carlos S. Kubrusly, Cham: Springer, 2023. xiv, 254p., Universitext.
Includes references and index (p. 239–254)

ISBN: 9783031340956

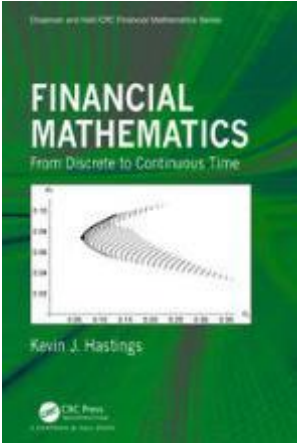
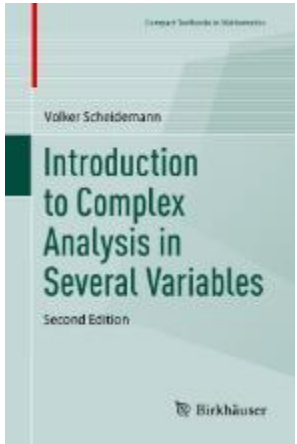
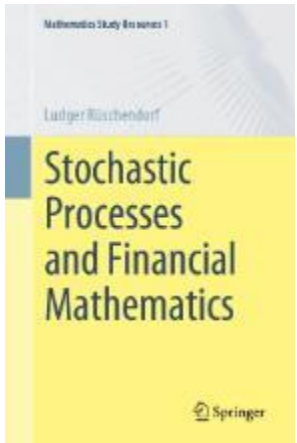
Subject Terms: Functional Analysis; Functional Analysis; Bilinear maps; Tensors; Mathematics and Statistics

514.742:517.98 KUB-B

179434; CL

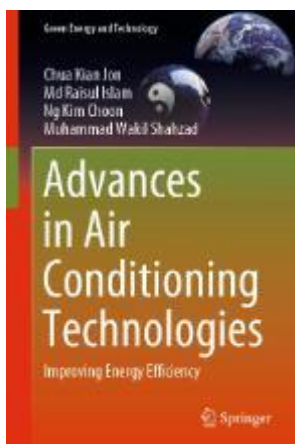
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107 	Financial mathematics from discrete to continuous time: from discrete to continuous time by Kevin J. Hastings, Boca Raton: CRC press, 2023. xvii, 411 p., Chapman and Hall/CRC financial mathematics series. Includes bibliography and index (p. 405-411) ISBN: 9781498780407 Subject Terms: Business mathematics; Business mathematics; Mathematics and statistics; Mathematics for finance; Applied mathematics 519.246.8 HAS-F 179431; CL Click for more details.
108 	Introduction to complex analysis in several variables by Volker Scheidemann, 2nd ed., Basel: Birkhauser, 2023. xii, 229p., Compact textbooks in mathematics. Includes references (p. 229) ISBN: 9783031264276 Subject Terms: Functions of several complex variables; Functions of several complex variables; Analytic sets; Hartogs' Kugelsatz; Tubular domains 517.55 SCH-I 179433; CL Click for more details.
109 	Stochastic processes and financial mathematics by Ludger Rüschendorf, Berlin: Springer, 2023. ix, 304 p., Mathematics study resources. Includes bibliography and index (p. 295-304) ISBN: 9783662647103 Subject Terms: Business mathematics.; Business mathematics.; Economics and finance; Element of stochastic analysis; Stochastic iteration 519.2 RUS-S 179432; CL Click for more details.

Mechanical Engineering

110



Advances in air conditioning technologies: improving energy efficiency by Chua Kian Jon... (et al.), Singapore: Springer, 2021. xii, 305p., Green energy and technology. Includes references

ISBN: 9789811584794

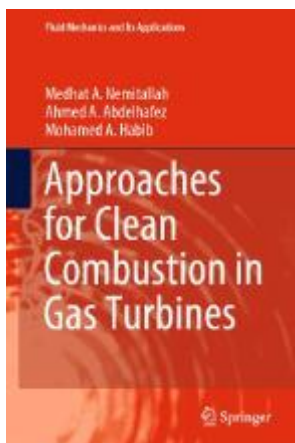
Subject Terms: Air Conditioning; Air Conditioning; Cooling cycles; Energy efficiency; Air Conditioning-green technology

679.9 -ADV

179391; CL

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111



Approaches for clean combustion in gas turbines by Medhat A. Nemitallah, Ahmed A. Abdelhafez and Mohamed A. Habib, Cham: Springer, 2020. xi, 417p., Fluid mechanics and Its applications. Includes references

ISBN: 9783030440763

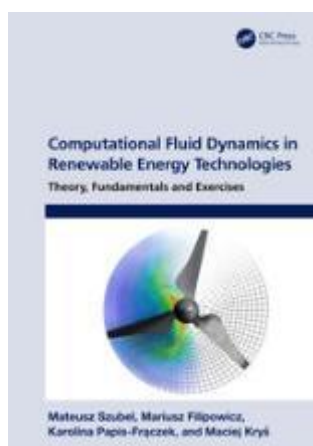
Subject Terms: Renewable and Green Energy; Energy Materials; Industrial Chemistry; Chemical Engineering; Fluid mechanics

621.438 NEM-A

179444; CL

[Click for more details.](#)

112



Computational fluid dynamics in renewable energy technologies: theory, fundamentals and exercises by Mateusz Szubel...(et. al.), Boca Raton: CRC Press, 2024. xvii, 445p. Includes references and index (p. 443–445)

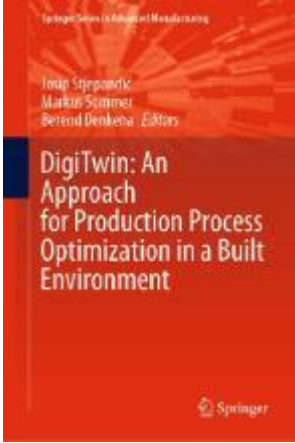
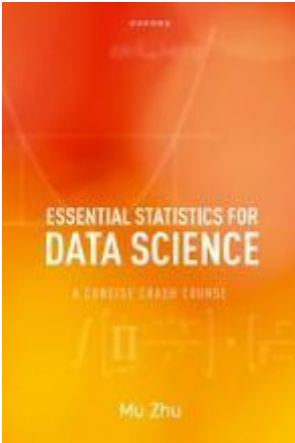
ISBN: 9781032064185

Subject Terms: Computational fluid dynamics-CFD; Computational fluid dynamics-CFD; Computational fluid dynamics-Industrial applications; Renewal energy; Technology-energy

532.5:620.91 -COM

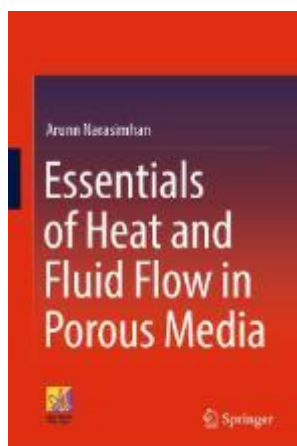
179395; CL

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113 	Digital twin – fundamental concepts to applications in advanced manufacturing by Surjya Kanta Pal...(et.al.), Cham: Springer, 2022. xxxvi, 465p., Springer series in advanced manufacturing. Includes references ISBN: 9783030818142 Subject Terms: Industry 4.0; Manufacturing processes-Computer simulation; Sensor Electronics; Image Processing; Data Communication 67.02:004 -DIG 179484; CL Click for more details.
114 	DigiTwin: an approach for production process optimization in a built environment edited by Josip Stjepandic, Markus Sommer and Berend Denkena, Cham: Springer, 2022. xii, 259p., Springer series in advanced manufacturing. Includes references ISBN: 9783030775384 Subject Terms: Manufacturing processes; Production management-data processing; Advanced manufacturing; Computer-aided engineering-CAE; Computer-aided design-CAD 658.5:004 -DIG 179485; CL Click for more details.
115 	Essential statistics for data science: a concise crash course by Mu Zhu, Oxford: Oxford University Press, 2023. xi, 161 p. Includes bibliography and index (p. 158-161) ISBN: 9780192867742 Subject Terms: Data mining statistical methods; Big data statistical methods; Compound distributions; Bayesian approach; Conditional probability 519.2:004 ZHU-E 179498; CL Click for more details.

