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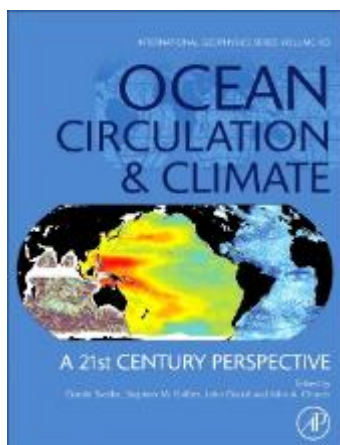


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Atmospheric Sciences

1



Ocean circulation and climate: a 21st century perspective edited by Gerold Siedler... (et al.), 2nd ed., Oxford: Elsevier, 2013. xv, 868 p., International geophysics.

Includes index (p. 843-868)

ISBN: 9780123918512

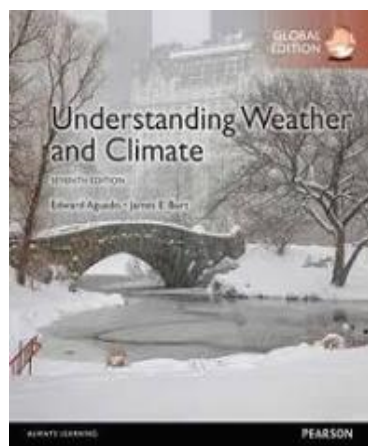
Subject Terms: Ocean-atmosphere interaction; Earth sciences; Geography; World ocean circulation experiment; Marine meteorology

551.46/.5 -OCE

Barcode: 181572; CL

[Click here for more details.](#)

2



Understanding weather and climate by Edward Aguado and James E. Burt, 7th ed., Boston: Pearson, 2015. 596 p.

Includes appendix, glossary and index (p. 554-596)

ISBN: 9781292087801

Subject Terms: Integrated mobile-ready videos; Environmental impacts; Oceans; Climate change; Earth system

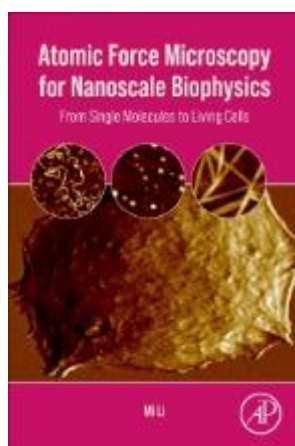
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Barcode: 181573; CL

[Click here for more details.](#)

Biochemical Engineering and Biotechnology

3



Atomic force microscopy for nanoscale biophysics: from single molecules to living cells by Mi Li, London: Academic Press, 2023. xii, 324 p.

Includes index (p. 315-324)

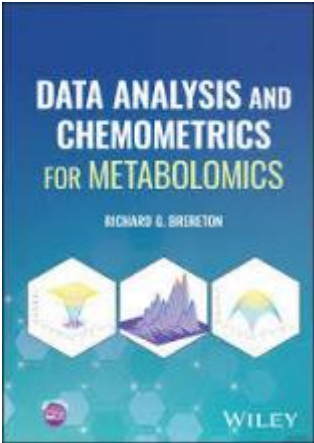
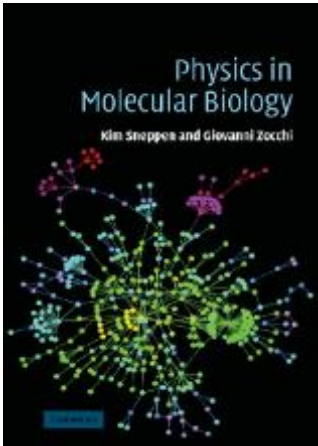
ISBN: 9780323953603

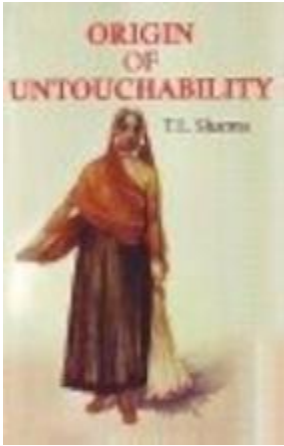
Subject Terms: Atomic force microscopy; Nanoscale biophysics; DNA structure; Cell membrane; Adhesion force

