

B. Tech. (SOFTWARE ENGINEERING)

B.Tech. I-Year, I Semester Examination

MA-101 Mathematics – I

1. Calculus and analytic geometry: Thomas/Finney; Narosa.
2. Advanced engineering mathematics: Jain/Iyenger; Narosa.
3. Advanced engineering mathematics: Kreyszig; Wiley.
4. Advanced engineering mathematics; Greenberg; Pearson Education.
5. Advanced engineering mathematics Vol. I & II ; Taneja I.K. International

HU-102 Communication Skills

1. Herta A. Murphy et al, Effective Business Communication (Mcgraw Hill, 2000).
2. D' Souza Eunice and Shahani, G. "Communication Skill in English", Noble Publishing House, 1977.
3. Sharma, R.C. and Mohan, K., "Business Correspondence and Report Writing", Tata McGraw Hill, New Delhi, 1994.

PH-103 Applied Physics

1. Physics of vibrations and waves by H.J. Pain
2. Concepts of Modern Physics by Authors Beiser
3. Optics by A. Ghatak
4. Berkley Physics Course Vol -- 1

CH-104 Applied Chemistry

1. Puri B.R., Sharma L.R. and Madan S. Pathania, Principles of Physical Chemistry, Shoban Lal Nagin Chand and Co. & Jalandhar, 2000
2. Jain P.C. and Renuka Jain, Physical Chemistry for Engineers, Dhanpat Rai & Sons, New Delhi 2001
3. Bahi B.S., Tuli G.D. and Arun Bahi, Essentials of Physical Chemistry, S. Chand & Co. Ltd., New Delhi, 2004.
4. Kuriacose J.C. & Rajaram J, Chemistry in Engineering & Technology, Vol. 1, Tata Mc Graw Hill publishing company, New Delhi, 1996.

EE – 105 Electrical Sciences

1. C.L. Wadhwa, Basic electrical Engineering, 4th Edition, New Age International.
2. Fitzereld, Higgenbotham & Grabel, Basic Electrical Engineering, McGraw hill International.
3. Vincent Deltoro, Electrical Engineering Fundamentals, Prentice Hall International (EEI).
4. Relevant Indian Electricity Supply rules & BIS codes.

IT - 106 Fundamentals of Information Technology

1. Using Information Technology: A Practical Introduction to Computers & Communications by Williams Sawyer & Hutchinson, Publisher: Tata McGraw-Hill IIIrd Edition
2. Introduction to Computers by Peter Norton Tata McGraw-Hill VI Edition
3. Rajaraman, "Introduction to Computers", PHI
4. Nelson, "Data Compression", BPB.

5. Peter Nortans "Introduction to Computers", TMH.
6. CIS Tems, "Internet, An Introduction", Tata McGraw Hill.
7. Curtin, "Information Technology: Breaking News", TMH.
8. Leon & Leon "Fundamental of Information Technology", Vikas.
9. Kanter, "Managing Information System".
10. Lehngart, "Internet 101", Addison Wesley.

B.Tech. I year, II Semester Examination

MA- 111 Mathematics-II

1. Advanced engineering mathematics : Jain / Iyenger: Narosa
2. Advanced engineering mathematics : Kreyszig; wiley
3. Advanced engineering mathematics : Greenberg; pearson Education
4. Advanced engineering mathematics Vol. I & II ; Taneja I.K. International

EN – 112 Environmental Science

1. Gilbert McMasters, 'Introduction to Environmental Engineering and Science', 2nd edition, Pearson Education, 2004.
2. T.G. Jr. Miller, 'Environmental Science', Wadsworth Publishing CO.
3. C. Townsend, J. Harper and Michael Begon, 'Essentials of Ecology', Blackwell Science.
4. R.K. Trivedi and P.K. Goel, 'Introduction to Air Pollution', Techno-Science Publications.
5. Bharucha Erach, 'The Biodiverstiy of India', Mapin Publishing Pvt. Ltd., Ahmedabad India, mail:mapin@icenet.net.
6. R.K. Trivedi, 'Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards', Vol. I and II, Enviro Media.
7. Cunningham, W.P. Cooper, T.H. Gorhani, 'Envirnmental Encyclopedia', Jaico Publ., House, Mumbai, 2001.
8. K.D. Wager, 'Environmental Managemnt', W.B. Saunders Co., Philadelphia, USA, 1998.