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116



Essentials of heat and fluid flow in porous media / by Arunn Narasimhan, New Delhi: Ane Books, 2023. xiii, 304p, - . Includes bibliography and index (p. 289–304)

ISBN: 9789385166464

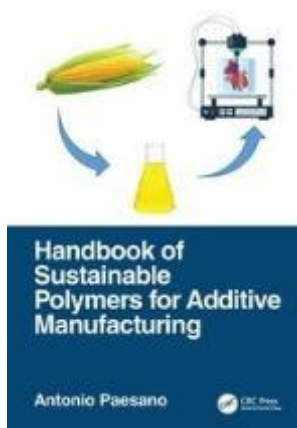
Subject Terms: Porous medium; Heat transfer; Fluid mechanism; Porous medium modelling; Radiation heat transfer

532.546:536 NAR-E

179346; CL

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117



Handbook of sustainable polymers for additive manufacturing by Antonio Paesano, Boca Raton: CRC Press, 2022. xlv, 553p. Includes references and index (p. 545–553)

ISBN: 9781138478886

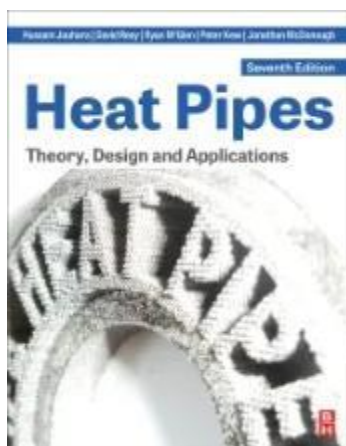
Subject Terms: Additive manufacturing-materials - Handbook, manuals, etc.; Three-dimensional printing-materials - Handbook, manuals, etc.; Biodegradable plastics - Handbook, manuals, etc.; Biopolymers - Handbook, manuals, etc.; Green chemistry - Handbook, manuals, etc.

RL- HB 621.7:66.022 PAE-H

179443; CL

[Click for more details.](#)

118



Heat pipes: theory, design and applications by Hussam Jouhara ...(et. al.), 7th ed., Oxford: Elsevier, 2024. xxii, 329p. Includes references and index (p. 323–329)

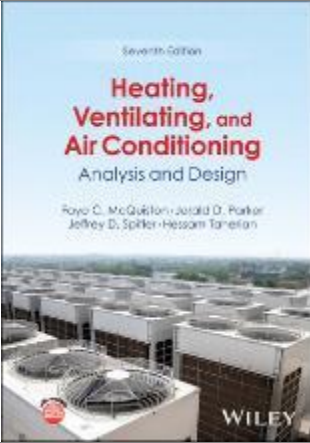
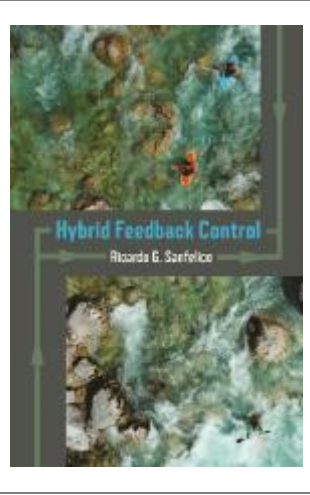
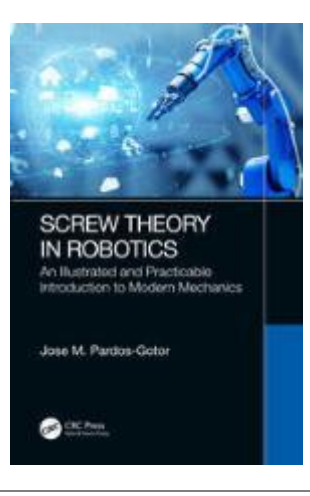
ISBN: 9780128234648

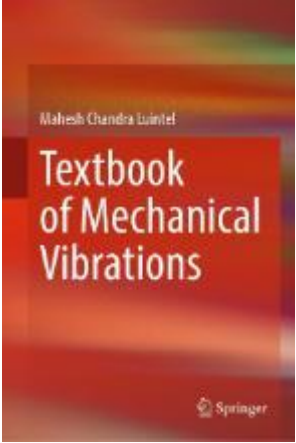
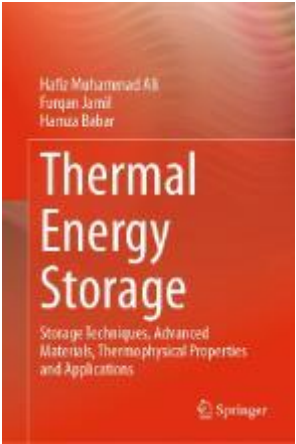
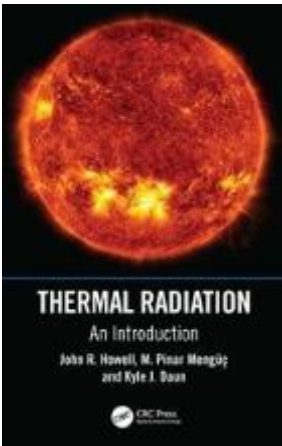
Subject Terms: Heat transfer; Fluid flow theory; Heat exchangers-Heat pipe; Cooling-electronic components-Heat pipe; Heat pipe-materials and manufacturing

621.643 -HEA

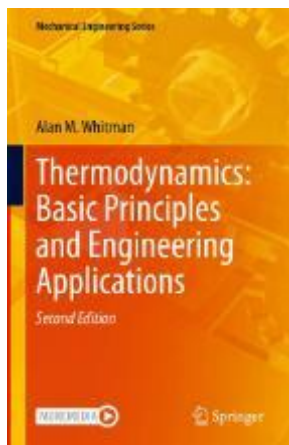
179457; CL

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119		Heating, ventilating, and air conditioning: analysis and design by Faye C. McQuiston (et. al...), 7th ed., Hoboken: Wiley, 2024. xi, 624p. Includes references and index (p. 617-324) ISBN: 9781119894148 Subject Terms: Air conditioning; Climatization; Heating; Ventilation; Air-conditioning systems 697 -HEA 179459-179460; CL; ME Click for more details.
120		Hybrid feedback control by Ricardo G. Sanfelice, New Jersey: Princeton University Press, 2021. xvii, 400 p. Includes bibliography and index (p.380-400) ISBN: 9780691180229 Subject Terms: Feedback control systems; Hybrid systems; Feedback design; Control lyapunov functions; Temporal logic 681.5:004 SAN-H 179482; CL Click for more details.
121		Screw theory in robotics: an illustrated and practicable introduction to modern mechanics by Jose M. Pardos-Gotor, Boca Raton: CRC Press, 2022. xxv, 284p. Includes references and index (277-284) ISBN: 9781032107363 Subject Terms: Robotics-Mathematics; Screws; Theory of mechanics; Technology-Engineering-Mechanical; Mechanics 007.52:514.742.2 GOT-S 179483; CL Click for more details.
122		Solar cooling technologies Karellas, Sotirios... (et al.), Boca Raton: CRC Press, 2019. xiv, 449 p., Energy systems: from design of management series. Includes index (p. 535-449) ISBN: 9780367733179 Subject Terms: Solar air conditioning; Solar generated electricity; Renewable energy; Solar thermal collectors; Thermal energy storage 697.97:621.311 -SOL 179446; CL Click for more details.

