



CENTRAL LIBRARY **NEW ARRIVALS**

Printed Books and Theses

(Added during 1st – 31st August, 2025)

How to Recommend Book(s)?

You may recommend the books by filling out recommendation forms available on the website (<https://library.iitd.ac.in/book-recommendation>) or through online recommendation system (<https://library.iitd.ac.in/obrs>) using your Kerberos ID and password.

CONTACT US:

Collection Development Division
Central Library, IIT Delhi
011-26596652/6096
cdd@library.iitd.ac.in

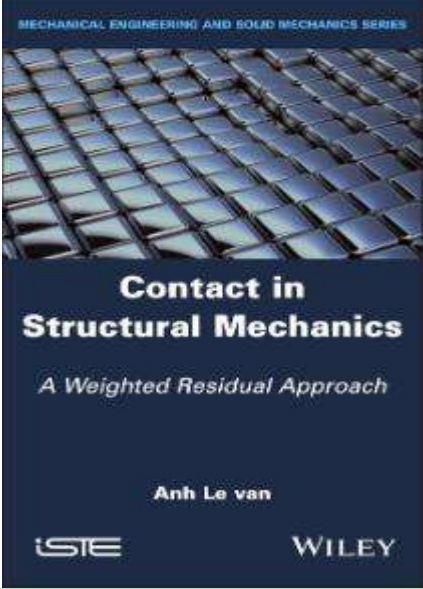
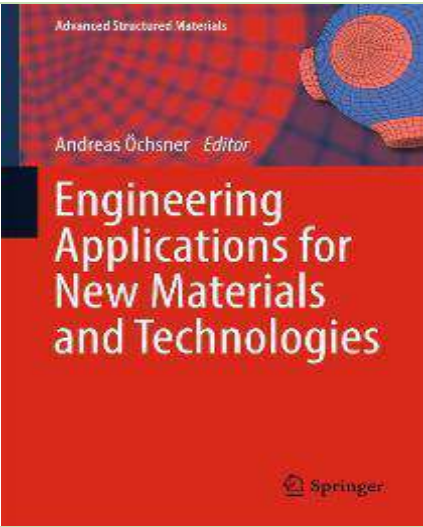
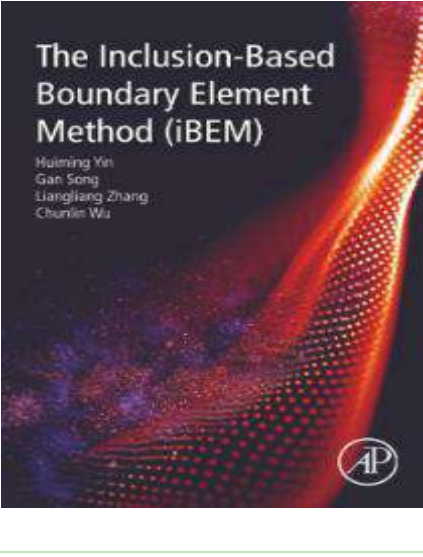
**SCAN IT FOR PREVIOUS
NEW ARRIVALS**

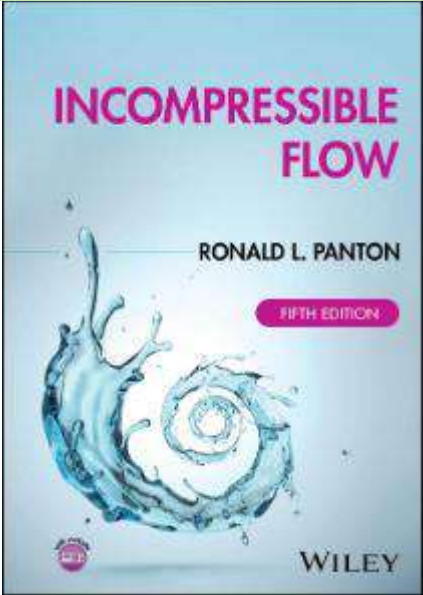
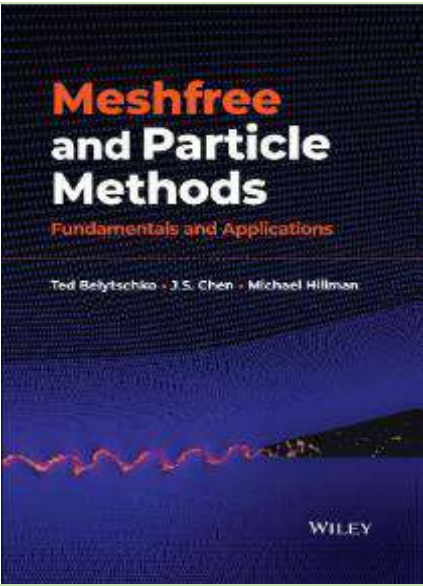
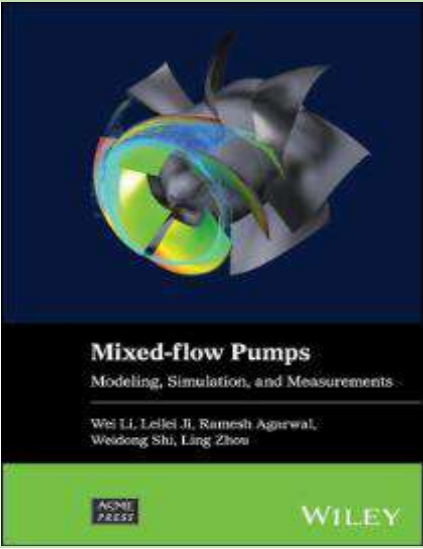


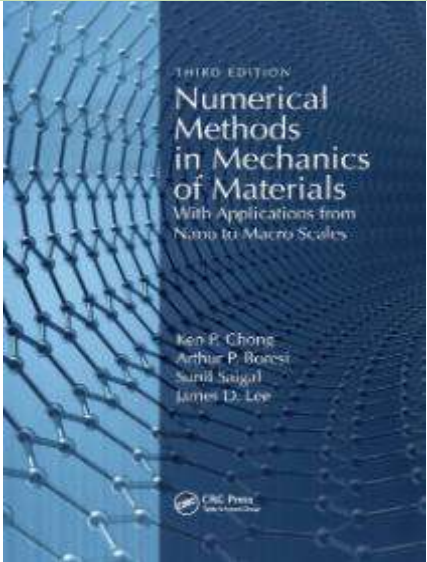
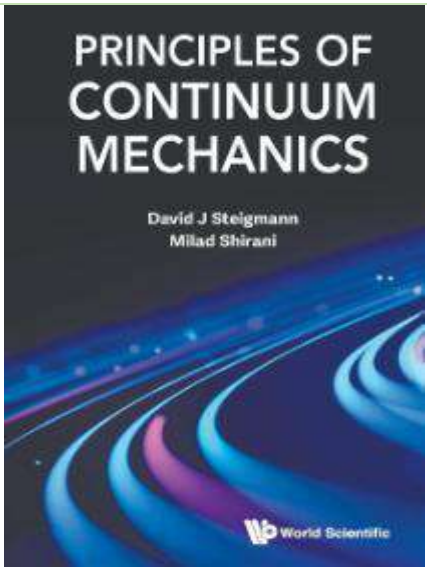
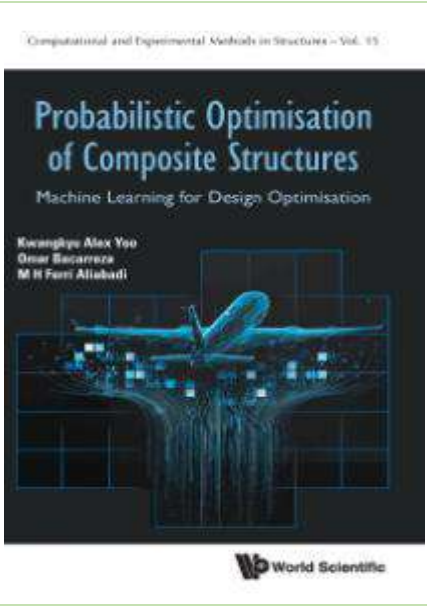
Contents

Departments/Centres/School/Units	Page No.
Applied Mechanics	1
Applied Research in Electronics	4
Atmospheric Sciences	6
Automotive Research and Tribology	6
Bharti School of Telecommunication Technology and Management.....	8
Biomedical Engineering	9
Central Library*	10
Chemical Engineering	15
Chemistry	17
Civil and Environmental Engineering.....	19
Computer Science and Engineering.....	27
Design	28
Energy Science and Engineering	29
Gratis	35
Humanities and Social Sciences	35
Management Studies	37
Materials Science and Engineering	38
Mathematics.....	42
Mechanical Engineering.....	44
Optics and Photonics	47
Physics.....	48
Rural Development and Technology	50
School of Public Policy	51
Sensors Instrumentation and Cyber-physical System Engineering.....	52
Textile and Fibre Engineering	52
Theses Collection	54

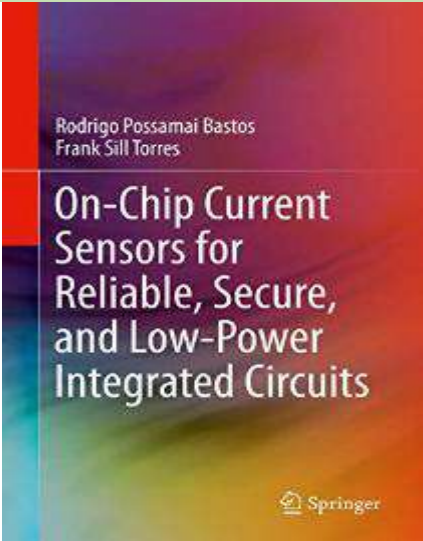
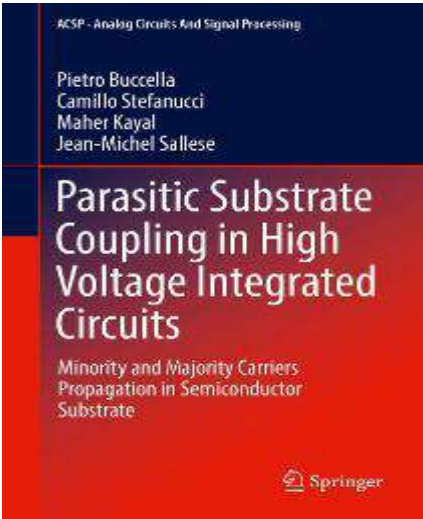
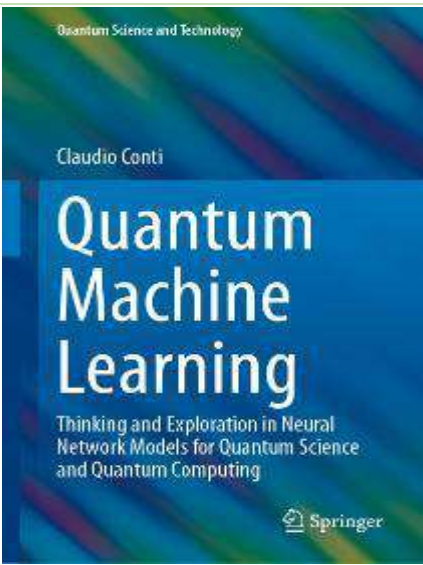
Applied Mechanics

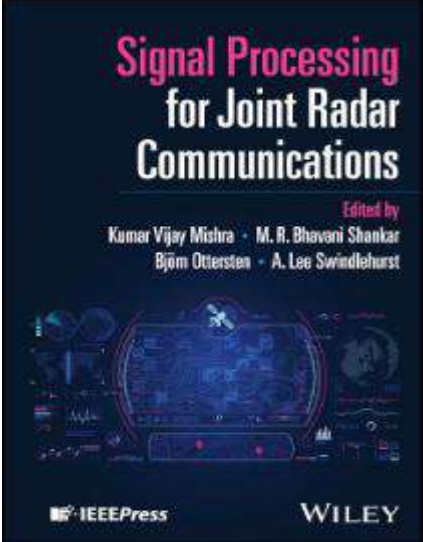
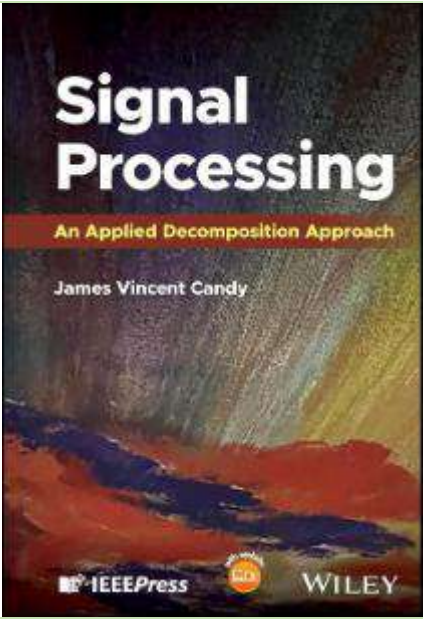
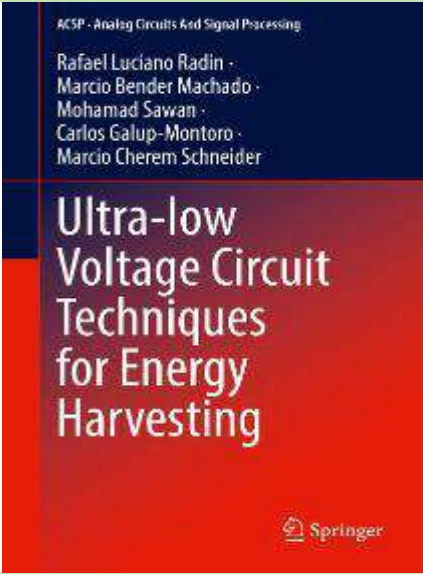
1		Contact in structural mechanics: a weighted residual approach by Anh Le Van, London: ISTE, 2024. x, 259 p., Mechanical engineering and solid mechanics series. Includes index (p. 257-259) ISBN: 9781786309068 Subject Terms: Contact mechanics; Numerical methods; Boundary conditions; Nonlinear mechanics; Finite element method 624.04 VAN-C Barcode: 181280; CL Click here for more details.
2		Engineering applications for new materials and technologies edited by Andreas Öchsner, Cham: Springer, 2018. xii, 661 p., Advanced structured materials. ISBN: 9783319726960 Subject Terms: Global warming; Degree of freedom; Electric propulsion system; Human behaviour; Emission of saline 620.2 -ENG Barcode: 181248; CL Click here for more details.
3		Inclusion-based boundary element method (iBEM) by Huiming Yin... (et al.), London: Academic Press, 2022. xxv, 327 p. Includes bibliography and index (p. 313-327) ISBN: 9780128193846 Subject Terms: Elastic; Incompressible vector potential; Potential flow; Stokes flow; Ellipsoidal inhomogeneities 517.544 -INC Barcode: 181145; CL Click here for more details.

4		Incompressible flow by Ronald L. Panton, 5th ed., Hoboken: Wiley, 2024. xii, 867 p. Includes index (p. 859-867) ISBN: 9781119984399 Subject Terms: Incompressible fluids; Potential flow; Stream function; Vorticity; Continuity equation 532 PAN-I Barcode: 181237; CL Click here for more details.
5		Meshfree and particle methods: fundamentals and applications by Ted Belytschko, J. S. Chen and Michael Hillman, Hoboken: Wiley, 2024. xxi, 324 p. Includes index (p.315-324) ISBN: 9780470848005 Subject Terms: Galerkin meshfree methods; Quadrature in meshfree methods; Meshfree approximations; Linear diffusion equation; Nonlinear meshfree methods 517.962 BEL-M Barcode: 181238; CL Click here for more details.
6		Mixed-flow pumps: modeling, simulation, and measurements by Wei Li... (et al.), Hoboken: Wiley, 2024. xvii, 312 p., Wiley - ASME Press series. Includes index (p. 307-312) ISBN: 9781119910787 Subject Terms: Fluid dynamics; Vortex dynamics; Sediment particles; Rotating stall; Turbulence models 621.65 -MIX Barcode: 181283; CL Click here for more details.
		Back to content

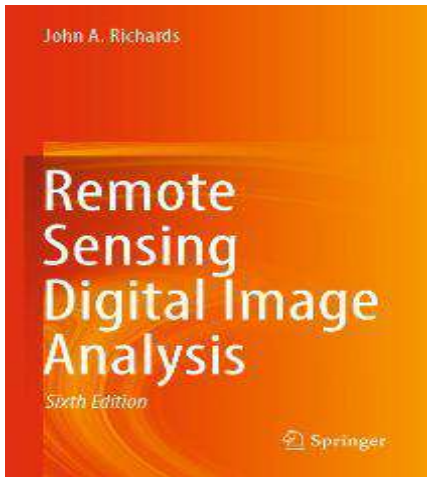
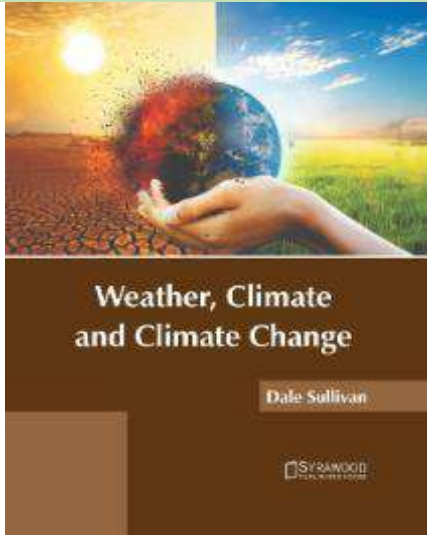
7		Numerical methods in mechanics of materials: with applications from nano to macro scales by Ken P. Chong... (et al.), 3rd ed., Boca Raton: CRC Press, 2019. xiv, 317 p. Includes index (p.303-307) ISBN: 9780367886257 Subject Terms: Divergence theorem; Engineering sheer strain; Torsion problem; Harmonic equation; Incidence matrix 620.1:517.96 -NUM Barcode: 181217; AM Click here for more details.
8		Principles of continuum mechanics by David J. Steigmann and Milad Shirani, Singapore: World Scientific Publishing, 2025. xiii, 322 p. Includes references (p. 313-322) ISBN: 9789819807543 Subject Terms: Tensor theory; Vector space; Constitutive equations; Viscous fluids; Kinematic constraints 531 STE-P Barcode: 181276; CL Click here for more details.
		Back to content
9		Probabilistic optimisation of composite structures: machine learning for design optimisation by Kwangkyu Alex Yoo, Omar Bacarreza and M. H. Ferri Aliabadi, London: World Scientific Publishing, 2025. xi, 192 p., Computational and experimental methods in structures. Includes index (p. 189-192) ISBN: 9781800616844 Subject Terms: Multifidelity models; Robust design; Reliability based design; Composite structures; Surrogate models 629.7.01:004.85 YOO-P Barcode: 181277; CL Click here for more details.

Applied Research in Electronics

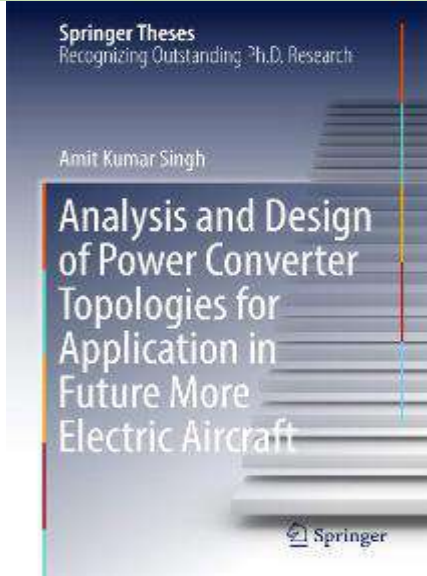
10		On-chip current sensors for reliable, secure, and low-power integrated circuits by Rodrigo Possamai Bastos and Frank Sill Torres, Cham: Springer, 2020. xxxii, 162 p. Includes index (p. 159-162) ISBN: 9783030293529 Subject Terms: Adaptive body biasing; Clustering algorithm; Concurrent error detection; Hardware trojan; Transition detector 621.382:681.586 BAS-O Barcode: 181251; CL Click here for more details.
11		Parasitic substrate coupling in high voltage integrated circuits: minority and majority carriers propagation in semiconductor substrate by Pietro Buccella... (et al.), Cham: Springer, 2018. xvii, 183 p., Analog circuits and signal processing. Includes index (p. 181-183) ISBN: 9783319743813 Subject Terms: TCAD validation; Protection strategies; Substrate network; Parasitic transistors; High voltage 621.382 -PAR Barcode: 181252; CL Click here for more details.
12		Quantum machine learning: thinking and exploration in neural network models for quantum science and quantum computing by Claudio Conti, Cham: Springer, 2024. xxiii, 378 p., Quantum Science and Technology. Includes index (p. 375-378) ISBN: 9783031442254 Subject Terms: Quantum mechanics; Field Ising model; Phase space; Computing; Squeezing 530.145:004.85 CON-Q Barcode: 181227-181228; CL; CARE Click here for more details.

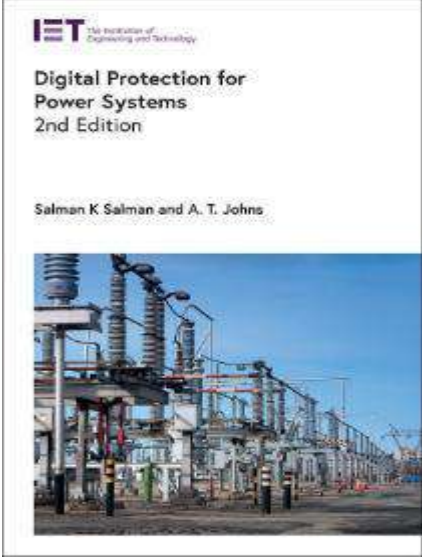
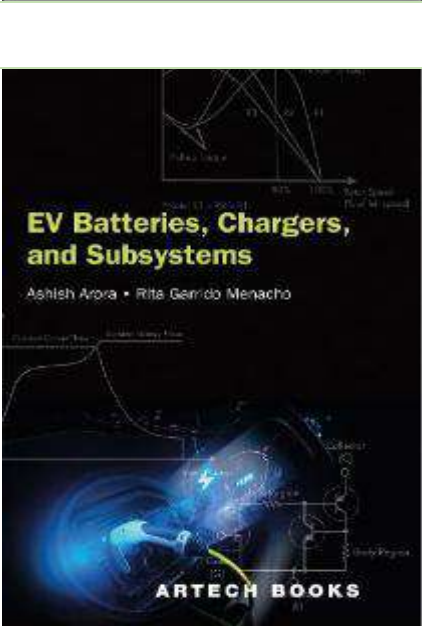
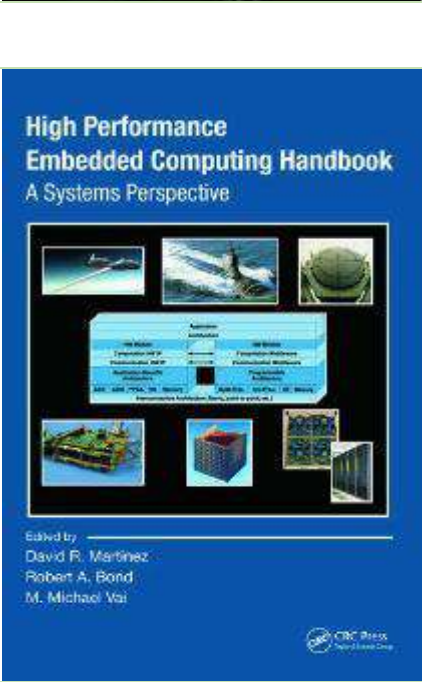
13		Signal processing for joint radar communications edited by Kumar Vijay Mishra... (et al.), Hoboken: Wiley, 2024. xxvii, 420 p. Includes index (p. 403-420) ISBN: 9781119795537 Subject Terms: Legitimate receivers; Power consumption; Machine learning; Radar communication; Covariance vector 621.396.9 -SIG Barcode: 181246; CL Click here for more details.
14		Signal processing: an applied decomposition approach by James Vincent Candy, Hoboken: Wiley, 2024. xxx, 450 p. Includes index (p. 437-450) ISBN: 9781394207442 Subject Terms: Entropy; Power matrix; Spectrum; Radar system; Projection operator 621.391 CAN-S Barcode: 181282; CL Click here for more details.
15		Ultra-low voltage circuit techniques for energy harvesting by Rafael Luciano Radin... (et al.), Cham: Springer, 2023. xiv, 149 p., Analog circuits and signal processing. Includes index (p. 147-149) ISBN: 9783031044915 Subject Terms: Oscillators; Rectifier design; Energy harvesting; Ultra low voltage; Inductive boost 621.382:620.91 -ULT Barcode: 181253; CL Click here for more details.
		Back to content

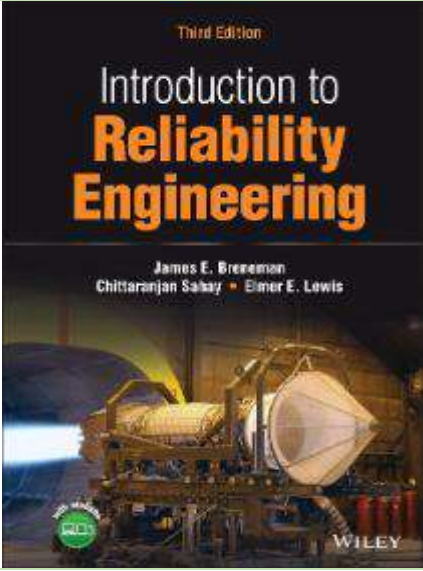
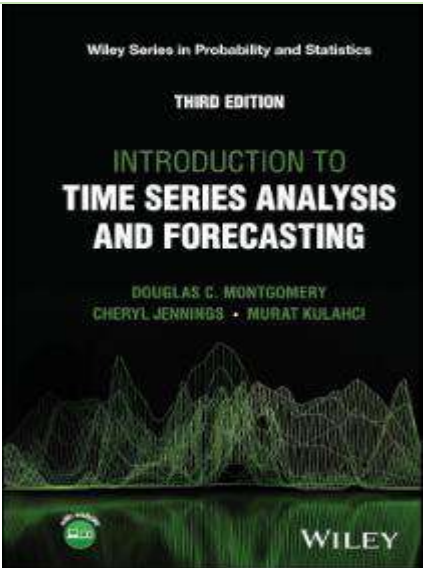
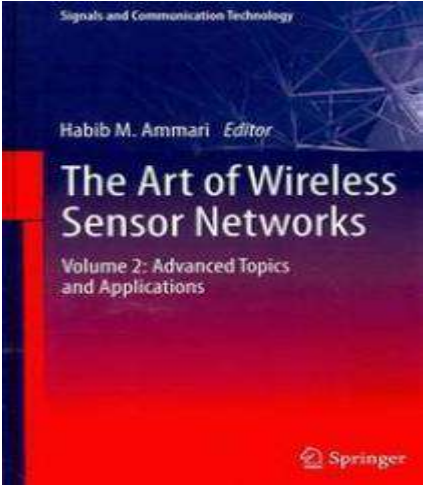
Atmospheric Sciences

16		Remote sensing digital image analysis by John A. Richards, 6th ed., Cham: Springer, 2022. xx, 567 p. Includes index (p. 559-567) ISBN: 9783030823290 Subject Terms: Image enhancement; Image resolution; Convolutional neural networks; Hyperspectral data; Spectral domain image 528.8:004.932 RIC-R Barcode: 181174; CL Click here for more details.
17		Weather, climate and climate change edited by Dale Sullivan, New York: Syrawood Publishing House, 2024. vii, 225 p. Includes index (p. 224-225) ISBN: 9781647405137 Subject Terms: Network module; Subseasonal temperature; Orographic rainfall; Synoptic dynamics; Soil moisture 551.583 -WEA Barcode: 181281; CL Click here for more details.