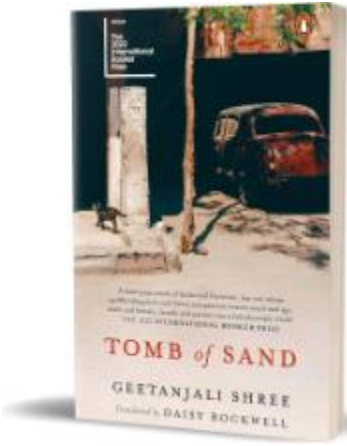
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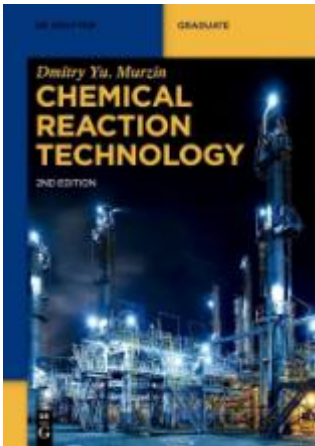
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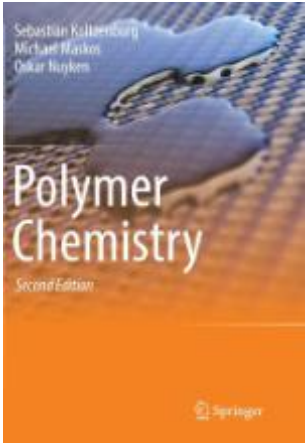
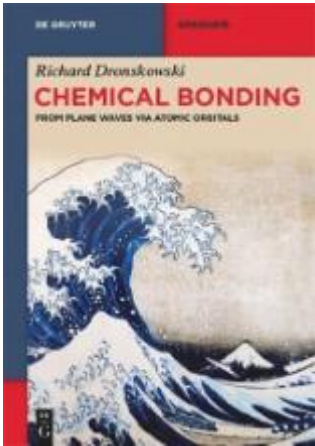
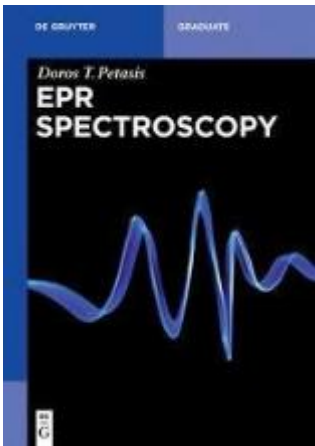
4 	Data analysis and chemometrics for metabolomics by Richard G. Brereton, Hoboken: Wiley, 2024. xvi, 414 p. Includes index (p. 406-414) ISBN: 9781119639381 Subject Terms: Single wavelength HPLC; Vibrational spectroscopy; Nuclear magnetic resonance; Diagnosis of malaria; Metabolomics - Case studies 577.12:543.54 BRE-D Barcode: 181566; CL Click here for more details.
5 	Physics in molecular biology by Kim Sneppen and Giovanni Zocchi, Cambridge: Cambridge University Press, 2005. viii, 311 p. Includes appendix, glossary and index (p. 280-311) ISBN: 9780521844192 Subject Terms: Polymer physics; DNA and RNA; Protein structure; Protein folding; Physics of genetic 577.32 SNE-P Barcode: 181568-181569; TB; BEB Click here for more details.
Central Library*	
6 	Introduction to operations research by Frederick S. Hillier... (et al.), 12th ed., Chennai: McGraw Hill, 2025. xxiv, 920 p. Includes index (p. 913-920) ISBN: 9789364444507 Subject Terms: Linear programming; Duality theory; Decision analysis; Operation research and analysis; Markov chains 65.012.1/.2 -INT Barcode: 181561; CL Click here for more details.
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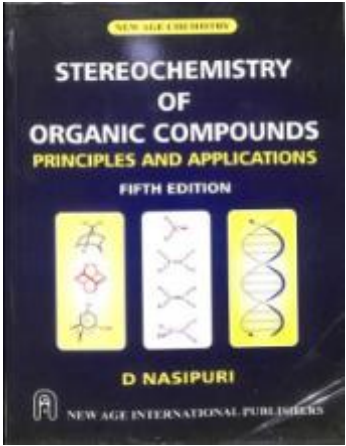
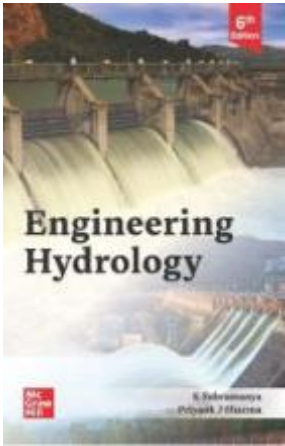
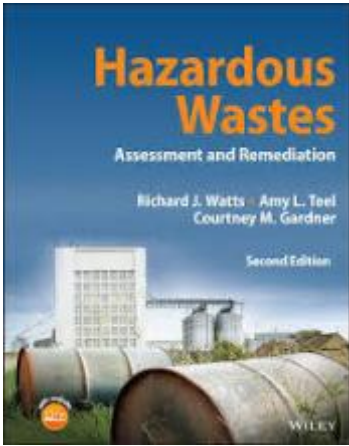
7	 Origin of untouchability by T. L. Sharma, New Delhi: B. R. Publishing, 2012. xiii, 199 p. Includes bibliography and index (p. 191-199) ISBN: 9789350500538 Subject Terms: Hinduism; Caste system; Shudras; Racial difference; India - Social conditions 316.342.3 SHA-O Barcode: 181575; CL Click here for more details.
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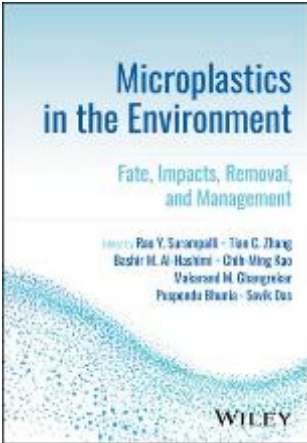
8	 Tomb of sand by Geetanjali Shree and Translated by Daisy Rockwell, Gurugram: Penguin Books, 2022. 739 p. ISBN: 9780143448471 Subject Terms: Transgender woman; Partition riots; Human relationships; Pakistan; Society 82-31 GEE-T Barcode: 181576; CL Click here for more details.
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Chemical Engineering

9	 Chemical reaction technology by Dmitry Yu. Murzin, 2nd ed., Berlin: De Gruyter, 2022. xv, 625 p., De Gruyter graduate. Includes index (p. 615-625) ISBN: 9783110712520 Subject Terms: Isomerization; Halogenation; Oxidation; Hydrogenation and dehydrogenation; Alkylation 66.09 MUR-C Barcode: 181570; CL Click here for more details.
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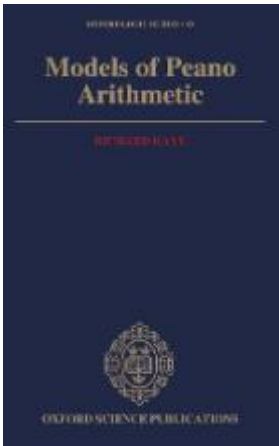
10 	Polymer chemistry by Sebastian Koltzenburg, Michael Maskos and Oskar Nuyken, 2nd ed., Berlin: Springer, 2023. xix, 634 p. Includes answers and index (p. 607-634) ISBN: 9783662649282 Subject Terms: Partially crystalline polymers; Polymer analysis; Amorphous polymers; Radical polymerization; Copolymerization 678.7 KOL-P Barcode: 181557; CL Click here for more details.
Chemistry	
11 	Chemical bonding: from plane waves via atomic orbitals by Richard Dronskowski, Berlin: De Gruyter, 2023. xiv, 172 p., De Gruyter graduate. Includes references and index (p. 149-172) ISBN: 9783111166537 Subject Terms: Nuclear magnetic resonance; Molecules and solids; Bond index; X-ray diffraction; Net population 544.14 DRO-C Barcode: 181577-181578; CL; CHY Click here for more details.
12 	EPR spectroscopy by Doros T. Petasis, Berlin: De Gruyter, 2022. ix, 229 p., De Gruyter graduate. Includes index (p 227-229) ISBN: 9783110417531 Subject Terms: Chemistry; Biology; Physics; EPR; Nondestructive technique 543.429.22 PET-E Barcode: 181563; CL Click here for more details.

13 	Stereochemistry of organic compounds: principles and applications by D. Nasipuri, 5th ed., New Delhi: New Age International, 2025. xxi, 587 p. Includes appendices and index (p. 563-587) ISBN: 9789360747664 Subject Terms: Molecular geometry; Chemical bonding; Stereoisomerism; Conformations of acyclic molecules; Prostereoisomerism 547.1-3:544.12 NAS-S Barcode: 181589-181594; TB; CHY Click here for more details.
Civil and Environmental Engineering	
14 	Engineering hydrology by K. Subramanya and Priyank J. Sharma, 6th ed., Chennai: McGraw Hill, 2024. xiv, 586 p. Includes index (p. 580-586) ISBN: 9789355327949 Subject Terms: Precipitation; Streamflow measurement; Flood routing; Hydrographs; Raingauge network 556 SUB-E Barcode: 181543; CL Click here for more details.
15 	Hazardous wastes: assessment and remediation by Richard J. Watts, Amy L. Teel and Courtney M. Gardner, 2nd ed., Hoboken: Wiley, 2023. xxv, 688 p. Includes appendix and index (p. 668-688) ISBN: 9781119634065 Subject Terms: Volatilization; Abiotic and biotic transformations; Quantitative toxicology; Waste minimization; Design of sorption 628.54 WAT-H Barcode: 181556; CL Click here for more details.