AS – 113 Engineering Physics

1. M.R. Srinivasan, Physics for Engineers, New Age International Publishers, 2001.
2. Erwin Kaplan, Nuclear Physics.

AS- 114 Engineering Materials

1. Wahab M.A. Solid State Physic@Narosa Publishing house, N Delhi, 1999.
2. Ali Omar M., Elementary Solid State Physic, Pearson Education(Singapore) Pvt. Ltd., India Branch, New Delhi, 2002.
3. Kenneth G. Budinski, Michel, K., Buinshi, Engineering Materials Properties and Selection. 7th Edition, Pearson, Singapore (Prentice Hall), 2002.
4. Wang M.N., Polymers for electronic and photonic applications, Wiley New York, 1994.

COE– 116 Programming Fundamentals**TEXT BOOKS:**

1. Jeri R. Hanly, Elliot B. Koffman ,”Problem Solving and Program Design in C”, Pearson Addison-Wesley, 2006.
2. Behrouz A.Forouzan, Richard F. Gilberg, “A Structured Programming Approach Using C”, Thomson Computer Science- IIIrd Edition 2007
3. Schildt Herbert, “C++: The Complete Reference”, Wiley DreamTech, 2005.
4. E. Balagurusamy, “Object Oriented Programming using C++”, TMH. R. Lafore, “Object Oriented Programming using C++”, BPB Pub, 2004.

REFERENCE BOOKS:

1. D . Parsons, “Object Oriented Programming with C++”, BPB Pub, 1999.
2. Steven C. Lawlor, “The Art of Programming Computer Science with C++”, Vikas Publication, 2002.

ME– 117 Engineering Graphics

1. Narayana, K.L. and Kannaiah, P., “Engineering Graphics”, Tata McGraw Hill, New Delhi, 1988.
2. Bhatt N.D., “Elementary Engineering Drawing”, Charotar Book Stall, Anand, 1998.
3. Lakshminarayanan, V. and Vaish Wanar, R.S., “Engineering Graphics”, Jain Brothers, New Delhi, 1998.
4. Chandra, A.M. and Chandra Satish, “Engineering Graphics”, Narosa, 1998.

B.Tech.II year, III Semester Examination**SE-201 Object Oriented Programming****Text Books:**

1. Patrick Naughton, Herbert Schildt, “The Complete Reference: Java 2”, TMH.
2. C Thomas Wu : “An Introduction to OO programming with Java”, TMH,
3. Balaguruswami, “Object oriented with C++”, TMH.

Reference Books:

1. Budd,”Object Oriented Programming “, Addison Wesley.
2. Mastering C++ K.R Venugopal Rajkumar, TMH.
3. C++ Primer, “Lip man and Lajole”, Addison Wesley.
4. Maria litvin, Gary litvin, “Programming in C++”, VPH.
5. D Samantha, “Object oriented Programming in C++ and Java “, PHI.

SE-202 Analog Electronics**Text Books:**

1. J. Millman and Halkias, “Electronic devices and circuits” TMH, 1999.
2. Salivahanan, Suresh Kumar, Vallavaraj, “Electronic devices and circuits TMH, 1999
3. J. Millman and Halkias, “Integrated Electronics, Analog & Digital Circuits & Systems” TMH – 2000.

Reference Books:

1. Boylestad & Nashelsky, "Electronic Devices & Circuit Theory" PHI – VIth Edition.
2. Sedra & Smith, "Micro Electronic Circuits" Oxford University Press, 2000
3. J.B.Gupta, "Electronic Devices & Circuits" S. K. Kataria, IIInd Edition.

SE-203: Data structures**Text Books:**

1. Horowitz and Sahni, "Fundamentals of Data structures", Galgotia
2. An introduction to data structures and application by Jean Paul Tremblay & Pal G.Sorenson (McGraw Hill).
3. Tannenbaum, "Data Structures", PHI

Reference Books

1. R.L. Kruse, B.P. Leary, C.L. Tondo, "Data structure and program design in C", PHI

SE-204 Digital System**Text Books:**

1. Digital Fundamentals by Thomas L. Floyd
2. Getting Started in Electronics by Forrest Mims
3. Schaum's Outline of Digital Principles by Roger L. Tokheim

SE-205 Discrete Mathematics**Text Books:**

1. Keneth H. Rosen, "Discrete Mathematics and Its Applications", TMH, 1999.
2. C.L. Liu, "Elements of Discrete Mathematics", TMH, 2000.
3. Kolman, Busby & Ross, "Discrete Mathematical Structures", PHI, 1996.

Reference Books Books:

1. Narsingh Deo, "Graph Theory with Application to Engineering and Computer Science", PHI, 2004.
2. J. P. Trembley & P. Manohar, "Discrete Mathematical Structures with Applications to Computer Science", McGraw Hill, 1997.