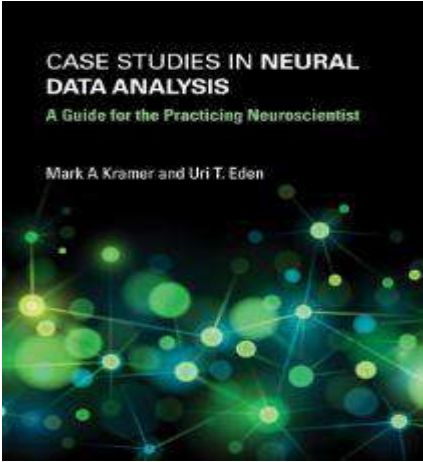
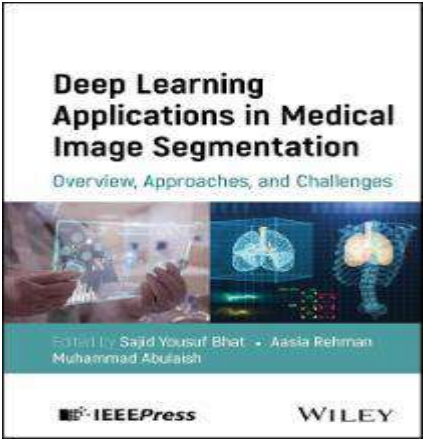
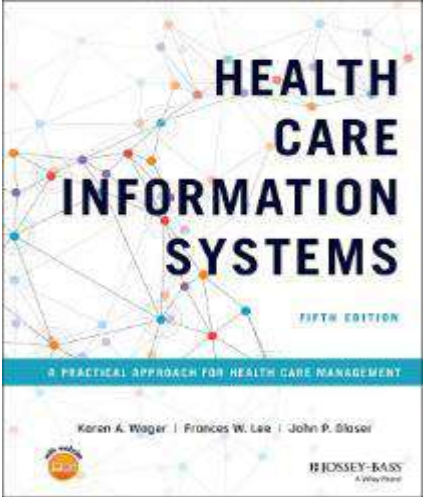
Automotive Research and Tribology

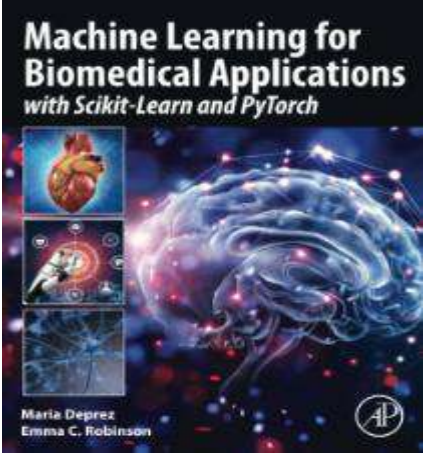
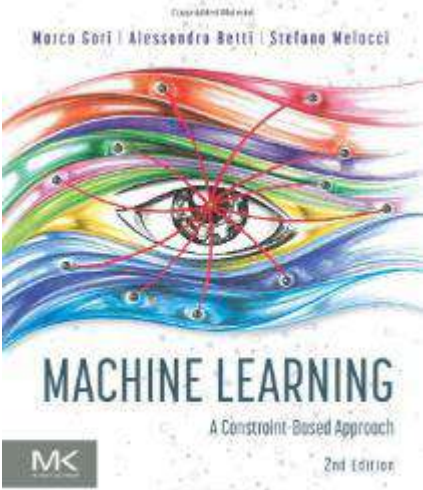
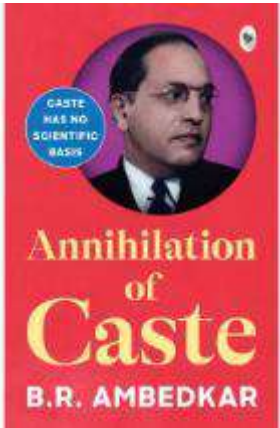
18		Analysis and design of power converter topologies for application in future more electric aircraft by Amit Kumar Singh, Singapore: Springer, 2018. xxxiv, 188 p., Springer theses: recognizing outstanding Ph.D. research. ISBN: 9789811082122 Subject Terms: Power electronics in aerospace; Electric power conversion; Electric aircraft; Power converter topologies; Advanced aircraft electrical systems 629.7.01:621.314.5 SIN-A Barcode: 181254; CART Click here for more details.

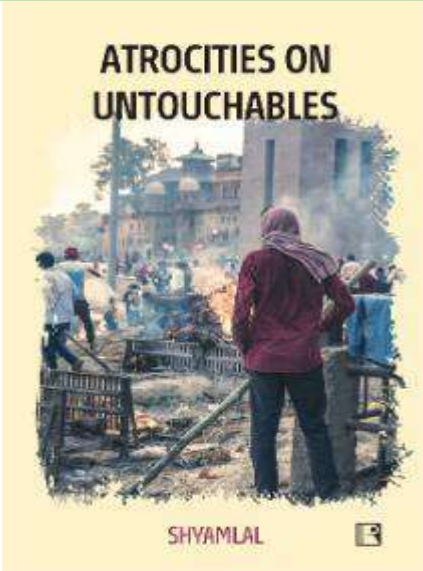
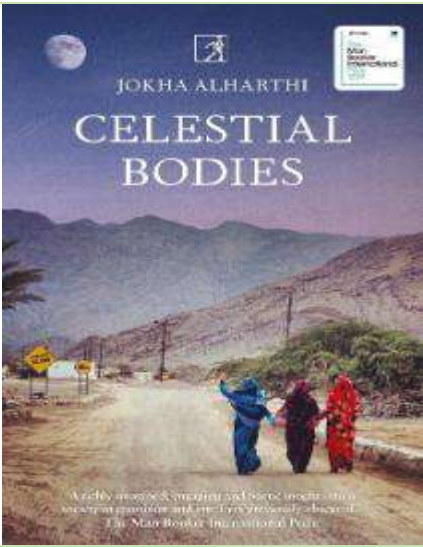
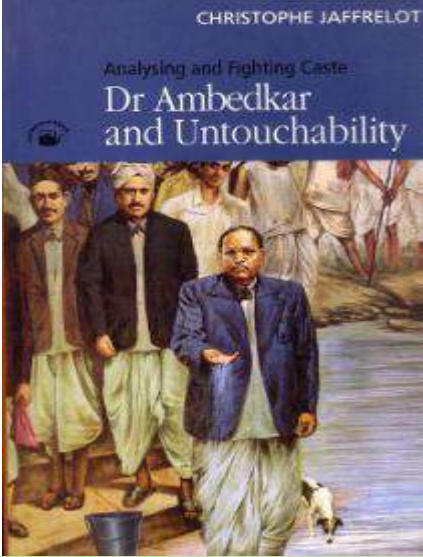
19		Digital protection for power systems by Salman K. Salman and A. T. Johns, 2nd ed., London: Institution of Engineering and Technology, 2022. xxxiii, 363 p., IET energy engineering series. Includes index (p. 357-363) ISBN: 9781839530432 Subject Terms: Digital protection; Sinusoidal wave; Fourier analysis; Glycans; Transformers 621.311:004.052.32 SAL-D Barcode: 181223-181224; CL; CART Click here for more details.
20		EV batteries, chargers, and subsystems by Ashish Arora and Rita Garrido Menacho, Norwood: Artech House, 2025. xv, 267 p. Includes index (p. 259-267) ISBN: 9781685690519 Subject Terms: Chargers; Cooling systems; Power converters; Brushless motors; Electrode manufacturing 629.064:621.354 ARO-E Barcode: 181249; CL Click here for more details.
21		High performance embedded computing handbook: a systems perspective edited by David R. Martinez, Robert A. Bond and M. Michael Vai, Boca Raton: CRC Press, 2013. xxvi, 567 p., CRC reference collection. Includes index (p. 531-567) ISBN: 9780849371974 Subject Terms: Computers - Microprocessors; High performance computing; Circuits and devices; Programming languages; Portable software technology RL-HB 681.3.06(021) -HIG Barcode: 181247; CL Click here for more details.
		Back to content

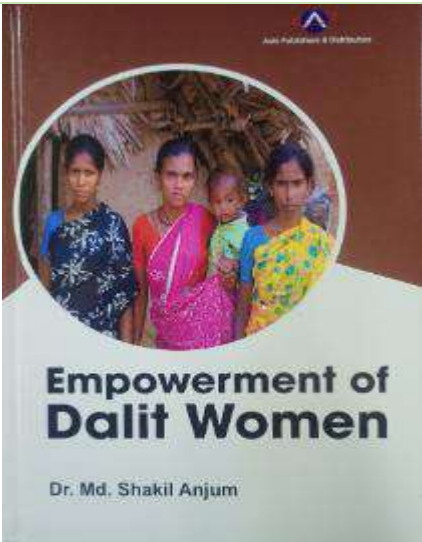
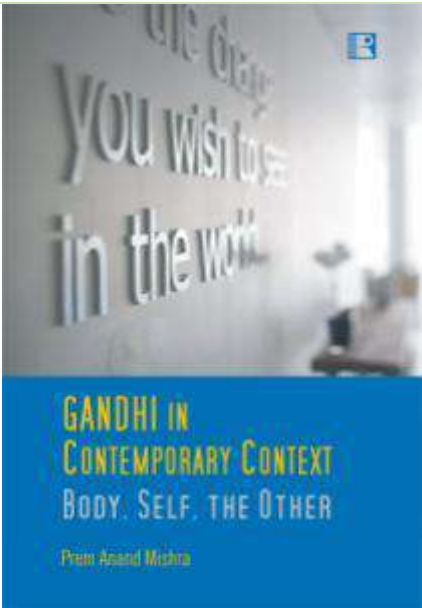
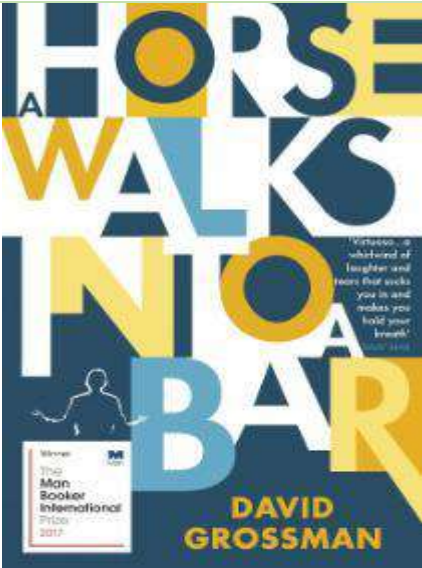
22		Introduction to reliability engineering by James E. Breneman, Chittaranjan Sahay and Elmer E. Lewis, 3rd ed., Hoboken: Wiley, 2022. xxi, 617 p. Includes index (p. 555-617) ISBN: 9781119640561 Subject Terms: Reliability; Quality; Probability concepts; Permutations; Confidence intervals 62:519.248 BRE-I Barcode: 181197; CL Click here for more details.
23		Introduction to time series analysis and forecasting by Douglas C. Montgomery, Cheryl L. Jennings, and Murat Kulahci, 3rd ed., Hoboken: Wiley, 2024. xv, 701 p., Wiley series in probability and statistics. Includes bibliography and index (p. 689-701) ISBN: 9781394186693 Subject Terms: Graphical displays; Data transformations; Forecasting; Regression coefficients; Exponential smoothing 519.246.8 MON-I Barcode: 181250; CL Click here for more details.
Bharti School of Telecommunication Technology and Management		
24		Art of wireless sensor networks edited by Habib M. Ammari, Heidelberg: Springer, 2014. xvi, 696 p., Signals and communication technology. ISBN: 9783642400650 Subject Terms: Wireless sensor networks; Telecommunication; Spatiotemporal coverage; Engineering; Systems engineering 621.391:681.586 -ART Barcode: 181189; CL Click here for more details.

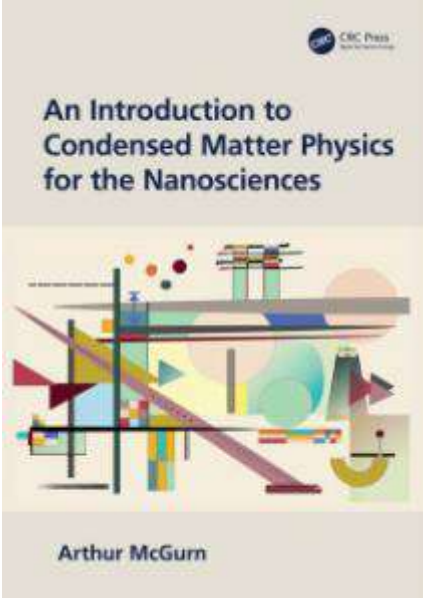
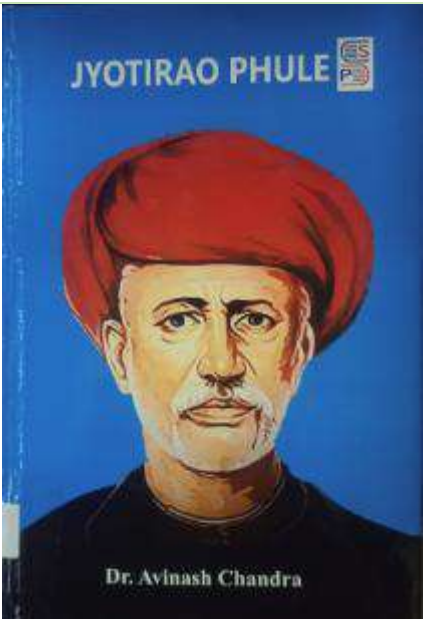
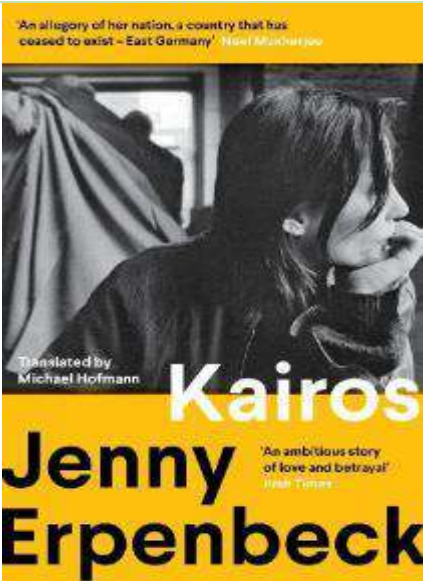
Biomedical Engineering

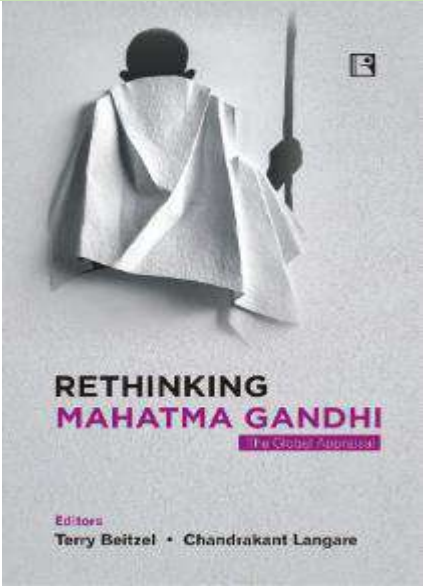
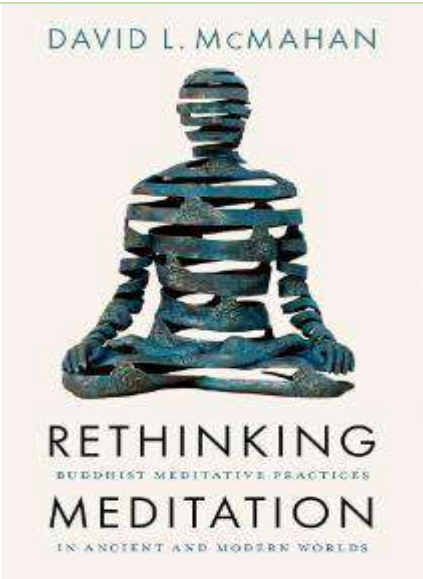
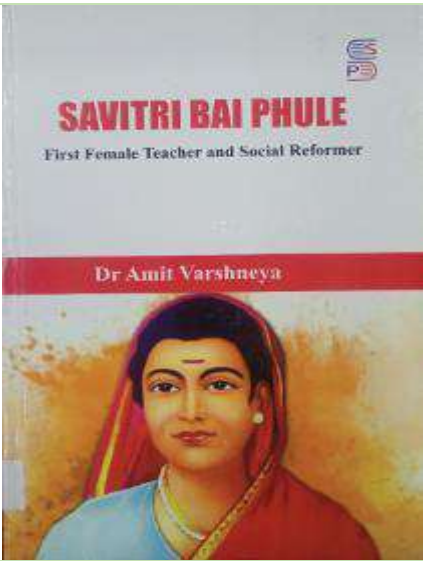
25		Case studies in neural data analysis: a guide for the practicing neuroscientist by Mark A. Kramer and Uri T. Eden, Cambridge: MIT Press, 2016. xiii, 370 p. Includes index (p. 367-370) ISBN: 9780262529372 Subject Terms: Electroencephalogram; Electrocorticogram; Rhythmic spiking; Spectral analysis; Visual inspection 616.8:004.42 KRA-C Barcode: 181220-181221; CL; CBME Click here for more details.
26		Deep learning applications in medical image segmentation: overview, approaches and challenges edited by Sajid Yousuf Bhat, Aasia Rehman and Muhammad Abulaish, New Jersey: IEEE Press, 2025. xxiv, 290 p. Includes index (p. 285-290) ISBN: 9781394245338 Subject Terms: Image segmentation; Deep learning models; White matter tissue; Medical imaging; Diabetic retinopathy 616-073:004.85 -DEE Barcode: 181166; CL Click here for more details.
27		Health care information systems: a practical approach for health care management by Karen A. Wager, Frances W. Lee and John P. Glaser, 5th ed., Hoboken: Wiley, 2022. xxv, 384 p. Includes index (p. 369-384) ISBN: 9781119853862 Subject Terms: Health information systems; Health data management; Decision support systems; Clinical informatics; Electronic health records 614.2:004.6 WAG-H Barcode: 181170; CL Click here for more details.
	Back to content	

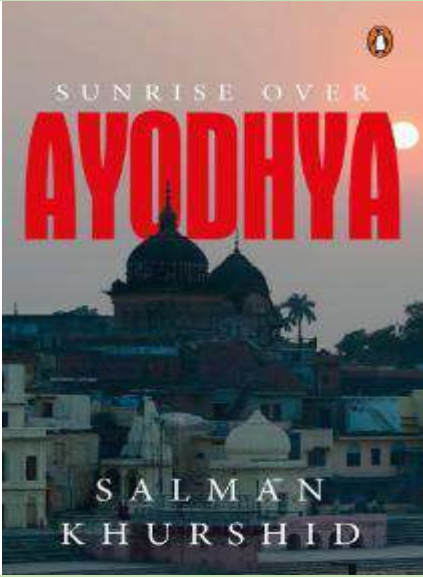
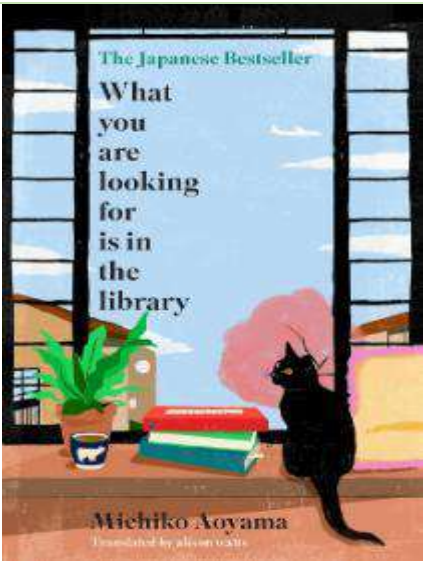
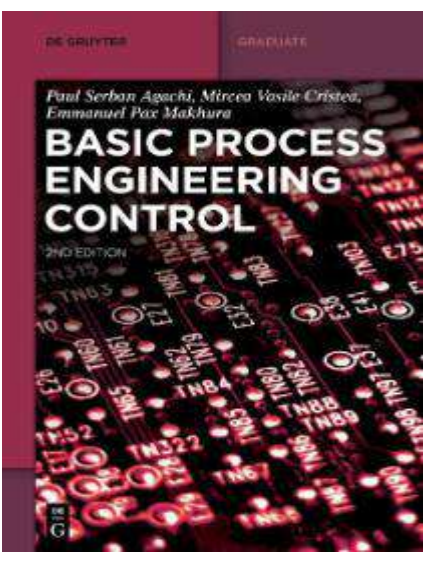
28		Machine learning for biomedical applications: with scikit-learn and PyTorch by Maria Deprez and Emma C. Robinson, London: Academic Press, 2024. xvii, 285 p. Includes references and index (p. 271-285) ISBN: 9780128229040 Subject Terms: Artificial intelligence; Biomedical research; Medical informatics computing; Regression; Deep learning basics 57.089:004.85 DEP-M Barcode: 181171; CL Click here for more details.
29		Machine learning: a constraint-based approach by Marco Gori, Alessandra Betti and Stefano Melacci, 2nd ed., Cambridge: Morgan Kaufmann Publishers, 2024. xviii, 537 p. Includes index (p. 525-537) ISBN: 9780323898591 Subject Terms: Algorithms; Linear threshold machines; Deep architectures; Artificial neural networks; Statistical learning 681.3 GOR-M Barcode: 181162; CL Click here for more details.
*Central Library		
30		Annihilation of caste by B. R. Ambedkar, Noida: Fingerprint Publishing, 2025. 123 p. ISBN: 9789358560770 Subject Terms: Caste system in India; Social justice in India; Cast reform; Dalit rights; Indian social reformers 316.342.3 AMB-A Barcode: 181202; CL Click here for more details.

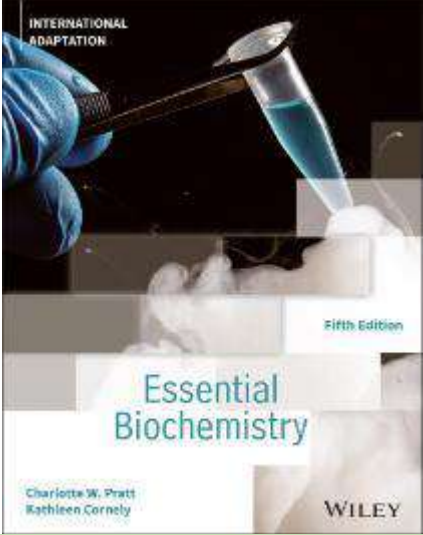
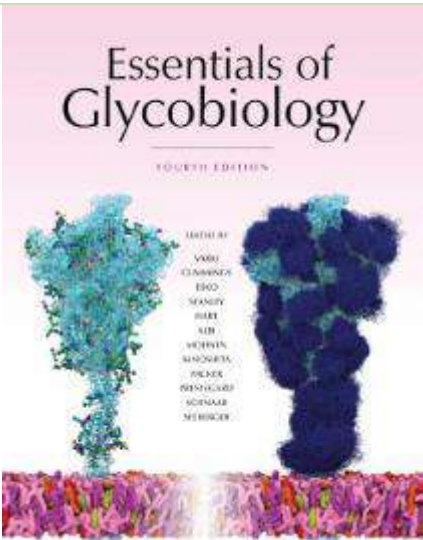
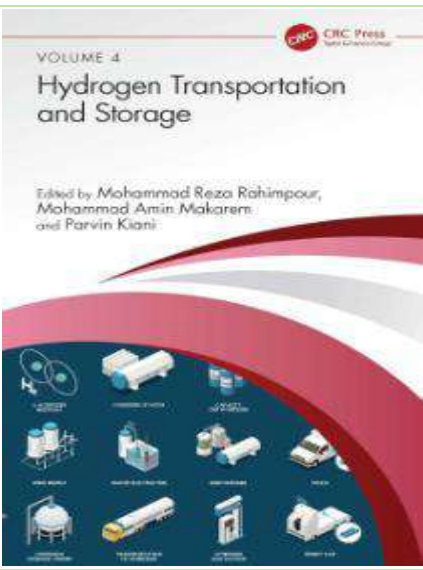
31		Atrocities on untouchables by Shyamlal, Jaipur: Rawat Publications, 2023. xii, 204 p. Includes index (p. 201-204) ISBN: 9788131613504 Subject Terms: Untouchability; Law and the state; Jat attacks; Agitation by untouchable; Rajput attacks 316.342.3 SHY-A Barcode: 181141; CL Click here for more details.
32		Celestial bodies by Jokha Alharthi and translated by Marilyn Booth, New Delhi: Simon and Schuster, 2019. xi, 243 p. ISBN: 9789386797568 Subject Terms: Novel; Masouda; Abdallah; Mayya; Azzam and Qamar 82-31 ALH-C Barcode: 181176; CL Click here for more details.
33		Dr. Ambedkar and untouchability: analysing and fighting caste by Christophe Jaffrelot, Ranikhet: Permanent Black, 2005. xiii, 205 p. Includes bibliography and index (p. 198-205) ISBN: 9788178241562 Subject Terms: Untouchability; Tukaram; Constable; Kabir Sharda; Robertson 316.342.3:304 JAF-A Barcode: 181203; CL Click here for more details.
		Back to content

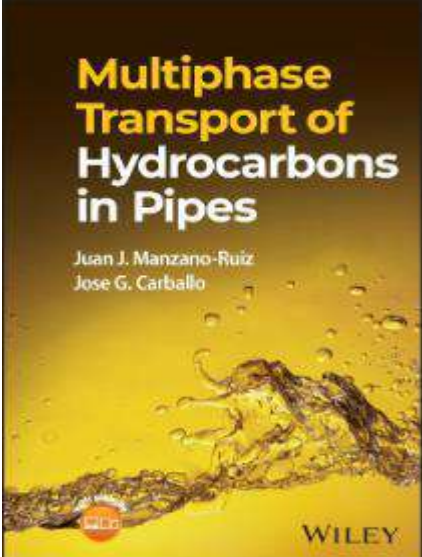
34		Empowerment of Dalit women by Md. Shakil Anjum, New Delhi: Asia Publishers and Distributors, 2025. xi, 264 p. Includes index (p. 263-264) ISBN: 9789348011268 Subject Terms: Bonded labour; Rural development; Critical development; Dalit schemes; Women socioeconomic status 316.342.3-055.2 ANJ-E Barcode: 181142; CL Click here for more details.
35		Gandhi in contemporary context: body, self, the other by Prem Anand Mishra, Jaipur: Rawat Publications, 2022. 229 p., Gandhian humanism. Includes bibliography and index (p. 218-229) ISBN: 9788131612781 Subject Terms: Jain philosophy; Gautama buddha; Feminism; Swaraj; Rigved 141 MIS-G Barcode: 181294; CL Click here for more details.
36		Horse walks Into a bar by David Grossman and translated by Jessica Cohen, London: Penguin Random House, 2017. 197 p. ISBN: 9781784704223 Subject Terms: Novel; Joke setup; Comedy; Punchline; Narrative 82-31 GRO-H Barcode: 181196; CL Click here for more details.

37		Introduction to condensed matter physics for the nanosciences by Arthur McGurn, Oxon: CRC Press, 2023. xiii, 340 p. Includes index (p. 339-340) ISBN: 9780367517090 Subject Terms: Semiconductor junction; Single electron transistors; Rectifiers; Conductivity; Lasers 538.9:620.3 MCG-I Barcode: 181144; CL Click here for more details.
38		Jyotirao Phule by Avinash Chandra, New Delhi: Saddle Publishers, 2025. viii, 248 p. Includes index (p. 247-248) ISBN: 9788119312054 Subject Terms: Women's education pioneer; Anti-caste movement; Social reform; Dalit rights; Satyashodhak samaj 929PHU CHA-J Barcode: 181204; CL Click here for more details.
39		Kairos by Jenny Erpenbeck and translated by Michael Hofmann, London: Granta, 2024. 293 p. ISBN: 9781783786138 Subject Terms: Love story; Betrayal story; Attraction; Novel; Literature 82-31 ERP-K Barcode: 181177; CL Click here for more details.

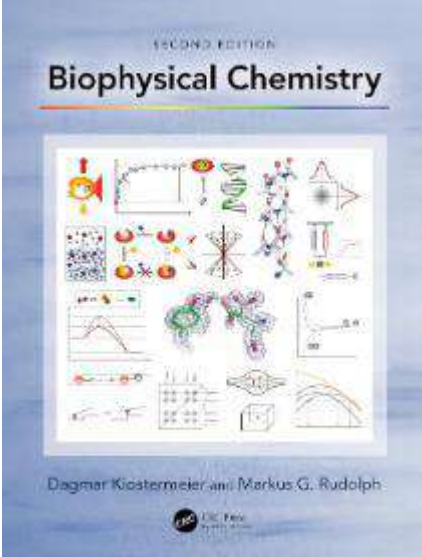
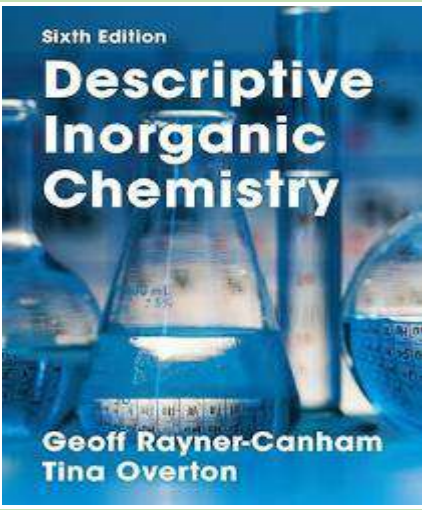
40		Rethinking Mahatma Gandhi: the global appraisal edited by Terry Beitzel and Chandrakant Langare, Jaipur: Rawat Publications, 2021. xxxvii, 396 p. Includes index (p. 389-396) ISBN: 9788131611906 Subject Terms: Gandhian ideology; Aristotle; Benjamin; Jainism; Partition of India 141:323.1 -RET Barcode: 181295; CL Click here for more details.
41		Rethinking meditation: buddhist meditative practices in ancient and modern worlds by David L. McMahan, New York: Oxford University Press, 2024. xii, 246 p. Includes index (p. 237-246) ISBN: 9780197788653 Subject Terms: Neural maps; Enlightenment machines; Cultural repertoires; Ethic; Secularism 2-583 MCM-R Barcode: 181140; CL Click here for more details.
42		Savitri Bai Phule: first female teacher and social reformer by Amit Varshneya, New Delhi: Saddle Publishers, 2025. viii, 236 p. Includes index (p. 235-236) ISBN: 9788119312153 Subject Terms: Political dilemmas; Woman's education in India; Social reform in India; Women's rights activism; Caste reform 929PHU VAR-S Barcode: 181205; CL Click here for more details.