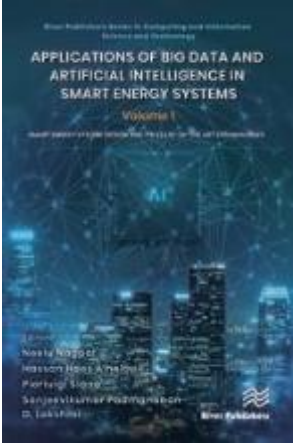
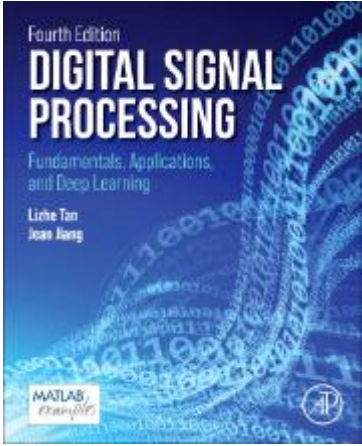
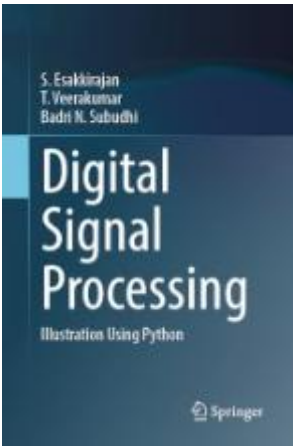
16	 Microplastics in the environment: fate, impacts, removal, and management edited by Rao Y. Surampalli... (et al.), Hoboken: Wiley, 2025. xxiii, 631 p. Includes index (p 629-631) ISBN: 9781394251070 Subject Terms: Crystallinity; Hydrophobicity; Photodegradation of plastic; Aquatic samples; Polymer identification 504.5:678 -MIC Barcode: 181567; CL Click here for more details.
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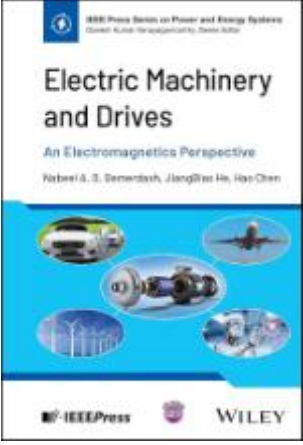
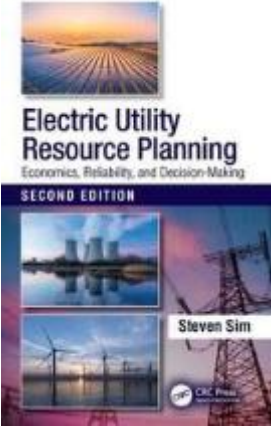
Computer Science and Engineering

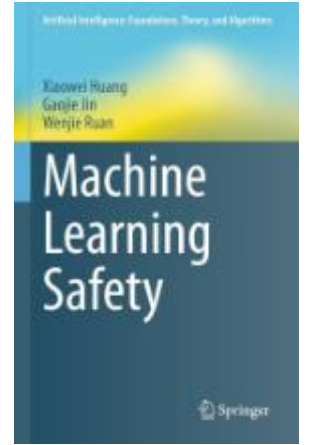
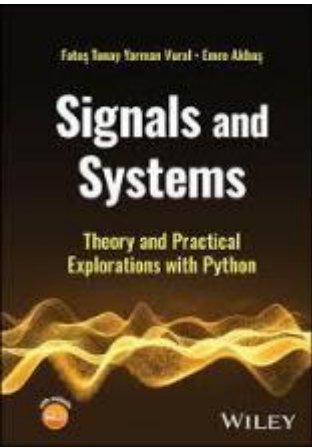
17	 Model checking by Edmund M Clarke... (et al.), 2nd ed., Cambridge: MIT Press, 2018. xx, 402 p., The cyber-physical systems series. Includes bibliography and index (p. 367-402) ISBN: 9780262038836 Subject Terms: Temporal logic; Computation tree logic; Binary decision diagrams; Propositional satisfiability; Automata learning 681.5.015 -MOD Barcode: 181549-181550; CL; CSE Click here for more details.
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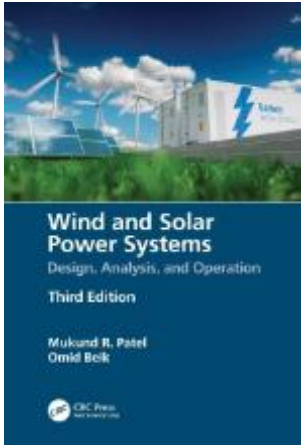
18	 Models of Peano arithmetic by Richard Kaye, Oxford: Oxford University Press, 2011. x, 285 p., Oxford logic guides. Includes bibliography and index (p. 276-285) ISBN: 9780198532132 Subject Terms: Scott sets; Friedman's theorem; Arithmetic hierarchy; Discrete models; Axioms 510.67 KAY-M Barcode: 181548; CSE Click here for more details.
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Electrical Engineering