SE-206 Engineering Economics

1. G.J. Thuesen, & W.J. Fabrycky, Engineering Economy, Prentice-Hall of India Private Limited, New Delhi.
2. William G. Sullivan, James A. Bontadelli & Elin M. Wicks, Engineering Economy, Pearson Education Asia, First Indian reprint.
3. Donald G. Newnan, Jerome P. Lavelle & ted G. Eschenbach, Engineering Economic Analysis, Engineering press, Austin, Texas.
4. Seema Singh, Economics for Engineering Students, IK International Publishing House Pvt. Ltd.

B.Tech. II year, IV Semester Examination

SE-211 Database Management System

Text Books:

1. Elmasri, Navathe, "Fundamentals of Database systems", Addison Wesley
2. Korth, Silbertz, Sudarshan, "Data base concepts", McGraw-Hill.
3. Ramakrishna, Gekkre, "Database Management System", McGraw-Hill

Reference Books:

1. Date C.J., "An Introduction to Database systems"

SE-212 Computer System Organization

Text Books:

1. Patterson, Computer Organization and Design, Elsevier Pub. 2009
2. William Stalling, Computer Organization, PHI
3. Mano, Computer System Architecture, PHI

Reference Books:

1. Vravice, Hamacher & Zaky, Computer Organization, TMH
2. Tannenbaum, Structured Computer Organization, PHI

SE-213-Operating System Design

Text Books:

1. Silverschwatz, "Operating System Concepts", Willey
2. Milenekovic, "Operating System Concepts", McGraw Hill
3. Tannenbaum, "Operating system design and implementation", PHI.

Reference Books:

1. Dietel, "An introduction to operating system", Addison Wesley.

SE-214 Algorithm Design and Analysis

Text Books:

1. T .H . Cormen, C . E . Leiserson, R .L . Rivest, "Introduction to Algorithms", PHI.
2. E. Horowitz, S. Sahni, and S. Rajsekar, "Fundamentals of Computer Algorithms," Galgotia Publication
3. Sara Basse, A. V. Gelder, " Computer Algorithms," Addison Wesley

Reference Books:

1. Aho ,Ullman " Principles of Algorithms "

SE-216 Introduction to Telecommunication

Text Books:

2. Wayne Tomasi, Electronic Communication Systems, 4th Edition, Pearson Education, 2002.
3. Kennedy, Communication Systems, 4th edition.
4. Gary Miller, Modern Electronic Communication, 7th Edition.

Reference Books:

2. Andrew S. Tanenbaum, Computer Networks, 3rd Edition.
3. William C. Y. Lee, Mobile Cellular Telecommunication, 2nd Edition

SE-215-Software Engineering**Text Books:**

1. R. S. Pressman, "Software Engineering – A practitioner's approach", 3rd ed., McGraw Hill Int. Ed., 1992.
2. Sommerville, I, "Software Engineering", Addison Wesley, 2001
3. K. K. Aggarwal & Yogesh Singh, "Software Engineering", 2nd Ed., New Age International, 2005.

Reference Books:

1. P. Jalote, "An Integrated approach to Software Engineering", Narosa , 1991.
2. Stephen R. Schach, "Classical & Object Oriented Software Engineering", IRWIN, TMH, 1996.
3. James Peter, W. Pedrycz, "Software Engineering: An Engineering Approach", John Wiley & Sons, 2004.
4. K. Chandrasekhkar, "Software Engineering & Quality Assurance", BPB, 2005.

B.Tech. III year, V Semester Examination**SE-301 Web Technology****Text Books:**

1. Internet and Web Technologies by Raj Kamal, Tata McGraw Hill
2. An Introduction to Search Engines and Web Navigation, Mark Levene, Pearson Education, ISBN 0321306775.
3. Mining the Web: Discovering Knowledge from Hypertext Data, Soumen Chakrabarti, Morgan-Kaufmann Publishers, ISBN 1-55860-754-4.

Reference Books:

1. HTML: A Beginner's Guide by Wendy Willard, Tata McGraw-Hill
2. Web Programming, building internet applications, Chris Bates 2nd edition, Wiley
3. Programming World Wide Web, Sebesta, Pearson
4. PHP and MySQL for Dynamic Web Sites, Ullman, Larry, Peachpit Press.
5. Modeling the Internet and the Web, Pierre Baldi, Paolo Frasconi, Padhraic Smyth, John Wiley and Sons Ltd, ISBN 0470849061

SE-302 Object Oriented Software Engineering**Text Books:**

1. R. S. Pressman, "Software Engineering – A practitioner's approach", 5th Ed., McGraw Hill Int. Ed., 2001.
2. Jacobson, M. Christerson, P. Jonsson, G. Overgaard, "Object Oriented Software Engineering", 2nd Edition, Pearson Education, 2007.
3. G. Booch, J Rumbaugh, I Jacobson, "The Unified Modeling Language User Guide" 11th Ed., Pearson Education, 2003.