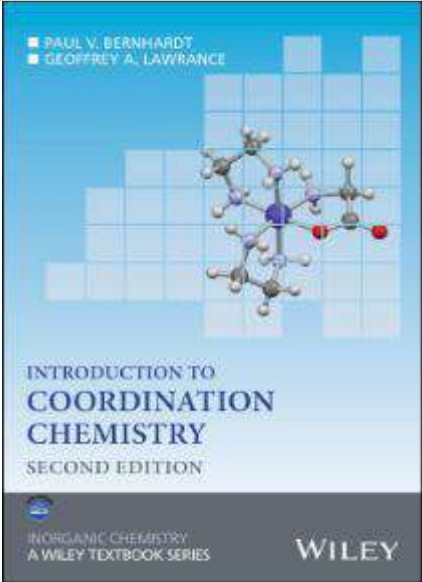
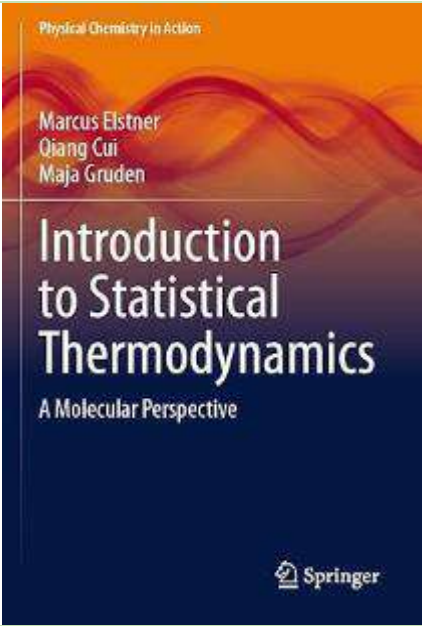
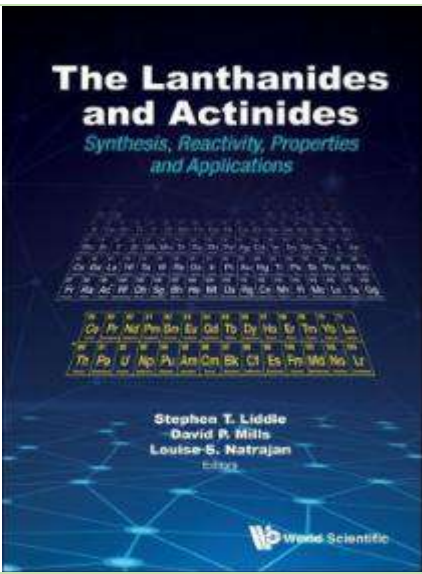
43		Sunrise over Ayodhya: nationhood in our times by Salman Khurshid, Gurugram: Penguin Random House, 2021. xiv, 365 p. ISBN: 9780670096145 Subject Terms: Nationhood; Ayodhya; Ram Mandir; Social Harmony; Religion 347.95:2-67 KHU-S Barcode: 181272; CL Click here for more details.
44		What you are looking for is in the library by Michiko Aoyama and translated by Alison Watts, London: Penguin Random House, 2023. 250 p. ISBN: 9780857529121 Subject Terms: Library stories; Personal growth; Community connection; Transformative power; Literature 82-31 AOY-W Barcode: 181300; CL Click here for more details.
Chemical Engineering		
45		Basic process engineering control by Paul Serban Agachi, Mircea Vasile Cristea and Emmanuel Pax Makhura, 2nd ed., Berlin: De Gruyter, 2020. xii, 404 p., De Gruyter graduate. Includes index (p. 401-404) ISBN: 9783110647891 Subject Terms: Chemical engineering; Systems engineering; Mathematical modeling; Manual and automatic control; Transducers and measuring systems 621-50 AGA-B Barcode: 181172; CL Click here for more details.
		Back to content

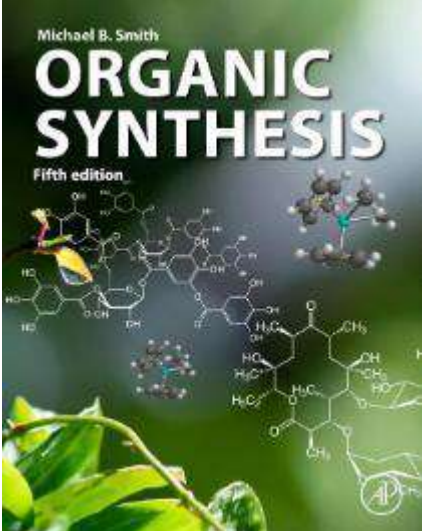
46		Essential biochemistry by Charlotte W. Pratt and Kathleen Cornely, 5th ed., Croydon: Wiley, 2024. xviii, 709 p. Includes index ISBN: 9781394223275 Subject Terms: Metabolism; Bioenergetics; Aqueous chemistry; Catalysis; Carbohydrates 577.1 PRA-E Barcode: 181148; CL Click here for more details.
47		Essentials of glycobiology edited by Ajit Varki... (et al.), 4th ed., New York: Cold Spring Harbor Laboratory Press, 2022. xxvii, 859 p. Includes index (p. 835-859) ISBN: 9781621824213 Subject Terms: Monosaccharide; Glycosylation precursors; Glycosyltransferases; Cellular Organization; Glycans 577.114 -ESS Barcode: 181304; CL Click here for more details.
48		Hydrogen transportation and storage edited by Mohammad Reza Rahimpour, Mohammad Amin Makarem and Parvin Kiani, Boca Raton: CRC Press, 2025. xi, 270 p., Handbooks of hydrogen production and applications. Includes index (p. 263-270) ISBN: 9781032466101 Subject Terms: Hydrogen storage; Power and energy; Hydrogen as fuel; Renewable energy; Chemical processing and design 662.769.2:658.78 -HYD Barcode: 181239; CHE Click here for more details.

49		Multiphase transport of hydrocarbons in pipes by Juan J. Manzano-Ruiz and Jose G. Carballo, Hoboken: Wiley, 2024. xxix, 316 p. Includes index (p. 301-316) ISBN: 9781119888512 Subject Terms: Time fluctuations; Void fraction; Mass flows; Drift velocities; Multicomponent fluids 532.542:547.21 MAN-M Barcode: 181299; CL Click here for more details.
----	--	---

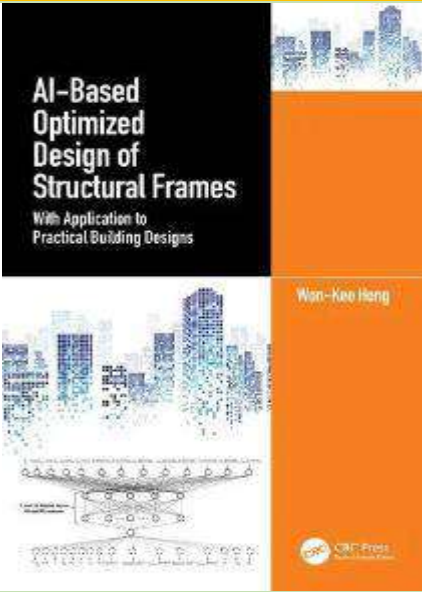
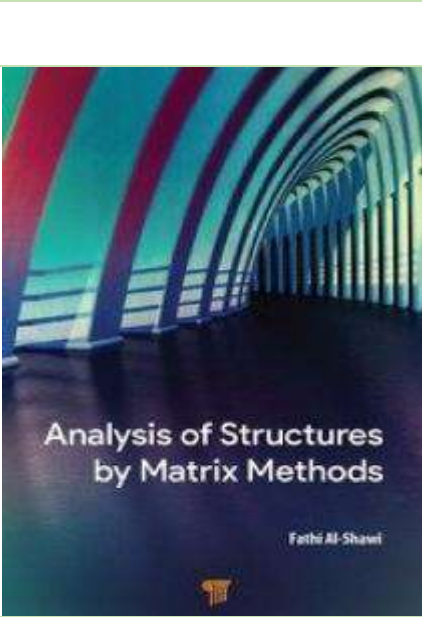
Chemistry

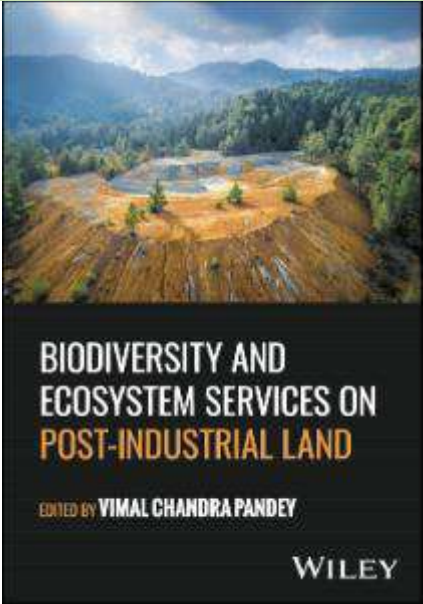
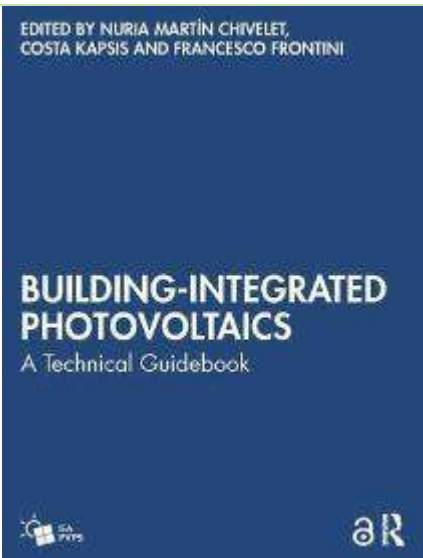
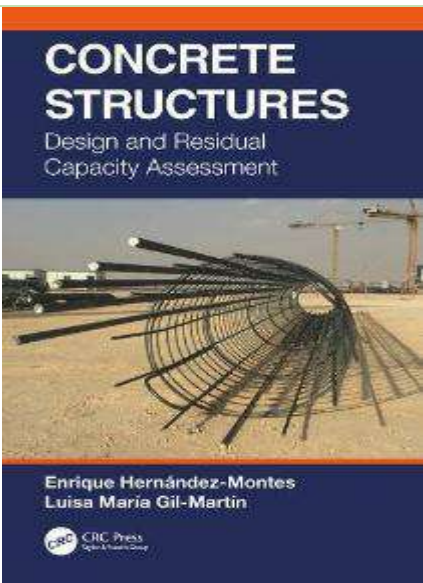
50		Biophysical chemistry by Dagmar Klostermeier and Markus G. Rudolph, 2nd ed., Boca Raton: CRC Press, 2025. xxii, 922 p. Includes index (p. 905-922) ISBN: 9781032060835 Subject Terms: Macromolecular modeling; Crystallography; Single-molecule kinetics; Electrochemistry; Optical spectroscopy 577.3 KLO-B Barcode: 181302; CL Click here for more details.
51		Descriptive inorganic chemistry by Geoff Rayner-Canham and Tina Overton, 6th ed., New York: W. H. Freeman, 2014. xxiv, 691 p. Includes index (p. I-I - I-17) ISBN: 9781319154110 Subject Terms: Molecular spectroscopy; Nanometal particles; Ionic crystal structures; Hydrogen; Oxidation and reduction 546 CAN-D Barcode: 181230; CL Click here for more details.

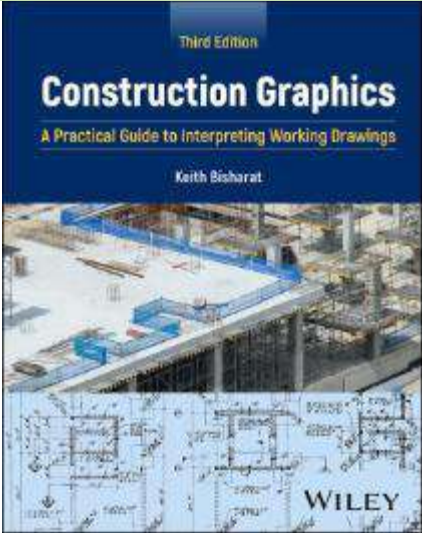
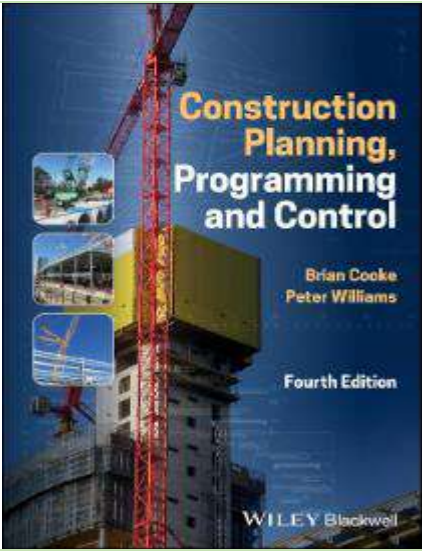
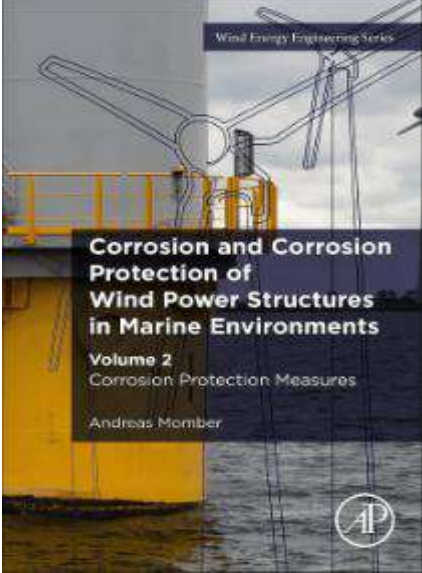
52		Introduction to coordination chemistry by Paul V. Bernhardt and Geoffrey A. Lawrance, 2nd ed., Hoboken: Wiley, 2025. xiii, 383 p., Inorganic Chemistry. Includes index (p. 375-383) ISBN: 9781394190713 Subject Terms: Covalent bonding; Coordination sphere; Cyclam; Electron transfer; Orbital symmetry 544.142 BER-I Barcode: 181231-181232; CL; CHY Click here for more details.
53		Introduction to statistical thermodynamics: a molecular perspective by Marcus Elstner, Qiang Cui and Maja Gruden, Cham: Springer, 2024. xxvi, 554 p., Physical chemistry in action. Includes index (p. 549-554) ISBN: 9783031549960 Subject Terms: Entropy; Kinetics; Quantum statistical; Boltzmann distribution; Density functional theory 536.75 ELS-I Barcode: 181255; CL Click here for more details.
54		Lanthanides and actinides: synthesis, reactivity, properties and applications edited by Stephen T Liddle, David P. Mills and Louise S. Natrajan, London: World Scientific Publishing, 2022. xxi, 704 p. ISBN: 9781800610156 Subject Terms: Anhydrous halide; Lanthanide; Homoleptic hydride; Carbene complexes; Radioactive sources 546.6/.7 -LAN Barcode: 181297; CL Click here for more details.
		Back to content

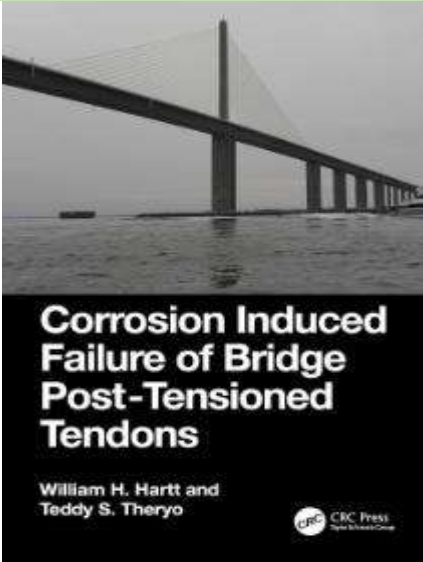
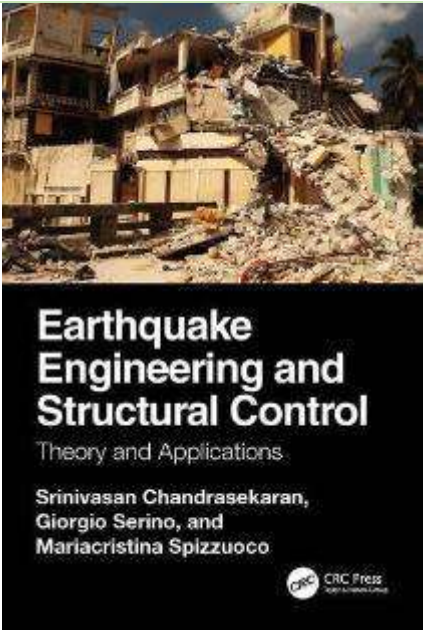
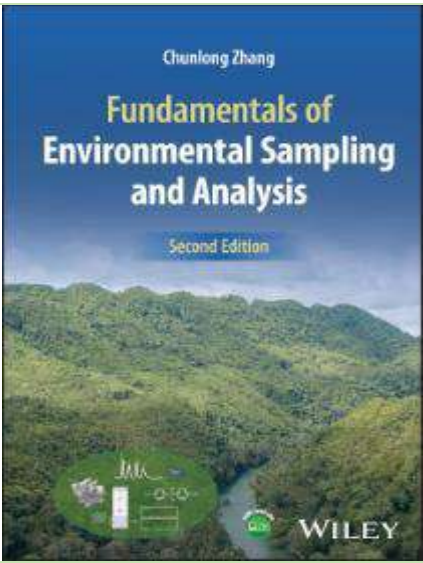
55		Organic synthesis by Michael B. Smith, 5th ed., London: Academic Press, 2025. xxvi, 1118 p. Includes index (p. 1089-1118) ISBN: 9780443158674 Subject Terms: Photochemistry; Quantum field; Smith reaction; Carbon radicals; Hydrogenation 547.057 SMI-O Barcode: 181259-181260; CL; CHY Click here for more details.
----	--	---

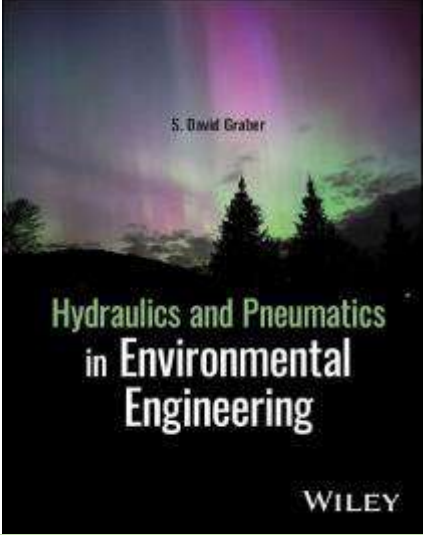
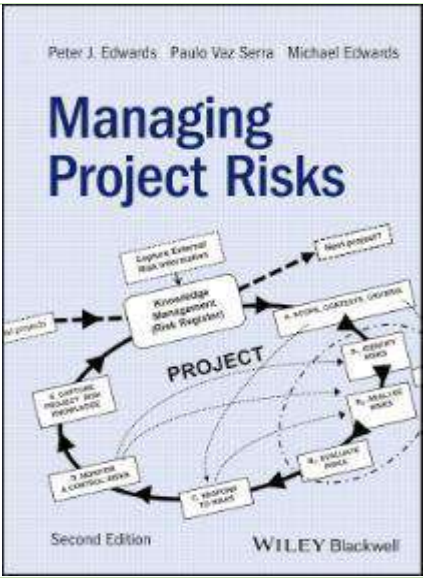
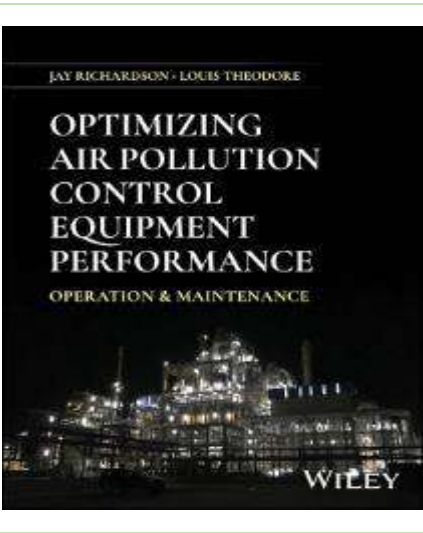
Civil and Environmental Engineering

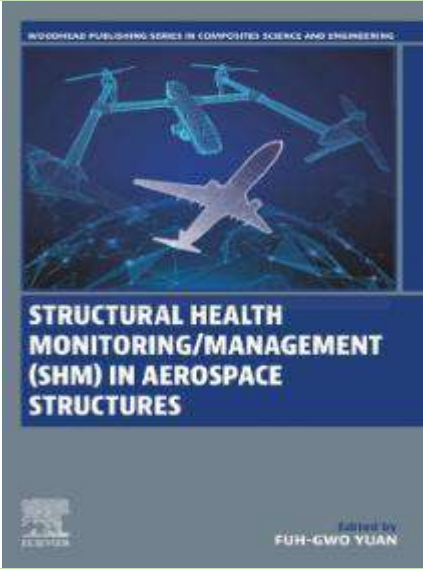
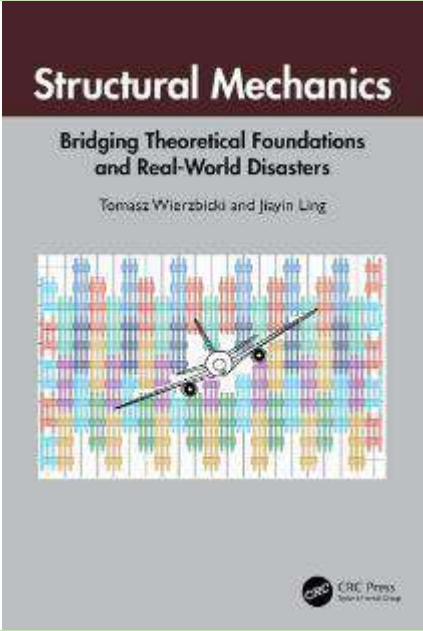
56		AI-based optimized design of structural frames: with application to practical building designs by Won-Kee Hong, Boca Raton: CRC Press, 2025. xxiv, 582 p. Includes index (p. 575-582) ISBN: 9781032536811 Subject Terms: Lagrange optimization; Longitudinal beams; Pareto frontier; Steel structures; Parallel training method 624.04:004.8 HON-A Barcode: 181233; CL Click here for more details.
57		Analysis of structures by matrix methods by Fathi Al-Shawi, Singapore: Jenny Stanford Publishing, 2023. vii, 531 p. Includes index (p. 527-531) ISBN: 9789814968195 Subject Terms: Beams; Arches; Grillage analysis; Plane frames; Struts 512.643 AL-A Barcode: 181216; CL Click here for more details.

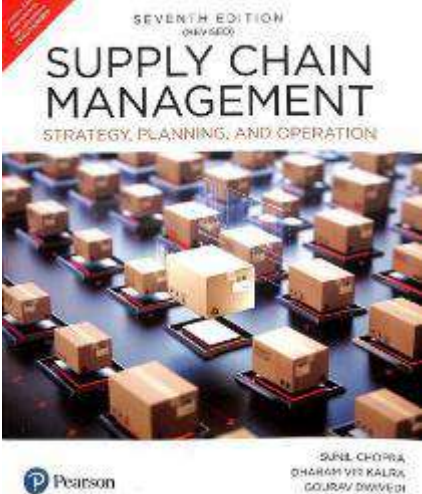
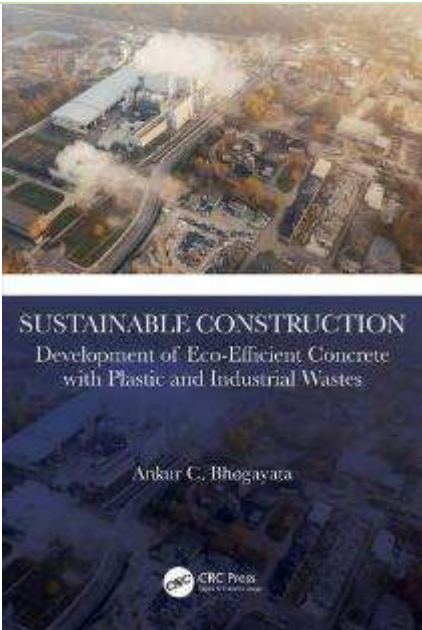
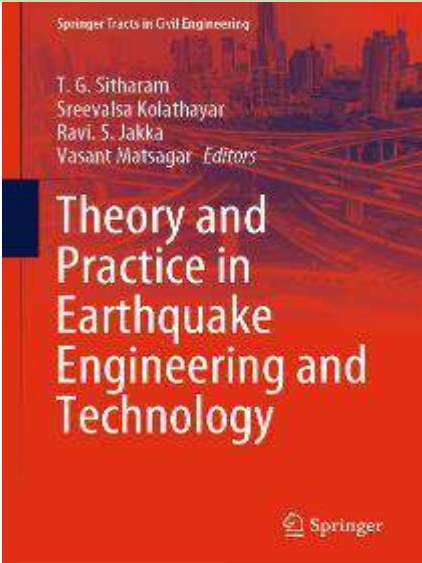
58		Biodiversity and ecosystem services on post-industrial land edited by Vimal Chandra Pandey, Hoboken: Wiley, 2025. xxvii, 385 p. Includes index (p. 381-385) ISBN: 9781394187386 Subject Terms: Thermal pollution; Organic carbon; Soil pollution; Biodiversity loss; Climate change mitigation 574.1:502.174 -BIO Barcode: 181265; CL Click here for more details.
59		Building-integrated photovoltaics: a technical guidebook edited by Nuria Martin Chivelet, Costa Kapsis and Francesco Frontini, New York: Routledge, 2025. xii, 179 p. Includes index (p. 177-179) ISBN: 9781032517056 Subject Terms: Solar energy; Renewable energy; Green building; Energy efficiency; Photovoltaic systems 721:621.311.243 -BUI Barcode: 181266; CL Click here for more details.
60		Concrete structures: design and residual capacity assessment by Enrique Hernandez-Montes and Luisa Maria Gil-Martin, Abingdon: CRC Press, 2024. xiv, 456 p. Includes index (p. 453-456) ISBN: 9780367770679 Subject Terms: Moment of inertia; Residual capacity; Corrosion; Bond strength; Cable zone 624.012.4 HER-C Barcode: 181264; CL Click here for more details.

