

LIST OF RECOMMENDED TEXTBOOKS FOR OPENMODELICA TEXTBOOK COMPANION

CHEMICAL ENGINEERING

1. Felder, R. M.; Rousseau, R. W., "Elementary Principles of Chemical Processes", Third Edition, John Wiley & Sons, 2000
2. Hougen, O. A., Watson, K. M., Ragatz, R. A., "Chemical Process Principles, Part-I Material & Energy Balances", Second Edition, CBS Publishers & Distributors, 2004
3. Venkataramani, V., Anantharaman, N., Begum, K. M. Meera Sheriffa, "Process Calculations", Second Edition, Prentice Hall of India.
4. R. B. Bird, W. E. Stewart, and E. S. Lightfoot. Transport Phenomena, 2nd ed., Wiley India Pvt. Ltd., 2002.
5. Welty, C. E. Wicks, R. E. Wilson, and G. L. Rorrer. Fundamentals of Momentum, Heat, and Mass Transfer. 5th ed., Wiley India Pvt. Ltd., 2007.
6. W. M. Deen, Analysis of Transport Phenomena, Oxford University Press, 1998.
7. W. J. Thompson, Introduction to Transport Phenomena, Prentice Hall, 2000
8. S.Sandler, "Chemical, Biochemical and Engineering Thermodynamics", 4th edition, Wiley, India.
9. Y.V.C.Rao, "Chemical Engineering Thermodynamics", University Press, Hyderabad, 1997.
10. D. Q. Kern, Process Heat Transfer, Tata-McGraw Hill, 1997.
11. Bejan, A., A. D. Kraus, Heat Transfer Handbook, John Wiley, 2003.
12. Binay K. Dutta, Principles of Mass Transfer and Separation Processes, 2nd edition, Prentice Hall of India, 2007
13. R.E. Treybal, Mass Transfer Operations, 3rd Edition, McGraw Hill, New Delhi, 1983.
14. E.D. Cussler, Diffusion - Mass Transfer in Fluid Systems, Cambridge University Press, Cambridge, 1984.
15. C.J. Geankoplis, Transport Processes and Unit Operations, 3rd Edition, Prentice Hall, India, 1993.
16. M. White, Fluid Mechanics, 8th Edition, Tata-McGraw Hill, 2016.
17. V. Gupta and S. K. Gupta, Fundamentals of Fluid Mechanics, 2nd Edition, New Age International 2011.
18. O. Wilkes, Fluid Mechanics for Chemical Engineers, Prentice Hall of India, 2005.
19. R. W. Fox, P. J. Pritchard and A. T. McDonald, Introduction to Fluid Mechanics, 7th Edition, Wiley-India 2010.
20. R. L. Panton, Incompressible Flow, 3rd Edition, Wiley-India 2005.
21. Rhodes, M. J., Introduction to Particle Technology, 2nd edition, John Wiley, Chichester ; New York, 2008.
22. Allen, T., Powder Sampling and Particle Size Determination, Elsevier, 2003.
23. Masuda, H., Higashitani, K., Yoshida, H., Powder Technology Handbook, CRC, Taylor and Francis, 2006.
24. 4. Vollath, D. Nanomaterials: An Introduction to Synthesis, Properties and Applications, 2nd Ed., Wiley, 2013.
25. Chemical and Catalytic Reaction Engineering, Carberry, J. J., Dover Books on Chemistry, 2001.
26. Chemical Reactor Analysis and Design Gilbert F. Froment, Kenneth B. Bischoff, Juray De Wilde, John Wiley & Sons, Incorporated, 2010.
27. Coughanowr, D. R., LeBlanc, S. "Process Systems Analysis and Control", 3rd edition, McGraw-Hill, 2008.
28. Seborg, D.E., Edgar, T.F., Mellichamp, D.A. "Process Dynamics and Control", 2nd edition, John Wiley, 2003.