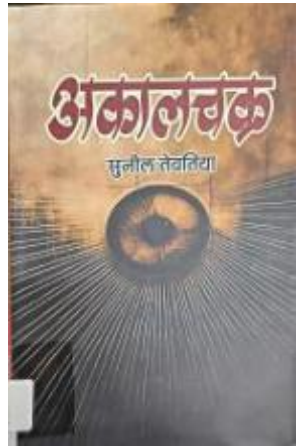
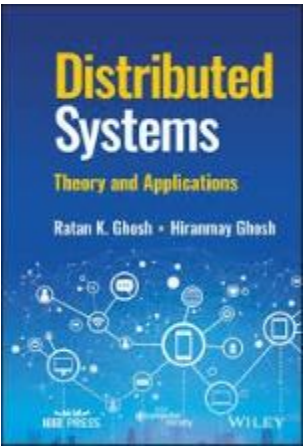
19	 Applications of big data and artificial intelligence in smart energy systems edited by Neelu Nagpal... (et al.), Gistrup: River Publishers, 2023. xxxi, 285 p., River publishers series in computing and information science and technology. Includes index (p. 277-285) ISBN: 9788770228251 Subject Terms: <u>Intelligent transportation; Virtual power plants; Business models; Smart home solutions; Blockchain solutions</u> 621.311.1:004.85 -APP Barcode: 181581; CL Click here for more details.
20	 Digital signal processing: fundamentals, applications, and deep learning by Lizhe Tan and Jean Jiang, 4th ed., London: Academic Press, 2025. xvi, 1015 p. Includes references and index (p. 999-1015) ISBN: 9780443273353 Subject Terms: <u>Waveform quantization; Wavelet-based coding; Infinite impulse response; Artificial intelligence; Hardware and software</u> 621.391 TAN-D Barcode: 181544; CL Click here for more details.
21	 Digital signal processing: illustration using python by S. Esakkirajan, T. Veerakumar and Badri N. Subudhi, Singapore: Springer, 2024. xviii, 523 p. Includes index (p. 519-523) ISBN: 9789819967513 Subject Terms: <u>Sampling and quantization of signals; Discrete-time systems; Transforms; FIR filter design; Multirate signal processing</u> 621.391 ESA-D Barcode: 181560; CL Click here for more details.
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22 	Electric machinery and drives: an electromagnetics perspective by Nabeel A. O. Demerdash, JiangBiao He and Hao Chen, New Jersey: IEEE Press, 2025. xviii, 518 p., IEEE press series on power and energy systems. Includes index (p. 513-518) ISBN: 9781119985723 Subject Terms: Electrical circuits; Power electronics; Magnetostatics; Magnetic circuits; Electromechanical energy 621.313 DEM-E Barcode: 181587; CL Click here for more details.
23 	Electric utility resource planning: economics, reliability, and decision-making by Steven Sim, 2nd ed., Boca Raton: CRC Press, 2024. xv, 413 p. Includes index (p. 406-413) ISBN: 9781032294223 Subject Terms: Integrated resource planning; Economic evaluations; Operating costs; Total cost perspective; System fuel use 621.311.16 SIM-E Barcode: 181580; CL Click here for more details.
24 	Handbook of face recognition edited by Stan Z. Li, Anil K. Jain and Jiankang Deng, 3rd ed., Cham: Springer, 2024. xix, 469 p. Includes appendix (p. 469) ISBN: 9783031435690 Subject Terms: Face detection; Facial attribute analysis; Video-based face recognition; 3D face recognition; Vanilla VAE RL-HB 681.3 -HAN Barcode: 181582; CL Click here for more details.

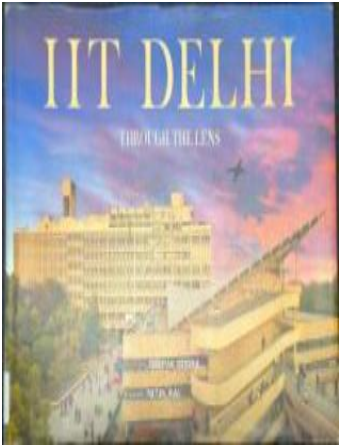
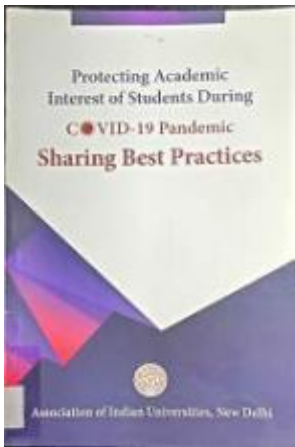
25		Handbook of fingerprint recognition by Davide Maltoni... (et al.), 3rd ed., Cham: Springer, 2022. xxiv, 522 p. ISBN: 9783030836269 Subject Terms: Deep learning; Artificial intelligence; Computer vision; Biometrics; Big data RL-HB 681.3(021) -HAN Barcode: 181583; CL Click here for more details.
26		Machine learning safety by Xiaowei Huang, Gaojie Jin and Wenjie Ruan, Singapore: Springer, 2023. xvii, 321 p., Artificial intelligence: foundations, theory, and algorithms. Includes glossary and references (p. 307-321) ISBN: 9789811968136 Subject Terms: Decision tree; Linear regression; Naive bayes; Deep learning; Model evaluation methods 681.3 HUA-M Barcode: 181579; CL Click here for more details.
27		Signals and systems: theory and practical explorations with python by Fatos Tunay Yarman Vural and Emre Akbas, Hoboken: Wiley, 2025. xix, 428 p. Includes bibliography and index (p. 425-428) ISBN: 9781394215751 Subject Terms: Bioinformatics; Robotics; Remote sensing; Fourier analysis; Euler equation 621.391.81 VUR-S Barcode: 181588; CL Click here for more details.

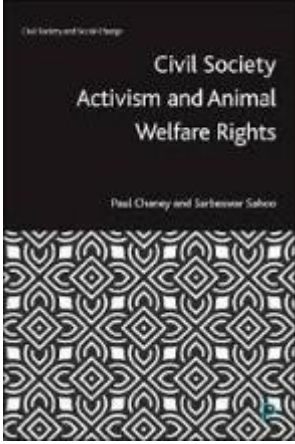
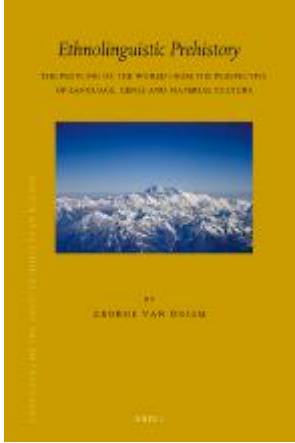
	Wind and solar power systems: design, analysis, and operation by Mukund R. Patel and Omid Beik, 3rd ed., Boca Raton: CRC Press, 2021. xx, 383 p. Includes index (p. 369-303) ISBN: 9780367716202 Subject Terms: Wind power systems; Photovoltaic power systems; Energy storage; Power electronics; Solar thermal system 621.311.243/.245 PAT-W Barcode: 181545; CL Click here for more details.
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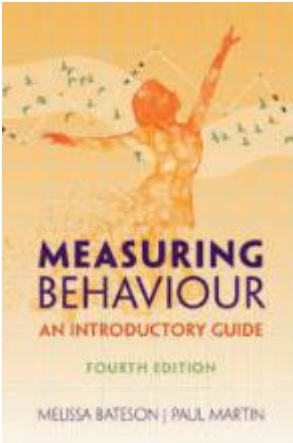
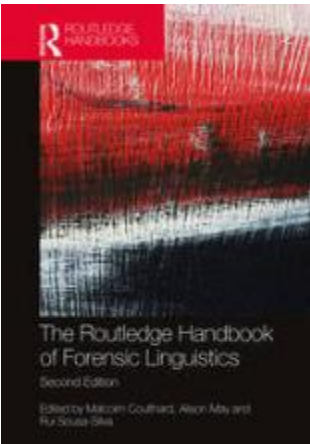
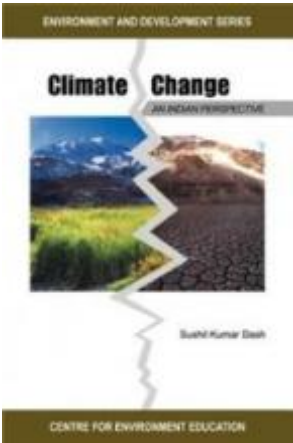
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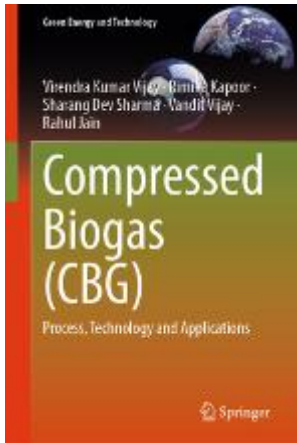
	Akalkakra (अकालचक्र) by Sunil Tewatia, New Delhi: Amrit Prakashan, 2025. 152 p. ISBN: 9789394387621 Subject Terms: Consciousness studies; Spiritual life India; Hindu philosophy; Cosmic cycles Hinduism; Time philosophy 82-1 TEW-A Barcode: G24100; CL Click here for more details.
	Distributed systems: theory and applications by Ratan K. Ghosh and Hiranmay Ghosh, New Jersey: IEEE Press, 2023. xxvii, 532 p. Includes index (p. 525-532) ISBN: 9781119825937 Subject Terms: Single system view; Interoperability; Dynamic reconfiguration; Leader election; Mutual exclusion 681.3 GH0-D Barcode: G24101; CL Click here for more details.