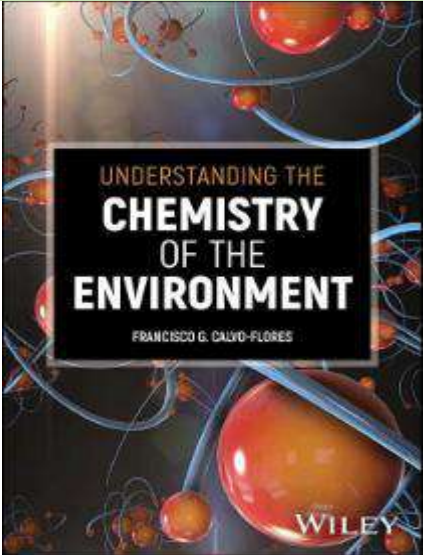
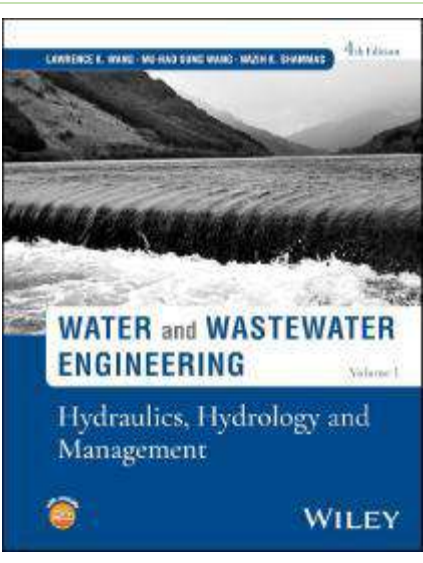
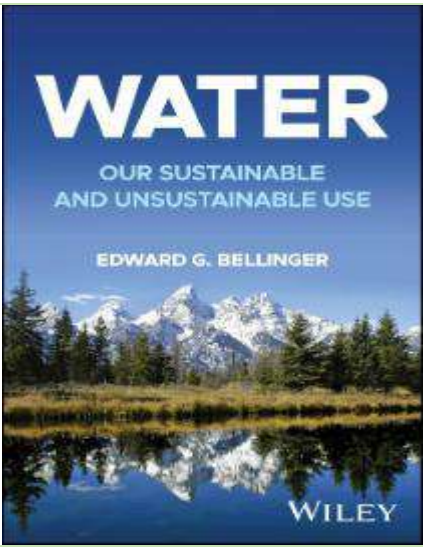
61		Construction graphics: a practical guide to interpreting working drawings by Keith Bisharat, 3rd ed., Hoboken: Wiley, 2025. xii, 498 p. Includes index (p. 493-498) ISBN: 9781394222261 Subject Terms: Circuit breaker; Fabrication drawing; Plumbing; Management; Construction drawings 624:766 BIS-C Barcode: 181267; CL Click here for more details.
62		Construction planning, programming and control by Brian Cooke and Peter Williams, 4th ed., Hoboken: Wiley, 2025. xxxii, 704 p. Includes index (p. 689-704) ISBN: 9781119109457 Subject Terms: Building - Planning; Project environment; Project risk; Modern methods of construction; Planning process 624:005.8 COO-C Barcode: 181146; CL Click here for more details.
63		Corrosion and corrosion protection of wind power structures in marine environments by Andreas Mømber, London: Academic Press, 2024. xix, 734 p., Wind energy engineering series. Includes bibliography and index (p. 729-734) ISBN: 9780323857444 Subject Terms: Offshore wind; Electrochemistry; Corrosion models; Crevice corrosion; Biofilms 620.193:621.548 MOM-C Barcode: 181257; CL Click here for more details.
		Back to content

64		Corrosion induced failure of bridge post-tensioned tendons by William H. Hartt and Teddy S. Theryo, Abingdon: CRC Press, 2025. xi, 94 p. Includes index (p. 93-94) ISBN: 9781032357225 Subject Terms: Accelerated corrosion test; Wando river bridge; Redundant tension system; Niles channel bridge; Wire fractures 624.2/.8:620.193 HAR-C Barcode: 181234; CL Click here for more details.
65		Earthquake engineering and structural control: theory and applications by Srinivasan Chandrasekaran, Giorgio Serino and Mariacristina Spizzuoco, Boca Raton: CRC Press, 2025. xix, 411 p. Includes references and index (p. 405-411) ISBN: 9781032785097 Subject Terms: Environmental loads; Gravity loads; Structural dynamic; Seismology; Damping effects 624.042.7 CHA-E Barcode: 181235; CL Click here for more details.
66		Fundamentals of environmental sampling and analysis by Chunlong Zhang, 2nd ed., Hoboken: Wiley, 2024. xxviii, 547 p. Includes index (p. 538-547) ISBN: 9781119778561 Subject Terms: Environmental analysis; Monitoring techniques; Environmental sampling; Legally defensible data; Analytical chemistry 628.52:543 ZHA-F Barcode: 181158; CL Click here for more details.

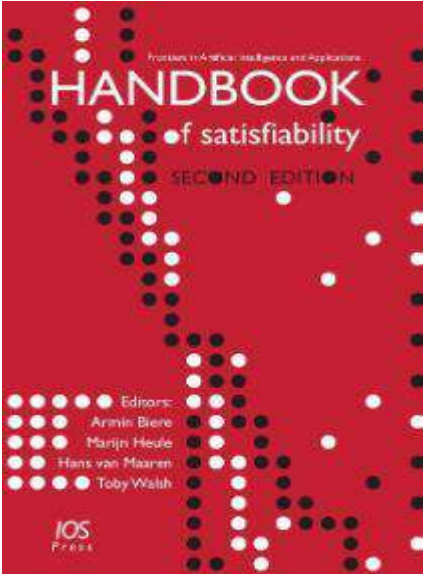
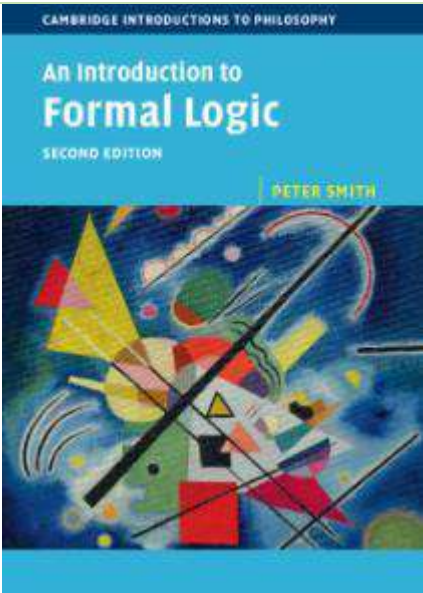
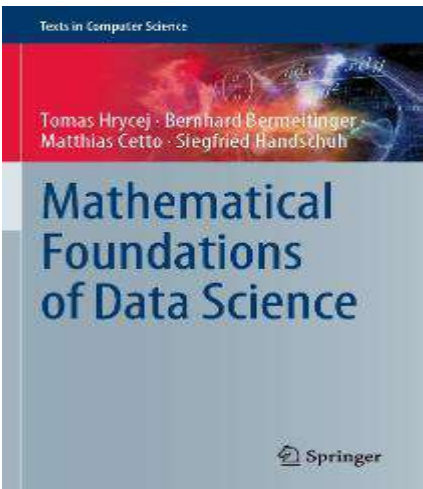
67		Hydraulics and pneumatics in environmental engineering by S. David Graber, Hoboken: Wiley, 2025. xvii, 526 p. Includes index (p. 521-526) ISBN: 9781394266142 Subject Terms: Fluid flow; Viscosity; Closed systems; Momentum; Laminar Flow 502/504:532 GRA-H Barcode: 181157; CL Click here for more details.
68		Managing project risks by Peter J. Edwards, Paulo Vaz Serra and Michael Edwards, 2nd ed., Hoboken: Wiley, 2025. xxii, 488 p. Includes index (p. 483-488) ISBN: 9781394263806 Subject Terms: Caveat; Risk consequences; Psychology; Risk classification; Multisystem risk 658.5:005.334 EDW-M Barcode: 181268; CL Click here for more details.
69		Optimizing air pollution control equipment performance: operation and maintenance by Jay Richardson and Louis Theodore, Hoboken: Wiley, 2025. xvii, 316 p. Includes index (p. 314-316) ISBN: 9781394288656 Subject Terms: Air pollution control; Industrial emissions; Particulate removal; Maintenance practices; Operation strategies 614.71:621 RIC-O Barcode: 181269; CL Click here for more details.
		Back to content

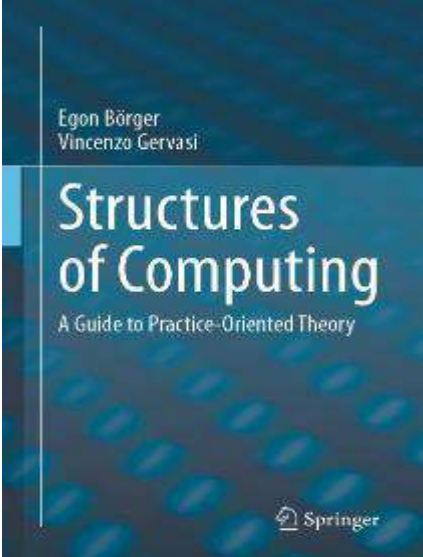
70		Sediment transport dynamics by Weiming Wu, Leiden: CRC Press, 2024. xxi, 646 p. Includes index (p. 638-646) ISBN: 9781032380285 Subject Terms: Sediment yields; Turbulence; Size gradation; Average velocity; Mineral composition 551.3.051 WU-S Barcode: 181214; CL Click here for more details.
71		Structural health monitoring/management (SHM) in aerospace structures edited by Fuh-Gwo Yuan, Cambridge: Elsevier, 2024. xiii, 518 p., Woodhead publishing series in composites science and engineering. Includes index (p. 503-518) ISBN: 9780443154768 Subject Terms: Additive manufacturing; Wave; Health monitoring; Digital twin; Array technology 629.7:624.04 -STR Barcode: 181236; CL Click here for more details.
72		Structural mechanics: bridging theoretical foundations and real-world disasters by Tomasz Wierzbicki and Jiayin Ling, Boca Raton: CRC Press, 2025. xxii, 560 p. Includes index (p. 551-560) ISBN: 9781032842813 Subject Terms: Stress; Strain; Elasticity; Optimum design; Column buckling 624.04 WIE-S Barcode: 181160; CL Click here for more details.

73		Supply chain management : strategy, planning, and operation by Sunil Chopra, Dharam Vir Kalra and Gourav Dwivedi, 7th ed., Noida: Pearson, 2024. xx, 574 p, - . Includes bibliography and index (p. 566-574) ISBN: 9789361592898 Subject Terms: Retail markets; Geoeconomics turbulences; Indian environment; Decision design; Offshore uncertainty 658.78 CHO-S Barcode: 181317-181320; TB Click here for more details.
74		Sustainable construction: development of eco-efficient concrete with plastic and industrial wastes by Ankur C. Bhogayata, Boca Raton: CRC Press, 2024. xiii, 192 p. Includes index (p. 189-192) ISBN: 9781032527956 Subject Terms: Plastic wastes; Waste generation; Industrial wastes; Mechanical properties; Concrete 624:502.131.1 BHO-S Barcode: 181215; CL Click here for more details.
75		Theory and practice in earthquake engineering and technology edited by T. G. Sitharam... (et al.), Singapore: Springer, 2023. xiv, 368 p., Springer tracts in civil engineering. ISBN: 9789811923234 Subject Terms: Hazard microzonation; Design methodologies; Seismic induced pounding; Stratified soil; Susceptibility maps 624.042.7 -THE Barcode: 181139; CL Click here for more details.

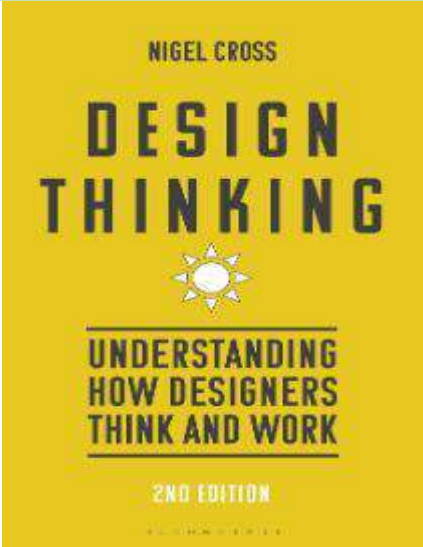
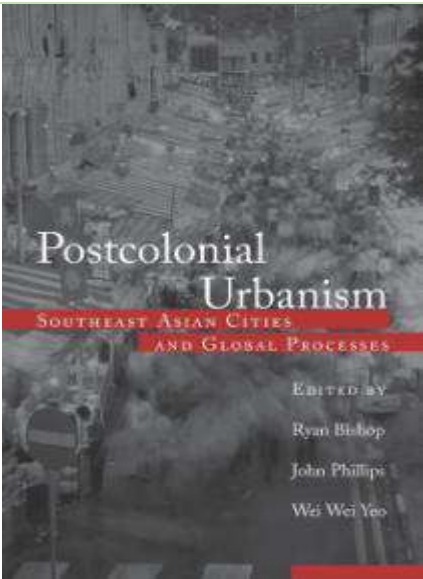
76		Understanding the chemistry of the environment by Francisco G. Calvo-Flores, Hoboken: Wiley, 2025. xxi, 453 p. Includes index (p. 449-453) ISBN: 9781119568636 Subject Terms: Environmental - Chemistry; Chemical pollution; Toxicity; Chemical compounds; Pesticides 628.52:54 CAL-U Barcode: 181159; CL Click here for more details.
77		Water and wastewater engineering: hydraulics, hydrology and management by Lawrence K. Wang, Mu-Hao Sung Wang and Nazih K. Shammass, 4th ed., Hoboken: Wiley, 2024. xxvi, 790 p. Includes index (p. 781-790) ISBN: 9781394179107 Subject Terms: Water - Purification; Water sources - Surface water; Groundwater; Water distribution systems; Hydraulics of sewer systems 628.1 WAN-W Barcode: 181270; CL Click here for more details.
78		Water: our sustainable and unsustainable use by Edward G. Bellinger, Hoboken: Wiley, 2025. xv, 400 p. Includes index (p. 383-400) ISBN: 9781118797181 Subject Terms: Water movement; Atmospheric water; Reservoirs; Water demands; Water resources 628.1 BEL-W Barcode: 181147; CL Click here for more details.
		Back to content

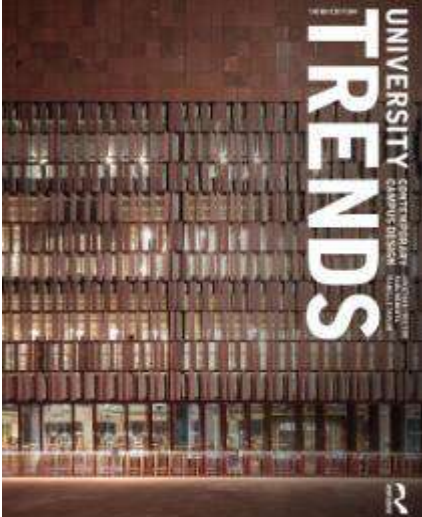
Computer Science and Engineering

79		Handbook of satisfiability edited by Armin Biere... (et al.), 2nd ed., Amsterdam: IOS Press, 2021. xvii, 1465 p., Frontiers in artificial intelligence and applications. Includes index (p. 1371-1465) ISBN: 9781643681603 Subject Terms: Combinatorial problem - Handbooks, manual etc.; Algorithms - Handbooks, manual etc.; Data structures - Handbooks, manual etc.; Proof Complexity - Handbooks, manual etc.; Boolean satisfiability - Handbooks, manual etc. RL-HB 510.633(021) -HAN Barcode: 181271; CL Click here for more details.
80		Introduction formal logic by Peter Smith, 2nd ed., Cambridge: Cambridge University Press, 2020. viii, 420 p., Cambridge Introductions to philosophy. Includes index (p. 415-420) ISBN: 9781108411394 Subject Terms: Explosion and absurdity; Tautologies; Informal quantifier rules; Logical validity; Deductive logic 510.65 SMI-I Barcode: 181192-181193; CL; CSE Click here for more details.
81		Mathematical foundations of data science by Tomas Hrycej... (et al.), Cham: Springer, 2023. xiii, 212 p., Texts in computer science. Includes index (p. 209-212) ISBN: 9783031190766 Subject Terms: Neural networks; Natural language processing; Computer vision; Numerical algorithms; Data science 519.5:681.3 -MAT Barcode: 181186; CL Click here for more details.

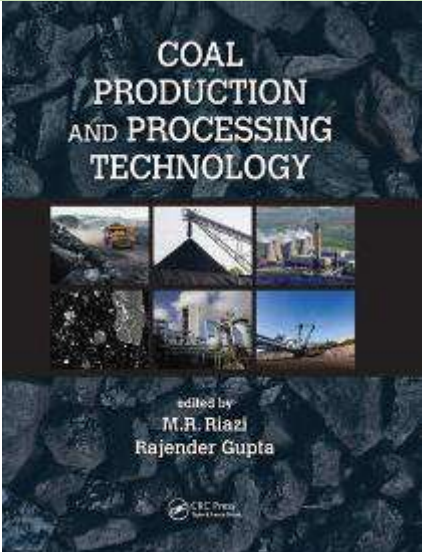
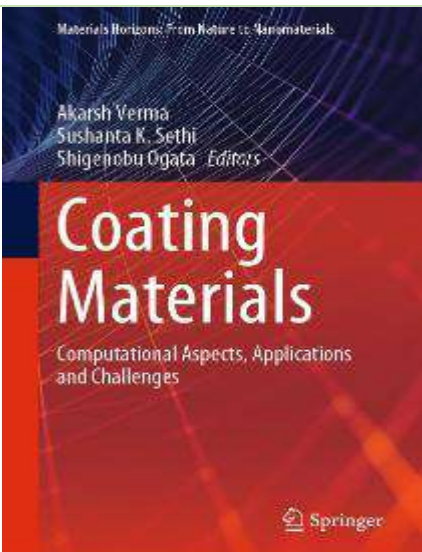
82		Structures of Computing: a guide to practice oriented theory by Egon Borger and Vincenzo Gervasi, Cham: Springer, 2024. xvi, 281 p. Includes index (p. 279-281) ISBN: 9783031543579 Subject Terms: Computational data; Dynamic sequential; Asynchronous control; Correctness analysis; Complexity analysis 681.3 BOR-S Barcode: 181187; CL Click here for more details.
----	--	---

Design

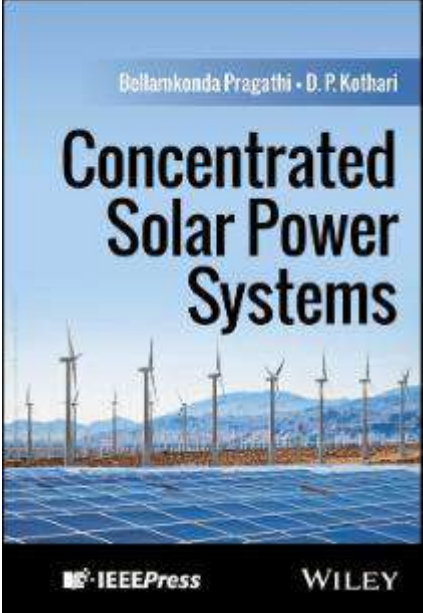
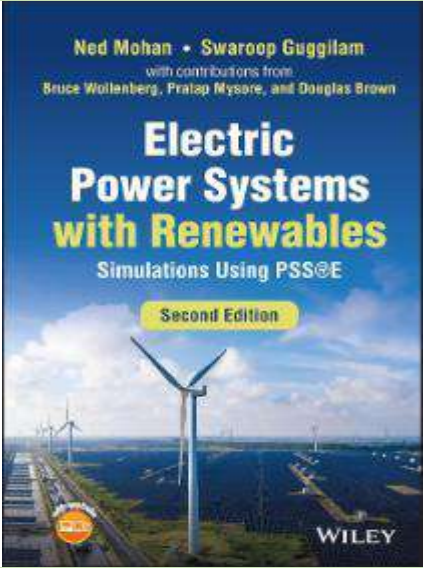
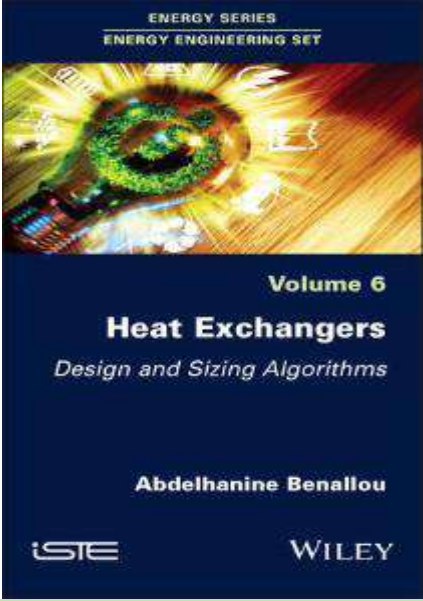
83		Design thinking: understanding how designers think and work by Nigel Cross, 2nd ed., London: Bloomsbury Publishing, 2023. ix, 187 p. Includes index (p. 183-187) ISBN: 9781350305069 Subject Terms: Designing; Modelling; Innovation; Sewing machine; Uncertainty 74:159.955 CRO-D Barcode: 181284; CL Click here for more details.
84		Postcolonial urbanism: southeast Asian cities and global processes edited by Ryan Bishop, John Phillips and Wei- Wei Yeo, Oxon: Routledge, 2003. v, 335 p. Includes index (p. 327-335) ISBN: 9780415932509 Subject Terms: Perpetuating cities; Urban space; Regionalism; Postcolonialism; Vampires 711.4:316.323.83 -POS Barcode: 181151; CL Click here for more details.

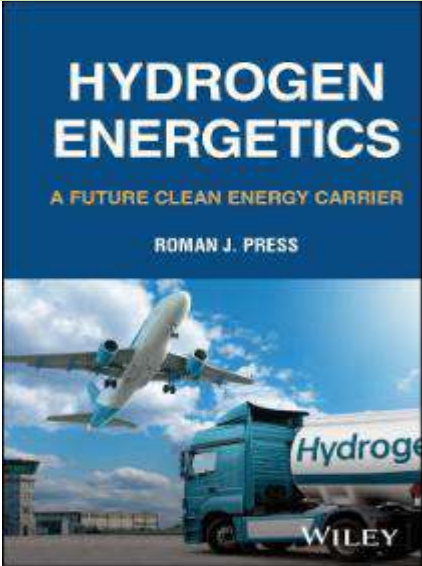
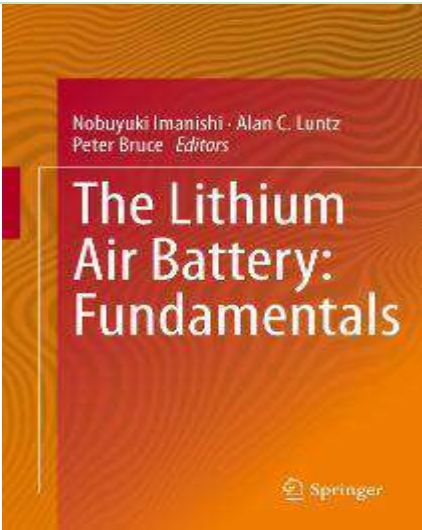
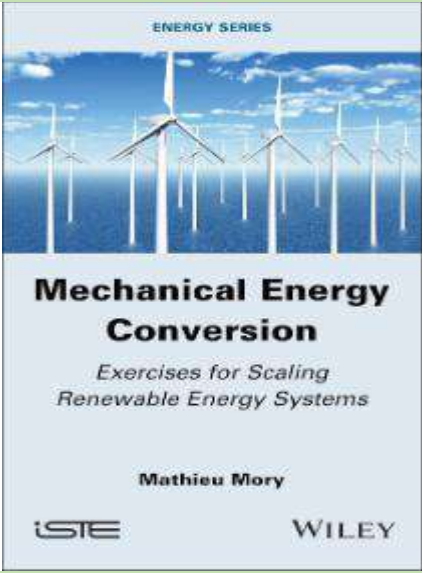
85		University trends: contemporary campus design by Jonathan Coulson, Paul Roberts and Isabelle Taylor, 3rd ed., Abingdon: Routledge, 2023. 214 p. ISBN: 9780367264321 Subject Terms: Architecture-buildings; Adaptive reuse; Interdisciplinarity; Urbanity; Revitalising master plans 727:378.4 COU-U Barcode: 181152; CL Click here for more details.
----	--	--

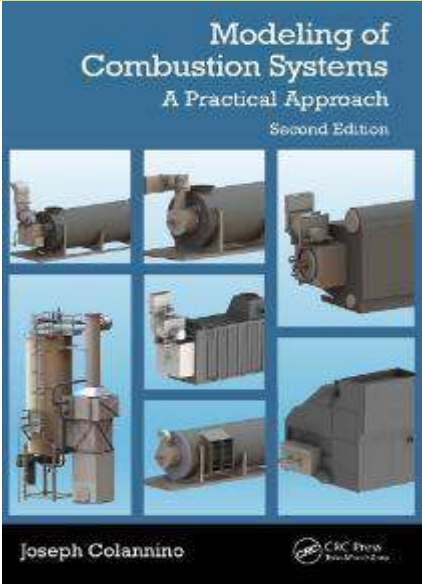
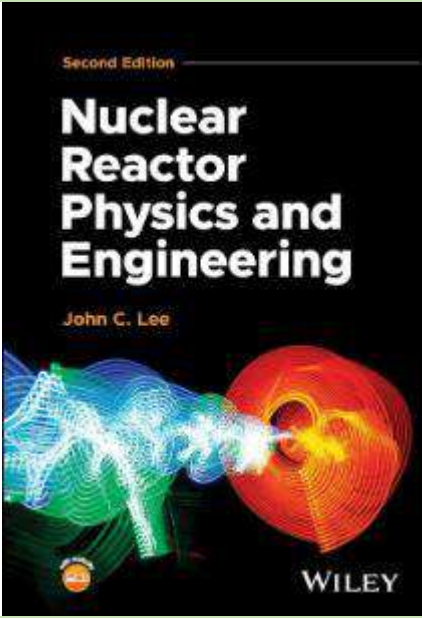
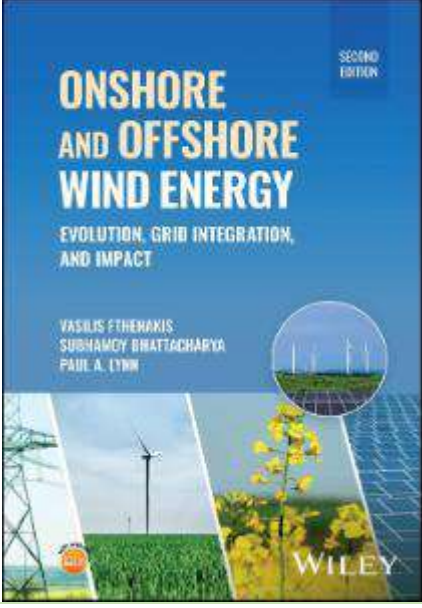
Energy Science and Engineering

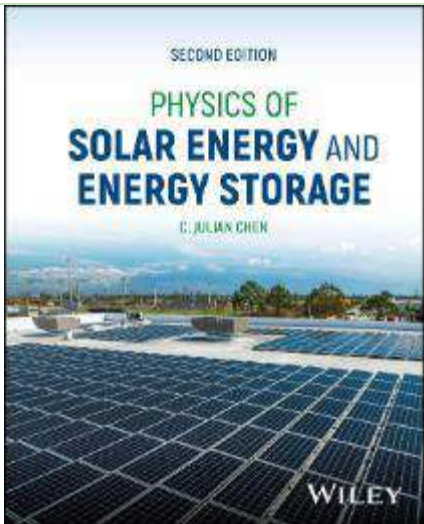
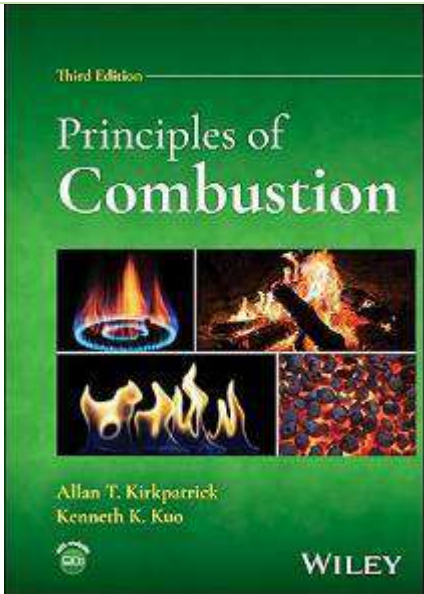
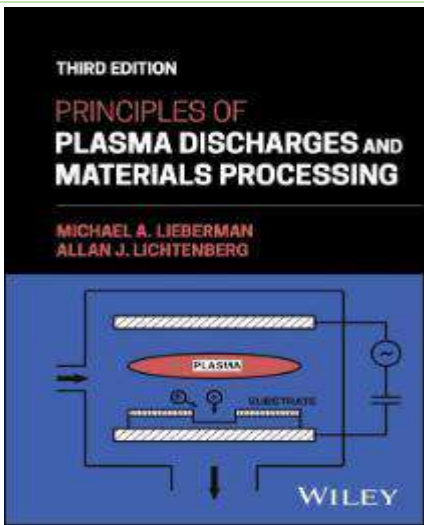
86		Coal production and processing technology edited by M. R. Riazi and Rajender Gupta, Boca Raton: CRC Press, 2016. xiv, 535 p. Includes index (p. 525-535) ISBN: 9781482252170 Subject Terms: Coal reserves; Geochemistry; Environmental impacts; Drilling and blasting; Coal mine 622.333 -COA Barcode: 181261-181262; CL; CES Click here for more details.
87		Coating materials: computational aspects, applications and challenges edited by Akarsh Verma, Sushanta K. Sethi and Shigenobu Ogata, Singapore: Springer, 2023. vi, 421 p., Materials horizons: from nature to nanomaterials. ISBN: 9789819935482 Subject Terms: Molecular dynamics; Simulations in coating; Functional theory; Continuum mechanics; Nickel composites 667.64:620.17 -COA Barcode: 181218; CL Click here for more details.