123 	Textbook of mechanical vibrations by Mahesh Chandra Luintel, Singapore: Springer, 2024. xv, 776p, - . ISBN: 9789819936137 Subject Terms: Vibrations; Vibrations; Freedom system; Mechanical Engineering; Solid Mechanics 621.3.018.6 LUI-T 179396; CL Click for more details.
124 	Thermal energy storage: storage techniques, advanced materials, thermophysical properties and applications by Hafiz Muhammad Ali, Furqan Jamil and Hamza Babar, Singapore: Springer, 2021. x, 117 p. includes references (p. 111-117) ISBN: 9789811611308 Subject Terms: Heat storage devices; Heat storage devices; Thermal energy storage; Solar energy; Photovoltaic thermal system 620.9 ALI-T 179399; CL Click for more details.
125 	Thermal radiation: introduction by John R. Howell, M. Pinar Menguc and Kyle J. Daun, Boca Raton: CRC Press, 2023. xxvi, 449p. Included references and index (p. 433-449) ISBN: 9781032015316 Subject Terms: Heat-Radiation and absorption; Heat-Radiation and absorption; Energy conservation; Thermal energy; Radiative transfer 537.53 HOW -T 179397; CL Click for more details.

126



Thermodynamics: basic principles and engineering applications by Alan M. Whitman, 2nd ed., Cham: Springer, 2023. xix, 357 p., Mechanical engineering series.
Includes index (p.351-357)

ISBN: 9783031195402

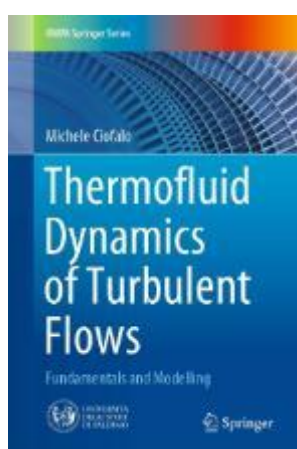
Subject Terms: Fluid mechanics; Fuels; Steam engines; Materials sciences; Heat transfer

536.7 WHI-T

179458; CL

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127



Thermofluid dynamics of turbulent flows: fundamentals and modelling by Michele Ciofalo, Cham: Springer, 2022. xxii, 181p., UNIPA Springer series.
Includes references

ISBN: 9783030810801

Subject Terms: Turbulence; Turbulence; Eddy simulation; RANS models; Thermofluid flows

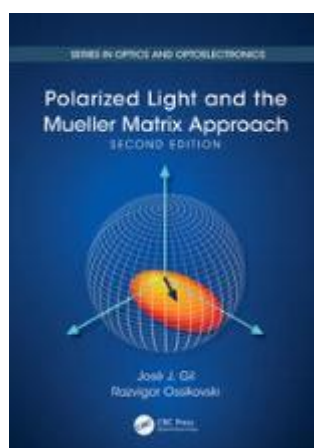
532.517.4:536 CIO-T

179392; CL

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Optics and Photonics

128



Polarized light and the mueller matrix approach by Jose J. Gil and Razvigor Ossikovski, 2nd ed., Boca Raton: CRC Press, 2022. xxv, 490p., Series in optics and optoelectronics.
Includes references and index (p. 465–490)

ISBN: 9780367407469

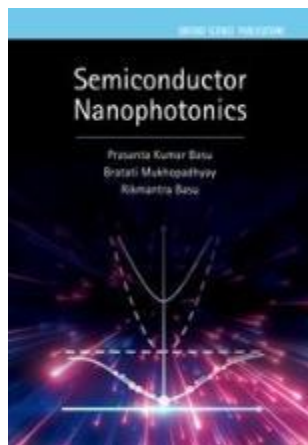
Subject Terms: Electromagnetic waves-Polarization; Electromagnetic waves-Polarization; Optics; Optoelectronics; Mueller matrix

535.51 GIL-P

179416; CL

[Click for more details.](#)

129



Semiconductor nanophotonics by Prasanta Kumar Basu, Bratati Mukhopadhyay and Rikmantra Basu, Oxford: Oxford University Press, 2022. xxvii, 552 p., Series on semiconductor science and technology. Includes index (p. 542-552)

ISBN: 9780198784692

Subject Terms: Semiconductor industry; Semiconductor industry; Nanowires; Nanoparticles; Optical microcavities

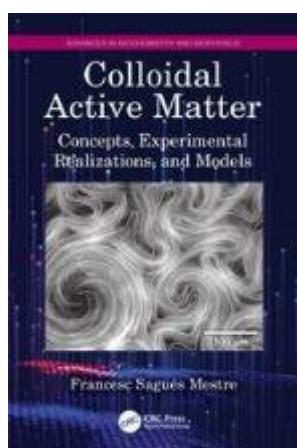
621.315.59:535.14 BAS-S

179366; CL

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Physics

130



Colloidal active matter: concepts, experimental realizations, and models / by Francesc Sagues Mestre, Boca Raton: CRC Press, 2022. xxv, 281p, - .

Includes bibliography and index (p. 241-281)

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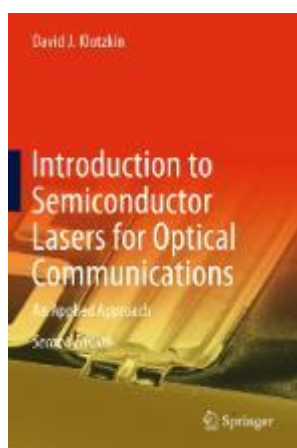
Subject Terms: Soft condensed matter; Biomechanics; Self-organizing systems; Biochemistry; Biophysics

544.7:577.2 MES-C

179347; CL

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131



Introduction to semiconductor lasers for optical communications: applied approach by David J. Klotzkin, 2nd ed., Cham: Springer, 2020. xvi, 358p.

Includes index (p. 355-358)

ISBN: 9783030245009

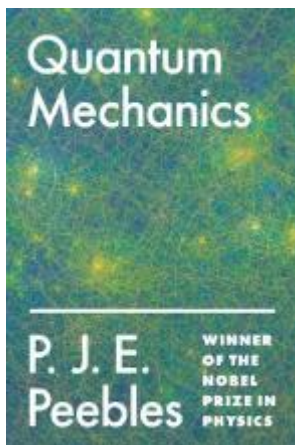
Subject Terms: Semiconductors; Semiconductors; Optical communication; Lasers; Semiconductors laser

621.382:621.39 KLO-I

179349; CL

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132



Quantum mechanics by P.J.E. Peebles, Princeton: Princeton University Press, 2020. xiv, 419p.
Includes index (p. 417–419)

ISBN: 9780691209821

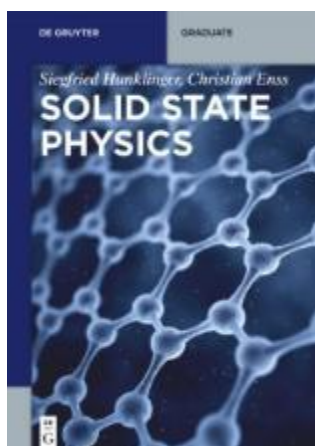
Subject Terms: Quantum theory; Quantum theory; Measurement theory; Perturbation theory; Scattering theory

