NATIONAL UNIVERSITY OF SINGAPORE
Department of Electrical and Computer Engineering

Recommended Text/Reference Book
2001/2002 Session

THIRD YEAR – SCHEDULE 5

EE3002 ENGINEERING MATHEMATICS IV by Dr Armand Marc & Visiting Prof YV Venkatesh

1. Statistical Tables
   - J Murdoch and JA Barnes
   - 3rd Edition, Macmillan, 1986.

2. Introduction to Probability and Statistics
   - JS Milton and JC Arnold
   - 3rd Edition, Macmillan, 1995

**3.* *Probability, Random Variables and Random Signal Principles*
   - PZ Peebles
   - 4th Edition, McGraw-Hill, 2001

**4.* *Miller and Freund's Probability and Statistics for Engineers*
   - RA Johnson
   - 5th Edition, Prentice Hall, 1994.

**5.* *Probability and Statistics for Engineers & Scientists*
   - RE Walpole, RH Myers and SL Myers
   - 6th Edition, Macmillan, 1998.

**6.* *Applied Statistics and Probability for Engineers*
   - DC Montgomery and GC Runger
   - John Wiley & Sons, 1994.

**7.* *Advanced Engineering Mathematics*
   - E Kreyszig
   - John Wiley & Sons, 1999

**8.* *Advanced Engineering Mathematics*
   - C. Ray Wyile and Louis C. Barret
   - 6th Edition McGraw-Hill

**9.* *Advanced Engineering Mathematics*
   - Michael D. Greenberg
   - Prentice Hall

EE3003 ELECTRONICS III by A/P SS Ng & A/P MK Haldar

1. Transform Analysis and Filters
   - LJ Geis
   - Prentice-Hall, 1989.

**2.* *Solid State Radio Engineering*

- HL Krauss, CW Bostian and FB Raab
- Wiley, 1983.

EE3101 DSP FUNDAMENTALS by Prof YC Lim & Dr Lian Yong

1. Digital Signal Processing : Principles, Algorithms, and Applications
- John G. Proakis and Dimitris G. Manolakis
- Prentice Hall, 3rd Ed. 1996

**2.* *Digital Signal Processing*
- Thomas J. Cavicchi
- John Wiley & Sons Inc.

**3.* *Digital Signal Processing Using Matlab*
- Vinay K. Ingle & John G. Proakis
- Brooks/Cole, Thomson Learning

**4.* *Digital Signal Processing : A computer-Based Approach*
- S.K. Mitra
- McGraw-Hill International Editions

**5.* *Analog and Digital Signal Processing, 2ED*
- Ashok Ambardar
- Thomson Publishing Company(Brook/Cole Publishing Company)

**6.* *Digital Signal Processing*
- Steve White
- Thomson Learning

**7.* *Mathematical Methods and Algorithms for Signal Processing*
- Todd K. Moon & Wynn c. Stirling
- Prentice Hall

**8.* *Digital Signal Processing*
- S Salivahanan, A Vallavaraj and C Gnanapriya
- McGraw Hill, 2000

**9.* *An Introduction to Digital Signal Processing with Mathcad*
- R O Harger
- PWS Publishing Compan, 1999

**10.* *Digital Signal Processing*
- M H Hayes
- SCHAUM's outlines. McGraw Hill, 1999

EE3102 HIGH-FREQUENCY TECHNIQUES by Prof PS Kooi & Dr BL Ooi

1. Microwave Components and Systems
- K E Sander
- Electronic Systems Engineering Series, 1987.

**2.* *Microwave Transistor Amplifiers*
- Gonzalez
-Prentice Hall International Editions, 1993.

*3. *Microwave Circuit Analysis and Amplified Design*
- Samuel Y. Liao
- Prentice Hall, 1987.

*4. *Microwave Engineering*
- Pozar
- Addision - Wesley Publishing Company, 1990.

*5. *An Introduction to Guided Waves and Microwave Circuits*
- Robert S. Elliott
- Prentice - Hall International Editions, 1993.

*6. *Microwave Planar Passive Circuits and Filters*
- J. Helszajn
- John Wiley & Sons, 1994.

*7. Electromagnetic Compatibility
- Clayton R. Paul
- Wiley Inter-science

*8. Field and Wave Electromagnetics
- David K. Cheng
- Addison - Wesley, 1989.

EE3103 COMMUNICATIONS by Prof Lawrence Wong & Dr LC De Silva

*1. *Telecommunications Switching, Traffic and Networks*
- JE Flood
- Prentice-Hill.

*2. *Packet Switching - Tomorrow's Communications Today*
- RD Rosner
- Lifetime Learning.