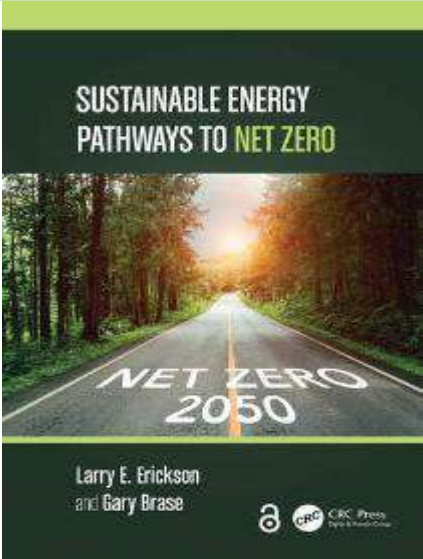
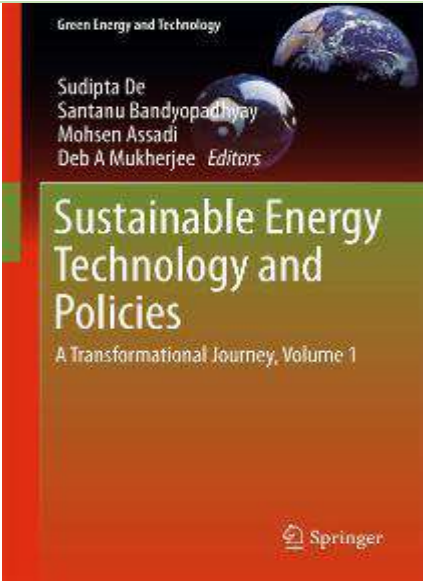
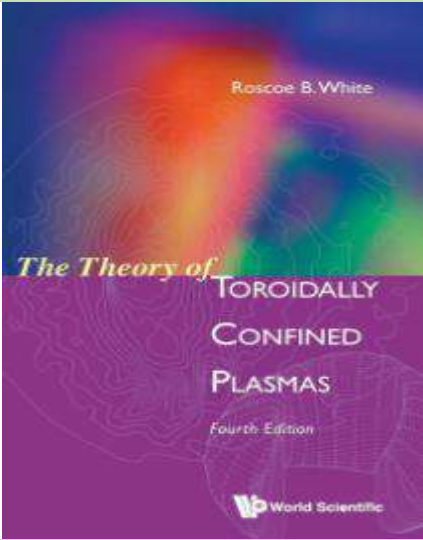
[Back to content](#)

88		Concentrated solar power systems by Bellamkonda Pragathi and D. P. Kothari, New Jersey: IEEE Press, 2025. xx, 290 p. Includes index (p. 283-290) ISBN: 9781394272358 Subject Terms: Power block; Photodiode; Photovoltaic conversion; Latent heat; Economic simulation 621.311.243 PRA-C Barcode: 181291; CL Click here for more details.
89		Electric power systems with renewables: simulations using PSS®E by Ned Mohan and Swaroop Guggilam, 2nd ed., Hoboken: Wiley, 2023. xvii, 302 p. Includes index (p. 299-302) ISBN: 9781119844877 Subject Terms: Electric power systems; Renewable energy sources; Hydropower; Fossil-fuel based power plant; Transformers in power systems 621.311:620.97 MOH-E Barcode: 181155; CL Click here for more details.
90		Heat exchangers: design and sizing algorithms by Abdelhanine Benallou, London: ISTE, 2024. xii, 368 p., Energy engineering set. Includes references and index (p. 327-343) ISBN: 9781786302861 Subject Terms: Heat exchangers - Sizing; Heat exchangers - Thermal analysis; Thermal engineering; Engineering design - Algorithms; Heat exchangers - Design and construction 621-714 BEN-H Barcode: 181293; CL Click here for more details.

91		Hydrogen energetics: a future clean energy carrier by Roman J. Press, Hoboken: Wiley, 2024. xiv, 226 p. Includes index (p. 211-226) ISBN: 9781394173280 Subject Terms: Ammonia; Automotive batteries; Coal; European union; Hydrocracking 662.769.2 PRE-H Barcode: 181292; CL Click here for more details.
92		Lithium air battery: fundamentals edited by Nobuyuki Imanishi, Alan C. Luntz and Peter Bruce, New York: Springer, 2014. xi, 318 p. Includes index (p. 311-318) ISBN: 9781489980618 Subject Terms: Diffusion; Lithium; Morphology; Nanometer pore; Magnetic movement 621.352 -LIT Barcode: 181263; CL Click here for more details.
93		Mechanical energy conversion: exercises for scaling renewable energy systems by Mory Mathieu, London: ISTE, 2024. xxii, 263 p., Energy series. Includes references and index (p. 259-263) ISBN: 9781786309235 Subject Terms: Hydraulic turbomachines; Wind power; Tidal energy; Hydroelectric power; Wave energy 621.311.2 MOR-M Barcode: 181287; CL Click here for more details.
		Back to content

94		Modeling of combustion systems: a practical approach by Joseph Colannino, 2nd ed., Boca Raton: CRC Press, 2025. xxix, 432 p. Includes index (p. 427-432) ISBN: 9781032771236 Subject Terms: Aerospace engineering; Manufacturing and processing; Combustion chambers - Mathematical models; Linear algebra; Emissions reduction 621.43.019 COL-M Barcode: 181156; CL Click here for more details.
95		Nuclear reactor physics and engineering by John C. Lee, 2nd ed., Hoboken: Wiley, 2025. xxxv, 694 p. Includes index (p. 679-694) ISBN: 9781394283552 Subject Terms: Nuclear power plants; Water reactor; Nucleus interaction; Nuclear fission; Differential scattering 621.039 LEE-N Barcode: 181167; TB Click here for more details.
96		Onshore and offshore wind energy: evolution, grid integration, and impact by Vasilis M. Fthenakis, Subhamoy Bhattacharya and Paul A. Lynn, 2nd ed., Hoboken: Wiley, 2024. xix, 348 p. Includes index (p. 339-348) ISBN: 9781119854470 Subject Terms: Apparent power; Carbon fibre; Capacitor bank; Catenary mooring; Permanent magnets 621.548 FTH-O Barcode: 181288; CL Click here for more details.

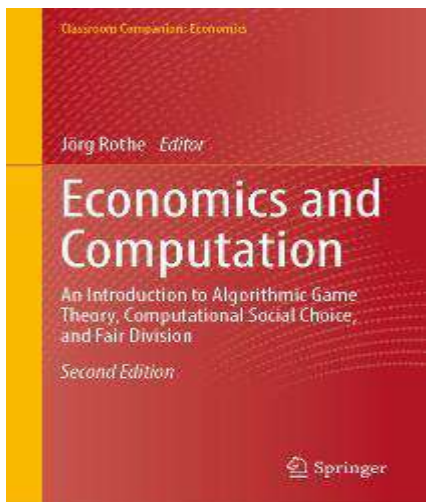
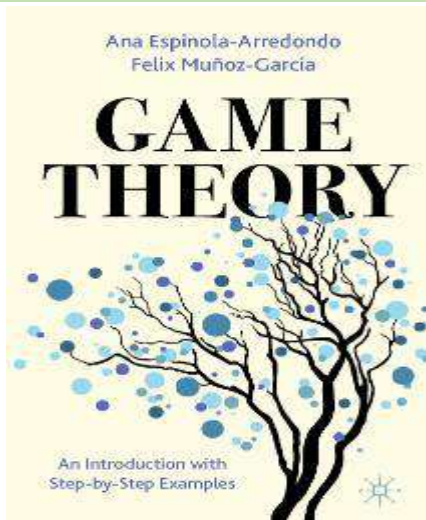
97		Physics of solar energy and energy storage by C. Julian Chen, 2nd ed., Hoboken: Wiley, 2024. xxvi, 370 p. Includes bibliography and index (p. 357-370) ISBN: 9781394203611 Subject Terms: Chloroplast; Shockley equation; Salt hydrates; Semiconductors; Luminosity 621.311.243 CHE-P Barcode: 181289; CL Click here for more details.
98		Principles of combustion by Allan T. Kirkpatrick and Kenneth K. Kuo, 3rd ed., Hoboken: Wiley, 2025. xix, 572 p. Includes index (p. 569-572) ISBN: 9781394187065 Subject Terms: Combustion applications; Fuel chemistry; Hydrocarbon; Liquid fuels; Gas mixtures 662.611 KIR-P Barcode: 181153-181168; CL; CES Click here for more details.
99		Principles of plasma discharges and materials processing by Michael A. Lieberman and Allan J. Lichtenberg, 3rd ed., Hoboken: Wiley, 2024. lxiii, 759 p. Includes index (p. 749-759) ISBN: 9781394245376 Subject Terms: Materials processing; Plasmas; Sheaths; Voltage; Field equation 533.95 LIE-P Barcode: 181169; CL Click here for more details.
		Back to content

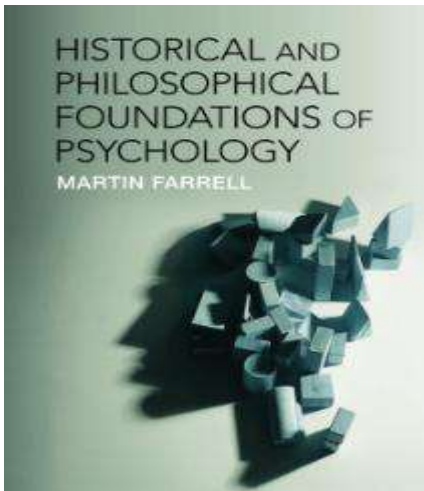
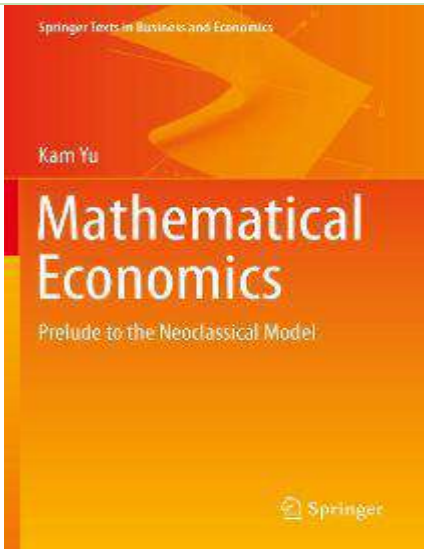
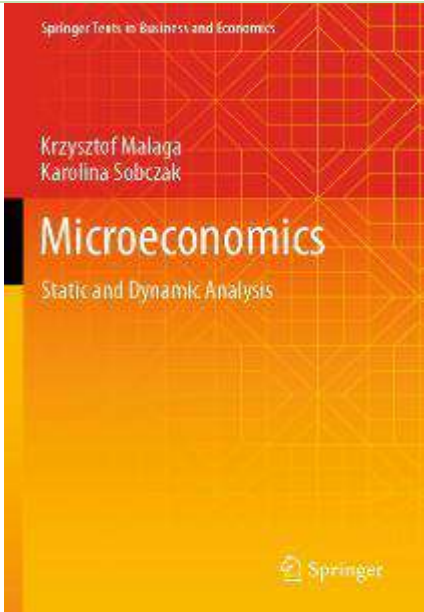
100		Sustainable energy pathways to net zero by Larry E. Erickson and Gary Brase, Boca Raton: CRC Press, 2025. xiii, 119 p. Includes index (p. 115-119) ISBN: 9781032499413 Subject Terms: Wind energy; Reliability; Electrification; Agriculture; Solar energy 620.91 ERI-S Barcode: 181154; TB Click here for more details.
101		Sustainable energy technology and policies: a transformational journey edited by Sudipta De... (et al.), Singapore: Springer, 2018. xviii, 450 p., Green energy and technology. ISBN: 9789811071874 Subject Terms: Photovoltaic technology; Microgrids; Distributed power generation; Crude oil; Power plants 620.9:502.131.1 -SUS Barcode: 181219; CL Click here for more details.
102		Theory of toroidally confined plasmas by Roscoe B. White, 4th ed., Singapore: World Scientific Publishing, 2025. xlii, 604 p. Includes index (p. 599-604) ISBN: 9789819809172 Subject Terms: Adiabatic invariants; Ballooning; Bohm diffusion; Bootstrap current; Fusion reaction 533.9 WHI-T Barcode: 181290; CL Click here for more details.

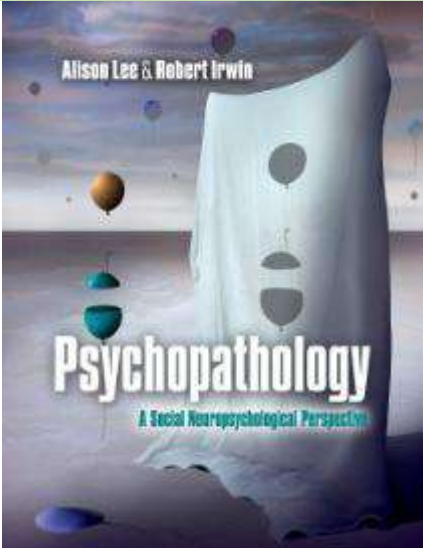
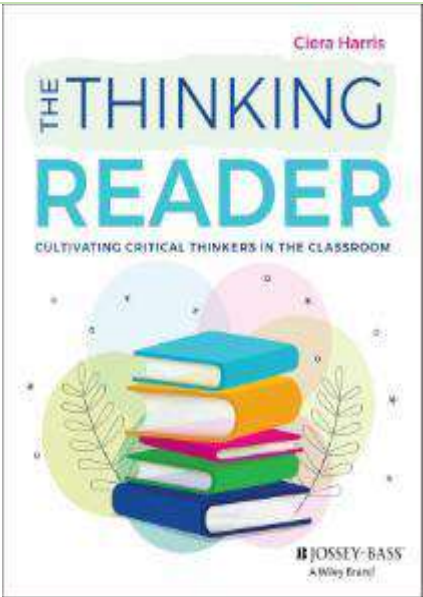
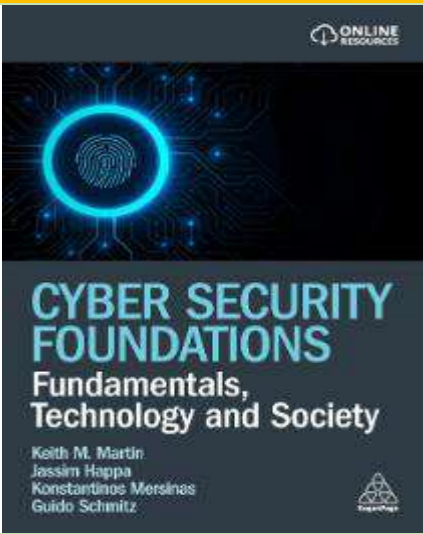
GRATIS

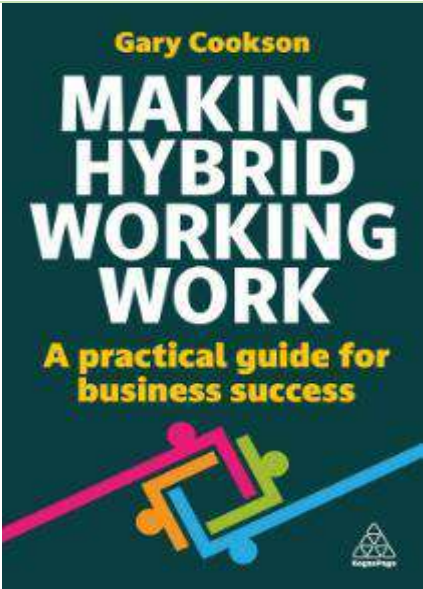
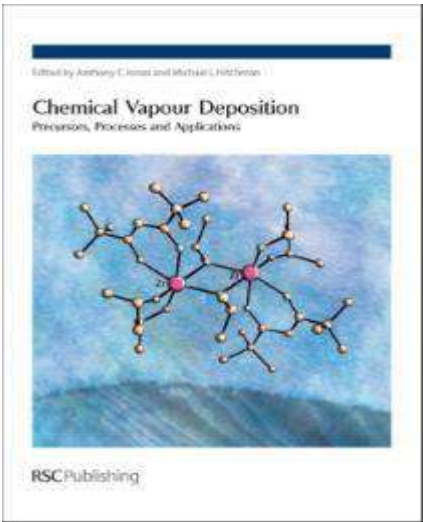
103		56th convocation 2025: Indian Institute of Technology Delhi by Indian Institute of Technology Delhi, New Delhi: Indian Institute of Technology Delhi, 2025. 114 P. ISBN: Subject Terms: Convocation IITD; Rankings; Medals, awards and prizes; Administrative structure; Institute report 378.014.621IITD -CON Barcode: G24081; CL Click here for more details.
-----	---	---

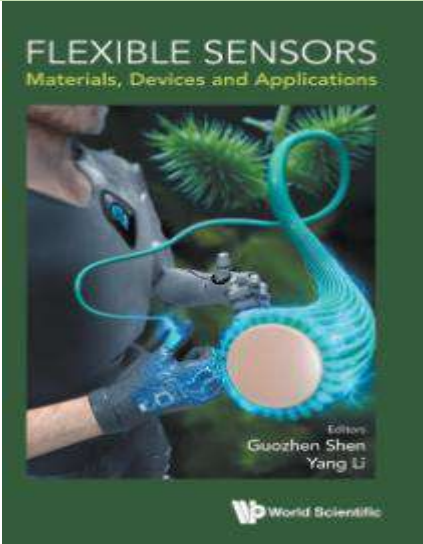
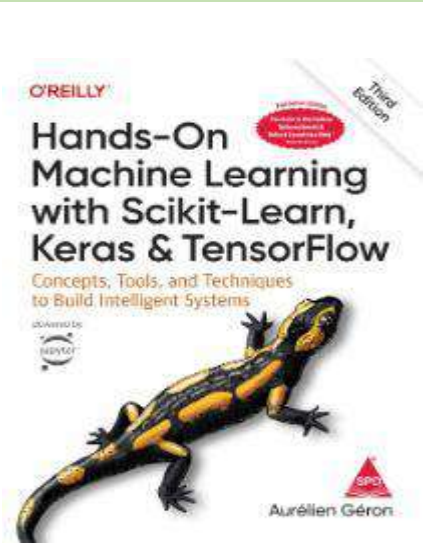
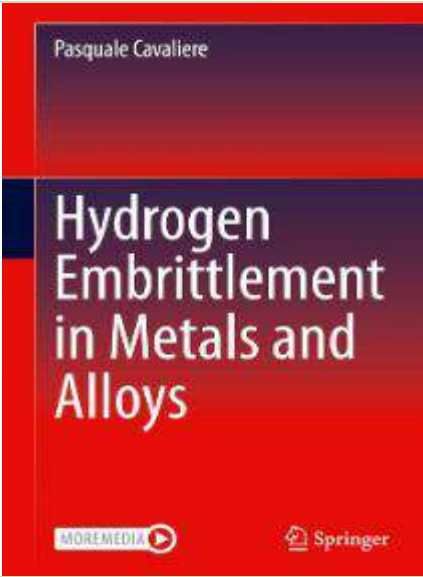
Humanities and Social Sciences

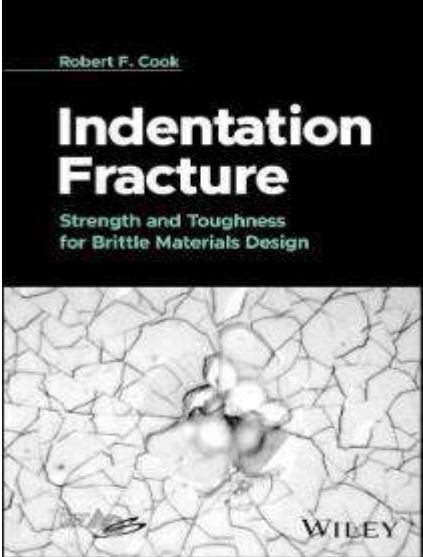
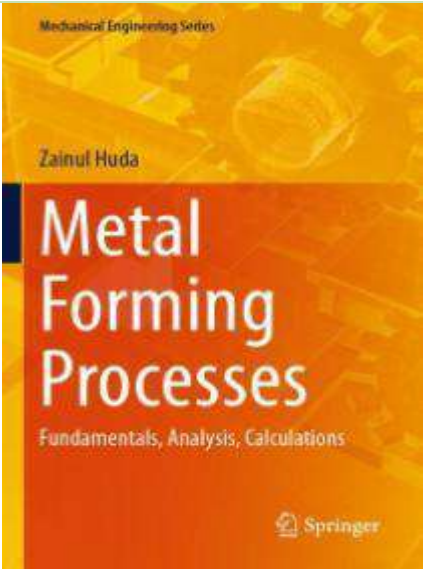
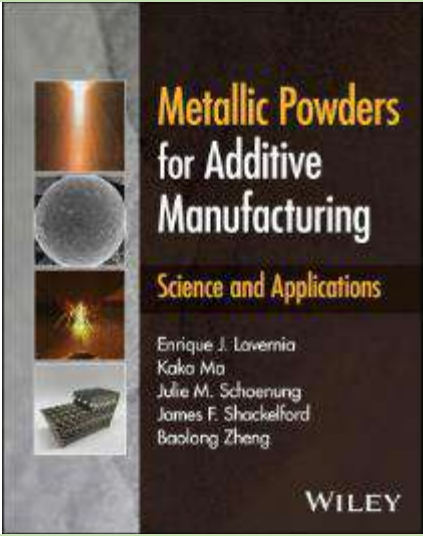
104		Economics and computation: an introduction to algorithmic game theory, computational social choice, and fair division edited by Jorg Rothe and illustrations by Irene Rothe, 2nd ed., Cham: Springer, 2024. xxiv, 766 p., Classroom companion: economics. Includes references and index (p. 681-766) ISBN: 9783031600982 Subject Terms: Algorithmic game theory; Business and economics; Complex systems; computer analysis; Computer software 330:004.421 -ECO Barcode: 181138; CL Click here for more details.
105		Game theory: an introduction with step-by-step examples by Ana Espinola-Arredondo and Felix Munoz-Garcia, Cham: Palgrave Macmillan, 2023. xvii, 455 p. Includes index (p. 451-455) ISBN: 9783031375767 Subject Terms: Equilibrium dominance; Nash equilibrium; Perfect equilibrium; Repeated games; Perfect Bayesian equilibrium 519.83 ESP-G Barcode: 181137; CL Click here for more details.

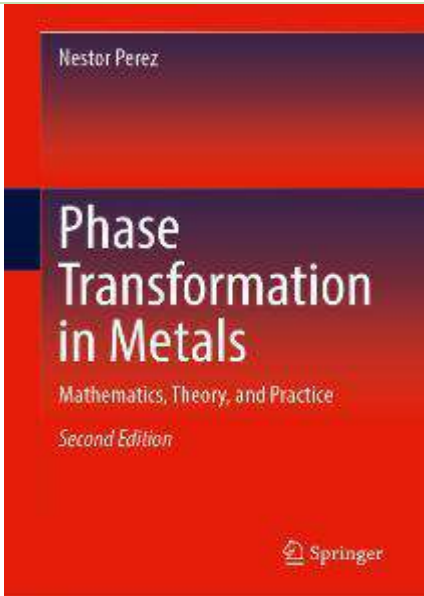
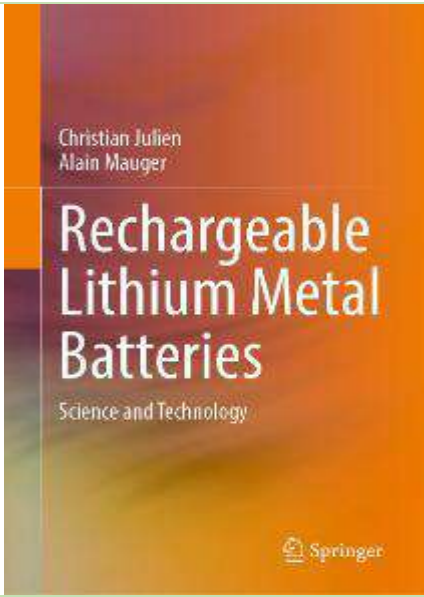
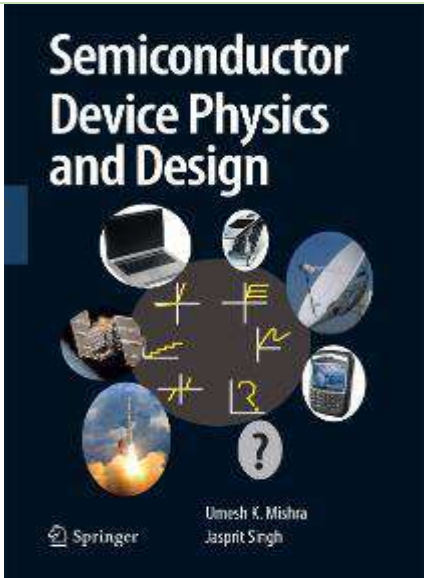
106		Historical and philosophical foundations of psychology by Martin Farrell, New York: Cambridge University Press, 2014. xv, 447 p. Includes index (p. 444-447) ISBN: 9780521184809 Subject Terms: Psychophysics; Psychoanalysis; Behaviourism; Cognitive psychology; Neuroscience 159.9.016 FAR-H Barcode: 181198-181199; CL; HSS Click here for more details.
107		Mathematical economics: prelude to the neoclassical model by Kam Yu, Cham: Springer, 2019. xiii, 214 p., Springer texts in business and economics. Includes index (p. 209-214) ISBN: 9783030272913 Subject Terms: Topology; Linear algebra; Vector calculus; Optimization; Probability 330.4 YU-M Barcode: 181135; CL Click here for more details.
108		Microeconomics: static and dynamic analysis by Krzysztof Malaga and Karolina Sobczak, Cham: Springer, 2022. xi, 509 p., Springer texts in business and economics. Includes index (p. 504-509) ISBN: 9783031105562 Subject Terms: Individual consumer; Individual producers; Rationality of choices; Consumers; Producers 330.101.542 MAL-M Barcode: 181136; CL Click here for more details.
		Back to content

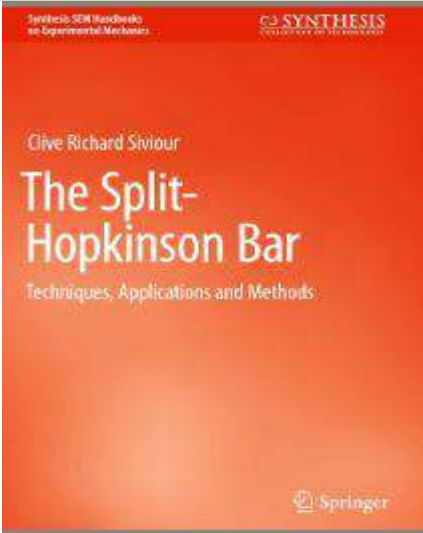
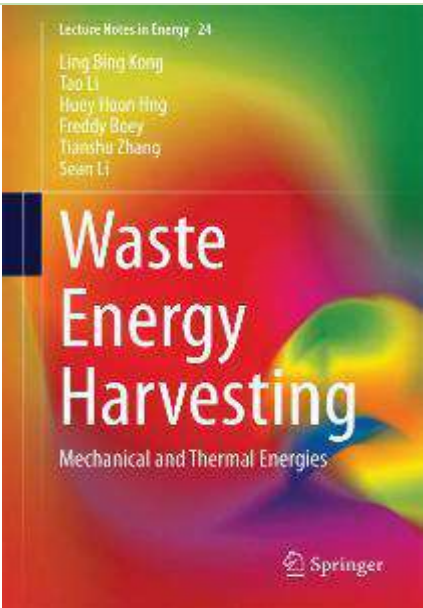
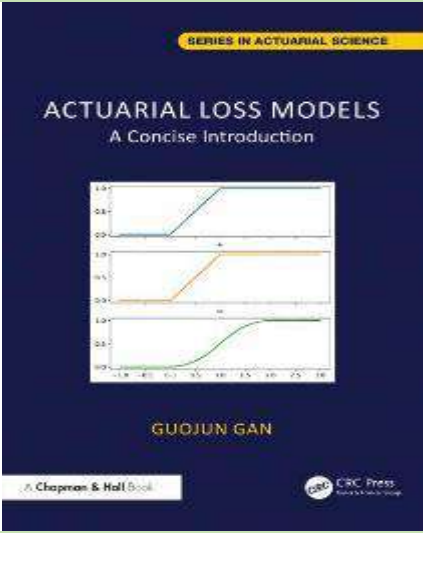
109		Psychopathology: a social neuropsychological perspective by Alison Lee and Robert Irwin, Cambridge: Cambridge University Press, 2018. xxii, 351 p. Includes index (p. 349-351) ISBN: 9780521279024 Subject Terms: Psychological therapies; Recovery; Emotion; Stress and coping; Distress 616.89 LEE-P Barcode: 181200-181201; CL; HSS Click here for more details.
110		Thinking reader: cultivating critical thinkers in the classroom by Ciera Harris, Hoboken: Wiley, 2025. xxv, 438 p. Includes index (p. 419-438) ISBN: 9781394276172 Subject Terms: Intelligence; Success; Schema; Curiosity; Metacognition 159.955 HAR-T Barcode: 181173; CL Click here for more details.
Management Studies		
111		Cyber security foundations: fundamentals, technology and society by Keith M. Martin... (et al.), London: Kogan Page, 2025. xvi, 287 p. Includes index (p. 277-287) ISBN: 9781398614727 Subject Terms: Software; Network security; Cybercrime; Cryptography; Privacy 681.3 -CYB Barcode: 181210; CL Click here for more details.