Reference Books:

- 1 I. Sommerville, "Software Engineering", Addison Wesley, 2004

SE-303 Theory of Computation**Text Books:**

1. Hopcroft, Ullman, "Introduction to Automata Theory, Languages and Computation", Pearson Education
2. K.L.P. Mishra and N.Chandrasekaran, "Theory of Computer Science Automata, Languages and Computation", PHI.
3. Martin J. C., "Introduction to Languages and Theory of Computations", TMH

Reference Books:

1. Papadimitrou, C. and Lewis, C.L., "Elements of the Theory of Computation", PHI

SE-304 Microprocessor Systems**Text Books:**

1. Gaonkar, Ramesh S, Microprocessor Architecture, Programming and Applications with 8085, Penram International Publishing.
2. Ray A K , Bhurchandi K M , Advanced Microprocessors and Peripherals, TMH
3. Hall D V ,Microprocessor Interfacing, TMH

Reference Books:

1. Liu and Gibson G A , Microcomputer System: The 8086/8088 family ,PHI
2. Aditya P Mathur, Introduction to Microprocessor, TMH
3. Brey, Barry B, INTEL Microprocessors, PHI
4. Renu Sigh & B.P. Sigh, Microprocessor, Interfacing and Applications
5. B. Ram, Fundamentals of Microprocessors and Microcomputers

SE-305 Computer Network**Text Books:**

1. S. Tananbaum, "Computer Networks", 3rd Ed, PHI, 1999.
2. Data Communications and Networking, 4/e, Behrouz A. Forouzan, Mc Graw Hill.
3. Laura Chappell (ed), "Introduction to Cisco Router Configuration", Techmedia, 1999.

Reference Books:

1. 1 W. Stallings, "Computer Communication Networks", PHI, 1999.
2. 2 William A. Shay, "Understanding Data Communications & Networks", Vikas Publication, 1999.
3. 3 Michael A. Miller, "Data & Network Communications", Vikas Publication, 1998.
5. U. Black, "Computer Networks-Protocols, Standards and Interfaces", PHI, 1996.

B.Tech. III year, VI Semester Examination**SE-311 Software Validation Verification and Testing****Text Books:**

1. Paul C. Jorgenson, Software Testing A Craftsman's approach, CRC Press, 1997.
2. Desikan, Ramesh, Software Testing: principles and Practices, Pearson Education.
3. William E. Perry, Effective Methods for Software Testing, John Wiley.

Reference Books:

1. Steven R. Rakitin, Software Verification and Validation for Practitioners and Managers, 2nd edition, Artech House.
2. Boris Beizer, "Software Testing Techniques", Second Volume, Second Edition, Van Nostrand Reinhold, New York, 1990.
3. Louise Tamres, "Software Testing", Pearson Education Asia, 2002.
4. Boris Beizer, "Software System Testing and Quality Assurance", Van Nostrand Reinhold, New York, 1984.
5. Glenford Myers, "The Art of Software Testing", John Wiley & Sons Inc., New York, 1979.

SE- 312 Compiler Design

Text Books:

1. Aho, Ullman & Sethi, "Compiler Design", Addison Wesley.
2. D.M. Dhamdhare, "Compiler Construction – Principles & Practice", Macmillan India

SE – 313 Computer Graphics

Text Books:

1. D. Hearn and P. Baker, "Computer Graphics", Prentice Hall, 1986.
2. R. Plastock and G. Kalley, "Theory and Problems of Computer Graphics", Schaum's Series, McGraw Hill, 1986.
3. Foley et al., "Computer Graphics Principles & practice", Addison Wesley, 1999.

Reference Books:

1. David F. Rogers, "Procedural Elements for Computer Graphics", McGraw Hill Book Company, 1985.
2. D. Rogers and J. Adams, "Mathematical Elements for Computer Graphics", MacGraw-Hill International Edition, 1989.

SE-314- Artificial Intelligence

Text Books:

1. Artificial Intelligence, E. Rich and K. Knight, TMH, 2nd ed., 1992.
2. Principles of AI, N.J. Nilsson, Narosa Publ. House, 1990.
3. Artificial Intelligence - an Engineering Approach, R.J. Schalkoff, McGraw Hill Int Ed., Singapore, 1992.