29. Stephanopoulos, G. "Chemical Process Control: An Introduction to Theory and Practice", Pearson Education, 1984.

ELECTRICAL ENGINEERING

1. M. E. Van Valkenburg, "Network Analysis", Prentice Hall, 2006.
2. D. Roy Choudhury, "Networks and Systems", New Age International Publications, 1998.
3. W. H. Hayt and J. E. Kemmerly, "Engineering Circuit Analysis", McGraw Hill Education, 2013.
4. C. K. Alexander and M. N. O. Sadiku, "Electric Circuits", McGraw Hill Education, 2004.
5. K. V. V. Murthy and M. S. Kamath, "Basic Circuit Analysis", Jaico Publishers, 1999.
6. A. S. Sedra and K. C. Smith, "Microelectronic Circuits", New York, Oxford University Press, 1998.
7. J. V. Wait, L. P. Huelsman and G. A. Korn, "Introduction to Operational Amplifier theory and applications", McGraw Hill U. S., 1992.
8. J. Millman and A. Grabel, "Microelectronics", McGraw Hill Education, 1988.
9. P. Horowitz and W. Hill, "The Art of Electronics", Cambridge University Press, 1989.
10. P. R. Gray, R. G. Meyer and S. Lewis, "Analysis and Design of Analog Integrated Circuits", John Wiley & Sons, 2001.
11. A. E. Fitzgerald and C. Kingsley, "Electric Machinery", New York, McGraw Hill Education, 2013.
12. A. E. Clayton and N. N. Hancock, "Performance and design of DC machines", CBS Publishers, 2004.
13. M. G. Say, "Performance and design of AC machines", CBS Publishers, 2002.
14. P. S. Bimbhra, "Electrical Machinery", Khanna Publishers, 2011.
15. I. J. Nagrath and D. P. Kothari, "Electric Machines", McGraw Hill Education, 2010.
16. M. H. Rashid, "Power electronics: circuits, devices, and applications", Pearson Education India, 2009.
17. N. Mohan and T. M. Undeland, "Power Electronics: Converters, Applications and Design", John Wiley & Sons, 2007.
18. R. W. Erickson and D. Maksimovic, "Fundamentals of Power Electronics", Springer Science & Business Media, 2007.
19. L. Umanand, "Power Electronics: Essentials and Applications", Wiley India, 2009.
20. A. V. Oppenheim, A. S. Willsky and S. H. Nawab, "Signals and systems", Prentice Hall India, 1997.
21. J. G. Proakis and D. G. Manolakis, "Digital Signal Processing: Principles, Algorithms, and Applications", Pearson, 2006.
22. H. P. Hsu, "Signals and systems", Schaum's series, McGraw Hill Education, 2010.
23. S. Haykin and B. V. Veen, "Signals and Systems", John Wiley and Sons, 2007.
24. A. V. Oppenheim and R. W. Schaffer, "Discrete-Time Signal Processing", Prentice Hall, 2009.
25. M. J. Robert "Fundamentals of Signals and Systems", McGraw Hill Education, 2007.
26. B. P. Lathi, "Linear Systems and Signals", Oxford University Press, 2009.

MECHANICAL ENGINEERING

1. Sonntag, R. E, Borgnakke, C. and Van Wylen, G. J., 2003, 6th Edition, Fundamentals of Thermodynamics, John Wiley and Sons.
2. Jones, J. B. and Duggan, R. E., 1996, Engineering Thermodynamics, Prentice-Hall of India
3. Moran, M. J. and Shapiro, H. N., 1999, Fundamentals of Engineering Thermodynamics, John Wiley and Sons.
4. Nag, P.K, 1995, Engineering Thermodynamics, Tata McGraw-Hill Publishing Co. Ltd.
5. Egor P. Popov, Engineering Mechanics of Solids, Prentice Hall of India, New Delhi, 2001.
6. R. Subramanian, Strength of Materials, Oxford University Press, 2007.
7. Ferdinand P. Beer, Russel Johnson Jr and John J. Dewole, Mechanics of Materials, Tata McGrawHill Publishing Co. Ltd., New Delhi 2005.
8. W. D. Callister, 2006, “Materials Science and Engineering-An Introduction”, 6th Edition, Wiley India.
9. Kenneth G. Budinski and Michael K. Budinski, “Engineering Materials”, Prentice Hall of India Private Limited, 4th Indian Reprint, 2002.
10. V. Raghavan, “Material Science and Engineering”, Prentice Hall of India Private Limited, 1999.
11. U. C. Jindal, “Engineering Materials and Metallurgy”, Pearson, 2011.
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13. F.P.Incropera, and D.P. Dewitt, Fundamentals of Heat and Mass Transfer, John Wiley, Sixth Edition, 2007.
14. Massoud Kaviany, Principles of Heat Transfer, John Wiley, 2002
15. Yunus A Cengel, Heat Transfer : A Practical Approach, McGraw Hill, 2002
16. Shigley, J.E. and Mischke, C.R., Mechanical Engineering Design, Fifth Edition, McGraw-Hill International; 1989.
17. Deutschman, D., Michels, W.J. and Wilson, C.E., Machine Design Theory and Practice, Macmillan, 1992.
18. Juvinal, R.C., Fundamentals of Machine Component Design, John Wiley, 1994.
19. Spottes, M.F., Design of Machine elements, Prentice-Hall India, 1994.
20. R. L. Norton, Mechanical Design – An Integrated Approach, Prentice Hall, 1998

