

UNIVERSITY OF MANCHESTER
MSC COMMUNICATION ENGINEERING
READING LIST 2011/12

(E = Essential, R = Recommended)

PRINCIPLES OF COMMUNICATION SYSTEMS

1. (E) Carlson and Crilly, *Communication Systems*, 5th edition, McGraw-Hill 2009 ISBN: 0071263322
2. (R) Haykin and Moher, *Communication Systems*, 5th edition, Wiley 2009. ISBN: 0470169966
3. (R) Proakis and Salehi, *Communication Systems Engineering*, 2nd edition, Prentice-Hall, 2001. ISBN: 0130617938
4. (R) Stallings, *Data and Computer Communications*, 8th edition, Prentice-Hall 2008 ISBN: 0135071399
5. (R) Gubner, *Probability and Random Processes for Electrical and Computer Engineers*, Cambridge University Press 2006. ISBN: 0521864704
6. (R) Therrien & Tummala, *Probability for Electrical and Computer Engineers*, CRC Press, 2004. ISBN: 084931884x
7. (R) A. Leon-Garcia, *Probability, and Random Processes for Electrical Engineering*, 3rd edition., Prentice Hall, 2008. ISBN: 0131471228

ANTENNAS AND RF SYSTEMS

Antennas and Propagation

1. (E) Kraus, J. D., *Antennas*, 2nd edition, McGraw-Hil. ISBN: 007123201X
2. (R) Balanis, C. A., *Antenna Theory: Analysis and Design*, 3rd edition, Wiley Blackwell, 2005. ISBN: 047166782X
3. (R) Maclean, T. S. M. and Wu, Z., *Radiowave Propagation over Ground*, Chapman & Hall, 1993. ISBN: 0412427303
4. (R) Hall, M. M. P. and Barclay, L. W., *Radio Wave Propagation*, Peter Peregrinus (IEE), 1989. ISBN: 0863411568

RF Systems Analysis

1. (R) David M. Pozar, *Microwave Engineering*, John Wiley, 2004. ISBN 0-471-17096-8
2. (R) F.A. Benson, T.M. Benson, *Fields, Waves and Transmission Lines*, Chapman and Hall, ISBN 0-412-36370-4

DIGITAL COMMUNICATION ENGINEERING

1. (R) B. Sklar, *Digital Communications*, 2nd ed, Prentice Hall, 2002. ISBN: 0130847887
2. (R) S Haykin, *Communication Systems*, 5th ed, John Wiley, 2009. ISBN: 0470169966

WIRELESS COMMUNICATIONS AND MOBILE NETWORKS

1. (E) A. Goldsmith, *Wireless Communications*, Cambridge University Press, 2005. ISBN: 0521837162

2. (E) T. Rappaport, *Wireless Communications: Principles and Practice*, 2nd edition, Prentice Hall, 2002. ISBN: 0130422320
3. (E) S. Haykin and M. Moher, *Modern Wireless Communications*, Pearson Prentice Hall, 2005. ISBN: 0130224723
4. (R) A. F. Molisch, *Wireless Communications*, John Wiley & Sons, 2005. ISBN: 047084888X
5. (R) J. G. Proakis and M. Salehi, *Digital Communications*, 5th edition, McGraw Hill, 2008. ISBN: 0071263780

OPTICAL COMMUNICATION & ADHOC AND SENSOR NETWORKS

Optical Communications

1. (R) John Senior, *Optical Fibre communications- Principles and Practice*, Prentice-Hall International, 2008. ISBN 013032681X
2. (R) Ajoy Ghatak and K thyagarajan, *Introduction to Fiber Optics*, Cambridge University Press, 1998. ISBN 0521577853

Adhoc & Sensor Networks

1. (R) B. Krishnamachari, *Networking Wireless Sensors*, Cambridge University Press, 2005. ISBN: 0521838479
2. (R) R. Jurdak, *Wireless Ad Hoc and Sensor Networks*, Springer 2007. ISBN: 0387390227
3. (R) C. Murthy and B. Manoj, *Ad Hoc Wireless Networks*, Prentice Hall, 2004. ISBN: 013147023X

MICROWAVE SYSTEM ENGINEERING

Microwave Circuits

1. (E) David M. Pozar, *Microwave Engineering*, John Wiley, 2004. ISBN 0-471-17096-8
2. (R) Reinhold Ludwig and Pavel Bretchko, *RF Circuit Design Theory and Applications*, Prentice-Hall, 2000. ISBN: 0130953237
3. (R) Robert E. Collin, *Foundation for Microwave Engineering*, 2nd ed. Wiley Blackwell, 2000. ISBN: 0780360311
4. (R) S. Y. Liao, *Microwave Circuit Analysis and Amplifier Design*, Prentice-Hall, 1987. ISBN: 0135817862

Microwave System Design

1. (E) T. H. Lee, *Planar Microwave Engineering*, Cambridge University Press, 2004. ISBN-13: 9780521835268 , ISBN-10: 0521835267
2. (E) I. D. Robertson, S. Lucyszyn, *RFIC and MMIC Design and Technology*, IEE Circuits, Device and Systems Series 13, 2001. ISBN 0-85296-786-1
3. (R) Bradford L. Smith, *Microwave Engineering Handbook, Volume 3: Microwave Systems And Applications*, ISBN: 041245680X, ISBN-13: 9780412456800
4. (R) T. K. Ishii, *Handbook of Microwave Technology*, Volume 1, 1995. ISBN: 0123746965

DIGITAL SIGNAL PROCESSING

1. (E) Gaydecki P, *Foundations of Digital Signal Processing: Theory, Algorithms and Hardware Design*. IET Publishing, 2004. ISBN: 0852964315