530.145 PEE -Q

179398; CL

[Click for more details.](#)

133



Solid state physics by Siegfried Hunklinger and Christian Enss, Berlin: De Gruyter, 2022. xii, 598 p.
Includes index (p. 587-598)

ISBN: 9783110666458

Subject Terms: Structure of solids; Structure of solids; Lattice dynamics; Lattice anharmonicity; Electrons solids

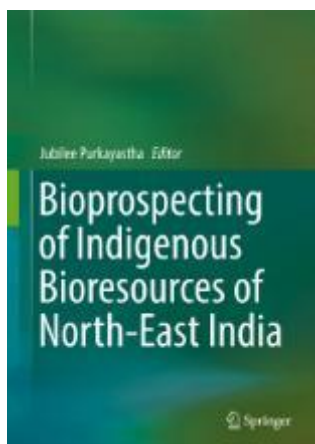
539.3 HUN-S

179400; CL

[Click for more details.](#)

Rural Development & Technology

134



Bioprospecting of indigenous bioresources of North-East India edited by Jubilee Purkayastha, Singapore: Springer, 2016. xix, 347 p.

ISBN: 9789811006197

Subject Terms: Biodiversity; Ecology; Insect resources; Plant resources; Pesticidal plants

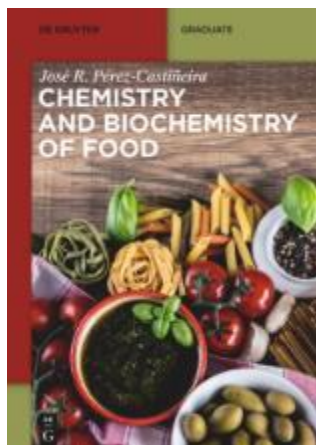
574.1(540.35/.45) -BIO

179452; CL

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135



Chemistry and biochemistry of food by Jose R. Perez Castineira, Berlin: De Gruyter, 2020. xxi, 565p., De Gruyter textbook.
Includes bibliography and index (p. 557–565)

ISBN: 9783110595475

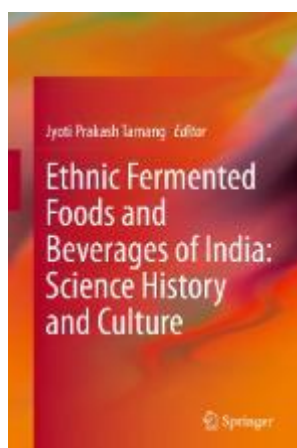
Subject Terms: Food analysis; Food analysis; Food technology; Nutritional physiological phenomena; Food composition

577.1:641 CAS -C

179368; CL

[Click for more details.](#)

136



Ethnic fermented foods and beverages of India: science history and culture edited by Jyoti Prakash Tamang, Singapore: Springer, 2020. xii, 685p.

Includes references

ISBN: 9789811514852

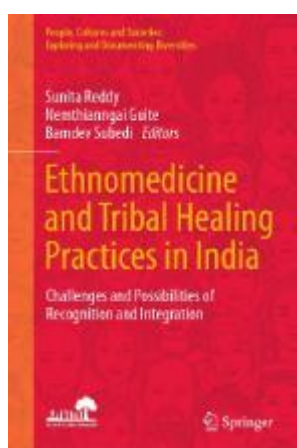
Subject Terms: Fermented beverages; Fermented foods-India; Food-India; Food Science; Food Microbiology

663.1:008 (540) -ETH

179456; CL

[Click for more details.](#)

137



Ethnomedicine and tribal healing practices in India: challenges and possibilities of recognition and integration edited by Sunita Reddy, Nemthianggai Guite and Bamdev Subedi, Singapore: Springer, 2023. xxi, 368 p., People, cultures and societies: exploring and documenting diversities.

ISBN: 9789811942853

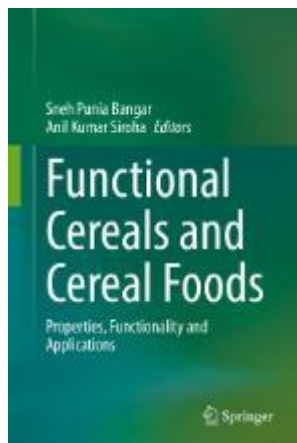
Subject Terms: Medical anthropology; Medical Sociology; Traditional medicine; Health care systems; Healers perspectives

615.89(540) -ETH

179453; CL

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138



Functional cereals and cereal foods: properties, functionality and applications edited by Sneh Punia Bangar and Anil Kumar Siroha, Cham: Springer, 2022. xiv, 439p.
Includes references and index (p. 431-439)

ISBN: 9783031056130

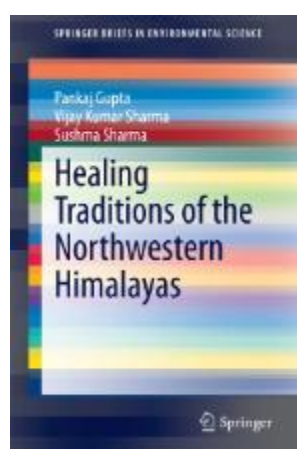
Subject Terms: Food Science; Analytical Chemistry; Food Microbiology; Food-cereal; Functional cereals

641.13 -FUN

179454; CL

[Click for more details.](#)

139



Healing traditions of the Northwestern Himalayas by Pankaj Gupta, Vijay Kumar Sharma and Sushma Sharma, New York: Springer, 2014. xxii, 149 p., Springer briefs in environmental science.
Includes bibliography (p. 147)

ISBN: 9788132219248

Subject Terms: Anthropology; Regional and cultural studies; Himalaya mountains region; Medicine and public health; Traditional herbalists

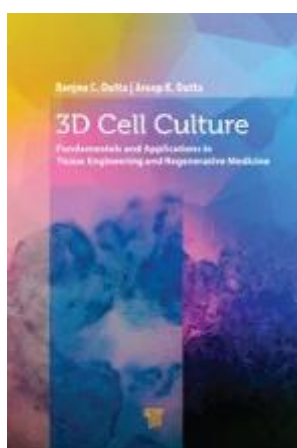
615.89(292.536) GUP-H

179455; CL

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School of Biological Sciences

140



3D cell culture: fundamentals and applications in tissue engineering and regenerative medicine by Ranjna C. Dutta and Aroop K. Dutta, Cham: Jenny Stanford Publishing, 2018. xiv, 211p.
Included references and index (p. 203-211)

ISBN: 9789814774536

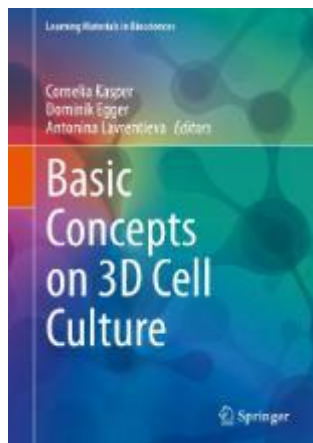
Subject Terms: Biomedical engineering; Biomedical engineering; Regenerative medicine; Tissue engineering; Regenerative Medicine/Tissue Engineering

576:602.4 DUT-C

179437; CL

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141



Basic concepts on 3D cell culture edited by Cornelia Kasper, Dominik Egger and Antonina Lavrentieva, Cham: Springer, 2021. xv, 252p., Learning materials in biosciences.
Includes references and index (p. 251-252)

