

Recommended Text/Reference Book
Semester 1, AY 2003/2004

FOURTH YEAR - SCHEDULE 7

EE4101 RADIO-FREQUENCY COMMUNICATIONS

by Prof PS Kooi & Prof TS Yeo

1. Microwave Engineering
 - DM Pozar
 - Addison-Wesley, 1990
- *2. *Antenna theory - analysis and design*
 - CA Balanis
 - John Wiley & Sons, 1982
- *3. *Foundations for Microwave Engineering*
 - RE Collin
 - 2nd Edition, McGraw-Hill, 1992

EE4102 DIGITAL COMMUNICATIONS

by Dr A Nallanathan

1. Digital Communications
 - S Haykin
 - Wiley International, 1988
- *2. *Communications Systems Engineering*
 - J.G Proakis & M. Salehi
 - Prentice Hall International

EE4103 CODING THEORY & APPLICATIONS

by Dr Armand MA

1. Error Control Systems for Digital Communication and Storage
 - SB Wicker
 - 1st Edition, Prentice Hall, 1995
2. Error Control Coding, Fundamentals and Applications
 - S. Lin and D. J. Costello
 - 2nd Edition, Prentice Hall, 2002

EE4112 HF TECHNIQUES

by Prof PS Kooi & Dr BL Ooi

- *1. Microwave Engineering
 - DM Pozar
 - Addison-Wesley, 1990
- *3. *Foundations for Microwave Engineering*
 - RE Collin
 - 2nd Edition, McGraw-Hill, 1992
- *4. *Microwave Engineering: Passive, Active and Non-Reciprocal Circuits*

- J Helszajn
- McGraw-Hill, 1992

- *5. *Microwave Circuit Analysis and Amplifier Design*
- SY Liao
- Prentice-Hall, 1987

EE4214 REAL-TIME EMBEDDED SYSTEMS

by A/P KW Ong & Dr CK Tham

- *1. *An Embedded Software Primer*
D. E. Simon
Addison-Wesley
Year: 1999
ISBN: 020161569X
- *2. *Real-Time Systems and Programming Languages, Second Edition*
A. Burns and A. Wellings
Addison-Wesley
Year: 1997
ISBN: 0-201-40365-X
- *3. *Real-Time Systems*
J. W. S. Liu
Prentice-Hall
Year: 2000
ISBN: 0-13-099651-3
- *4. *A Practical Course on Real Time Systems Development*
S Goldsmith
Prentice-Hall
Year: 1993
ISBN: 0-13-718503-0

EE4215 BIO-INSTRUMENTATION & SIGNAL ANALYSIS

by Dr PK Sadasivan

1. 1. Eugene N. Bruce, "Biomedical signal processing and signal modeling," Wiley, 2001.
2. 2. John G. Webster, "Medical Instrumentation, Application and Design," Wiley, 1998.
3. 3. Gail D Baura, "System theory and practical applications of biomedical signals", Wiley, 2002.

EE4304/ME4245 ROBOTICS

by Dr V Prahlad & Dr. Etienne Burdet (MPE Dept)

Recommended Textbook

1. Sciavicco L. and Siciliano B., *Modeling and Control of Robot Manipulators*. Second Edition (ISBN 1-85233-221-2), Springer Verlag, London, 2000.

References

- *1. Sciavicco L. and Siciliano B., *Modeling and Control of Robot Manipulators*.
McGraw Hill, 1996.

- *2. Craig, J.J., *Introduction to Robotics, Mechanics, and Control*. 2nd Edition. Addison Wesley, MA, 1989. (3rd Edition, if available)
- *3. Fu K.S., Gonzalez R.C., and Lee C.S.G. *Robotics: Control, Sensing, Vision and Intelligence*. McGraw-Hill, NY, 1987.
- *4. Spong, M.W. and Vidyasagar, M., *Robot Dynamics and Control*, Wiley, New York, 1989.
- *5. Paul, Richard P., *Robot Manipulators : Mathematics, Programming, and Control : the Computer Control of Robot Manipulators*, MIT Press, Cambridge, Mass., 1981.
- *6. Lewis F.L., Abdallah C.T., and Dawson D.M., *Control of Robot Manipulators*, Maxwell Macmillan International, 1993.