Reference Books:

1. Artificial Intelligence: Structures and Strategies for Complex Problem Solving (5th Edition), George F. Luger, 2005. Addison-Wesley, ISBN-10: 0321263189.
2. Artificial Intelligence: A Guide to Intelligent Systems (2nd Edition).Michael Negnevitsky, 2005. Addison-Wesley, ISBN-10: 0321204662

3. "Neural Networks in Computer Intelligence" by KM Fu, McGraw Hill
4. "AI: A modern approach" by Russel and Norvig, Pearson Education
5. Introduction to AI and Expert Systems, D.W. Patterson, , PHI, 1992

SE-315 Advanced Computer Architecture

Text Books:

1. Kai Hwang, "Advanced computer architecture"; TMH, 2000.
2. J.P.Hayes, "computer Architecture and organization", MGH, 1998.
3. M.J Flynn, "Computer Architecture, Pipelined and Parallel Processor Design", Narosa Publishing, 1998.

Reference Books:

1. D.A.Patterson, J.L.Hennessy, "Computer Architecture :A quantitative approach", Morgan Kauffmann, 2002.
2. Hwang and Briggs, " Computer Architecture and Parallel Processing"; MGH, 2000.

B.Tech. IV year, VII Semester Examination

SE-401 Software Project Management

Text Books:

1. Managing the Software Process, Watts S. Humphrey, Pearson Education
2. Software Project Management, Walker Royce, Pearson Education

Reference Books:

1. Software Project Management Readings and Cases, Chris Kemerer.
2. Software Project Management in Practice, Pankaj Jalote, Pearson Education.

SE-402 INDUSTRIAL ORGANIZATION AND MANAGERIAL ECONOMICS

Suggested Readings:-

- 1 Industrial Organization: Theory and Practice by Joan M. A. Woodward.
- 2 Industrial Organization and Management by Prof SA Sherlekar, Prin C Mallikharjuna Rao.

SE-403-1 Software Quality and Metrics

Text Books:

1. Software Quality, Mordechai Ben Menachem/Garry S. Marliss, Thomson Learning.
2. Software Quality Assurance: From Theory to Implementation, D. Galin, Addison Wesley.
3. Metrics and Models in Software Quality Engineering (2nd Edition), Kan, S., Addison Wesley, 2002.

Reference Books:

1. Software Quality: Theory and Management, Allan C. Gillies, Thomson Learning, 2003.
2. Metrics and Models in Software Quality Engineering, Stephen H. Kan, Pearson Education (Singapore) Pvt. Ltd., 2002.
3. Software Metrics, Norman E. Fenton and Shari Lawrence Pfleeger Thomson, 2003

4. CMMI, Mary Beth Chrissis, Mike Konrad and Sandy Shrum, Pearson Education (Singapore) Pvt Ltd, 2003

SE 403-2 Distributed Computing Systems

Text Books:

1. Distributed Systems, : Principles and Paradigms by Andrew S. Tanenbaum and Maarten Van Steen, Pearson Education.
2. Coulouris, Dollimore, Kindberg, "Distributed System: Concepts and Design", Pearson Ed.

SE 403-3: Real Time Systems

Text Books:

1. Real Time Systems by Jane W. S. Liu, Pearson Education Publication.
2. H. Kopetz, "Real time systems for distributed embedded applications, Kluwer Academic
3. Douglass, Real Time UML: Advances in the UML for Real-Time Systems, 3/e, Addison-Wesley

Reference Books:

1. Awad, Kuusela & Ziegler, Object-Oriented Technology for Real Time Systems: A Practical Approach Using OMT and Fusion, 1/e, ©1996, Prentice Hall
2. Ward & Mellor Structured Development for Real-Time Systems, Vol. III: Implementation Modeling Techniques, 1986, Prentice Hall

SE-403-4 Mobile Computing

Text Books:

1. J. Schiller, Mobile Communications, Addison Wesley.
2. A.K. Talukder and R.R. Yavagal, Mobile Computing, TMH
3. M. V. D. Heijden, M. Taylor, Understanding WAP, Artech House.

Reference Books:

1. Charles Perkins, Mobile IP, Addison Wesley.
2. Charles Perkins, Ad hoc Networks, Addison Wesley.

SE 403-5 - Software Architecture & Design Pattern

Text Books:

1. Design Patterns: Elements of Reusable Object-Oriented Software, by Erich Gamma *et al*, Addison Wesley.
2. Software Architecture in Practice, 2nd Edition by Len Bass, Paul Clements, Rick Kazman, published by Pearson Edition.
3. Design Patterns explained by Shalloway & Tautt, 2004.