ISBN: 9783030667481

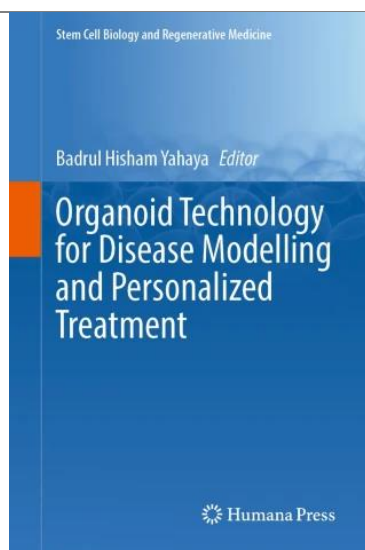
Subject Terms: 3D cell; 3D cell; 3D cell culture-equipment; 3D cell culture-hydrogels; 3D cell culture-Vascularization

576:602.4 -BAS

179439; CL

[Click for more details.](#)

142



Organoid technology for disease modelling and personalized treatment edited by Badrul Hisham Yahaya, Switzerland: Humana Press, 2022. vi, 208p., Stem cell biology and regenerative medicine.

ISBN: 9783030930554

Subject Terms: Lung organoids; Lung organoids; Genome; Bone regeneration; Mesenchymal stem cell

57.085:616-08 -ORG

179438; CL

[Click for more details.](#)

School of Public Policy

143



Advancement of GI-science and sustainable agriculture: multi-dimensional approach edited by Jayanta Das and Somenath Halder, Cham: Springer, 2023. xxx, 341p., Glscience and geo-environmental modelling.

Includes references and index (p. 339-341)

ISBN: 9783031368240

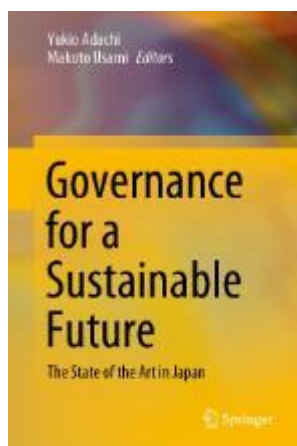
Subject Terms: GI-Science; GI-Science; Geo-environmental modelling; Geospatial techniques; Sustainable agro-management

910.1:631 -ADV

179421; CL

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144



Governance for a sustainable future: state of the art in Japan edited by Yukio Adachi and Makoto Usami, Singapore: Springer, 2023. viii, 364p. Includes references

ISBN: 9789819947706

Subject Terms: Sustainability; Sustainability; Governance-Japan; Sustainable future strategy; Climate change adaptation

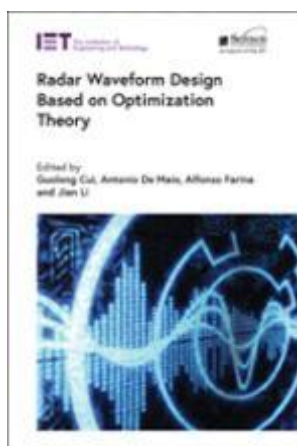
328:502.131.1 (520) -GOV

179422; CL

[Click for more details.](#)

Sensors Instrumentation & Cyber-physical System Engineering

145



Radar waveform design based on optimization theory edited by Guolong Cui...(et al.), London: Scitech, 2020. xxii, 324 p., Institution of Engineering and Technology.

ISBN: 9781785619434

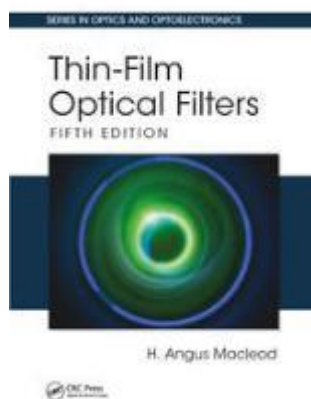
Subject Terms: Binary sequence designs; Binary sequence designs; Doppler radar; Filtering theory.; Neural networks computer

621.396.96 -RAD

179405; CL

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146



Thin-film optical filters by H. Angus Macleod, 5th ed., Boca Raton: CRC Press, 2021. xxxi, 664p., Series in optics and optoelectronics. Includes references and index (p. 655–664)

ISBN: 9780367781606

Subject Terms: Optics; Optoelectronics; Light filters; Thin films-Optical properties; Optical Coatings

681.7.064.45 MAC-T

179451; CL

[Click for more details.](#)

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Textile and Fibre Engineering

147



Smart clothes and wearable technology edited by Jane McCann and David Bryson, 2nd ed., Cambridge: Elsevier, 2022. xviii, 608 p., Textile institute book series.

Includes bibliography and index (p. 599-608)

ISBN: 9780128195260

Subject Terms: Textile fabrics - Technological innovations; Clothing trade - Technological innovations; Smart materials; Wearable computers; Smart garment development

677:004 -SMA

179475; TT

[Click for more details.](#)

148



Textile engineering edited by Yasir Nawab and Khubab Shaker, 2nd ed., Berlin: De Gruyter, 2023. vi, 281 p.

Includes references and index (p.277-281)

ISBN: 9783110799323

Subject Terms: Textile raw materials; Textile raw materials; Textile processing; Woven fabrics; Life cycle analysis of textiles

677 -TEY

179381; CL

[Click for more details.](#)

149



Accelerating sustainability in fashion, clothing and textiles edited by Martin Charter, Bernice Pan and Sandy Black, Abingdon: Routledge, 2024. xxxix, 435p, - .

Includes references and index (p. 423-435)

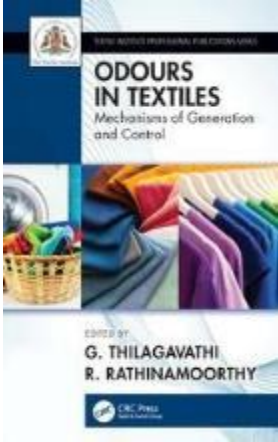
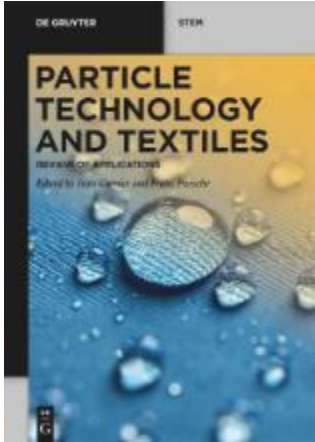
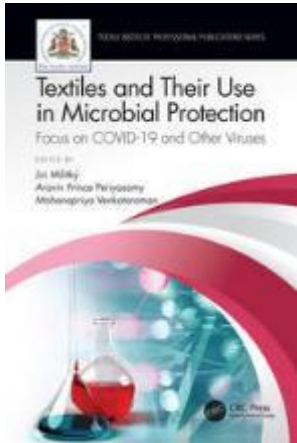
ISBN: 9781032225173

Subject Terms: Clothing trade-Environmental aspects; Clothing trade-Environmental aspects; Fashion merchandising-Environmental aspects; Fibre industry-Environmental aspects; Textile and fibre industry

677 -ACC

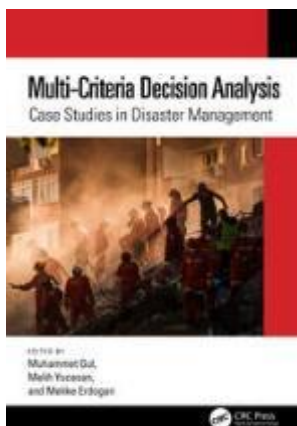
179410; CL

[Click for more details.](#)