EE4305/ME4247 INTRODUCTION TO FUZZY/NEURAL SYSTEMS *by Dr KC Tan & Dr CM Chew (MPE Dept)*

- *1. *Fuzzy sets, uncertainty, and information*
- GJ Klir and TA Folger
- Prentice-Hall, 1992
- *2. *An introduction to fuzzy control*
- D Driankov, H Hellendoorn, M Reinfrank
- Springer-Verlag, 1993
- *3. *Fuzzy Sets and Fuzzy Logic - Theory and Applications*
- GJ Klir and B Yuan
- Prentice-Hall, 1995
- *4. *Neural Networks: A comprehensive Foundation*
- Simon Haykin
- Prentice-Hall, 1994

EE4410 CMOS VLSI SYSTEMS DESIGN PROJECT

by A/P YP Xu

- *1. *Digital Integrated Circuits – A Design Perspective*
- JM Rabaey
- Prentice Hall, 1996
- *2. *Basic VLSI Design*
- DA Pucknell and K Eshraghian
- 3rd Edition, Prentice Hall, 1994
- *3. *Principles of CMOS VLSI Design – A System Perspective*
- NHE Weste, and K Eshraghian
- 2nd Edition, Addison-Wesley, 1993
- *4. *Analog Integrated Circuit Design*
- D Johns and K Martin
- John Wiley & Sons, 1997

- *5. *Design of Analog Integrated Circuits and Systems*
- KR Laker and WMC Sansen
- McGraw-Hill, 1994
- *6. *Design of Analog CMOS Integrated Circuits*
- Behzad Razavi
- McGraw-Hill, 2000
- *7. *VLSI Testing – Digital and Mixed Analogue/Digital Techniques*
- SL Hurst
- IEE, London, 1998

EE4411 SILICON PROCESSING TECHNOLOGY

by A/P WK Choi & Dr WJ Yoo

- *1. *S M Sze, VLSI Technology, McGraw-Hill, 1988*
- *2. *S Wolf and R N Tauber, Silicon Processing for the VLSI Era, Vol 1: Process Technology, Lattice Press, Sunset Beach, California, 1988*
- *3. *R Runyan and K E Bean, Semiconductor Integrated Circuit Processing Technology, Addison-Wesley, 1990*
- *4. *J D Plummer, M D Deal, and P B Griffin, Silicon VLSI Technology - Fundamentals, Practice, and Modeling, Prentice Hall, 2000*

EE4412 TECHNOLOGY AND MODELING OF SILICON TRANSISTORS

by Prof CH Ling & A/P LS Tan

- *1. *Solid State Electronic Devices*
- B.G Streetman & S. Banerjee
- 5th Edition, 2000
- *2. *Introduction to Microelectronic Fabrication*
- R.C Jaeger
- 2nd Edition, 2002
- *3. *MOS (Metal Oxide Semiconductor) Physics and Technology*
- E H Nicollian and J R Brews
- Wiley 1982
- *4. *CMOS Devices and Technology for VLSI*
- John Y Chen
- Prentice-Hall, 2000

EE4502 ELECTRIC DRIVES AND CONTROL

by A/P SK Panda

- 1. *Electric Drives – An Integrative Approach*
- Ned Mohan
- MNPERE, Minneapolis, USA, 2001
- *2. *Electric Motor Drives: Modeling, Analysis & Control*
- R Krishnan
- Prentice Hall, 2001

- *3. *Fundamentals of Electrical Drives*
 - GK Dubey
 - Toppan Company (s) Pte Ltd, 1995

EE4505 POWER SEMICONDUCTOR DEVICES & ICS

by Dr YC Liang

- *1. *Modern Power Devices*
 - BJ Baliga
 - Wiley, 1987.

EE4506 MAGNETIC RECORDING SYSTEMS

by A/P MA Jabbar & Dr A Mamun

- 1. *Magnetic Information Storage Technology*
 - SX Wang and AM Taratorin
 - Academic Press, 1999
- *2. *Digital Magnetic Recording*
 - AS Hoagland and JE Monson
 - 2nd Edition, Wiley, 1991
- *3. *Magnetic Disk Drive Technology*
 - Kanu G. Asher
 - IEEE Press, 1997