COMPUTER SCIENCE/INFORMATION TECHNOLOGY

1. Data Structures Using C And C++ by Y. Langsam, M. Augenstein And A. M. Tenenbaum, Prentice - Hall Of India Pvt. Ltd., 2006
2. Digital Image Processing by S. Jayaraman, S. Esakkirajan And T. Veerakumar, Tata McGraw - Hill Education Pvt. Ltd, New Delhi, 2010
3. Fundamentals Of Data Structure In C by S. Sahni , S. Anderson-freed And E. Horowitz, University Press (India) Pvt. Ltd., New Delhi, 2008
4. Programming In Ansi C by E. Balagurusamy, Tata McGraw - Hill Education, New Delhi, 2008
5. Switching And Finite Automata Theory by Z. Kohavi, Tata McGraw - Hill Education, 2008
6. Unix: Concepts And Applications by S. Das, Tata McGrawhill Education Pvt. Ltd., 2006

METALLURGICAL ENGINEERING AND MATERIALS SCIENCE

1. Materials Science and Engineering: An Introduction: William D Callister; Wiley, 2014
2. Materials and Design: The Art and Science of Material Selection in Product Design, Mike Ashby and Kara Johnson, 3rd Edition, Butterworth-Heinemann, 2014.

3. Engineering Materials 1 (2011) and 2 (2012), D.R.H. Jones and M.F. Ashby, 4th Edition, Butterworth-Heinemann
4. Introduction to Thermodynamics of Materials, 5th Edition, David R Gaskell, Taylor and Francis, 2016.
5. Materials Thermodynamics with Emphasis on Chemical Approach, Hae-Geon Lee, World Scientific Publishing, 2012.
6. Mechanical Metallurgy by George E Dieter, McGraw-Hill Education; 3 edition June 1986

MATHEMATICS & STATISTICS

1. Algebra by P. Abbott And M. E. Wardle, Teach Yourself, Britain, 1991
2. An Introduction To Numerical Analysis by K. E. Atkinson, John Wiley And Sons, 2001
3. Discrete Mathematics by S. Lipschutz, M. Lipson And V. H. Patil, Tata McGraw - Hill Education, 2009
4. Discrete Mathematics And Its Applications by K. H. Rosen, McGraw Hill Higher Education, 2012
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6. Higher Engineering Mathematics by B. S. Grewal, Khanna Publishers, New Delhi, 2007
7. Introduction To Numerical Methods In Chemical Engineering by P. Ahuja, PHI Learning, New Delhi, 2010
8. Introductory Methods Of Numerical Analysis by S. S. Sastry, Phi Learning, 2012
9. Linear Algebra by K. Hoffman and R. Kunze, Prentice-Hall (India), 1986
10. Linear Algebra And Its Applications by G. Strang, Cengage Learning, 2011
11. Linear Algebra and Its Applications by D. C. Lay, Addison Wesley, 2006
12. Nonlinear Dynamics And Chaos by S. H. Strogatz, Levant Books (Indian Publisher), 2007
13. Numerical Analysis by I. Jacques And C. Judd, Chapman And Hall, 1987
14. Numerical Methods by E. Balaguruswamy, Tata McGraw - Hill Education, New Delhi, 1999
15. Numerical Methods by B. Ram, Pearson, 2010
16. Numerical Methods For Engineers by S. C. Chapra And R. P. Canale, McGraw Hill, New York, 2006
17. Numerical Methods For Scientific And Engineering Computation by M. K. Jain, S. R. K. Iyengar And R. K. Jain, New Age International (P) Limited, 2007
18. Numerical Methods For Scientists And Engineers by K. S. Rao, PHI Learning Pvt. Ltd., New Delhi, 2004
19. Numerical Methods: Principles, Analysis, And Algorithms by S. Pal, Oxford University Press, 2009
20. Probability And Statistics For Engineers And Scientists by S. M. Ross, Elsevier, New Delhi, 2005
21. Trigonometry by M. Corral, Createspace Independent Publishing North Charlestn, 2010