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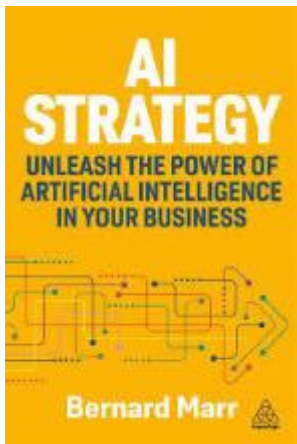
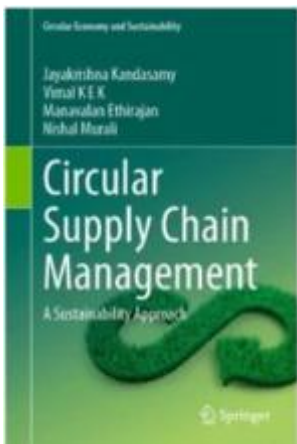
31	 IIT Delhi: through the lens edited by Deepak Dogra... (et al.), New Delhi: IIT Delhi Alumni Association, 2015. 147 p. Subject Terms: IIT Delhi photographs; IIT Delhi development; Activities in IIT Delhi; Hostel life; Inventive life 378 -IIT Barcode: G24099; CL Click here for more details.
32	 Protecting academic interest of students during COVID-19 pandemic: sharing best practices edited by Pankaj Mittal, Sistla Rama Devi Pani and Yogita Thakur, New Delhi: Association of Indian Universities, 2021. 346 p. ISBN: 817520155X Subject Terms: Higher education in India; Education - Study and teaching; COVID-19 disease; Epidemics; Respiratory infections 37.014 -PRO Barcode: G24098; CL Click here for more details.
Humanities and Social Sciences	
33	 Care economy by Tim Jackson, Cambridge: Polity Press, 2025. xiii, 318 p. Includes references and index (p. 290-318) ISBN: 9781509554294 Subject Terms: Capitalism; Healthcare; Cholera; Pathogenesis; Patriarchy 338 JAC-C Barcode: 181595; CL Click here for more details.

34 	Civil society activism and animal welfare rights by Paul Chaney and Sarbeswar Sahoo, Bristol: Policy Press, 2025. x, 228 p., Civil society and social change. Includes references and index (p. 183-228) ISBN: 9781447370192 Subject Terms: Human society international; New Delhi Municipal Corporation; People for animals; Welfare of stray dogs; World animal protection 316.42:179.3 CHA-C Barcode: 181551-181552; CL; HSS Click here for more details.
35 	Ethnolinguistic prehistory: the peopling of the world from the perspective of language, genes and material culture by George Van Driem, Leiden: Brill, 2021. xiv, 400 p., Languages of the greater Himalayan region Brill's Tibetan studies library. Includes bibliography and index (p. 249-400) ISBN: 9789004448360 Subject Terms: National and mythical boundaries; Phenotypical diversity; Racial prejudice; Holocene dispersals; Language typology 81'242:903 DRI-E Barcode: 181558; CL Click here for more details.
36 	Machine translation and translation theory by Omri Asscher, Abingdon: Routledge, 2026. vi, 172 p. Includes index (p. 171-172) ISBN: 9781041000662 Subject Terms: Age of machine; Ethics; Neural machine translation; Equivalence in translation; Aesthetics of translation 681.3 ASS-M Barcode: 181559; CL Click here for more details.

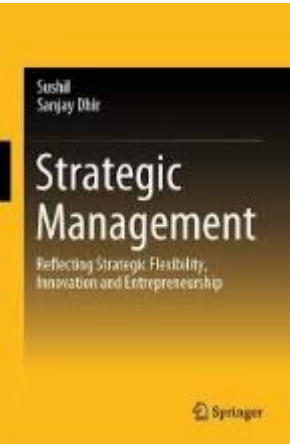
37		Measuring behaviour: an introductory guide by Melissa Bateson and Paul Martin, 4th ed., Cambridge: Cambridge University Press, 2021. x, 238 p. Includes references and index (p. 216-238) ISBN: 9781108745727 Subject Terms: Behavioural study; Ethics and law; Individuals and groups; Bayesian methods; Interpreting and communicating 159.9.019.4 BAT-M Barcode: 181541; CL Click here for more details.
38		Routledge handbook of forensic linguistics edited by Malcolm Coulthard, Alison May and Rui Sousa-Silva, 2nd ed., Abingdon: Routledge, 2021. xxxi, 728 p. Includes index (p. 718-728) ISBN: 9780367531225 Subject Terms: Legal language; Miranda rights; False confessions; Police interviews; Vulnerable witnesses RL-HB 343.98:81 -ROU Barcode: 181565; CL Click here for more details.
IITD Faculty and Staff Authored Books		
39		Climate change: an Indian perspective by Sushil Kumar Dash, New Delhi: Cambridge University Press, 2007. xiv, 262 p., Environmental and development series. Includes references (p. 250-262) ISBN: 9788175965331 Subject Terms: Radiation and greenhouse gases; Solar radiation; Global warming potentials; Climate change in India; Clean technology and energy 551.583(540) DAS-C Barcode: G24102; CL Click here for more details.