*3. *Wireless Telecommunications – Principles & Practice*
- TS Rappaport
- IEEE Press/Prentice Hall

*4. *Telecommunication System Engineering, 3rd Edition*
- RL Freeman
- Wiley

*5. *Modern Communiction Systems – Principles & Applications, 1st published in 1995*
- Leon W Couch II
- Prentice Hall

*6. *Digital Communications, 1st published in 1998*
- Ian A. Glover & Peter M. Grant
- Prentice Hall.

*7. *Analog & Digital Communication Systems*
- Martin S. Roden
- 4th Edition, Prentice Hall, 1996.

EE3201 SOFTWARE ENGINEERING by A/P Kenneth Ong & A/P SU Steven Guan

1. Software Engineering
   - I Sommerville
   - 6th Edition, Addison-Wesley, 2001.

**2.* *Software Engineering – A Practitioner's Approach*
   - *R S Pressman*
   - *5th Edition, McGraw-Hill, 2001.*

EE3202 COMPUTER SYSTEMS by A/P TT Tay & Dr LF Cheong

1. The Intel Microprocessors 8080/8088, 80186/80188, 80286, 80386, 80486, Pentium, and Pentium Pro Processor, Architecture, Programming, and Interfacing,
   - Barry B Brey
   - 4th Edition, Prentice Hall, 1997.

EE3204 COMPUTER COMMUNICATION NETWORKS I by Dr Mohan Gurusamy

1. Computer Networks: A Systems Approach
   Peterson & Davie
   - 2nd Edition, Morgan Kaufmann, 2000.

2. Data & Computer Communications
   - William Stallings
   - 6th edition, Prentice Hall, 2000.

3. Computer Networks
   - A. S. Tanenbaum
   - 3rd Edition, Prentice Hall, 1996.

EE3205 REAL-TIME EMBEDDED SYSTEMS by A/P Kenneth Ong & Dr CK Tham

1. Logical Design of Operating Systems
   - L Bic and AC Shaw
   - 2nd Edition, Prentice-Hall, 1988.

**2.* *A Practical Guide to Real-Time Systems Development*
   - *S Goldsmith*
   - *Prentice-Hall, 1993.*

EE3206 INTRODUCTION TO COMPUTER VISION & IMAGE PROCESSING by A/P SH Ong

1. Digital Image Processing
   - RC Gonzalez and RE Woods
   - Addison Wesley, 1992

**2.* *Fundamentals of Electronic Image Processing*
   - *AR Weeks, Jr.*
   - *SPIE, 1996*

*3. *Digital Image Processing*
- WK Pratt
- 2nd Edition, Wiley, 1991

*4. *Digital Image Processing*
- KR Castleman
- Prentice Hall 1996

*5. *The Image Processing Handbook*
- JC Russ
- 3rd Edition, CRC Press, 1999

EE3302 INDUSTRIAL CONTROL SYSTEMS by A/P Sam Ge & Dr KK Tan

1. Process Control Instrumentation Technology
- CD Johnson
- 4th Edition, Regents/Prentice-Hall, 1993.

2. Process Control in Practice
- T Hagglund
- Studentlitteratur, 1991.

3. Serial Networked Field Instrumentation
- JR Jordan
- John Wiley & Sons, 1995.

4. Programming Industrial Control Systems Using IEC 1131-3
- RW Lewis
- IEE, 1995.

*5. *PC Interfacing for Laboratory Data Acquisition and Process Control*
- S Gupta and JP Gupta
- ISA, 1989.

EE3304 DIGITAL CONTROL SYSTEMS by A/P Loh & A/P AP JX Xu

1. Digital Control of Dynamic Systems
- Franklin GF, Powell JD and Workman ML
- 3rd Edition, Addison Wesley.

2. Computer controlled systems: Theory and design
- Astrom, K.J. and Wittenmark, B.
- 3rd Edition, Prentice-Hall

3. Applied Digital Control
- Leigh J.R
- Prentice Hall, 1992

EE3401 SILICON PROCESSING TECHNOLOGY by A/P WK Choi & Dr WJ Yoo

1. VLSI Technology
- S M Sze
- McGraw-Hill (International Edition), 1988.

2. Silicon VLSI Technology(Fundamentals, Practice and Modelling)
- James D. Plummer, Micheal Deal and Peter B. Griffin
- Prentice Hall, 2000

*3. *Semiconductor Integrated Circuit Processing Technology*
- W.R. Runyan and K.E. Bean
- Addison-Wesley, 1990.

*4. *Silicon Processing for the VLSI Era - Volume 1: Process Technology*
- S Wolf and RN Tauber
- Lattice Press, 1986.

*5. *Microchip fabrication*
- Peter Van Zant
- McGraw –Hill, 1997.

EE3403 INTEGRATED CIRCUITS DESIGN by Prof YC Lim & Prof MF Li

*1. *Basic VLSI Design*
- DA Pucknell and K Eshraghian
- 3rd Edition, Prentice-Hall, 1994.