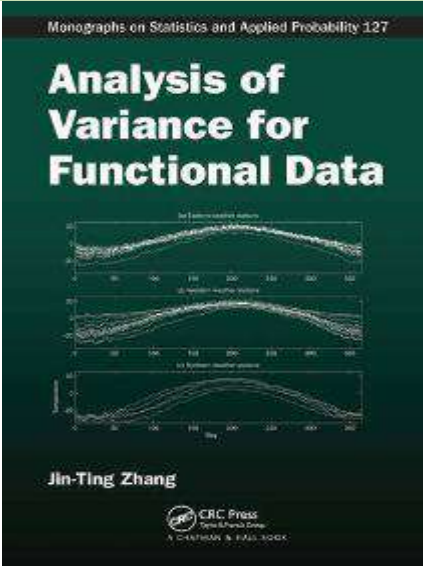
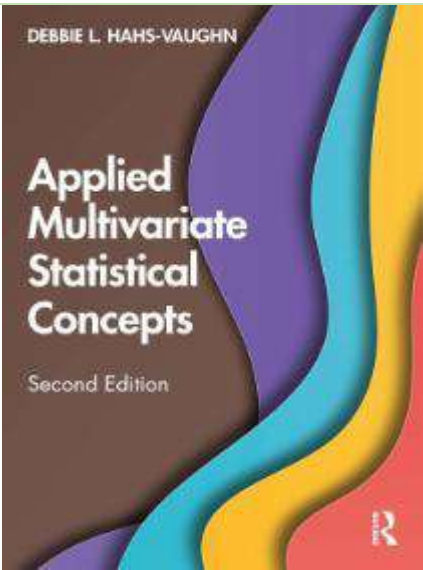
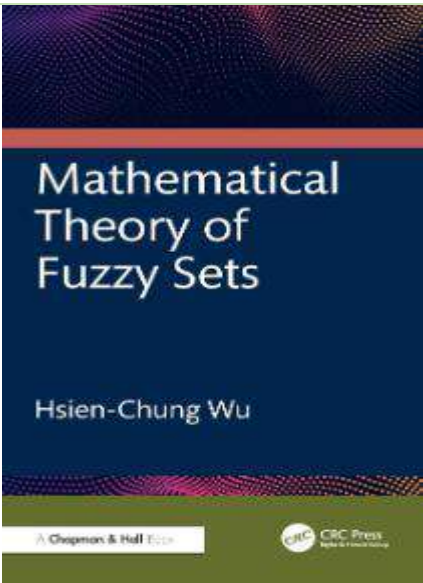
112		Digital transformation in procurement: plan, execute and adopt a successful digital procurement programme by Andries Feikema, London: Kogan Page, 2025. xx, 366 p. Includes index (p. 362-366) ISBN: 9781398619128 Subject Terms: Planning phase; Digital revolution; E-procurement; Adoption phase; Ethics 658:004 FEI-D Barcode: 181211; CL Click here for more details.
113		Making hybrid working work: a practical guide for business success by Gary Cookson, London: Kogan Page, 2025. xxiv, 267 p. Includes index (p. 262-267) ISBN: 9781398619326 Subject Terms: Helping teams; Helping managers; hybrid employee; Technology; Spaces 331.101.5 COO-M Barcode: 181209; CL Click here for more details.
Materials Science and Engineering		
114		Chemical vapour deposition: precursors, processes and applications edited by Anthony C. Jones Michael L Hitchman, Cambridge: Royal Society of Chemistry, 2009. xv, 582 p. Includes index (p. 571-582) ISBN: 9780854044658 Subject Terms: Layer morphology; Precursor purification techniques; CVD reactors; Modeling CVD processes; Atomic layer deposition 66.048.5 -CHE Barcode: 181278; CL Click here for more details.

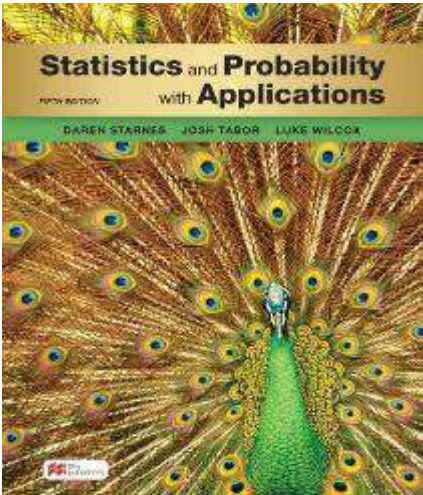
115		Flexible sensors: materials, devices and applications edited by Guozhen Shen and Yang Li, Singapore: World Scientific Publishing, 2025. vii, 373 p. Includes index (p. 373) ISBN: 9789811266850 Subject Terms: Active layer; Biosensors; Carbon nanotubes; Internet of things; Healthcare monitoring 681.586:620.177 -FLE Barcode: 181279-181296; CL; DMSE Click here for more details.
116		Hands-on machine learning with Scikit-Learn, Keras, and TensorFlow: concepts, tools and techniques to build intelligent systems by Aurelien Geron, 3rd ed., Sebastopol: Shroff Publishers and Distributors, 2022. xxv, 834 p. Includes index (p. 811-834) ISBN: 9789355421982 Subject Terms: Training models; Support vector machines; Neural networks; Dimensionality reduction; Unsupervised learning techniques 004.85P GER-H Barcode: 181180-181181; TB; DMSE Click here for more details.
117		Hydrogen embrittlement in metals and alloys by Pasquale Cavaliere, Cham: Springer, 2025. xxi, 794 p. Includes index (p. 791-794) ISBN: 9783031836800 Subject Terms: Stainless steel; High-entropy alloys; Hydrogen disasters; Aluminum alloys; Titanium alloys 669.055 CAV-H Barcode: 181184; CL Click here for more details.

118		Indentation fracture: strength and toughness for brittle materials design by Robert F. Cook, Hoboken: Wiley, 2025. xvi, 384 p. Includes index (p. 381-384) ISBN: 9781394207206 Subject Terms: Indentation fracture; Crack propagation; Hardness testing; Material design; Mechanical strength 620.17:539.424 COO-I Barcode: 181225; CL Click here for more details.
119		Metal forming processes: fundamentals, analysis, calculations by Zainul Huda, Cham: Springer, 2024. xvi, 307 p., Mechanical Engineering Series. Includes index (p. 301-307) ISBN: 9783031567629 Subject Terms: Plasticity; Formability; Temperature dependence; Metal forging; Metal extrusion 621.7 HUD-M Barcode: 181188; CL Click here for more details.
120		Metallic powders for additive manufacturing: science and applications by Enrique J. Lavernia... (et al.), Hoboken: Wiley, 2024. xxiv, 575 p. Includes index (p. 565-575) ISBN: 9781119908111 Subject Terms: Metallic powders; Mechanical properties; Microstructure; Powder metallurgy; 3D printing 621.7:621.921.1 -MET Barcode: 181226; CL Click here for more details.
		Back to content

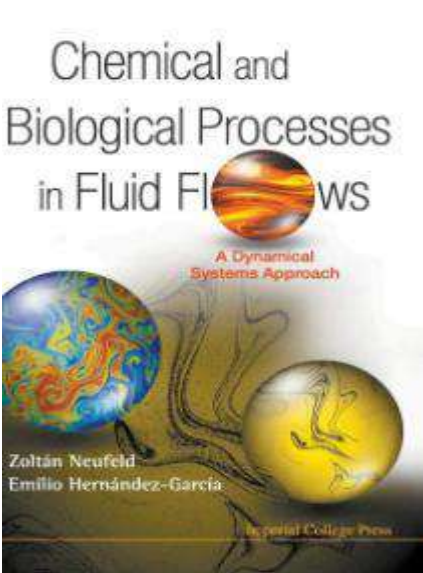
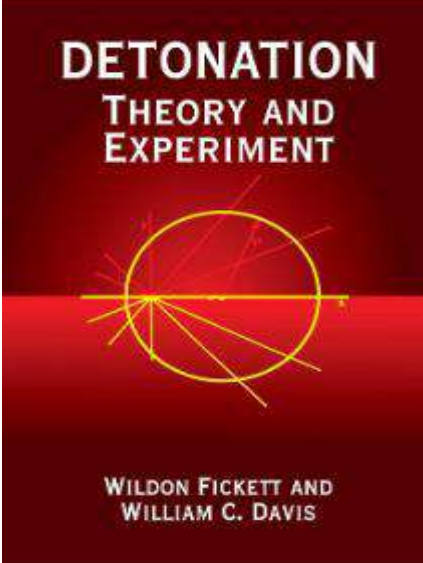
121		Phase transformation in metals: mathematics, theory, and practice by Nestor Perez, 2nd ed., Cham: Springer, 2025. xix, 554 p. Includes index (p. 547-554) ISBN: 9783031706332 Subject Terms: Surface crystallography; Surface reconstruction; Solidification; Contour metal solidification; Mass transport by diffusion 669.017.3 PER-P Barcode: 181182; CL Click here for more details.
122		Rechargeable lithium metal batteries: science and technology by Christian Julien and Alain Mauger, Cham: Springer, 2025. xxiv, 765 p. Includes index (p. 751-765) ISBN: 9783031674693 Subject Terms: Electrochemistry of lithium batteries; Solid state lithium batteries; Energy storage; Polymer electrolytes; Micro batteries 621.352 JUL-R Barcode: 181183; CL Click here for more details.
123		Semiconductor device physics and design by Umesh K. Mishra and Jasprit Singh, Dordrecht: Springer, 2008. xxiv, 559 p. Includes index (p. 552-559) ISBN: 9789400797789 Subject Terms: Depletion width; Photon absorption; Quantum capacitance; Strain energy; Silicon nitride 621.382 MIS-S Barcode: 181222; CL Click here for more details.

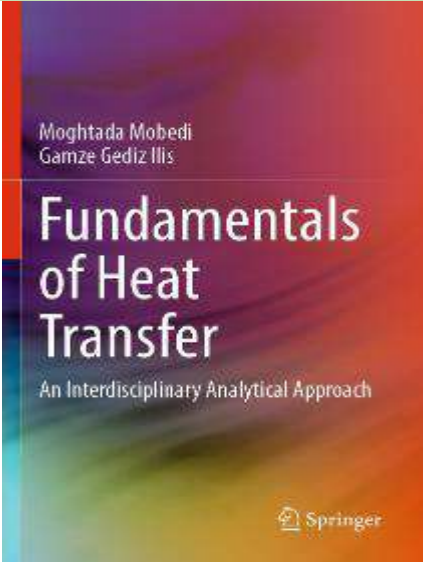
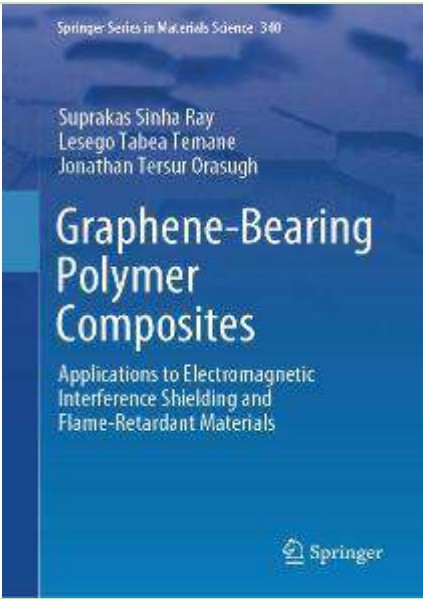
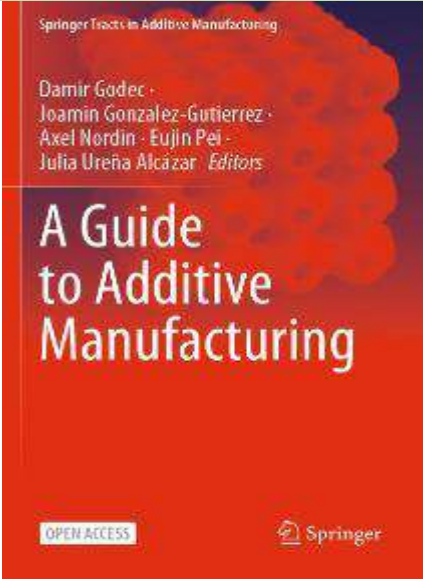
124		Split-hopkinson bar: techniques, applications and methods by Clive Richard Siviour, Cham: Springer, 2025. xxviii, 139 p., Synthesis SEM handbooks on experimental mechanics. Includes index (p. 137-139) ISBN: 9783031831522 Subject Terms: Inertia; Strain rate; Friction; Instrumentation; Wave propagation 620.168 SIV-S Barcode: 181185; CL Click here for more details.
125		Waste energy harvesting: mechanical and thermal energies by Ling Bing Kong... (et al.), Heidelberg: Springer, 2014. xii, 592 p., Lecture notes in energy. ISBN: 9783642546334 Subject Terms: Piezoelectricity; Rotating harvesters; Thermoelectric effect; Thermopower; Fabrication process 620.97 -WAS Barcode: 181242; CL Click here for more details.
Mathematics		
126		Actuarial loss models: a concise introduction by Guojun Gan, Boca Raton: CRC Press, 2025. xii, 219 p., Chapman and Hall/CRC series in actuarial science. Includes bibliography and index (p. 213-219) ISBN: 9781032777658 Subject Terms: Hypothetical mean; Gamma function; Density function; Geometric distribution; Fisher information 519.23 GAN-A Barcode: 181314; CL Click here for more details.

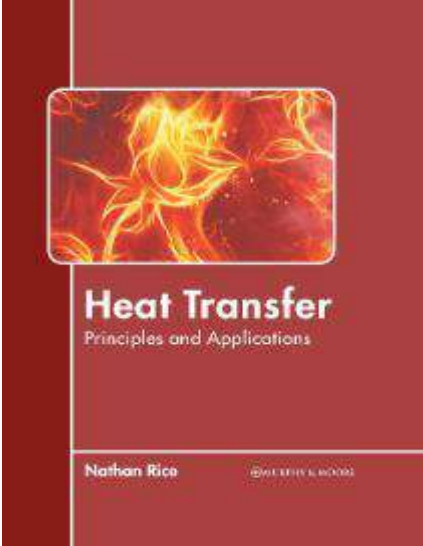
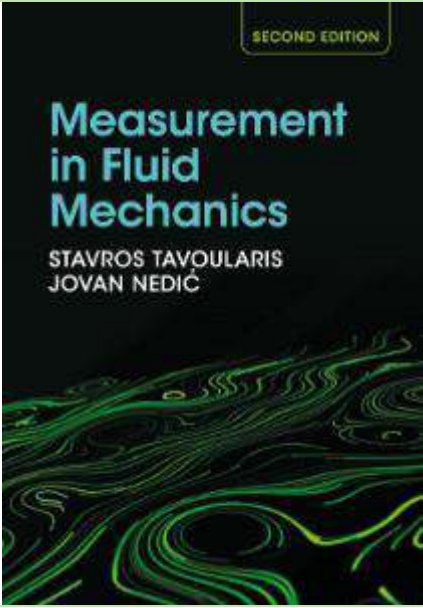
127		Analysis of variance for functional data by Jin-Ting Zhang, Boca Raton: CRC Press, 2024. xxiii, 386 p., Monographs on statistics and applied probability. Includes bibliography and index (p. 369-386) ISBN: 9781032920399 Subject Terms: Nitrogen oxide; Functional linear model; Eigen value; Pivotal test function; Bootstrap test 519.24 ZHA-A Barcode: 181315; CL Click here for more details.
128		Applied multivariate statistical concepts by Debbie L. Hahs-Vaughn, 2nd ed., New York: Routledge, 2025. xxiv, 850 p. Includes index (p. 832-850) ISBN: 9781032276076 Subject Terms: Discriminant function; Centroids; Factorial design; Dynamic factor model; Multilevel linear modeling 519.2 HAH-A Barcode: 181316; CL Click here for more details.
129		Mathematical theory of fuzzy sets by Hsien-Chung Wu, Boca Raton: CRC Press, 2025. xi, 629 p. Includes index (p. 627-629) ISBN: 9781032905846 Subject Terms: Topological spaces; Hausdorff differences; Arithmetic; Vector space; Triangular norms 519.5 WU-M Barcode: 181312; CL Click here for more details.
		Back to content

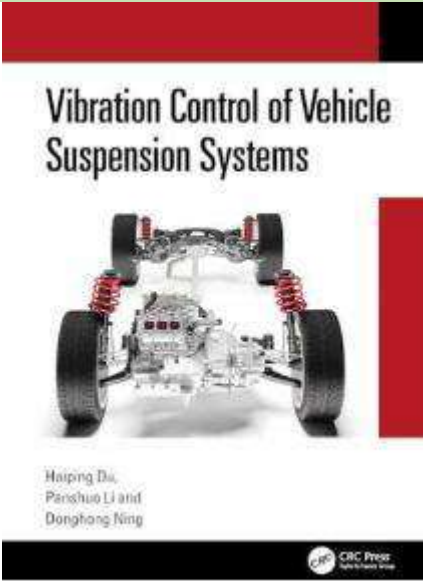
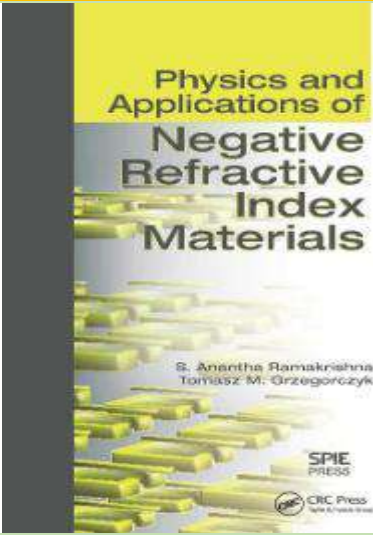
130		Statistics and probability with applications by Daren Starnes, Josh Tabor and Luke Wilcox, 5th ed., New York: Bedford, Freeman and Worth Publishers, 2025. xxxv, 801 P. Includes index ISBN: 9781319535797 Subject Terms: Collecting data; Probability; Random variables; Population parameter; Modeling one-variable 519.2 STA-S Barcode: 181149; CL Click here for more details.
-----	--	--

Mechanical Engineering

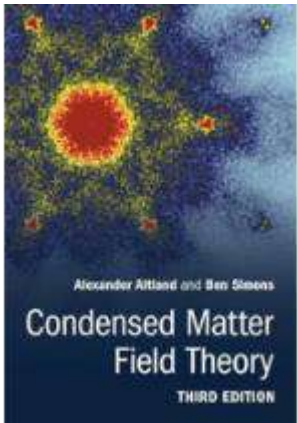
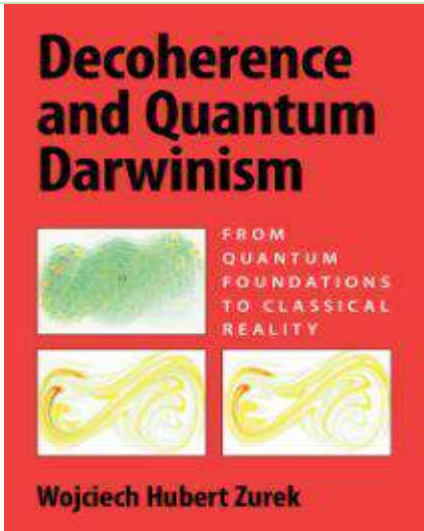
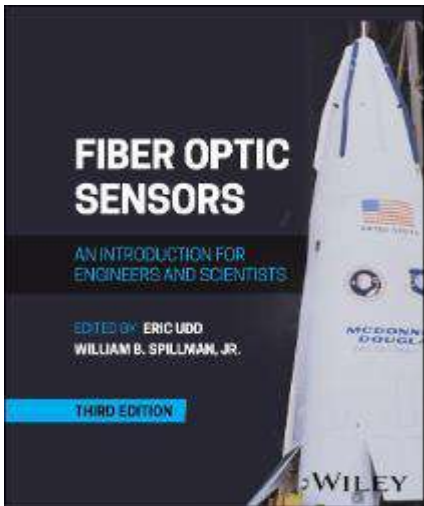
131		Chemical and biological processes in fluid flows: a dynamical systems approach by Zoltan Neufeld and Emilio Hernández-García, London: Imperial College Press, 2010. xv, 288 p. Includes bibliography and index (p. 253-288) ISBN: 9781860946998 Subject Terms: Ecological models; Autocatalytic type processes; Complex fluids; Reaction dynamics; Plankton dynamics 532.5:577 NEU-C Barcode: 181275; CL Click here for more details.
132		Detonation: theory and experiment by Wildon Fickett and William C. Davis, New York: Dover Publications, 2010. xiv, 386 p. Includes bibliography and index (p. 364-386) ISBN: 9780486414560 Subject Terms: Densitometry; Integral curve; Chemical reactions; Acceleration wave; Marginal detonation 533.6.011.7 FIC-D Barcode: 181241; TB Click here for more details.

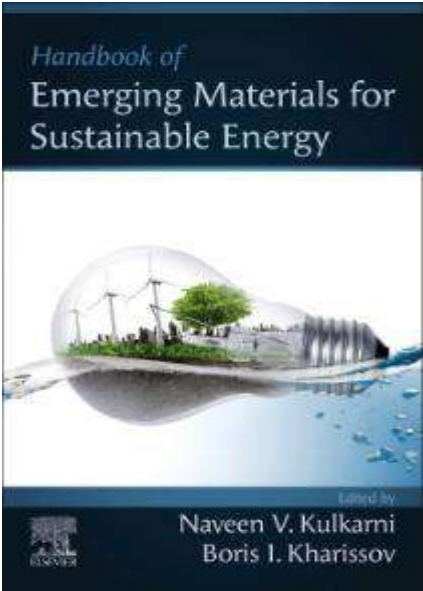
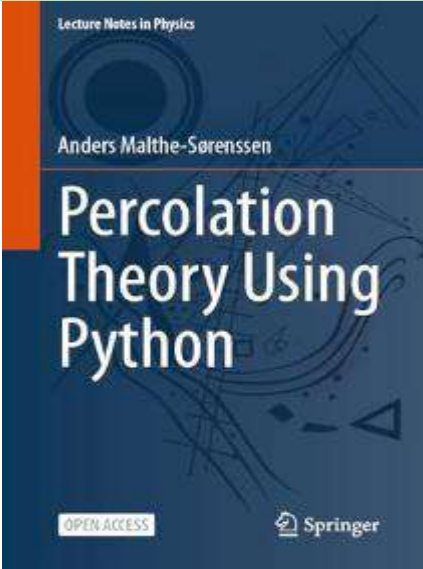
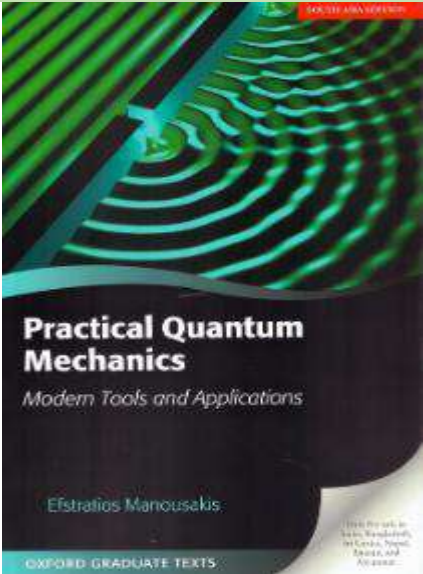
133		Fundamentals of heat transfer: an interdisciplinary analytical approach by Moghtada Mobedi and Gamze Gediz Ilis, Singapore: Springer, 2023. xxi, 199 p. Includes references (p.199) ISBN: 9789819909599 Subject Terms: Analytical methods; Conduction heat transfer; Spherical coordinate system; Radiation heat transfer; Convection heat transfer 536.2 MOB-F Barcode: 181165; CL Click here for more details.
134		Graphene-bearing polymer composites: applications to electromagnetic interference shielding and flame-retardant materials by Suprakas Sinha Ray, Lesego Tabea Temane and Jonathan Tersur Orasugh, Cham: Springer, 2024. xxi, 239 p., Springer series in materials science. ISBN: 9783031519239 Subject Terms: Fire retarding polymer; Scanning electron microscopy; Polyamide; Smoke density; Flame retardants 621.315.56:678.83 RAY-G Barcode: 181258; CL Click here for more details.
135		Guide to additive manufacturing edited by Damir Godec... (et al.), Cham: Springer, 2022. xxviii, 324 p., Springer tracts in additive manufacturing. ISBN: 9783031058653 Subject Terms: Design; Standardisation; Simulations; Processing parameters; Optimization 621.7:681.62 -GUI Barcode: 181273; TB Click here for more details.
		Back to content

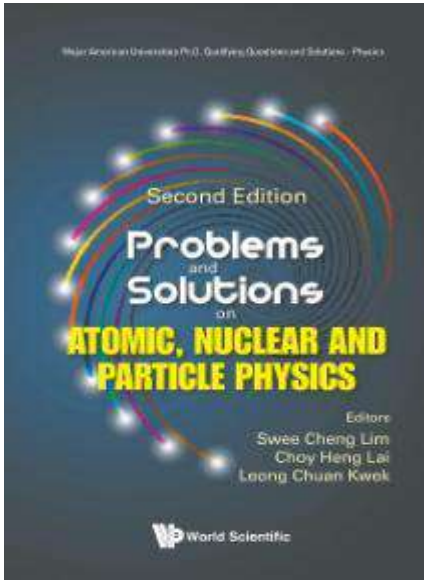
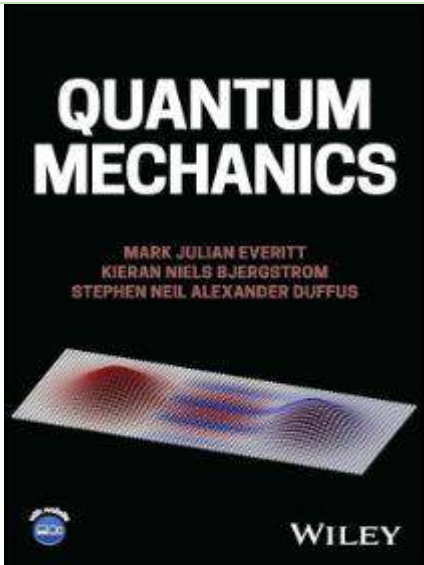
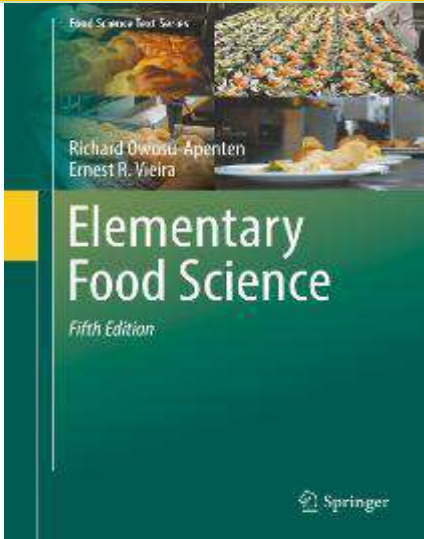
136		Heat transfer: principles and applications edited by Nathan Rice, New York: Murphy & Moore Publishing, 2024. 236 p. Includes index (p. 235-236) ISBN: 9781639879427 Subject Terms: Eckert number; Chevron plate; Annular space; Magnetic field; Mass flux 536.2 -HEA Barcode: 181274; CL Click here for more details.
137		Illustrated sourcebook of mechanical components edited by Robert O. Parmley, New York: McGraw-Hill, 2000. v. p. Includes index ISBN: 9780070486171 Subject Terms: Power transmission; Machine design; Single components; Machine parts; Mechanism 621.81 -ILL Barcode: 181286; CL Click here for more details.
138		Measurement in fluid mechanics by Stavros Tavoularis and Jovan Nadic, 2nd ed., Cambridge: Cambridge University Press, 2024. xviii, 605 p. Includes index (p. 599-605) ISBN: 9781009343626 Subject Terms: Signal conditioning; Measurement uncertainty; Measurement techniques; Flow rate; Flow pressure 532 TAV-M Barcode: 181191; CL Click here for more details.
		Back to content

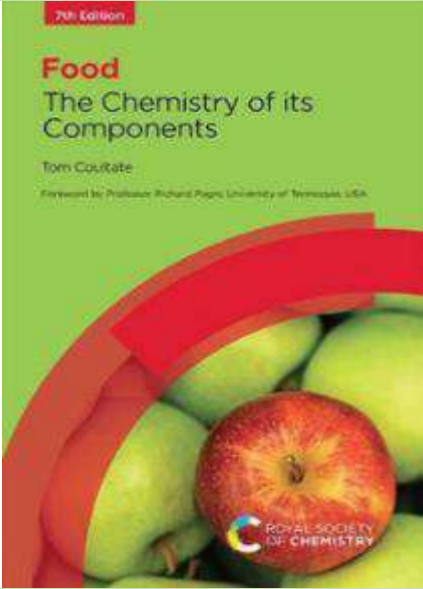
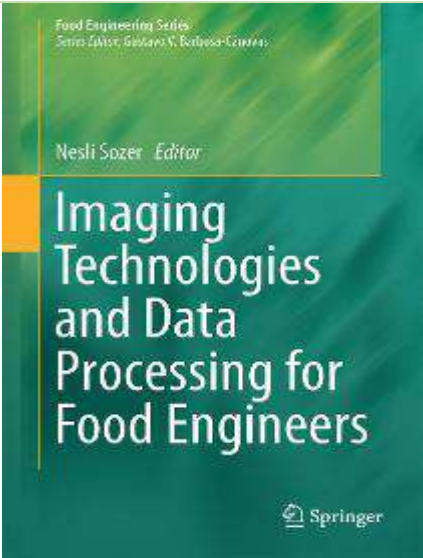
139		Mechanical design engineering handbook by Peter R. N. Childs and Marc A. Masen, 3rd ed., London: Butterworth Heinemann, 2024. xv, 865 p. Includes index (p. 851-865) ISBN: 9780443220777 Subject Terms: Design models - Handbook, manual, etc.; Systematic design - Handbook, manual, etc.; Double diamond - Handbook, manual, etc.; Design optimisation - Handbook, manual, etc.; Design reviews - Handbook, manual, etc. RL-HB 621-1/-9(021) CHI-M Barcode: 181161; CL Click here for more details.
140		Vibration control of vehicle suspension systems by Haiping Du, Panshuo Li and Donghong Ning, Boca Raton: CRC Press, 2024. x, 312 p. Includes index (p. 311-312) ISBN: 9781032208770 Subject Terms: Direct voltage control; Electrical energy; Kinetic energy; Motion decoupling; Natural frequency 629.3.027.3 DU-V Barcode: 181240; ME Click here for more details.
Optics and Photonics		
141		Physics and applications of negative refractive index materials by S. Anantha Ramakrishna and Tomasz M. Grzegorzczak, Bellingham: SPIE Press, 2020. 414 p. Includes index (p. 403-414) ISBN: 9780367577483 Subject Terms: Acoustic waves; Amplification; Pulse traversal; Prism; Ray analysis 537.874.31 RAM-P Barcode: 181298; OPC Click here for more details.