40 	Compressed biogas (CBG): process, technology and applications by Virendra Kumar Vijay... (et al.), Singapore: Springer, 2025. xvi, 173 p., Green energy and technology. Includes References (p. 173) ISBN: 9789819656967 Subject Terms: <u>Anaerobic digestion technology; Hydrogen sulfide; Pressure wing adsorption; Water scrubbing; Biological biogas</u> 662.767.2 -COM Barcode: 181562; CL Click here for more details.
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Management Studies

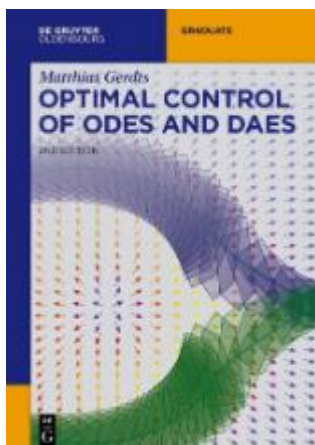
41 	AI strategy: unleash the power of artificial intelligence in your business by Bernard Marr, London: Kogan Page, 2025. xi, 312 p. Includes index (p. 302-312) ISBN: 9781398619555 Subject Terms: <u>Business alignment; Data management; Talent and skills development; Vendor and partner ecosystems; Ethical and responsible AI</u> 658:004.8 MAR-A Barcode: 181554; CL Click here for more details.
42 	Circular supply chain management: a sustainability approach by Jayakrishna Kandasamy... (et al.), Cham: Springer, 2025. xxviii, 246 p., Circular economy and sustainability. Includes index (p. 243-246) ISBN: 9783031817496 Subject Terms: <u>Human-centric skills; Sustainable value chain; Human entrepreneurship; Assessment of digital practices; Dissecting job roles</u> 658.78 -CIR Barcode: 181547; CL Click here for more details.

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43		Dark pattern: the hidden dynamics of corporate scandals by Guido Palazzo and Ulrich Hoffrage, New York: Basic Venture, 2025. vii, 323 p. Includes notes and index (p. 309-323) ISBN: 9781541705302 Subject Terms: Business ethics; Corporations; Corrupt practices; Work organization; Behavioral sciences 658:174 PAL-D Barcode: 181539-181540; CL; DMS Click here for more details.
44		Reality check: how VR and AR can supercharge your business by Jeremy Dalton, 2nd ed., London: Kogan Page, 2025. xii, 258 p. Includes index (p. 248-258) ISBN: 9781398618749 Subject Terms: Business and management; Business innovation; Business strategy; Customer relations technological innovations; Discovery challenge 658:004.946 DAL-R Barcode: 181555; CL Click here for more details.
45		Strategic management: reflecting strategic flexibility, innovation and entrepreneurship by Sushil and Sanjay Dhir, Singapore: Springer, 2024. xxi, 537 p. Includes index (p. 521-537) ISBN: 9789819747870 Subject Terms: Business environment; Strategic alliances; Sustainable enterprise; Comparative strategies; Corporate governance 658:005.21 SUS-S Barcode: 181574; DMS Click here for more details.

Mathematics

46



Optimal control of ODEs and DAEs by Matthias Gerds, 2nd ed., Berlin: De Gruyter, 2024. x, 474 p., De Gruyter Graduate. Includes bibliography and index (p. 455-474)

ISBN: 9783110797695

Subject Terms: Operations research; Differential equations; Control theory; Mathematical optimization; Numerical methods

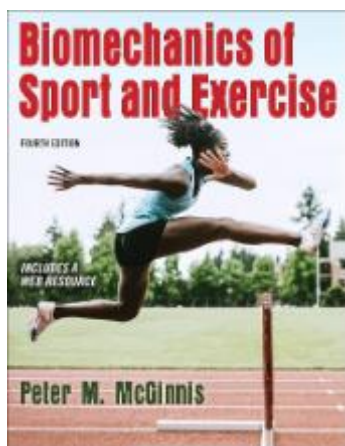
517.977 GER-O

Barcode: 181546; CL

[Click here for more details.](#)

Mechanical Engineering

47



Biomechanics of sport and exercise by Peter M. McGinnis, 4th ed., Champaign: Human Kinetics, 2020. xiii, 401 p. Includes appendix, glossary, references and index (p. 371-401)

ISBN: 9781492571407

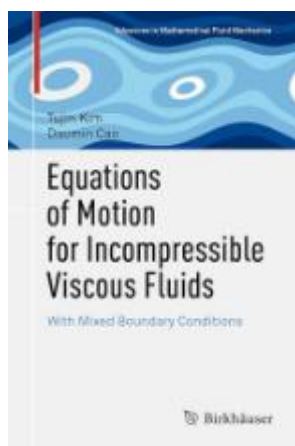
Subject Terms: Static equilibrium; Uniform acceleration; Newton's second law of motion; Work; Energy

577.3:796 MCG-B

Barcode: 181564; CL

[Click here for more details.](#)

48



Equations of motion for incompressible viscous fluids: with mixed boundary conditions by Tujin Kim and Daomin Cao, Cham: Birkhauser, 2021. xiii, 364 p., Advances in mathematical fluid mechanics. Includes index (p. 361-364)

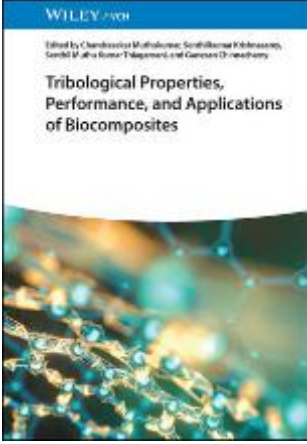
ISBN: 9783030786588

Subject Terms: Banach space; Navier-stokes equations; Convex functional; Lebesgue space; Convergence

532.13 KIM-E

Barcode: 181571; CL

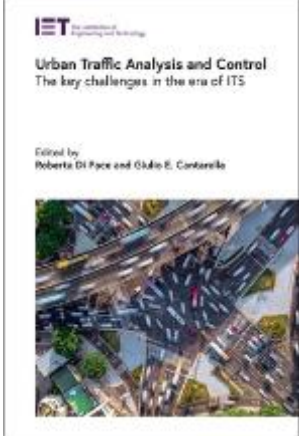
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49 	Tribological properties, performance, and applications of biocomposites edited by Chandrasekar Muthukumar... (et al.), Weinheim: Wiley, 2024. xiii, 290 p. Includes index (p. 285-290) ISBN: 9783527350537 Subject Terms: Tribological characterization; Fiber reinforced composites; Cellulosic natural fibers; Natural fibers reinforcement polyamide; Thermoplastic polymer matrix 678.7:577.11 -TRI Barcode: 181553; CL Click here for more details.
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Transportation Research and Injury Prevention (TRIP) Centre