Reference Books:

1. Pattern-Oriented Software Architecture: A system of Pattern, F. Buschmann et al, John Wiley & Sons, 1996.

SE 403-6 E-business Management

Text Books:

1. e-Business: Roadmap for Success: Dr Ravi Kalakota and Robinson, Marcia Addison-Wesley, 2000
2. The e-Marketplace: Strategies for Success in B2B Commerce: Raisch, Warren D - McGraw Hill Inc, 2000

3. Marketing in the Cyber Age: The Why, the What and the How: Rohner, Kurt - John Wiley & Sons, 1998.

Reference Books:

1. Frontiers of Electronic Commerce: Kalakota, Ravi and Whinston, Andrew B -Addison-Wesley, 2000.
2. Doing e-Business: Strategies for Thriving in an Electronic Marketplace Executive Guide to e-Business: From Tactics to Strategy: Taylor, David – John Wiley & Sons, Inc., 2001 Martin V Deise, Conard Nowikow, Patrick King and Amy Wright - John Wiley & Sons, Inc, 2000.
3. E-Business: Organizational and Technical Foundations, M. Papazoglou and P.M.A. Ribbers, John Wiley and Sons.
4. Knowledge Management: Classic and Contemporary Works, edited by Daryl Morey, Mark Maybury and Bhavani Thuraisingham.

SE-403-7 Natural Language Processing

Text Books:

1. Allen, Natural Language Understanding Pearson Education.
2. D. Jurafsky & J. H. Martin – “Speech and Language Processing – An introduction to Language processing, Computational Linguistics, and Speech Recognition”, Pearson Education
3. Manning, Christopher and Heinrich Schutze. 1999. “Foundations of Statistical Natural Language Processing”. MIT Press.

Reference Books:

1. L.M. Ivansca, S. C. Shapiro, Natural Language Processing and Language Representation.

SE-404-1- Digital Image Processing

Text Books:

1. Rafael C. Conzalez & Richard E. Woods,-Digital Image Processing, AWL.
2. A.K. Jain,-Fundamental of Digital Image Processing, PHI.
3. Computer Imaging: Digital Image Analysis and Processing, SE Umbaugh, CRC Press, 2005.

Reference Books:

1. Digital Image Processing Algorithms, Pitas, I., Prentice Hall, 1993.

SE 404-2 SOFT COMPUTING

Text Books:

1. “An Introduction to Neural Networks”, Anderson J.A., PHI.
2. “Introduction to the Theory of Neural Computation”, Hertz J. Krogh, R.G. Palmer, Addison-Wesley, California.
3. “Fuzzy Sets & Fuzzy Logic”, G.J. Klir & B. Yuan, PHI.

Reference Books:

1. “An Introduction to Genetic Algorithm”, Melanie Mitchell, PHI.

SE-404-3 Computer Vision

Text Books:

1. Computer Vision: A Modern Approach by D. A. Forsyth and J. Ponce,

Prentice Hall, 2003.

2. Robot Vision, by B. K. P. Horn, McGraw-Hill.
3. Computer Vision by Linda Shapiro and George Stockman, Prentice-Hall, 2001.

SE 404-4 Neural Networks & Fuzzy Logic

Text Books:

1. Neural Networks, Fuzzy logic, Genetic algorithms: synthesis and applications, S. Rajasekharan and G. A. Vijayalakshmi Pai, PHI Publication.
2. Neural networks and fuzzy Logic, Rao, Vallinu B., and Rao, Hayagriva, second edition, BPB Publication.
3. Fuzzy Logic: Intelligence, Control and Information, John Yen and Reza Langan, Pearson Education.

Reference Books:

1. Neural Networks- A comprehensive foundation, Simon Haykin, Pearson Education.
2. S.N. Sivanandam, S. Sumathi, *et al*, Introduction to Neural Networks using MATLAB 6.0, TMH.
3. James A Freeman and Davis Skapura, Neural Networks Pearson Education.
4. Timothy J. Ross, Fuzzy Logic with Engineering Applications, McGraw-Hill Inc.

SE-412-5 Pattern Recognition

Text Books:

1. Pattern Classification, R.O. Duda, P.E. Hart and D.G. Stork, John Wiley.
2. Pattern Recognition principles: Julius T. Tou and Rafael C. Gonzalez, Addison –Wesley.
3. Pattern recognition and machine learning, Christopher M. Bishop, Springer 2006.

Reference Books:

1. A probabilistic theory of pattern recognition, Luc Devroye, László Györfi, Gábor Lugosi, Springer, 1996.
2. Pattern classification, Richard O. Duda, Peter E. Hart and David G. Stork, Wiley, 2001.

SE 404-6: Optimization techniques

Text Books:

2. H.A.Taha – Operations Research, 8/e , Pearson Education , New Delhi-2007.
3. J.K. Sharma – Operations Research, 3/e, Mcmillan , India Ltd, 2007.
4. S. Hiller & G.J. Lieberman – Operations Research, 8th Edn, TMH, New Delhi – 2006.