150 	Odour in textiles: generation and Control edited By G. Thilagavathi and R. Rathinamoorthy, Boca Raton: CRC Press, 2022. xiv, 298p., Textile institute professional publications series. Includes bibliography and index (p. 279–298) ISBN: 9780367693336 Subject Terms: Human odour; Textile industry; Body odour; Deodorants; Fragrance 677 -ODO 179449; TT Click for more details.
151 	Particle technology and textiles: review of applications edited by Jean Cornier and Franz Pursche, 2nd ed., Berlin: De Gruyter, 2023. xix, 505 p., De Gruyter STEM. Includes references and index (p. 503-505) ISBN: 9783110670769 Subject Terms: Microfibers; Production technologies - Textiles; Cellulose, paper and textiles; Nanotechnology; Nanomaterials 677.01:620.3 -PAR 179473; TT Click for more details.
152 	Textiles and their use in microbial protection: focus on COVID-19 and other viruses edited by Jiri Militky, Aravin Prince Periyasamy and Mohanapriya Venkataraman, Boca Raton: CRC Press, 2021. xvi, 301 p., Textile institute professional publications. Includes references and index (p. 296-301) ISBN: 9780367691059 Subject Terms: Microbiology; Microbiology; Biocompatible materials; Industrial fabrics; Biomedical materials 677.01 -TEY 179354;179448; CL Click for more details.

Transportation Research and Injury Prevention (TRIP) Centre

153



Multi-criteria decision analysis: case studies in disaster management edited by Muhammet Gul, Yucesan and Melike Erdogan, Boca Raton: CRC Press, 2023. xvii, 332 p. includes index (p. 325-332)

ISBN: 9781032080949

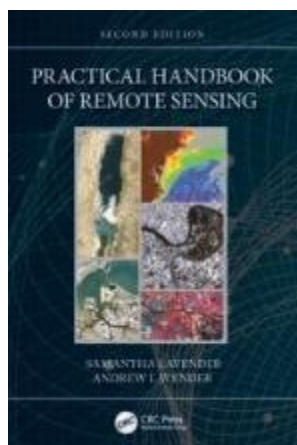
Subject Terms: Disaster relief; Disaster relief; Technology - Operations research; Mathematics - Mathematical analysis; Flood risk management

614.8(078.7) -MUL

179358; CL

[Click for more details.](#)

154



Practical handbook of remote sensing by Samantha Lavender and Andrew Lavender, 2nd ed., Boca Raton: CRC Press, 2023. xxxvi, 283 p. Includes index (p. 275-283)

ISBN: 9781032214337

Subject Terms: Satellite remote sensing-Handbooks,manuals etc.; Satellite remote sensing-Handbooks,manuals etc.; Microwave data-Handbooks,manuals etc.; Landscape evolution-Handbooks,manuals etc.; Atmospheric gases and pollutants-Handbooks,manuals etc.

RL-HB 528.8(021) LAV-P

179359; CL

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Subject terms	:	Multispecies ethnography, Postcolonial, Activism, Storying, Antagonism
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Department	:	Department of Physics, IITD
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Supervisor	:	Chatterjee, Ratnamala (Prof.) - PH (Guide)
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Researcher	:	Saini, Parul
Department	:	Department of Chemistry, IITD
Year	:	2024
Supervisor	:	Elias, Anil J. (Prof.) - CHY (Guide)
Physical description	:	xxix, 288 p.
Subject terms	:	Green chemistry, Organometallic catalysts, Carboxylic acids, Iodine Catalyzed, Toxic elements
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Call No.	:	TH 66.097.3:54.057 SAI-D
Title	:	Deep learning based framework for automated screening and medical assistance: lung diseases from chest x-rays
Researcher	:	Singh, Anushikha
Department	:	Bharti School of Telecommunication Technology and Management, IITD
Year	:	2024
Supervisor	:	Lall, Brejesh (Prof.) - EE (Guide); Panigrahi, B. K. (Prof.) - EE (Guide)
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Subject terms	:	Cavities, Opacity, Lung cancer, COVID-19, lung diseases
Barcode	:	TH7526
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Title	:	Optimizing neural networks performance on parallel architectures
Researcher	:	Tewari, Saurabh
Department	:	Department of Computer Science and Engineering, IITD
Year	:	2024
Supervisor	:	Anshul Kumar (Prof.) - CSE (Guide); Paul, Kolin (Prof.) - CSE (Guide)
Physical description	:	xvi, 101 p.
Subject terms	:	Energy efficient and inferencing, Architectural parameters, Off-chip memory accesses, Optimization problem, Future research directions
Barcode	:	TH7527
Call No.	:	TH 004.272.032.26 TEW-O
Title	:	Development of guidelines for design of TLUD cookstoves
Researcher	:	Vibhanshu, Vipul
Department	:	Department of Mechanical Engineering, IITD
Year	:	2024
Supervisor	:	Kohli, Sangeeta (Prof.) - ME (Guide); Ravi, M. R. (Prof.) - ME (Guide)
Physical description	:	xxi, 150 p.
Subject terms	:	Biomass based cookstoves, Natural draft cookstove, Forced draft cookstove, Combustion cookstoves, Gasifier geometry
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Call No.	:	TH 683.955 VIB-D
Title	:	Nonlinear hierarchical control of quadrotor and quadrotor manipulation system
Researcher	:	Dasgupta, Ranjan
Department	:	Department of Electrical Engineering, IITD
Year	:	2024
Supervisor	:	Bhasin, Shubhendu (Prof.) - EE (Guide)
Physical description	:	xvi, 330 p.
Subject terms	:	Barrier lyapunov function, Bounded thrust input, Dynamic surface control, Arm subsystem, Mass spring manipulation system
Barcode	:	TH7529
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Title	:	Machine learning - enabled liquefaction hazard assessment of some Indian sandy soil deposits
Researcher	:	Gupta, Tanmay
Department	:	Department of Civil Engineering, IITD
Year	:	2024
Supervisor	:	Ramana, G.V. (Prof.) - CE (Guide); Elgamal, A.W. (Prof.) - Uni. of California San Diego, California (Guide)
Physical description	:	xxxi, 305 p.
Subject terms	:	Geotechnical engineering, NorSand Model, Cyclic simple shear test, Seismic vulnerability, Earthquake uncertainty
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Title	:	Study on the Dynamics and self- assembly of anisotropic particles
Researcher	:	Verma, Vikki Anand
Department	:	Department of Physics, IITD
Year	:	2024
Supervisor	:	Babu, Sujin B. (Prof.) - PH (Guide)
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Subject terms	:	Shape anisotropy, Colloidal system, Anisotropic potential models, Thermodynamic integration, Einstein crystal method
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Title	:	Global financial cycle and its implications on monetary policy
Researcher	:	Gupta, Vrinda
Department	:	Department of Management Studies, IITD
Year	:	2023
Supervisor	:	Dubey, Amlendu Kumar (Prof.) - MS (Guide)
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Subject terms	:	Cross country financial cycles, Financial flow, Monetary policy independence, Domestic monetary, Macroprudential policies