*2. *Introduction to VLSI Design*
- E.D. Fabricius
- McGraw-Hill 1990.

*3. *Analysis and Design of Analog Integrated Circuits*
- PR Gray and RG Meyer
- Wiley, 1984.

*4. *VLSI Design Techniques for Analog and Digital Circuits*
- RL Geiger, PE Allen and MR Strader
- McGraw-Hill, 1990.

*5. *CMOS Analog Circuit Design*
- PE Allen and DR Holberg
- Holt Rinehart and Winston, 1987.

*6. *Analog Integrated Circuit Design*
- DA Jones and K Martin
- Wiley, 1996.

*7. *Design of Analog integrated Circuits and Systems*
- KR Laker and WMC Sansen
- McGraw-Hill, Inc, 1994.

*8. *Design of analog CMOS integrated circuits*
- Behzad Razavi
- McGraw-Hill , 2000

*9. *Introduction to nMOS and CMOS VLSI Systems Design*
- A Mukherjee
- Prentice-Hall International Editions

**10.* *Modern VLSI Design*
- W Wole
- Prentice-Hall International Editions. 1998

**11.* *CMOS Digital Integrated Circuits*
- S M Kang and Y Leblebici
- McGraw-Hill International Editions. 1999

EE3405 TECHNOLOGY & MODELING OF SILICON TRANSISTORS

by Prof CH Ling & A/P LS Tan

1. Device Electronics for Integrated Circuits
- RS Muller and TI Kamins
- 2nd Edition, Wiley, 1986

2. MOS Physics and Technology
- E. H. Nicollian and J. R. Brews
- John Wiley & Sons, 1991

*3. *Bipolar Semiconductor Devices*
- DJ Roulston
- McGraw-Hill, 1990

**4.* *ULSI Technology*
- CY Chang & SM Sze
- McGraw-Hill, 1996

EE3406 MICROELECTRONICS MATERIALS by Dr KL Teo & Dr Vivian Ng

1. Principles of Electrical Engineering Materials and Devices,
- SO Kasap
- McGraw-Hill, 1997.

**2.* *Principles of Material Science and Engineering,*
- WF Smith
- 3rd Edition, McGraw-Hill, 1996.

**3.* *Introduction to solid state physics*
- Kittel, Charles
- 7th Edition, Wiley, 1996.

EE3501 POWER ELECTRONICS I by A/P R Oruganti & Dr A Khambadkone

**1.* *Introduction to Power Electronics*
- DW Hart
- Prentice Hall, 1997.

**2.* *Power Electronics: Devices, Drivers and Applications*
- BW Williams
- 2nd Edition, MacMillan, 1993.

**3.* *An Introduction to Power Electronics*
- BM Bird, KG King and DAG Pedder

- *2nd Edition, Wiley, 1993.*

**4.* *Power Electronics: Convertors, Applications and Design*
- M Mohan, TM Undeland and WP Robbins
- Wiley, 1989.

**5.* *Power Electronics:Principles and Applications*
- Joeseph Vithayathil
- McGraw Hill, 1995.

EE3502 POWER SYSTEMS TECHNOLOGY by A/P JBX Devotta & Dr D Srinivasan

**1.* *Power System Analysis*
- JJ Grainger and WD Stevenson Jr
- McGraw-Hill, 1994.

**2.* *Electrical Power Systems*
- CL Wadhwa
- 2nd Edition, Wiley Eastern, 1991.

**3.* *Electric Power Systems*
- BM Weedy
- 3rd Edition, Wiley, 1988.

**4.* *Electrical Machines,Drives and Power Systems*
- T Wildi
- Prentice Hall International, 1996.

**5.* *Electromechanical Devices and Power systems*
- Yamayee and Bala
- John Wiley, 1994.

**6.* *Generation Distribution and Utilisation of Electrical Energy*
- CL Wadhwa
- Revised Edition, Wiley Eastern 1993.

**7.* *Power System Analysis*
- Hadi Saadat
- McGraw Hill, 1999.

EE3503 ELECTRICAL MACHINES by A/P MA Jabbar & A/P JBX Devotta

**1.* *Electric Machines and Power System*
- V del Toro
- Prentice-Hall, 1985.

**2.* *Electrical Machinery*
- AE Fitzgerald, C Kingsley and SD Umans
- 5th Edition, McGraw-Hill, 1990.

**3* *Electrical Machinery Fundamentals*
- Stephen J Chapman
- 3rd Edition, McGraw Hill International Editions 1999

*4. *Design of Small Electrical Machines*
- *Essam S. Hamdi*
- *John Wiley, 1994.*

*5. *Electric machines*
- *G. R. Slemon, A. Straughen.*
- *Reading, Mass.: Addison-Wesley*

Asterik "" denotes reference book.*