Reference Books:

1. Kanti Swarup, Gupta Pk, Man Mohan, Operations Research, Sultan Chand

SE-404-7 Computer & Professional Ethics**Text Books:**

1. Deborah G.Johnson"Computer Ethics", Pearson Education Asia
2. T.W.Bynum & S. Rogerson "Professional Ethics and Professional Responsibility", Research Center on Computing and society.

B.Tech. IV year, VIII Semester Examination**SE-411 Data Mining & Warehousing****Text Books:**

1. Data Warehousing Fundamentals, P.Ponnian, John Wiley.
2. Data Mining Introductory & Advanced Topics, M.H.Dunham, Pearson Education.
3. Data Mining Concepts & Techniques, Han,Kamber, M.Kaufman.

Reference Books:

1. The Data Warehouse Lifecycle Tool Kit, Ralph Kimball, John Wiley
2. Master in Data Mining, M.Berry , G.Linoff, John Wiley
3. Building the Data Ware houses, W.H.Inmon, Wiely Dreamtech

SE 412-1: Advanced computer Networks**Text Books:**

1. Behrouz A. Forouzan, *Data Communications and Networking*, Fourth Ed., Tata McGrawHill,2006.
2. Larry L. Peterson and Bruce S. Davie, *Computer Networks: A Systems Approach*, FourthEd.,MorganKaufmann,2007.
3. Jean Walrand and Pravin Varaiya, *High Performance Communication Networks*, 2nd Ed.,MorganKauffman,1999.

Reference Books

1. Markus Hoffmann and Leland R. Beaumont, *Content Networking: Architecture, Protocols, and Practice*, Morgan Kauffman, 2005.

SE 412-2: Advanced Database Management Systems**Text Books:**

1. R. G. G. Cattell, Object Data Management: Object Oriented and Extended Relational Systems, revised edition, Addison Wesley, .
2. F. Bancilhon, C. Delobel, P. Kannelakis (Eds.), Building an OODB System, the Story of O2, Morgan Kaufmann.
3. M. Tamer Ozsü, Patrick Valduriez, Principles of Distributed Database

SE-412-3 Advances in Software Engineering**Text Books:**

1. Software Engineering Principles Tools and Techniques by Sangeeta Sabharwal, Umesh Publications.
2. Software Engineering, 7th Edition, Ian Sommerville, Addison-Wesley, 2004,
3. Software Engineering – A Practitioner’s Approach, - 4th edition, Roger S. Pressman, McGraw Hill Publications.

SE-412-4 Grid Computing**Text Books:**

1. Beowulf Cluster Computing with Linux, 2nd edition, William Gropp, Ewing Lusk, Thomas Sterling, MIT Press.
2. Introduction to grid computing - Bart Jacob, Michael Brown
3. In Search of Clusters: The ongoing battle in lowly parallel computing, Second Edition, by Gregory F. Pfister, Prentice Hall Publishing Company, 1998.

Reference Books:

1. MPI The Complete Reference - 2nd Ed by Marc Snir, et. al., The MIT Press, 1998.
2. Parallel Programming with MPI by Peter Pacheco, Morgan Kaufmann, 1998.
3. Using MPI-2, Advanced Features of the Message Passing Interface, William Gropp, Ewing Lusk, Rajeev Thakur, The MIT Press, 1999.
4. How to Build a Beowulf – A Guide to the Implementation and Application of PC Clusters, by Thomas Sterling, John Salmon, Donald J. Becker and Daniel F. Savarese, MIT Press, 1999

SE 404-5 : BIO INFORMATICS

1. Bioinformatics: A practical guide to the analysis of genes and proteins A.D. axevanis and B.F.F. Ouellette (Eds). 2002 John Wiley and Sons.
2. Bioinformatics: Sequence and Genome Analysis by D.W. Mount, 2001, Cold Spring Harbor Laboratory Press.
3. Rastogi, S.C., Mendiratta, N. and Rastogi, P. 2004 Bioinformatics: Concepts, Skills & Applications. CBS Publishers & Distributors, New Delhi.

SE-412-6 Business of IT

TEXT BOOKS:

1. Pete Loshin and P.A.Murphy, “ Electronic Commerce ” Jaico Publishing House, 1999.
2. Gary Schneider and James T. Perry, “Electronic Commerce” by Thomson learning, 2001.
3. S. Sadagopan, “Enterprise Resource Planning”, Tata McGraw Hill, 1999.

REFERENCE BOOKS:

1. Kalakota, “Frontiers of E-Commerce ” Addison Wesley long man Publishers, 1999.
2. Kamlesh Bajaj & Debjani Nag, “E-Commerce: The cutting edge of Business” Tata Mcgraw Hill, 2000.
3. Trepper, “E-Commerce strategies”, Prentice Hall of India, 2001.
4. Alexis Leon, “Enterprise Resource Planning”, Tata McGraw Hill, 2000.