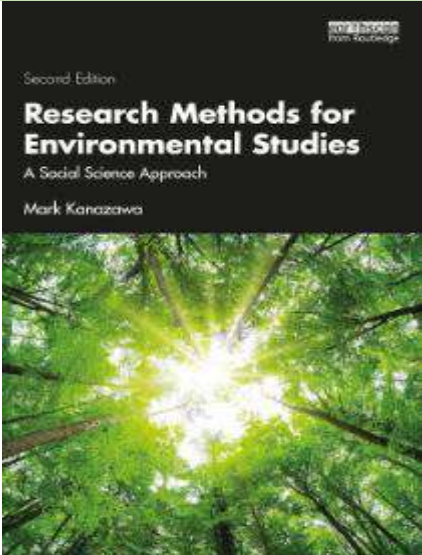
Physics

142		Condensed matter field theory by Alexander Altland and Ben Simons, 3rd ed., Cambridge: Cambridge University Press, 2023. xii, 812 p. Includes index (p. 803-812) ISBN: 9781108494601 Subject Terms: Second quantization; Renormalization group; Relativistic field theory; Nonequilibrium; Response functions 538.9:530.145 ALT-C Barcode: 181190; CL Click here for more details.
143		Decoherence and quantum darwinism: from quantum foundations to classical reality by Wojciech Hubert Zurek, Cambridge: Cambridge University Press, 2025. xvii, 357 p. Includes index (p. 351-357) ISBN: 9781009552899 Subject Terms: Discrete events; Environment; Symmetries; Phase space; Existential interpretation 530.145 ZUR-D Barcode: 181194-181195; CL; PH Click here for more details.
144		Fiber optic sensors: an introduction for engineers and scientists edited by Eric Udd and William B. Spillman, 3rd ed., Hoboken: Wiley, 2024. xxi, 597 p. Includes index (p. 593-597) ISBN: 9781119678786 Subject Terms: Encoder sensor; Health monitoring; Imaging sensors; Lorentz force; Lithium niobate 535.3:621.376 -FIB Barcode: 181243; PH Click here for more details.

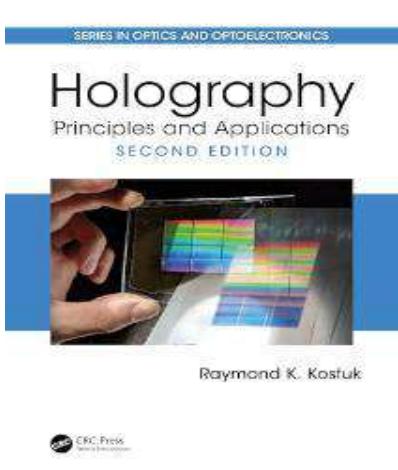
145		Handbook of emerging materials for sustainable energy edited by Naveen V. Kulkarni and Boris I. Kharissov, Amsterdam: Elsevier, 2024. xxi, 1010 p. Includes index (p. 987-1010) ISBN: 9780323961257 Subject Terms: Nanostructured materials - Handbooks, manuals, etc.; Renewable energy sources - Handbooks, manuals, etc.; Optical materials - Handbooks, manuals, etc.; Optoelectronic devices - Handbooks, manuals, etc.; Electronic apparatus and appliances - Handbooks, man RL-HB 620.9:620.1(021) -HAN Barcode: 181143; REF Click here for more details.
146		Percolation theory using python by Anders Mølthe-Sørensen, Cham: Springer, 2024. x, 214 p., Lecture notes in physics. Includes references and index (p. 209-214) ISBN: 9783031598999 Subject Terms: Complex systems; Computer simulation; Condensed matter; Geophysics; Porous materials 519.2:004.43P MAL-P Barcode: 181229; PH Click here for more details.
147		Practical quantum mechanics: modern tools and applications by Efstratios Manousakis, Oxford: Oxford University Press, 2016. xv, 332 p., Oxford graduate texts. Includes index (p. 330-332) ISBN: 9780198961505 Subject Terms: Quantum physics; Operator mechanics; Simultaneous observables; Wavefunction properties; Periodic potentials 530.145 MAN-P Barcode: 181178-181179; CL; PH Click here for more details.
		Back to content

148		Problems and solutions on atomic, nuclear and particle physics edited by Swee Cheng Lim, Choy Heng Lai and Leong Chuan Kwek, 2nd ed., Singapore: World Scientific Publishing, 2025. vii, 645 p., Major American universities Ph.D. qualifying questions and solutions - Physics. Includes index (p. 641-645) ISBN: 9789819812417 Subject Terms: Electroweak interactions; Radiation; Detection techniques; Radiation; Unification theories 539.1 -PRO Barcode: 181213; CL Click here for more details.
149		Quantum mechanics: from analytical mechanics to quantum mechanics, simulation, foundations, and engineering by Mark Julian Everitt, Kieran Niels Bjergstrom and Stephen Neil Alexander Duffus, Hoboken: Wiley, 2024. xxvi, 402 p. Includes bibliography and index (p. 387-402) ISBN: 9781119829874 Subject Terms: Vector space; Tank circuit; Thermal energy; Wigner function; Galilean relativity 530.145 EVE-Q Barcode: 181244-181245; CL; PH Click here for more details.
Rural Development and Technology		
150		Elementary food science by Richard Owusu-Apenten and Ernest R. Vieira, 5th ed., Cham: Springer, 2023. xxvii, 602 p., Food science text series. Includes index (p. 575-602) ISBN: 9783030654313 Subject Terms: Food composition; Sensory evaluation; Microbiology; Food processing; Food safety 664 OWU-E Barcode: 181175; CL Click here for more details.

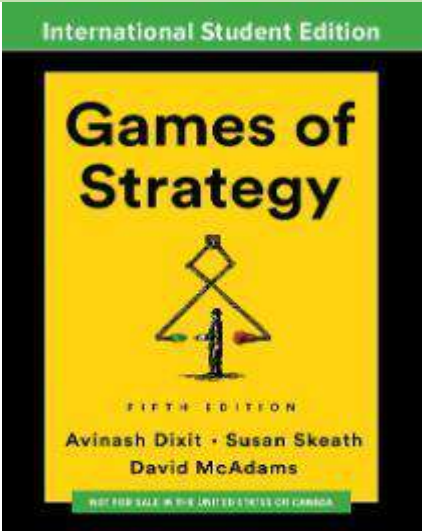
151		Food: the chemistry of its components by Tom P. Coulter, 7th ed., Croydon: Royal Society of Chemistry, 2023. xix, 479 p. Includes index (p. 470-479) ISBN: 9781839168147 Subject Terms: Lipids; Preservatives; Proteins; Polysaccharides; Sugar 664 COU-F Barcode: 181163; TB Click here for more details.
152		Imaging technologies and data processing for food engineers edited by Nesli Sozer, Cham: Springer, 2016. x, 353 p., Food Engineering Series. Includes index (p. 351-353) ISBN: 9783319247335 Subject Terms: Cereal grain; Vibrational microscopy; Double emulsions; Kinetics; Topography 664:004.932.2 -IMA Barcode: 181256; CRDT Click here for more details.
School of Public Policy		
153		Environmental economics and policy by Lynne Lewis and Tom Tietenberg, 7th ed., Oxon: Routledge, 2020. xix, 361 p. Includes index (p. 353-361) ISBN: 9781032297750 Subject Terms: Environmental policy; Climate change; Environmental management; Public policy; Environment and resources 502/504:330 LEW-E Barcode: 181206; CL Click here for more details.

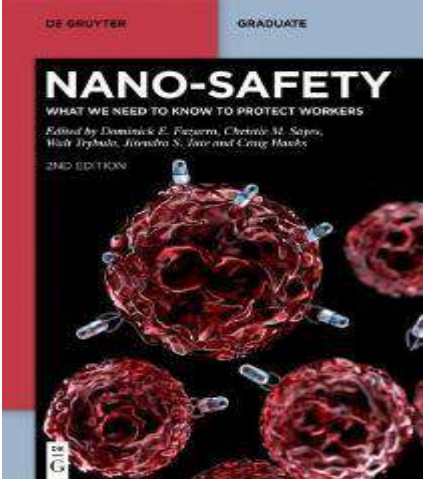
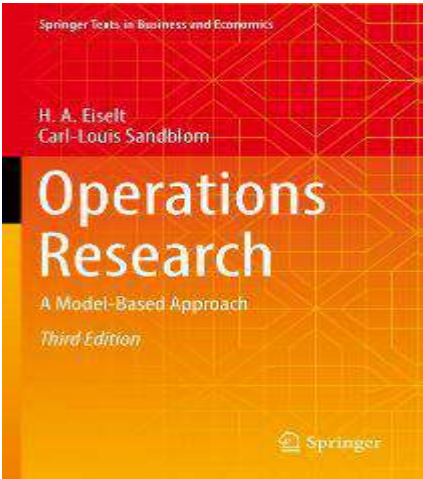
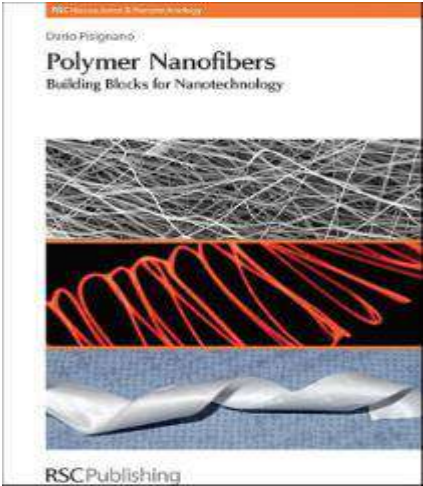
154		Research methods for environmental studies: a social science approach by Mark Kanazawa, 2nd ed., Oxon: Routledge, 2024. 491p. Includes index (p.487-491) ISBN: 9781032198408 Subject Terms: Infrastructure; Sustainable development; Environmental sciences - Research; Environmental policy; Social aspects - Research 502/504:001.891 KAN-R Barcode: 181207; CL Click here for more details.
-----	--	--

Sensors Instrumentation and Cyber-physical System Engineering

155		Holography: principles and applications by Raymond K. Kostuk, 2nd ed., Boca Raton: CRC Press, 2025. xviii, 432 p., Series in optics and optoelectronics. Includes index (p. 427-432) ISBN: 9781032606187 Subject Terms: Geometrical optics; Diffraction efficiency; Interferometry; Holographic displays; Image formation 535.4 KOS-H Barcode: 181150; CL Click here for more details.
-----	--	--

Textile and Fibre Engineering

156		Games of strategy by Avinash Dixit, Susan Skeath and David McAdams, 5th ed., New York: W. W. Norton and Company, 2021. xxii, 743 p. Includes index (p. 723-743) ISBN: 9780393422207 Subject Terms: Sequential moves; Evolutionary games; Mixed strategies; Strategic games; Brinkmanship 519.83:005.21 DIX-G Barcode: 181212; TB Click here for more details.
-----	---	---

157		Nano safety: what we need to know to protect workers edited by Dominick E. Fazzaro... (et al.), 2nd ed., Berlin: De Gruyter, 2024. xviii, 203 p., De Gruyter graduate. Includes index (p. 199-203) ISBN: 9783110781823 Subject Terms: Electron microscopy; Risk analysis; Lifecycle planning; Ethical frameworks; Food processing 620.3:614.8 -NAN Barcode: 181164; TT Click here for more details.
158		Operations research: a model-based approach by H.A. Eiselt and Carl-Louis Sandblom, 3rd ed., Cham: Springer, 2022. xiv, 523 p., Springer texts in business and economics. Includes index (p. 517-523) ISBN: 9783030971649 Subject Terms: Linear programming; Nonlinear programming; Network models; Location models; Project networks 658:519.8 EIS-O Barcode: 181208; CL Click here for more details.
159		Polymer nanofibers: building blocks for nanotechnology by Dario Pisignano, Cambridge: Royal Society of Chemistry, 2013. xiv, 427 p., RSC nanoscience and Nanotechnology. Includes index (p. 418-427) ISBN: 9781849735742 Subject Terms: Soft matter nanotechnologies; Electrospinning; Structural and surface properties; Optical properties of polymer nanofibers; Nanoscience 678.620.3 PIS-P Barcode: 181285; TT Click here for more details.
		Back to content

*The Collection includes the books added to the Textbook & Book Bank collection, Central Library; and the books procured through students' recommendations in the General Section, Central Library.

Theses Collection

Title	:	Rational catalyst design for the removal of organic contaminants from water
Researcher	:	Shenoy, Chaitra Shantharam
Department	:	Department of Chemical Engineering, IITD
Year	:	2025
Supervisor	:	Haider, M. Ali (Prof.) - CHE (Guide)
Physical description	:	xx, 248 p.
Subject terms	:	Oxidation reaction; Microkinetic modelling; Catalytic reactor; Chromatography; Sabatier principle
Barcode	:	TH8222
Call No.	:	TH 628.316.12 SHE-R
Title	:	Mergers of public sector banks in India: impact on financial performance and financial stability
Researcher	:	Shukla, Sameer
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Dubey, Amlendu Kumar (Prof.) - MS (Guide)
Physical description	:	xx, 218 p.
Subject terms	:	Covariate balance; Placebo test; Synergy; Harmonisation; Cultural integration
Barcode	:	TH8223
Call No.	:	TH 330.13(540) SHU-M
Title	:	Control and implementation of single-phase grid interfaced solar PV-wind and BES based microgrid with grid synchronization
Researcher	:	Singh, Yashi
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Mishra, Sukumar (Prof.) - EE (Guide); Singh, Bhim (Prof.) - EE (Guide)
Physical description	:	xxxv, 317 p.

Subject terms	:	Simulation; Solar energy; Mitigation technique; Ripple filter; Wind turbine
Barcode	:	TH8224
Call No.	:	TH 621.311.24 SIN-C
Title	:	Investigation of structural and optical properties of CdTe, ZnTe and HgCdTe grown using MBE for photodetector applications
Researcher	:	Tyagi, Subodh
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Singh, Rajendra (Prof.) - PH (Guide); Shiv Kumar (Scientist-G) - DRDO, New Delhi (Guide)
Physical description	:	xxix, 166 p.
Subject terms	:	Semiconductor; Superlattices; Thermodynamic; Crystalline; Raman spectroscopy
Barcode	:	TH8225
Call No.	:	TH 621.382 TYA-I
Title	:	Impact analysis of solar photovoltaic array faults on power network
Researcher	:	Utkarsh Kumar
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Mishra, Sukumar (Prof.) - EE (Guide)
Physical description	:	xv, 95p.
Subject terms	:	Metamodel; Localization; Machine learning; Analysis approach; Synchrophasor
Barcode	:	TH8226
Call No.	:	TH 621.311.243 UTK-I
Title	:	Study of ecological sustainability aspect of tourist behaviour
Researcher	:	Manchanda, Khyati
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Parida, Biswajita (Asst. Prof.) - MS (Guide)
Physical description	:	xx, 245 p.

Subject terms	:	Patriotism; Spirituality; Infrastructure; Natural disaster; Rock garden
Barcode	:	TH8227
Call No.	:	TH 338.484:502.131.1 MAN-S
Title	:	Near field terahertz imaging and spectroscopy
Researcher	:	Aalam, Uzair
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Sengupta, Amartya (Asst. Prof.) - PH (Guide)
Physical description	:	xx,164 p.
Subject terms	:	Electromagnetic waves; Peculiar radiation; Quality control; Agri food industry; Hydration sensing
Barcode	:	TH8228
Call No.	:	TH 543.42:528.837 AAL-N
Title	:	Modelling and analysis of higher order modes in optical fibers and components
Researcher	:	Ajay Kumar
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Sharma, Anurag (Prof.) - PH (Guide); Varshney, R. K. (Prof.) - PH (Guide)
Physical description	:	xxvii,154 p.
Subject terms	:	Wave equations; Optical propagation; Sensing; Leaky fiber structure; Waveguide modes
Barcode	:	TH8229
Call No.	:	TH 535.5 AJA-M
Title	:	Some results in weighted enumeration and elliptic identities
Researcher	:	Archna Kumari
Department	:	Department of Mathematics, IITD
Year	:	2025
Supervisor	:	Tripathi, Amitabha (Prof.) - MA (Guide)
Physical description	:	vii, 92 p.
Subject terms	:	Elliptic functions; Generating functions; Theta functions; Modular forms; Elliptic hypergeometric series

Barcode	:	TH8230
Call No.	:	TH 519.146 ARC-S
Title	:	Development of an IN SILICO surgical simulation platform for biomechanical assessment of brain
Researcher	:	Awasthi, Abhilash
Department	:	Department of Applied Mechanics, IITD
Year	:	2025
Supervisor	:	Roy, Sitikantha (Prof.) - AM (Guide); Mahajan, Puneet (Prof.) - AM (Guide); Suri, Ahish (Prof.) - AIIMS, New Delhi
Physical description	:	xxvii, 205 p.
Subject terms	:	Brain injury; Deep learning; Dynamic elastography; Ultrasound; Magnetic resonance
Barcode	:	TH8231
Call No.	:	TH 611.81 AWA-D
Title	:	Comprehensive accessibility of equations by visually impaired
Researcher	:	Bansal, Akashdeep
Department	:	Amar Nath and Shashi Khosla School of Information Technology, IITD
Year	:	2025
Supervisor	:	Balakrishnan, M. (Prof.) - SIT (Guide); Sorge, Volker (Prof.) - University of Birmingham, UK (Guide)
Physical description	:	vi, 134 p.
Subject terms	:	Screen readers; Cognitive complexity; Semantics; Syntactic rendering; Braille
Barcode	:	TH8232
Call No.	:	TH 004.383.3-056.262 BAN-C
Title	:	Design, development and control of battery-solar-wind based hybrid microgrid with synchronization to grid
Researcher	:	Bhattacharyya, Sudip
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Singh, Bhim (Prof.) - EE (Guide)
Physical description	:	xxvii, 183 p.

Subject terms	:	Battery; Energy storage; Standalone battery; Robust control; Microgrid
Barcode	:	TH8233
Call No.	:	TH 621.355 BHA-D
Title	:	Mitigation of air pollution: macro to micro scale study of particle capture by uncharged and charged droplets
Researcher	:	Biswal, Debabrat
Department	:	Department of Mechanical Engineering, IITD
Year	:	2025
Supervisor	:	Ray, Bahni (Assoc. Prof.) - ME (Guide); Dasgupta, Debrata (Assoc. Prof.) - ME (Guide); Thaokar, Rochish M. (Prof.) - IIT Bombay (Guide)
Physical description	:	278 P.
Subject terms	:	Cardiovascular disease; Vascular disease; Electrostatic precipitator; Charged droplets; Particulate matter
Barcode	:	TH8234
Call No.	:	TH 614.71 BIS-M
Title	:	Role of microstructure on the deformation behavior of CoCrFeNi based high entropy alloys with Ti and Al additions
Researcher	:	Bushra
Department	:	Department of Material Science and Engineering, IITD
Year	:	2025
Supervisor	:	Jain, Jayant (Prof.) - MSE (Guide); Neelakantan, Suresh (Assoc. Prof.) - MSE (Guide)
Physical description	:	xxx, 208 p.
Subject terms	:	Fractography; Tensile testing; Optical microscopy; Hot deformations; Metallography
Barcode	:	TH8235
Call No.	:	TH 544.322 BUS-R
Title	:	Development of heterogeneous single-site metal catalysts using metal-organic frameworks (MOFs) for upcycling of methane and polyolefins
Researcher	:	Chauhan, Manav
Department	:	Department of Chemistry, IITD
Year	:	2025
Supervisor	:	Manna, Kuntal (Assoc. Prof.) - CHY (Guide)

Physical description	:	xlvi, 395 p.
Subject terms	:	Photoelectron; Diffraction; Spectroscopy; Microscopy; Catalysts
Barcode	:	TH8236
Call No.	:	TH 678:662.767 CHA-D
Title	:	Frugal sensing and compute using AI/ML for urban sustainability
Researcher	:	Chauhan, Sachin Kumar
Department	:	Department of Computer Science and Engineering, IITD
Year	:	2025
Supervisor	:	Sen, Rijurekha (Asst. Prof.) - CSE (Guide)
Physical description	:	xii, 125 p.
Subject terms	:	Industrial revolution; Artificial intelligence; Machine learning; Forecasting; Statistics
Barcode	:	TH8237
Call No.	:	TH 004.8:520.131.1 CHA-F
Title	:	Essays on climate risk, farmers' adaptive capacity to climate risk, and information and communication technologies (ICTs)
Researcher	:	Chetri, Priya
Department	:	School of Public Policy, IITD
Year	:	2025
Supervisor	:	Sharma, Upasna (Assoc. Prof.) - SPP (Guide); Ilavarasan, P. Vigneswara (Prof.) - DMS (Guide)
Physical description	:	xv, 239 p.
Subject terms	:	Climate variability; Ecosystem; Agriculture; Weather information; Communication technologies
Barcode	:	TH8238
Call No.	:	TH 551.583:004 CHE-E
Title	:	Study of graphene and its heterostructures for terahertz modulation
Researcher	:	Chouksey, Abhilasha
Department	:	Department of Physics, IITD
Year	:	2025

Supervisor	:	Khare, Neeraj (Prof.) - PH (Guide); Rawat, J. S. - DRDO, New Delhi (Guide)
Physical description	:	xx, 174 p.
Subject terms	:	Dielectric layer; THz modulators; Spectroscopy; Security imaging; Gas detection
Barcode	:	TH8239
Call No.	:	TH 546.26 CHO-S
Title	:	Advancing integrated CO2 capture and electrochemical conversion in deep eutectic solvents
Researcher	:	Suresh, Cini M.
Department	:	Department of Chemistry, IITD
Year	:	2025
Supervisor	:	Ingole, Pravin P. (Prof.) - CHY (Guide)
Physical description	:	xxvii, 226 p.
Subject terms	:	Atmospheric CO2; CO2 reduction; Gravimetric analysis; Climate change mitigation; Electrocatalyst modification
Barcode	:	TH8240
Call No.	:	TH 564.264:66.087 SUR-A
Title	:	Bioreactor engineering and process automation for CO2 biofixation and PHB production in microalgal systems
Researcher	:	Dey, Saptarshi
Department	:	Centre for Rural Development and Technology, IITD
Year	:	2025
Supervisor	:	Malik, Anushree (Prof.) - CRDT (Guide)
Physical description	:	xx, 167 p.
Subject terms	:	Fossil fuel; Nutraceuticals; Biopolymers; Biofuels; Metabolites
Barcode	:	TH8241
Call No.	:	TH 602.47-7 DEY
Title	:	Ultrafast photoinduced terahertz emission properties of bulk and few layer MOS2
Researcher	:	Dhakar, Neetesh
Department	:	Department of Physics, IITD
Year	:	2025

Supervisor	:	Sunil Kumar (Prof.) - PH (Guide)
Physical description	:	xxvi, 160 p.
Subject terms	:	Transition metal dichalcogenides; Spectroscopy; Quantum computing; Photodetector; Optoelectronic device
Barcode	:	TH8242
Call No.	:	TH 535.333 DHA-U
Title	:	Design, development and evaluation of fermented herbal nutra-beverage from shatavari (asparagus racemosus)
Researcher	:	Divya
Department	:	Centre for Rural Development and Technology, IITD
Year	:	2025
Supervisor	:	Naik, Satya Narayan (Prof.) - CRDT (Guide); P. Hariprasad P. (Prof.) - CRDT (Guide)
Physical description	:	xx, 148 p.
Subject terms	:	Starch; Bioreactor; Saccharomyces cerevisiae; Modelling; Product validation
Barcode	:	TH8243
Call No.	:	TH 663.88 DIV-D
Title	:	Design and control of hybrid buck-sepic two-input DC-DC converter topologies
Researcher	:	Eate, Vargil Kumar
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Veerachary, M. (Prof.) - EE (Guide)
Physical description	:	viii, 240 p.
Subject terms	:	Conventional converters; Inductor; Current control; Sensitivity; Loop shaping
Barcode	:	TH8244
Call No.	:	TH 621.314.1 EAT-D
Title	:	Capacitor-centric approaches for size reduction and efficiency improvement in electric vehicle chargers
Researcher	:	Farooqi, Muhammad Zarkab
Department	:	Department of Electrical Engineering, IITD
Year	:	2025

Supervisor	:	Singh, Bhim (Prof.) - EE (Guide); Panigrahi, Bijaya Ketan (Prof.) - EE (Guide)
Physical description	:	xxiv, 185 p.
Subject terms	:	Energy storage; Power buffer circuits; AC-DC converters; Ripple power control; Micro controller board
Barcode	:	TH8245
Call No.	:	TH 629.064.5 FAR-C
Title	:	Non-convex optimization methods for enhanced performance for problems in graph signal processing, phase-retrieval and sensing
Researcher	:	Fatima, Ghania
Department	:	Centre for Applied Research in Electronics, IITD
Year	:	2025
Supervisor	:	Babu, Prabhu (Assoc. Prof.) - CARE (Guide)
Physical description	:	xxvii, 375 p.
Subject terms	:	Solving optimization; Sensing; Optimization techniques; Covariance matrix; Sparsity constraints
Barcode	:	TH8246
Call No.	:	TH 621.391.81 FAT-N
Title	:	Polyphasic approach to understand the distribution and dynamics of TEM β -Lactamase in environmental bacterial populations
Researcher	:	Gehlot, Priyanka
Department	:	Centre for Rural Development and Technology, IITD
Year	:	2025
Supervisor	:	P., Hariprasad (Assoc. Prof.) - CRDT (Guide)
Physical description	:	xxv, 206 p.
Subject terms	:	Antimicrobial resistance; Multidrug resistant; Carbapenem resistant enterobacteriaceae; Environmental bacterial populations; Antibiotic resistant bacteria
Barcode	:	TH8247
Call No.	:	TH 615.33 GEH-P
Title	:	Computational design and analysis of skeletal muscle-like soft actuators
Researcher	:	Ghosh, Saswath

Department	:	Department of Applied Mechanics, IITD
Year	:	2025
Supervisor	:	Roy, Sitikantha (Prof.) - AM (Guide)
Physical description	:	xxiii, 155 p.
Subject terms	:	Soft robotics; Artificial muscle; Soft pneumatic actuators; Conducting polymer actuators; Generative design
Barcode	:	TH8248
Call No.	:	TH 617.58:004.9 GH0-C
Title	:	On sensor tradeoffs, design, and estimation in biomolecular systems
Researcher	:	Gola, Krishan Kumar
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Sen, Shaunak (Prof.) - EE (Guide)
Physical description	:	xxii, 121 p.
Subject terms	:	Synthetic biology; Biomolecular circuits; Thermodynamic analysis; Ribosome binding; Stochastic differential equation
Barcode	:	TH8249
Call No.	:	TH 621.3.018.782 GOL-O
Title	:	Role of ownership structure in the determination of the corporate dividend policy and firm value
Researcher	:	Gosain, Neha
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Kashiramka, Smita (Prof.) - MS (Guide); Chaudhry, Neeru (Assoc. Prof.) - MS (Guide)
Physical description	:	xxi, 288 p.
Subject terms	:	COVID-19; Dynamic methodology; Signaling theory; Socioemotional wealth; Baseline model
Barcode	:	TH8250
Call No.	:	TH 658:005.51 GOS-R
Title	:	Polyphenol-based strategies to inhibit γ D-crystallin aggregation and their encapsulation for improved delivery
Researcher	:	Goswami, Vishakha