50 	Evaluation of intelligent road transport systems: methods and results edited by Meng Lu, 2nd ed., London: IET Press, 2025. xl, 374 p., Transportation series. Includes index (p. 359-374) ISBN: 9781837240838 Subject Terms: Impact assessment; Automated driving; Sustainable mobility; Economic growth; Physical infrastructure 656.1:004.89 -EVA Barcode: 181584; CL Click here for more details.
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51 	Traffic safety data: sources, analysis and applications edited by Aliaksei Laureshyn, Niels Agerholm and Matus Sucha, London: IET Press, 2025. xv, 347 p., IET transportation series. Includes index (p. 335-347) ISBN: 9781839530456 Subject Terms: Traffic safety policies; Insurance companies; Police records; Accident modelling; Healthcare system 656.1:004.056 -TRA Barcode: 181585; CL Click here for more details.
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52 	Urban traffic analysis and control: the key challenges in the era of ITS edited by Robert Di Pace and Giulio E. Cantarella, London: IET Press, 2025. xxxii, 421 p., IET transportation series. Includes index (p. 409-421) ISBN: 9781839537165 Subject Terms: <u>Dynamic traffic; Traffic control strategies; Signal coordination; Intelligent transportation systems; Energy consumption</u> 656.1:711.433 -URB Barcode: 181586; CL Click here for more details.
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THESES COLLECTIONS

Title	: Aerosol Climate interaction over south Asia in a warming world
Researcher	: Mishra, Shiwansha
Department	: Centre for Atmospheric Sciences, IITD
Year	: 2025
Supervisor	: Ganguly, Dilip (Prof.) - CAS (Guide)
Physical description	: xxvii, 241 p.
Subject terms	: Climate change; Atmospheric aerosols; Greenhouse gases; Aerosol optical depth; Black carbon
Barcode	: TH8443
Call No.	: TH 551.583 MIS-A

Title	: Study of corporate-startup collaboration programs in context of Indian semiconductor startups
Researcher	: Pal, Ankit
Department	: Department of Management Studies, IITD
Year	: 2025
Supervisor	: Sharma, Seema (Prof.) - MS (Guide)
Physical description	: xx, 253 p.
Subject terms	: Intel startup program; Intel plugin alliance; Cisco launchpad; Nvidia inception program; Qualcomm design in India challenge
Barcode	: TH8444
Call No.	: TH 658.1 PAL-S

Title	: Novel techniques for high-speed and long-range underwater visible light communication system
Researcher	: Pandey, Priya
Department	: Centre for Applied Research in Electronics, IITD
Year	: 2025
Supervisor	: Aggarwal, Monika (Prof.) - CARE (Guide)
Physical description	: xxi, 136 p.
Subject terms	: Analytical analysis; Geometric losses; Beam attenuation; Turbulence; Pointing error
Barcode	: TH8445
Call No.	: TH 621.385:627.7 PAN-N
Title	: Regenerative design framework integrating adaptive thermal comfort for rural habitat in the context of India
Researcher	: Parvesh Kumar
Department	: Centre for Rural Development and Technology, IITD
Year	: 2025
Supervisor	: Chariar, Vijayaraghavan M. (Prof.) - CRDT (Guide)
Physical description	: xviii, 405 p.
Subject terms	: Environmental assessment system; Sustainability assessment system; Natural system; Biocenosis; Human system
Barcode	: TH8446
Call No.	: TH 711.3:697 PAR-R
Title	: Contribution of major aerosol species on aerosol and cloud radiative forcing over the South Asian region
Researcher	: Sharma, Amit Kumar

Department	: Centre for Atmospheric Sciences, IITD
Year	: 2025
Supervisor	: Ganguly, Dilip (Prof.) - CAS (Guide)
Physical description	: xxv, 196 p.
Subject terms	: Shortwave; Longwave; Effective radiative forcing; Aerosol composition; Industrialization
Barcode	: TH8447
Call No.	: TH 551.58(5-13) SHA-C
Title	: Machine-learning augmented physicochemical approach to eukaryotic genome annotation
Researcher	: Sharma, Dinesh
Department	: Kusuma School of Biological Sciences, IITD
Year	: 2025
Supervisor	: Mittal, Aditya (Prof.) - SBS (Guide); Jayaram, B. (Prof.) - SBS (Guide)
Physical description	: xxi, 155 p.
Subject terms	: Open reading frames; Gene ontology; Pacific biosciences; RNA polymerase; Coding sequences
Barcode	: TH8448
Call No.	: TH 575.113:004.8 SHA-M
Title	: Design a framework and development of biocomposites for sustainable packaging application
Researcher	: Srivastava, Vishal
Department	: Department of Design, IITD
Year	: 2025

Supervisor	: Singh, Sumer (Assoc. Prof.) - DE (Guide); Das, Dipayan (Prof.) - TFE (Guide)
Physical description	: xlv, 335 p.
Subject terms	: Natural fiber composites; Bio-based materials; Eco-friendly packaging; Green composites; Biodegradable polymers
Barcode	: TH8449
Call No.	: TH 621.798:502.12 SRI-D
Title	: Stability of uniformly stretched and twisted helical birods
Researcher	: Alam, Md. Intaf
Department	: Department of Applied Mechanics, IITD
Year	: 2025
Supervisor	: Ajeet Kumar (Prof.) - AM (Guide)
Physical description	: xii, 97 p.
Subject terms	: Nonlinear algebrential equations; Inter-strand interactions; Torsional coupling; Linear stability analysis; Linear momentum balances
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Call No.	: TH 620.17:531 ALA-S
Title	: Studies on coordination chemistry of Mg(II) and Ca(II) with sulfonate and phosphite ligands
Researcher	: Chauhan, Aishwarya
Department	: Department of Chemistry, IITD
Year	: 2025
Supervisor	: Ravi Shankar (Prof.) - CHY (Guide)
Physical description	: xv, 148 p.

Subject terms	: Molar concentration; Fourier transform; Differential scanning calorimetry; Boiling point; Thermogravimetric analysis
Barcode	: TH8451
Call No.	: TH 543.544.164 CHA-S
Title	: Multiscale investigations of local liquid distribution in gas-liquid packed beds: insights from bed-scale to void-scale liquid spreading
Researcher	: Gulia, Rohit Singh
Department	: Department of Chemical Engineering, IITD
Year	: 2025
Supervisor	: Augier, Frederic - IFP Energies Nouvelles, France (Guide); Buwa, Vivek V. (Prof.) - CHE (Guide)
Physical description	: xxii, 168 p.
Subject terms	: Trickle bed reactor; Packed bed reactor; Computational fluid dynamics; Computer numerical control; Polydimethylsiloxane
Barcode	: TH8452
Call No.	: TH 542.63 GUL-M
Title	: On iterated function systems beyond hyperbolicity: structure, dynamics and a note on dimension
Researcher	: Medhi, Ridip
Department	: Department of Mathematics, IITD
Year	: 2025
Supervisor	: Viswanathan, P. (Assoc. Prof.) - MA (Guide)
Physical description	: xvi, 115 p.