SE 412-7 Component Based Technology

Text Books:

1. Ian Sommerville, Software Engineering, 7th Edition, Addison-Wesley, 2004, ISBN 81- 7758-530-4\
2. Component Software: Beyond object-oriented programming Clemens Szyperski, Addison-Wesley, 2002

3. UML Components: A simple process for specifying component-based software (The component software series), John Cheesman & John Daniels, Addison-Wesley, 2000.

Reference Books:

1. Component-based Software Engineering: Putting the pieces together, George T. Heineman & William T. Councill, Addison-Wesley, 2001.
2. Building J2EE Applications with the Rational Unified Process, J. Eeles, K. Houston & W. Kozaczynski, Addison-Wesley, 2001.
3. Roger S. Pressman, "Software Engineering – A Practitioner's Approach", - 4th edition, McGraw Hill Publications.

SE- 413-1: Network & Information Security

Text Books:

1. William Stallings, "Cryptography and Network Security: Principals and Practice", Prentice Hall, New Jersey.
2. Atul Kahate, "Cryptography and Network Security", TMH.
3. Behrouz A. Forouzan, "Cryptography and Network Security", TMH.

Reference Books:

1. Johannes A. Buchmann, "Introduction to Cryptography", Springer-Verlag.
2. Bruce Schneier, "Applied Cryptography".

SE-413-2: Multimedia Technology and Applications

Text Books:

1. Tay Vaughan "Multimedia, Making IT Work" Osborne McGraw Hill.
2. Buford "Multimedia Systems" Addison Wesley.
3. Agrawal & Tiwari "Multimedia Systems" Excel.

Reference Books:

1. Mark Nelson "Data Compression Book" BPB.
2. David Hillman "Multimedia technology and Applications" Galgotia Publications.
3. Rosch "Multimedia Bible" Sams Publishing.
4. Sleinreitz "Multimedia System" Addison Wesley.
5. James E Skuman "Multimedia in Action" Vikas.

SE-413-3 Information Theory & Coding

1. Information Theory by R Ash, Dover Science Publications.
2. Element of Information Theory by Cover and Thomas, John Wiley & Sons.
3. Error Control coding: Fundamental & Application by Shulin & Daniel J. Costello Jr, Prentice Hall, IncCommunication Systems By Simon Haykin, Wiley Student Edition

Reference Books:

1. *A Mathematical Theory of Communication*. By C. E. SHANNON.1948.
2. *Communications in the presence of noise – Shannon - 1949*

SE 413-4 Fault Tolerant and Reliable System Design

Text Books:

1. Fault-Tolerant Computer System Design D.K. Pradhan, 2003.

2. Design and Analysis of Fault-Tolerant Digital Systems, B.W.Johnson, Addison-Wesley
3. Fault-Tolerant Computing, Theory and Techniques, Volumes I and II, D.K. Pradhan, Prentice Hall.

Reference Books:

1. Reliable Computer Systems: Design and Evaluation, D.P.Siewiorek and R.S.Swartz, Digital Press, 1992
2. Probability and Statistics with Reliability, Queueing and Computer Science Application K.S.Trivedi, Prentice Hall, 1982

SE 413- 5: OPTICAL NETWORK

1. **Optical Network Design and Implementation**, Vivek Alwayn

SE 413-6 Virtual Reality

Text Books:

1. Virtual Reality Technology, Second Edition, Gregory C. Burdea & Philippe Coiffet, John Wiley & Sons, Inc.
2. Understanding Virtual Reality, interface, Application and Design, William R.Sherman, Alan Craig, Elsevier (Morgan Kaufmann).
3. 3D Modeling and surfacing, Bill Fleming, Elsevier(Morgan Kauffman).

Reference Books:

1. 3D Game Engine Design, David H.Eberly, Elsevier.
2. Virtual Reality Systems, John Vince, Pearson Education.

SE-413-7 Embedded Systems

Suggested reading:

1. Advanced FPGA Design: Architecture, Implementation, and Optimization by Steve Kilts, Wiley.
2. Practical FPGA Programming in C by David Pellerin, Prentice Hall.
3. Synthesis of Arithmetic Circuits: FPGA, ASIC and Embedded Systems.

Reference Books:

1. Jean-Pierre Deschamps, Gery J.A. Bioul, Gustavo D. Sutter, Wiley.
2. Rapid Prototyping of Digital Systems, By James O. Hamblen, Tyson S. Hall, Michael D. Furman, Springer.
3. Embedded Software Development with eCos (Bruce Perens' Open Source Series), Anthony J. Massa.