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Title	:	Controlling of PV integrated grid-tied converters: reduced DC-link capacitor and reduced sensors
Researcher	:	Khushboo Kumari
Department	:	Department of Electrical Engineering, IITD
Year	:	2024
Supervisor	:	Jain, Amit Kumar (Prof.) - EE (Guide)
Physical description	:	xxvi, 206 p.
Subject terms	:	Solar photovoltaic system, Grid connected converter, LCL filter, Single current sensor, Grid current measurement
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Call No.	:	TH 621.3.032.24 KHU-C
Title	:	Analytical characterization of biological products
Researcher	:	Ramesh Kumar
Department	:	Kusuma School of Biological Sciences, IITD
Year	:	2024
Supervisor	:	Banerjee, Manidipa (Prof.) - SBS (Guide); Rathore, Anurag S. (Prof.) - SBS (Guide)
Physical description	:	xxiii, 146 p.
Subject terms	:	Liquid chromatography, Cyclodextrins, Capillary electrophoresis analysis, Tandem mass spectrometry, Cryo-electron microscopy
Barcode	:	TH7534
Call No.	:	TH 543.64 RAM-A
Title	:	Experimental and numerical studies on response of tapered piles under combined vertical compression and lateral loading
Researcher	:	Vijayan, Chinju
Department	:	Department of Civil Engineering, IITD
Year	:	2024
Supervisor	:	Ayothiraman, R. (Prof.) - CE (Guide)
Physical description	:	xxix, 236 p.
Subject terms	:	Conventional piles, Combined loading, Modeling of soil, Reinforced cement concrete pile, Vertical loading
Barcode	:	TH7535
Call No.	:	TH 624.154 VIJ-E
Title	:	Piezo-sensor based 3D strain modal analysis approach for structural health monitoring
Researcher	:	Aulakh, Dattar Singh
Department	:	Department of Civil Engineering, IITD
Year	:	2024
Supervisor	:	Bhalla, Suresh (Prof.) - CE (Guide)
Physical description	:	xxxvi, 263 p.

Subject terms	:	Health Monitoring, Strain modal, Structural analysis, Piezo-sensor, 3D Strain
Barcode	:	TH7536
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Title	:	Error-immune and secure quantum communication with optimal resources
Researcher	:	Bala, Rajni
Department	:	Department of Physics, IITD
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Supervisor	:	Ravishankar, V (Prof.) - PH (Guide)
Physical description	:	xvi, 221 p.
Subject terms	:	Quantum key distribution, Propagation of OAM modes, Layered semi-quantum key distribution, E91 protocol, Quantum secret sharing
Barcode	:	TH7537
Call No.	:	TH 530.145:621.391 BAL-E
Title	:	Waste to resource: assessing the reuse potential of MSW incineration bottom ash in flexible pavements, embankments and reinforced soil structures
Researcher	:	Bansal, Deepesh
Department	:	Department of Civil engineering, IITD
Year	:	2024
Supervisor	:	Datta, Manoj (Prof.) - CE (Guide); Ramana, G.V (Prof.) - CE (Guide)
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Subject terms	:	IBA generation and handling, Grain size distribution, Stabilization, Hydraulic conductivity, Carbonation
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Title	:	High contrast label-free single-shot quantitative phase imaging and spectroscopic techniques for biological applications
Researcher	:	Bhatt, Sunil
Department	:	Department of Physics, IITD
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Supervisor	:	Mehta, Dalip Singh (Prof.) - PH (Guide)
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Subject terms	:	Phase shifting interferometry, Optical coherence tomography, Raman spectroscopy, Five-phase shifting algorithm, MG63 osteosarcoma cell culturing process
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Title	:	Understanding the optoelectronic properties of different perovskite semiconductors for development of cost-efficient, ecofriendly and recyclable perovskite technology
Researcher	:	Chhillar, Priyanka
Department	:	Department of Energy Science and Engineering, IITD
Year	:	2024

Supervisor	:	Karak, Supravat (Assoc. Prof.) - ESE (Guide)
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Title	:	Pedestrian detection in the Indian road scenario
Researcher	:	Gagneja, Abhishek
Department	:	Department of Electrical Engineering, IITD
Year	:	2024
Supervisor	:	Lall, Brejesh (Prof.) - EE (Guide)
Physical description	:	xiv, 94 p.
Subject terms	:	Label VDOS, Feature pyramid network, Conv Mixer based detector, Social distancing monitoring system, SORT tracker
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Title	:	Learning based adaptive sensor selection framework for multi-sensing WSN
Researcher	:	Ghosh, Sushmita
Department	:	IIT Delhi and University of Queensland
Year	:	2024
Supervisor	:	De, Swades (Prof.) - EE (Guide); Chatterjee, Shouri (Prof.) - EE (Guide); Portmann, Marius (Prof.) - University of Queensland (Guide)
Physical description	:	xxvii, 119 p.
Subject terms	:	Upper confidence bound algorithm, Proposed sensor selection framework, Data acquisition model, System model, Optimal length of measurement cycle
Barcode	:	TH7542
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Title	:	Development of auxetic skin grafts with higher expansion potential
Researcher	:	Gupta, Vivek
Department	:	Centre for Biomedical Engineering, IITD
Year	:	2024
Supervisor	:	Chanda, Arnab (Prof) - CBME (Guide)
Physical description	:	xix, 109 p.
Subject terms	:	Biomechanics of the skin, Auxetic structures, Transplantation, Geometrical modelling, Hierarchical graft pattern
Barcode	:	TH7543
Call No.	:	TH 611.77 GUP-D
Title	:	Controlling the spectral and polarization properties of light fields using nematic liquid crystal
Researcher	:	Gyaprasad
Department	:	Department of Physics, IITD

Year	:	2024
Supervisor	:	Kanseri, Bhaskar (Prof.) - PH (Guide)
Physical description	:	136 p.
Subject terms	:	Electro-optics of NLC, Polarization matrix, LC cell fabrication, Optical frequency ruler, Polarization properties of light fields
Barcode	:	TH7544
Call No.	:	TH 535-4:544.25 GYA-C
Title	:	Fabrication and characterization of Ga ₂ O ₃ based schottky barrier diodes and solar-blind photodetectors for power electronics and optoelectronics applications
Researcher	:	Hardhyan
Department	:	Department of Physics, IITD
Year	:	2024
Supervisor	:	Singh, Rajendra (Prof.) - PH (Guide)
Physical description	:	xxxi, 192 p.
Subject terms	:	Metal-semiconductor contact, Material characterization, Device fabrication, Shottky diodes, UV- photodetectors
Barcode	:	TH7545
Call No.	:	TH 621.397.331.2 HAR-F
Title	:	Neurodevelopmental disorders: selected studies using machine learning
Researcher	:	Kohli, Manu
Department	:	Department of Management Studies, IITD
Year	:	2024
Supervisor	:	Kar, Arpan Kumar (Prof.) - MS (Guide); Sinha, Shuchi Prof.) - MS (Guide)
Physical description	:	xxi, 235 p.
Subject terms	:	Machine learning methods, Autism spectrum disorder, ASD detection, PRISMA methodology, Robot mediated interventions
Barcode	:	TH7546
Call No.	:	TH 616.8:004.85 KOH-N
Title	:	Modeling and synthesis of oscillation damping controller under system uncertainties
Researcher	:	Nayak, Abhishek
Department	:	Department of Electrical Engineering, IITD
Year	:	2024
Supervisor	:	Mishra, Sukumar (Prof.) - EE (Guide)
Physical description	:	xxi, 216 p.
Subject terms	:	Low frequency power oscillations, Closed-loop blocks in WADC, Robust model order reduction, Adaptive wide area damping controller, Package drop compensation
Barcode	:	TH7547
Call No.	:	TH 62-531.7 NAY-M