Subject terms	: Ergodic properties; Cyclic contractions; Probabilistic dynamical systems; Local radial contractions; Ruelle operator theorem
Barcode	: TH8453
Call No.	: TH 517.956.3 MED-O
Title	: Role of sequestosome1 variants in ALS pathogenesis and its mitigation using flavonoid compounds
Researcher	: Singh, Nidhi
Department	: School of Biological Sciences, IITD
Year	: 2025
Supervisor	: Gomes, James (Prof.) - SBS (Guide)
Physical description	: xxi, 121 p.
Subject terms	: Central nerves system; Dimethyl sulfoxide; Deoxyribonucleic acid; Site-directed mutagenesis; Oxidative stress
Barcode	: TH8454
Call No.	: TH 616-03 SIN-R
Title	: Plasmonic surface effects and label-free profiling in Raman and SERS- based probing of molecular and biological systems
Researcher	: Singh, Ruchi
Department	: Department of Chemistry, IITD
Year	: 2025
Supervisor	: Siddhanta, Soumik (Assoc. Prof.) - CHY (Guide)
Physical description	: xxxvii, 232 p.
Subject terms	: Plasmonic nanostructures; Raman spectroscopy; Chemometric techniques; Surface plasmonic resonance; Electromagnetic theory

Barcode	: TH8455
Call No.	: TH 533.9:544.7 SIN-P
Title	: Scanning tunneling microscopy and spectroscopy of topological magnetic thin films with large anomalous hall effect
Researcher	: Sinha, Indraneel
Department	: Department of Physics, IITD
Year	: 2025
Supervisor	: Manna, Sujit (Asst. Prof.) - PH (Guide)
Physical description	: xxxvi, 241 p.
Subject terms	: Magnetic proximity effect; Coplanar waveguide; Molecular beam epitaxy; Topological insulator; Time reversal symmetry
Barcode	: TH8456
Call No.	: TH 620.186/.187 SIN-S
Title	: Multi-functional cellulosic porous scaffolds for efficient wastewater reclamation
Researcher	: Advitiya Kumar
Department	: Department of Textile and Fibre Engineering, IITD
Year	: 2025
Supervisor	: Srivastava, Rajiv K. (Prof.) - TFE (Guide); Butola, B. S. (Prof.) - TFE (Guide)
Physical description	: xxxix, 197 p.
Subject terms	: Acrylic acid; Advanced oxidation processes; Activated sludge process; Inter penetrating network; Bacterial cellulose nanofibers
Barcode	: TH8457

Call No.	: TH 628.1 ADV-M
Title	: Advanced strategies for development and control of continuous processes for biopharmaceutical manufacturing
Researcher	: Anupa
Department	: School of Interdisciplinary Research, IITD
Year	: 2025
Supervisor	: Rathore, Anurag S. (Prof.) - CHE (Guide); Banerjee, Manidipa (Prof.) - SBS (Guide)
Physical description	: xviii, 118 p.
Subject terms	: Artificial intelligence; Artificial neural network; Deep neural network; Granulocyte colony stimulating factor; Host cell protein
Barcode	: TH8458
Call No.	: TH 615.4:67.02 ANU-A
Title	: Topology reconstruction of circular planar electrical network
Researcher	: Biradar, Shivanagouda
Department	: Department of Electrical Engineering, IITD
Year	: 2025
Supervisor	: Patil, Deepak U. (Assoc. Prof.) - EE (Guide)
Physical description	: xvi, 188 p.
Subject terms	: Goldstein's algorithm; k-connection; Grobner basis; Combinatorial approach; Triangle and Kalmanson's Inequality
Barcode	: TH8459
Call No.	: TH 621.316 BIR-T
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Title	: High frequency response supercapacitor for AC line filtering and storage of ambient energy harvesting system
Researcher	: Nagar, Jayant
Department	: Department of Chemical Engineering, IITD
Year	: 2025
Supervisor	: Shukla, Anupam (Prof.) - CHE (Guide)
Physical description	: xxix, 171 p.
Subject terms	: Chronoamperogram; Anatase; AC signal filtering; Frequency response; Electrochemical measurements
Barcode	: TH8460
Call No.	: TH 621.311 NAG-H
Title	: Enhanced control protection strategies for grid-interfaced inverter-based resources
Researcher	: Pal, Arjita
Department	: Department of Electrical Engineering, IITD
Year	: 2025
Supervisor	: Panigrahi, Bijaya Ketan (Prof.) - EE (Guide)
Physical description	: xxv, 183 p.
Subject terms	: IBR control; Protection; Power-hardware-in the loop; Dynamic grid interface instability; Sliding mode control
Barcode	: TH8461
Call No.	: TH 621.311 PAL-E
Title	: Measuring surrogate road safety at unsignalized intersections in heterogeneous traffic conditions
Researcher	: Sarkar, Debashis Ray

Department	: Transportation Research and Injury Prevention Centre, IITD
Year	: 2025
Supervisor	: Rao, K. Ramachandra (Prof.) - CEE (Guide); Chatterjee, Niladri (Prof.) - MA (Guide)
Physical description	: xviii, 158 p.
Subject terms	: Block maxima; Kinetic energy; National crime records bureau; Data from sky; Foot over bridge
Barcode	: TH8462
Call No.	: TH 625.7 SAR-M

Title	: Equilibrium and out-of-equilibrium explorations of self-assembled magnetic colloids
Researcher	: Singh, Anuj Kumar
Department	: Department of Physics, IITD
Year	: 2025
Supervisor	: Banerjee, Varsha (Prof.) - PH (Guide)
Physical description	: xxxii, 186 p.
Subject terms	: Lennard-Jones potential; Dipolar interactions; Stockmayer model; Colloidal glasses; Asymptotic morphologies
Barcode	: TH8463
Call No.	: TH 538.9 SIN-E

Title	: Event generation and machine learning in small-X diffraction at the electron-ION collider
Researcher	: Singh, Jaswant
Department	: Department of Physics, IITD
Year	: 2025

Supervisor	: Toll, Tobias (Assoc. Prof.) -PH (Guide)
Physical description	: xiii, 75 p.
Subject terms	: Parton model; Gluon saturation; Diffractive DIS; Dipole models; Neural network
Barcode	: TH8464
Call No.	: TH 539.124:004.8 SIN-E
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