Department	:	Department of Chemistry, IITD
Year	:	2025
Supervisor	:	Deep, Shashank (Prof.) - CHY (Guide)
Physical description	:	xxiv, 174 p.
Subject terms	:	Crystallin aggregation; Cataract; Biodegradable nanoparticles; Polyphenols; Amorphous aggregation
Barcode	:	TH8251
Call No.	:	TH 577 GOS-P
Title	:	Derivative usage and its influence on firm-risk stock liquidity, and cost of capital: evidence from non-financial firms
Researcher	:	Gupta, Aastha
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Chaudhry, Neeru (Assoc. Prof.) - MS (Guide)
Physical description	:	ix, 146 p.
Subject terms	:	Stock liquidity; Empirical analysis; Financial distress; Risk management; Management strategies
Barcode	:	TH8252
Call No.	:	TH 658.15 GUP-D
Title	:	"Deciphering HMGB1: across a spectrum of DNA and nucleosome dynamics"
Researcher	:	Gupta, Ishu
Department	:	Kusuma School of Biological Sciences, IITD
Year	:	2025
Supervisor	:	Patel, Ashok Kumar (Prof.) - SBS (Guide)
Physical description	:	xx, 197 p.
Subject terms	:	Nonhistone nuclear protein; Redox states of HMGB1; Gene regulation; Chromatin structure; Nucleosome core particle
Barcode	:	TH8253
Call No.	:	TH 575 GUP-D
Title	:	Design, finite element modelling and experimental investigation of the novel auxetic stents for enhanced mechanical and functional attributes
Researcher	:	Gupta, Khanish

Department	:	Department of Mechanical Engineering, IITD
Year	:	2025
Supervisor	:	Meena Kusum (Asst. Prof.) - ME (Guide)
Physical description	:	xxii, 279 p.
Subject terms	:	Vascular disease; Radial strength; Radial recoil; Geometrical optimization; Finite element analysis
Barcode	:	TH8254
Call No.	:	TH 620.17 GUP-D
Title	:	Study on dynamic fiscal multipliers
Researcher	:	Gupta, Mahima
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Dubey, Amlendu Kumar (Prof.) - MS (Guide)
Physical description	:	xviii, 115 p.
Subject terms	:	Latent groups; Feminization; Expenditure; Indian economy; Sustainability
Barcode	:	TH8255
Call No.	:	TH 336.02 GUP-S
Title	:	Influence of grain size and environmental temperature on ion energy loss in materials: a comprehensive study of gadolinium-doped ceria
Researcher	:	Haq, Waseem Ul
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Ghosh, Shantanu (Prof.) - PH (Guide); Gupta, Vinita Grover (Prof.) - BARC, Mumbai (Guide)
Physical description	:	xxii, 144 p.
Subject terms	:	Nuclear energy; Waste immobilization; Electricity generation; Uranium oxide; Minor actinides
Barcode	:	TH8256
Call No.	:	TH 620.171.3 HAQ-I
Title	:	Manipulating cell culture media components and use of additives to enhance the production of monoclonal antibodies

Researcher	:	Hubli, Geetanjali
Department	:	Department of Chemical Engineering, IITD
Year	:	2025
Supervisor	:	Rathore, Anurag S. (Prof.) - CHE (Guide)
Physical description	:	xxi, 199 p.
Subject terms	:	Biotherapeutics; Cancer; Mammalian cell; Chromatography; Methionine
Barcode	:	TH8257
Call No.	:	TH 576.3 HUB-M
Title	:	Behaviour of rock-socketed piles under axial static and cyclic loading
Researcher	:	Jain, Amit
Department	:	Department of Civil Engineering, IITD
Year	:	2025
Supervisor	:	Rao, K. S. (Prof.) - CE (Guide); Ayothiraman, R. (Prof.) - CE (Guide)
Physical description	:	xix, 183 p.
Subject terms	:	Infrastructure; Axial static loading; Model synthetic rock block; Cyclic loading; Geometrical modelling
Barcode	:	TH8258
Call No.	:	TH 624.012.1 JAI-B
Title	:	Age-of-information minimization for wireless networks with energy harvesting
Researcher	:	Jaiswal, Akanksha
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Chattopadhyay, Arpan (Asst. Prof.) - EE (Guide)
Physical description	:	xvii, 113 p.
Subject terms	:	5G network; Ultra-reliable low latency communication; EH sensor networks; Markovian system model; Optimization techniques
Barcode	:	TH8259
Call No.	:	TH 621.396.2 JAI-A

Title	:	User perception based performance evaluation of intermediate public transport system in small city: case study Wardha, Maharashtra, India
Researcher	:	Jaiswal, Aishwarya
Department	:	Department of Civil Engineering, IITD
Year	:	2025
Supervisor	:	M. Manoj (Assoc. Prof.) - CE (Guide); Tiwari, Geetam (Prof.) - TRIPC (Guide)
Physical description	:	xxxiv, 257 p.
Subject terms	:	Intermediate public transport; Service quality; Level of service; Mode choice behaviour; Intermediate public transport in India
Barcode	:	TH8260
Call No.	:	TH 656.131(540.53) JAI-U
Title	:	Process optimization and enhancing the performance of electrocoagulation in batch and continuous modes of operation
Researcher	:	Jaiswar, Vinod Kumar
Department	:	Department of Chemical Engineering, IITD
Year	:	2025
Supervisor	:	Saroha, Anil K. (Prof.) - CHE (Guide)
Physical description	:	xxi, 210 p.
Subject terms	:	Energy consumption; Electrical energy; Electrodes; Electrocoagulation; Monopolar series
Barcode	:	TH8261
Call No.	:	TH 628.16.087 JAI-P
Title	:	Exploring serious games for mental health interventions among school-going adolescents in India
Researcher	:	John, Sneha
Department	:	Department of Humanities and Social Sciences, IITD
Year	:	2025
Supervisor	:	Singh, Kamlesh (Prof.) - HSS (Guide)
Physical description	:	xxi, 265 p.
Subject terms	:	Discrimination; Healthcare; Coronavirus; Pandemic; Educational challenges
Barcode	:	TH8262

Call No.	:	TH 37.015.31(540) JOH-E
Title	:	Fabrication and characterization of high-performance deep UV photodetectors using MOCVD-grown ZnGa ₂ O ₄ epilayers for application under harsh environments
Researcher	:	Khan, Taslim
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Singh, Rajendra (Prof.) - PH (Guide); Horng, Ray-Hua (Prof.) - NYCU, Taiwan (Guide)
Physical description	:	xxvii, 189 p.
Subject terms	:	Photodetector; Photovoltaic detector; Pyroelectric phenomena; Artificial synapse; Deep ultraviolet
Barcode	:	TH8263
Call No.	:	TH 621.383.4 KHA-F
Title	:	Exploring spatiality and sovereignty in the hunger games quartet
Researcher	:	Khanna, Sanam
Department	:	Department of Humanities and Social Science, IITD
Year	:	2025
Supervisor	:	Multani, Angelie (Prof.) - HSS (Guide)
Physical description	:	ix, 320 p.
Subject terms	:	Dystopia; YA fiction; Spatiality; Social contract; Sovereignty
Barcode	:	TH8264
Call No.	:	TH 321.011 KHA-E
Title	:	Design and fabrication of Electro-Optic devices using liquid crystals and their integration with polymers
Researcher	:	Kushawaha, Rishikesh
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Sinha, Aloka (Prof.) - PH (Guide)
Physical description	:	xxiv, 177 p.
Subject terms	:	Electrohydrodynamic; Thermotropic liquid crystal; Birefringence; Dielectric anisotropy; Nematic liquid crystals
Barcode	:	TH8265

Call No.	:	TH 537.533 KUS-D
Title	:	Toluene Methylation to P-Xylene: development of shape selective catalyst and kinetic modelling
Researcher	:	Lalit Kumar
Department	:	Department of Chemical Engineering, IITD
Year	:	2025
Supervisor	:	Pant, K. K. (Prof.) - CHE (Guide); Manjesh Kumar (Asst. Prof.) - CHE (Guide); Newalkar, Bharat L. (CGM) - BPCL, Greater Noida (Guide)
Physical description	:	xviii, 146 p.
Subject terms	:	X-Ray Diffraction; Catalyst evaluation; Scanning microscopy; Emission microscopy; Equilibrium conversion
Barcode	:	TH8266
Call No.	:	TH 533.7:544.47 LAL-T
Title	:	Nature of prices and its implications on monetary policy in India
Researcher	:	Lohani, Juhi
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Dubey, Amlendu Kumar (Prof.) - MS (Guide)
Physical description	:	xiii, 96 p.
Subject terms	:	Econometric model; Manufacturing price; Consumer prices; Inflation expectations; Johansen test
Barcode	:	TH8267
Call No.	:	TH 332.11(540) LOH-N
Title	:	Impact of ESG disclosures on the financial decisions of firms empirical evidence from emerging nations
Researcher	:	Malik, Neha
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Kashiramka, Smita (Prof.) - DMS (Guide)
Physical description	:	xxiv, 297 p.
Subject terms	:	Sustainable development goals; Corporate social responsibility; Policymakers; Stakeholders; Endogeneity
Barcode	:	TH8268

Call No.	:	TH 658.1(73) MAL-I
Title	:	Computational camera with an extended field of view: demonstration of a novel system concept with information efficient design
Researcher	:	Malik, Ritika
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Khare, Kedar B. (Prof.) - OPC (Guide); Elangovan, Ravikrishnan (Prof.) - BEB (Guide)
Physical description	:	xxiv, 195 p.
Subject terms	:	Computational imaging; Compressive sampling; Unconventional imaging; Metrics; Signal energy
Barcode	:	TH8269
Call No.	:	TH 539.25:519.6 MAL-C
Title	:	Development of an adaptive weight shifting training system for improved rehabilitation outcomes in individuals with lower limb amputation
Researcher	:	Mishra, Sirsendu Sekhar
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Panigrahi, Ketan Bijaya (Prof.) - EE (Guide); Joshi, Deepak (Assoc. Prof.) - CBME (Guide)
Physical description	:	xxviii, 235 p.
Subject terms	:	Controller tuning; Noise suppression; Benchtop system; Trajectory tracking; Ankle angles
Barcode	:	TH8270
Call No.	:	TH 621.313:617.58 MIS-D
Title	:	In-medium properties of strange and heavy flavor mesons
Researcher	:	Mondal, Arpita
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Mishra, Amruta (Prof.) - PH (Guide)
Physical description	:	xii, 109 p.
Subject terms	:	Nuclei scenario; Symmetries; Quarkonia nuclei; Nuclear matter; Atomic nuclei

Barcode	:	TH8271
Call No.	:	TH 539.1 MON-I
Title	:	Design, development and control of multifunctional grid interfaced solar PV systems and battery energy storage based microgrids with grid supportive features
Researcher	:	Naqvi, Syed Bilal Qaiser
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Singh, Bhim (Prof.) - EE (Guide)
Physical description	:	xxviii, 252 p.
Subject terms	:	Sequence filter; Photovoltaic array; Harmonics distortion; Amplitude; Sinusoidal integrator
Barcode	:	TH8272
Call No.	:	TH 532.72 NAQ-D
Title	:	Development of acoustic materials and value added chemicals from waste biomass
Researcher	:	Negi, Ashutosh
Department	:	School of Interdisciplinary Research, IITD
Year	:	2025
Supervisor	:	Haider, M. Ali (Prof.) - CHE (Guide); Fatima, Shahab (Assoc. Prof.) - CART (Guide); Ahmad, Ejaz (Asst. Prof.) - IIT ISM Dhanbad (Guide)
Physical description	:	xxii, 232 p.
Subject terms	:	Biodegradability; Bio composites; Impedance tube; Rice straw; Tensile strength
Barcode	:	TH8273
Call No.	:	TH 662.62 NEG-D
Title	:	Spintronic-oscillator based neuromorphic and Ising computing
Researcher	:	Garg, Neha
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Mudulli, P. K. (Prof.) - PH (Guide); Bhowmik, Debanjan (Assoc. Prof.) - IIT Bombay (Guide)
Physical description	:	xxii, 103 p.

Subject terms	:	Kuramoto model; Wisconsin cancer; Zeeman interaction; Macrospin model; Magnetization
Barcode	:	TH8274
Call No.	:	TH 537.6/.8:004 GAR-S
Title	:	Study and implementation of phase and polarization encoded quantum key distribution in all guided-wave geometry
Researcher	:	Pathak, Nishant Kumar
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Kanseri, Bhaskar (Assoc. Prof.) - PH (Guide)
Physical description	:	xix, 154 p.
Subject terms	:	Wavelength; Intensity modulator; Optical attenuator; Amplitude modulation; Signal generators
Barcode	:	TH8275
Call No.	:	TH 528.8:531.1 PAT-S
Title	:	Synthetic applications of phenalenyl-based moiety as a potent photocatalyst in organic transformations
Researcher	:	Pathania, Vishali
Department	:	Department of Chemistry, IITD
Year	:	2025
Supervisor	:	Roy, Sudipta Raha (Assoc. Prof.) - CHY (Guide)
Physical description	:	xxviii, 292 p.
Subject terms	:	Photochemistry; Photoredox; Spectroscopy; Photosynthesis; Lactonization
Barcode	:	TH8276
Call No.	:	TH 544.526.5:547.02 PAT-S
Title	:	Advanced optimization techniques for electric vehicles charging in smart grid
Researcher	:	Qureshi, Ubaid Bashir
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Panigrahi, Bijaya Ketan (Prof.) - EE (Guide); Ghosh, Arnob (Prof.) - NJIT, USA (Guide)
Physical description	:	xxii, 196 p.

Subject terms	:	Neural networks; Power plant; Pareto optimality; Renewable energy; Electric vehicles
Barcode	:	TH8277
Call No.	:	TH 629.064.5 QUR-A
Title	:	Study of superconducting properties of YBCO nanocomposites and step edge Josephson junction based devices
Researcher	:	Rajni
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Khare, Neeraj (Prof.) - PH (Guide)
Physical description	:	xxv, 131 p.
Subject terms	:	Superconductors; Artificial pinning; Photolithography; Nanoparticles; Ferromagnetic behavior
Barcode	:	TH8278
Call No.	:	TH 538.945 RAJ-S
Title	:	Magnetic field evolution by weibel instability in counter-streaming plasmas
Researcher	:	Rakesh Kumar
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Malik, Hitendra K. (Prof.) - PH (Guide); Sandeep Kumar (Prof.) - MRU, Faridabad, India (Guide)
Physical description	:	xviii, 87 p.
Subject terms	:	Astrophysicist; Laser-plasma; Biermann battery; Solar plasma; Plasma density
Barcode	:	TH8279
Call No.	:	TH 537.6 RAK-M
Title	:	Metal oxide based semiconductors for sustainability and sensing based applications
Researcher	:	Rana, Siddharth
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Singh, J. P. (Prof.) - PH (Guide); Horng, Ray Hua (Prof.) - NYCU, Taiwan (Guide)

Physical description	:	xxiv, 180 p.
Subject terms	:	Power devices; Optoelectronics; Photoelectrochemical water splitting; Morphology; Surface wettability
Barcode	:	TH8280
Call No.	:	TH 537.311.33 RAN-M
Title	:	Synchronization of solar-photovoltaic and doubly fed induction generator wind energy conversion based microgrids
Researcher	:	Roy, Suvom
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Singh, Bhim (Prof.) - EE (Guide); Panigrahi, B. K. (Prof.) - EE (Guide)
Physical description	:	xxxvi, 300 p.
Subject terms	:	Renewable energy; Power quality analysis; Wind turbine; Load dynamics; Semiconductor switches
Barcode	:	TH8281
Call No.	:	TH 621.311.243 ROY-S
Title	:	Mechanics of highly flexible manipulators
Researcher	:	Sreejath S.
Department	:	Department of Mechanical Engineering, IITD
Year	:	2025
Supervisor	:	Saha, S. K. (Prof.) - ME (Guide); Singh, S. P. (Prof.) - ME (Guide)
Physical description	:	xxiv, 148 p.
Subject terms	:	Finite element method; Material modelling; Sinusoidal beam; Spiral beam; Stiffness
Barcode	:	TH8282
Call No.	:	TH 620.17 SRE-M
Title	:	YBCO step edge Josephson junction: fabrication, characterization, modeling and applications
Researcher	:	Sandeep Kumar
Department	:	Department of Physics, IITD
Year	:	2025
Supervisor	:	Khare, Neeraj (Prof.) - PH (Guide)

Physical description	:	xxii, 145 p.
Subject terms	:	Superconductor; Diffraction; Wettability; Critical current density; Simulation
Barcode	:	TH8283
Call No.	:	TH 538.945 SAN-Y
Title	:	Integrated mm-wave receiver components for low-power applications
Researcher	:	Sanjeev Kumar
Department	:	Centre for Applied Research in Electronics, IITD
Year	:	2025
Supervisor	:	Koul, S. K. (Prof.) - CARE (Guide); Chatterjee, Shouri (Prof.) - EE (Guide)
Physical description	:	xvi, 77 p.
Subject terms	:	Antenna; Transformer; Oscillator; Radiation efficiency; Ring inductor
Barcode	:	TH8284
Call No.	:	TH 621.396.62 SAN-I
Title	:	Impact of anthropogenic activities on river health: a study of river Narmada and Sone
Researcher	:	Sapre, Kartik Shirish
Department	:	Centre for Rural Development and Technology, IITD
Year	:	2025
Supervisor	:	Virendra Kumar Vijay (Prof.) - CRDT (Guide); Vivek Kumar (Prof.) - CRDT (Guide)
Physical description	:	iii, 208 p.
Subject terms	:	Indian philosophy; Groundwater; Narmada river; Sustainable management; Anthropogenic
Barcode	:	TH8285
Call No.	:	TH 504.5(282) SAP-I
Title	:	SnS ₂ nanostructures, their nanocomposites and heterojunctions for photoelectrochemical water splitting applications
Researcher	:	Sarita
Department	:	Department of Physics, IITD
Year	:	2025

Supervisor	:	Khare, Neeraj (Prof.) - PH (Guide)
Physical description	:	xxii, 144 p.
Subject terms	:	Solar energy; Hydrothermal; Photocurrent density; Photoanode; Carbon nanotubes
Barcode	:	TH8286
Call No.	:	TH 621.383 SAR-S
Title	:	Theoretical insights into the transport, kinetics and electronic properties of battery materials for energy storage devices
Researcher	:	Seth, Deepak
Department	:	Department of Chemical Engineering, IITD
Year	:	2025
Supervisor	:	Haider, M. Ali (Prof.) - CHE (Guide); Agarwal, Manish (System Manager) - CSC (Guide)
Physical description	:	xx, 247 p.
Subject terms	:	Sodium; Grain boundary; Activation energy; Metal doping; Hydride batteries
Barcode	:	TH8287
Call No.	:	TH 541.124 SET-T
Title	:	Position control of flexible link manipulators with sliding mode control
Researcher	:	Sharma, Atul
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Janardhanan, S. (Prof.) - EE (Guide)
Physical description	:	xviii, 109 p.
Subject terms	:	Robotic systems; Numerical simulations; Truncation; Mathematical modelling; Integral sliding mode
Barcode	:	TH8288
Call No.	:	TH 681.5:621.865 SHA-P
Title	:	Techniques for reducing energy consumption in buildings through thermal and visual interventions
Researcher	:	Sharma, Rahul Kumar
Department	:	Department of Energy Science and Engineering, IITD
Year	:	2025

Supervisor	:	Rakshit, Dibakar (Prof.) - ESE (Guide)
Physical description	:	xxvi, 223 p.
Subject terms	:	Solidification; Ventilation; Artificial light; Evaporative coolers; Entropy generation
Barcode	:	TH8289
Call No.	:	TH 620.9:697 SHA-T
Title	:	Impact of green entrepreneurial orientation on sustainable firm performance: a study in the Indian manufacturing sector
Researcher	:	Shivani
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Sharma, Seema (Prof.) - MS (Guide); Singh, Shveta (Prof.) - MS (Guide)
Physical description	:	xxii, 292 p.
Subject terms	:	Institutional pressure; Environmental collaboration; Ambidexterity; Sustainable firm; Big data
Barcode	:	TH8290
Call No.	:	TH 658.11(540) SHI-I
Title	:	Design of secure hardware architectures for neural networks
Researcher	:	Shrivastava, Nivedita
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Sarangi, Smruti Ranjan (Prof.) - EE (Guide)
Physical description	:	xxxiv, 226 p.
Subject terms	:	Architecture; Remapping; Halo Pixels; Outsourcing; Obfuscation
Barcode	:	TH8291
Call No.	:	TH 62:004.89 SHR-D
Title	:	Energy harvesting from variable stiffness piezolaminated panels in hygrothermal environment
Researcher	:	Shukla, Rishabh
Department	:	Department of Applied Mechanics, IITD
Year	:	2025
Supervisor	:	Pradyumna, S. (Prof.) - AM (Guide)

Physical description	:	xxv, 127 p.
Subject terms	:	Catastrophic; Piezoelectric; Geometry; Delamination; Auxetic energy
Barcode	:	TH8292
Call No.	:	TH 621.311 SHU-E
Title	:	Design and development of 2D and 3D woven auxetic fabrics and their composites
Researcher	:	Shukla, Shivangi
Department	:	Department of Textile and Fibre Engineering, IITD
Year	:	2025
Supervisor	:	Behera, B. K. (Prof.) - TFE (Guide)
Physical description	:	xxxv, 267 p.
Subject terms	:	Poisson's ratio; Star shaped core; Racetrack core; Weave design; Hybrid chiral
Barcode	:	TH8293
Call No.	:	TH 677.074 SHU-D
Title	:	Mechanics of crack propagation initiation in crystalline silicon and amorphous silica at atomistic scale
Researcher	:	Singh, Ashish
Department	:	Department of Applied Mechanics, IITD
Year	:	2025
Supervisor	:	Singh, Gaurav (Assoc. Prof.) - AM (Guide)
Physical description	:	xvii, 179 p.
Subject terms	:	Fracture mechanics; Simulations; Strain rate; Python; Elasticity
Barcode	:	TH8294
Call No.	:	TH 539.421 SIN-M
Title	:	Multifaceted investigation of meteorological drought dynamics
Researcher	:	Singh, Gauranshi Raj
Department	:	Department of Civil Engineering, IITD
Year	:	2025
Supervisor	:	T., Dhanya C. (Prof.) - CE (Guide); Chakravorty, Aniket (Scientist) - SASD, NESAC, Meghalaya (Guide)

Physical description	:	xxiv, 140 p.
Subject terms	:	Multivariate analysis; Drought; Empirical copula; Climate Change; Remote Sensing
Barcode	:	TH8295
Call No.	:	TH 551.577.38 SIN-M
Title	:	Biomechanical modelling and intervention development for diabetic foot ulcers
Researcher	:	Singh, Gurpreet
Department	:	Centre for Biomedical Engineering, IITD
Year	:	2025
Supervisor	:	Chanda, Arnab (Assoc. Prof.) - CBME (Guide)
Physical description	:	xv, 131 p.
Subject terms	:	Computation modeling; Computed tomography; Finite element analysis; Magnetic resonance imaging; Averagezonal pressure
Barcode	:	TH8296
Call No.	:	TH 616.5-002.4 SIN-B
Title	:	Challenges of digital transformation in medium sized enterprises in India: select studies
Researcher	:	Singh, Raman Kumar
Department	:	Department of Management Studies, IITD
Year	:	2025
Supervisor	:	Gupta, M. P. (Prof.) - MS (Guide)
Physical description	:	xviii, 252 p.
Subject terms	:	Organizational resilience; Digital maturity; Financial Performance; Neuroscientific reward; Digital architecture
Barcode	:	TH8297
Call No.	:	TH 658.114.7:004 SIN-C
Title	:	Engineering transitional dysphagic food
Researcher	:	Satheeshkanth S. S. M.
Department	:	Centre for Rural Development and Technology, IITD
Year	:	2025
Supervisor	:	Sahu, Jatindra K. (Prof.) - CRDT (Guide); Naik, Satya Narayan (Prof.) - CRDT (Guide)

Physical description	:	xxix, 197 p.
Subject terms	:	Dysphagia; Protein; Fragmentation; Printing cartridges; Transformative technology
Barcode	:	TH8298
Call No.	:	TH 664.8 SAT-E
Title	:	Lower hybrid turbulence and particle acceleration due to reconnecting current sheets in magnetopause reconnection regions
Researcher	:	Upadhyay, Manoj Kumar
Department	:	Department of Energy Science and Engineering, IITD
Year	:	2025
Supervisor	:	Uma, R. (Prof.) - ESE (Guide)
Physical description	:	xii, 143 p.
Subject terms	:	Plasma heating; Whistler waves; Solar wind; Bow shock; Ponderomotive force
Barcode	:	TH8299
Call No.	:	TH 533.9 UPA-L
Title	:	Development of composite anode for improving the performance of LI-ION batteries
Researcher	:	Vats, Bhavya Nidhi
Department	:	Centre for Automotive Research and Tribiology, IITD
Year	:	2025
Supervisor	:	Kumar, Deepak (Prof.) - CART (Guide); Fatima, S. (Assoc. Prof.) - CART (Guide)
Physical description	:	141 p.
Subject terms	:	Electronic conductivity; Electrochemical stability; Nanoparticles; Pulverization; Battery technology
Barcode	:	TH8300
Call No.	:	TH 621.35 VAT-D
Title	:	Numerical and experimental investigations of turbulent jet impingement flow and heat transfer on curved surfaces
Researcher	:	Kumar, Veerendra
Department	:	Department of Mechanical Engineering, IITD
Year	:	2025

Supervisor	:	Premachandran, B. (Prof.) - ME (Guide); Singhal, Gaurav (Scientist, G) - CHES, Hyderabad (Guide)
Physical description	:	xxii, 194 p.
Subject terms	:	Computational domain; Hemispherical surfaces; Nusselt numbers; Rotary blade; Piccolo tube
Barcode	:	TH8301
Call No.	:	TH 536.2 VEE-N
Title	:	Synthesis, characterization and biomedical application of micropatterned polymeric surfaces
Researcher	:	Verma, Meenakshi
Department	:	Department of Materials Science and Engineering, IITD
Year	:	2025
Supervisor	:	Saha, Sampa (Assoc. Prof.) - MSE (Guide)
Physical description	:	xxviii, 209 p.
Subject terms	:	Lithography; Capillary force; Nanoimprint; Electron beam; Biomolecules
Barcode	:	TH8302
Call No.	:	TH 57.089 VER-S
Title	:	Modelling for source-based solid waste management
Researcher	:	Widyatmika, Made Adi
Department	:	Department of Mechanical Engineering, IITD
Year	:	2025
Supervisor	:	Bolia, Nomesh B. (Prof.) - ME (Guide)
Physical description	:	xiv, 274 p.
Subject terms	:	Agriculture; Policies; Environmental responsibilities; Waste composting; Waste segregation
Barcode	:	TH8303
Call No.	:	TH 628.44 WID-M
Title	:	Misalignment tolerant control of a bidirectional wireless power transfer system for electric vehicle charging
Researcher	:	Yakala Ravi Kumar
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Pramanick, Sumit Kumar (Assoc. Prof.) - EE (Guide)

Physical description	:	xxiii, 157 p.
Subject terms	:	Misalignment tolerance; Interoperability; Bifurcation phenomena; Power transfer; Harmonic
Barcode	:	TH8304
Call No.	:	TH 629.064.5 YAK-M
Title	:	Framework for systems approach towards solving socially relevant engineering problems
Researcher	:	Prasad, Yashwant
Department	:	Department of Mechanical Engineering, IITD
Year	:	2025
Supervisor	:	Saha, S. K. (Prof.) - ME (Guide); Ravi, M. R. (Prof.) - ME (Guide)
Physical description	:	xxii, 183 p.
Subject terms	:	Human centered design; Mitigation strategies; Local entrepreneurs; Socioeconomic sustainability; Distributed economies
Barcode	:	TH8305
Call No.	:	TH 62:316.42 PRA-F
Title	:	Design and development of square shape based coil structures for wireless power transfer system
Researcher	:	Yadav, Pushpendra
Department	:	Department of Electrical Engineering, IITD
Year	:	2025
Supervisor	:	Veerachari, Mummadi (Prof.) - EE (Guide)
Physical description	:	xxvi, 153 p.
Subject terms	:	Square coupler; Transmitter coil; Air core; Leakage flux; Coil performance
Barcode	:	TH8306
Call No.	:	TH 517.938 YAD-D
Title	:	Study on manufacturing lightweight composite metal foam for higher energy absorption applications
Researcher	:	Zewdie, Fisseha
Department	:	Department of Mechanical Engineering, IITD
Year	:	2025
Supervisor	:	Bhatnagar, Naresh (Prof.) - ME (Guide)

Physical description	:	xxviii, 222 p.
Subject terms	:	Thermal insulation; Vibration damping; Heat exchangers; Mitigation; Corrosion resistance
Barcode	:	TH8307
Call No.	:	TH 620.1 ZWE-S

[Back to content](#)