Title	:	Design and development of textile fibre reinforced structural composites for automotive applications
Researcher	:	Olhan, Sandeep
Department	:	Department of Textile and Fibre Engineering, IITD
Year	:	2024
Supervisor	:	Behera B.K (Prof.) - TFE (Guide)
Physical description	:	xlvi, 367 p.
Subject terms	:	Classification of composites, 3D woven performs, Novel friction stir processing, Metal matrix composites, surface treatment of natural fibre
Barcode	:	TH7548
Call No.	:	TH 677.1/.5 OLH-D

Title	:	Vibration control and mechanics-driven machine learning techniques for high-speed railway bridges
Researcher	:	Panda, Susmita
Department	:	Department of Civil Engineering, IITD
Year	:	2024
Supervisor	:	Manna, Bappaditya (Prof.) - CE (Guide)
Physical description	:	xxxi, 194 p.
Subject terms	:	Moving load analysis, Mode-superposition method, Surrogate models, Vibration control, Inertial amplifier
Barcode	:	TH7549
Call No.	:	TH 621.332.8 PAN-V

Title	:	Development of brazed micro diamond pencil grinding tool using low temperature filler alloy
Researcher	:	Patel, Hardik Arvindbhai
Department	:	Department of Mechanical Engineering, IITD
Year	:	2024
Supervisor	:	Jha, Sunil (Prof.) - ME (Guide); Ghosh, Sudarsan (Prof.) - ME (Guide)
Physical description	:	xx, 178 p.
Subject terms	:	Incusil-ABA, Wetting angle, brazing temperature, micro-grinding, machine tool development
Barcode	:	TH7550
Call No.	:	TH 621.922.02 PAT-D

Title	:	Immersed boundary based simulations of fluid-particle interactions: effects of the particle shape and collisions
Researcher	:	Sharma, Govind
Department	:	Department of Mechanical Engineering, IITD
Year	:	2024
Supervisor	:	Ray, Bahni (Assoc. Prof.) - ME (Guide)
Physical description	:	xxiii, 110 p.
Subject terms	:	Particulate suspension, Particulate flow, Computational domain, Polydispersity, Cluster diameter
Barcode	:	TH7551

Call No.	:	TH 544.023.57 SHA-I
Title	:	Stochastic finite element model updating using modal data
Researcher	:	Sharma, Nikhil
Department	:	Department of Mechanical Engineering, IITD
Year	:	2024
Supervisor	:	Modak, S. V. (Prof.) - ME (Guide)
Physical description	:	xix, 183 p.
Subject terms	:	Stiffness matrix variability, Monto Carlo simulation method, Lation hypercube sampling method, Cantilever beam structure, Modified minimum variance method
Barcode	:	TH7552
Call No.	:	TH 517.962:621.03 SHA-S
Title	:	Studies on the preparation of antimicrobial polyurethane for biomedical application
Researcher	:	Somani, Manali
Department	:	Department of Textile and Fibre Engimneering, IITD
Year	:	2024
Supervisor	:	Gupta, Bhuvanesh (Prof.) - TFE (Guide); Mukhopadhpadyay, Samrat (Prof.) TFE (Guide)
Physical description	:	xxix, 208 p.
Subject terms	:	Physical functionalization, Chemical functionalization, Diferential scanning calorimetry, Oxidized carboxymethy cellulose, Dyanamic light scattering
Barcode	:	TH7553
Call No.	:	TH 604.4:615.33+678.664 SOM-S
Title	:	Diagnostic understanding and deep lerning based prediction of the genesis of monsoon low-pressure systems
Researcher	:	Srujan, Kompella Siva Santhosh Sai
Department	:	Centre for Atmospheric Sciences, IITD
Year	:	2024
Supervisor	:	Sukumaran, Sandeep (Assoc. Prof.) - CAS (Guide); Kaodamana, Hariprasad (Assoc. Prof.) - CHE (Guide) -
Physical description	:	xxix, 159 p.
Subject terms	:	Indian summer monsoon, Tropical cyclones, Bay of Bengal, Causality, Rossby waves
Barcode	:	TH7554
Call No.	:	TH 551.585.3:004.8 SRU-D
Title	:	Prediction of free field ground vibration due to underground moving trains: in-situ measurements and numerical modelling
Researcher	:	Sur, Arnab
Department	:	Department of Civil Engineering, IITD
Year	:	2024
Supervisor	:	Manna, Bappadity (Prof.) - CE (Guide); Shahu, J. T. (Prof.) - CE (Guide)

Physical description	:	xxviii, 186 p.
Subject terms	:	Underground railway lines, Mass rapid transit systems, Underground tunnels vibrations, Vibration characteristics, Artificial neural network
Barcode	:	TH7555
Call No.	:	TH 624.131.31/.55:625.42 SUR-P
Title	:	Development of transition metal catalysts for C-H bond functionalization of aryl ketones, sulfones, and carboxamides
Researcher	:	Verma, Ashutosh
Department	:	Department of Chemistry, IITD
Year	:	2024
Supervisor	:	Elias, Anil J. (Prof.) - CHY (Guide)
Physical description	:	xxvi, 275 p.
Subject terms	:	Oxidative functionalization, Carboxamide derivatives, Organometallic compounds, Ruthenium-catalyzed synthesis, Ferrocene carboxamide derivatives
Barcode	:	TH7556
Call No.	:	TH 544.47 VER-D
Title	:	Electrochemical sensing of heavy metal contaminants
Researcher	:	Vinayak, Priya
Department	:	Department of Electrical Engineering, IITD
Year	:	2024
Supervisor	:	Mitra, Bhaskar (Asst. Prof.) - EE (Guide); Singh, Madhusudan (Assoc. Prof.) - EE (Guide)
Physical description	:	xxi, 145 p.
Subject terms	:	Detection techniques, Electrolyte-insulator semiconductor, Measurement protocol, Multiple ion sensor, Plasma mass spectroscopy
Barcode	:	TH7557
Call No.	:	TH543.55:546.3 VIN-E
Title	:	First-principles investigations on optical and thermoelectric properties in state-of-the-art materials
Researcher	:	Vishwakarma, Chandan Kumar
Department	:	Department of Physics, IITD
Year	:	2024
Supervisor	:	Mani, Rajesh Kumar (Prof.) - PH (Guide)
Physical description	:	xxvi, 154 p.
Subject terms	:	Magneto-optical properties, Electrical conductivity, Thermal conductivity, Atomistic simulations, Density functional theory
Barcode	:	TH7558
Call No.	:	TH 535.56:537.32 VIS-F
Title	:	Finite element methods for frictional and frictionless contact problems
Researcher	:	Wadhawan, Tanvi
Department	:	Department of Mathematics, IITD
Year	:	2024

Supervisor	:	Porwal, Kamana (Assoc. Prof.) - MA (Guide)
Physical description	:	xviii, 211 p.
Subject terms	:	Variational inequalities, Discontinuous Galerkin methods, Qualitative behavior, Signorini non-penetration condition, Fully- discrete approximation
Barcode	:	TH7559
Call No.	:	TH 514.11 WAD-F
Title	:	Develppment of botanical formulations for managing fungal phytopathogens in capsicum annuum L.
Researcher	:	Arora. Himanshu
Department	:	Centre for Rural Development and Technology, IITD
Year	:	2024
Supervisor	:	Sharma, Shtywati (Prof.) - CRDT (Guide); Sharma, Abhishek (Asst. Prof.) - Amity University, Noida (Guide)
Physical description	:	xxi 215 p.
Subject terms	:	Botanocal management, Anthracnose disease, Fungal phytopathogens, Scanning electron microscopy, Fungicidal namoformulations
Barcode	:	TH7560
Call No.	:	TH 615.28:633.842 ARO-D

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