

ANNA UNIVERSITY, CHENNAI

AFFILIATED INSTITUTIONS

R - 2008


I SEMESTER CURRICULA AND SYLLABI

(Common to all B.E. / B.Tech Programmes except B.E. Marine Engineering)

SEMESTER I

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|---------------------------|-------------|--|---|---|---|---|
| THEORY | | | | | | |
| 1. | HS2111 | <u>Technical English - I</u> | 3 | 1 | 0 | 4 |
| 2. | MA2111 | <u>Mathematics - I</u> | 3 | 1 | 0 | 4 |
| 3. | PH2111 | <u>Engineering Physics - I</u> | 3 | 0 | 0 | 3 |
| 4. | CY2111 | <u>Engineering Chemistry - I</u> | 3 | 0 | 0 | 3 |
| 5. | GE2111 | <u>Engineering Graphics</u> | 2 | 3 | 0 | 5 |
| 6. | GE2112 | <u>Fundamentals of Computing and Programming</u> | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 7. | GE2115 | <u>Computer Practice Laboratory -I</u> | 0 | 0 | 3 | 2 |
| 8. | GE2116 | <u>Engineering Practices Laboratory</u> | 0 | 0 | 3 | 2 |
| 9. | | * <u>Physics & Chemistry Laboratory I</u> | 0 | 0 | 3 | - |
| TOTAL : 26 CREDITS | | | | | | |

* Laboratory classes on alternate weeks for Physics and Chemistry. The lab examinations will be held only in the second semester (Including the first semester experiments also).


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ANNA UNIVERSITY, CHENNAI

AFFILIATED INSTITUTIONS

R - 2008

B.E. ELECTRICAL AND ELECTRONICS ENGINEERING

II - VIII SEMESTERS CURRICULUM AND SYLLABI

SEMESTER II

CURRICULUM

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|---------------------------|-------------|--|---|---|---|---|
| THEORY | | | | | | |
| 1. | HS2161 | <u>Technical English – II*</u> | 3 | 1 | 0 | 4 |
| 2. | MA2161 | <u>Mathematics – II*</u> | 3 | 1 | 0 | 4 |
| 3. | PH2161 | <u>Engineering Physics – II*</u> | 3 | 0 | 0 | 3 |
| 4. | CY2161 | <u>Engineering Chemistry – II*</u> | 3 | 0 | 0 | 3 |
| 5. a | ME2151 | <u>Engineering Mechanics</u> (For non-circuit branches) | 3 | 1 | 0 | 4 |
| 5. b | EE2151 | <u>Circuit Theory</u> (For branches under Electrical Faculty) | 3 | 1 | 0 | 4 |
| 5. c | EC2151 | <u>Electric Circuits and Electron Devices</u> (For branches under I & C Faculty) | 3 | 1 | 0 | 4 |
| 6. a | GE2151 | <u>Basic Electrical & Electronics Engineering</u> (For non-circuit branches) | 4 | 0 | 0 | 4 |
| 6. b | GE2152 | <u>Basic Civil & Mechanical Engineering</u> (For circuit branches) | 4 | 0 | 0 | 4 |
| PRACTICAL | | | | | | |
| 7. | GE2155 | <u>Computer Practice Laboratory-II*</u> | 0 | 1 | 2 | 2 |
| 8. | GS2165 | <u>Physics & Chemistry Laboratory - II*</u> | 0 | 0 | 3 | 2 |
| 9. a | ME2155 | <u>Computer Aided Drafting and Modeling Laboratory</u> (For non-circuits branches) | 0 | 1 | 2 | 2 |
| 9. b | EE2155 | <u>Electrical Circuits Laboratory</u> (For branches under Electrical Faculty) | 0 | 0 | 3 | 2 |
| 9. c | EC2155 | <u>Circuits and Devices Laboratory</u> (For branches under I & C Faculty) | 0 | 0 | 3 | 2 |
| TOTAL : 28 CREDITS | | | | | | |

| | | | | | | |
|-----|---|--|---|---|---|---|
| 10. | - | English Language Laboratory ⁺ | 0 | 0 | 2 | - |
|-----|---|--|---|---|---|---|

* Common to all B.E. / B.Tech. Programmes

+ Offering English Language Laboratory as an additional subject (with no marks) during 2nd semester may be decided by the respective Colleges affiliated to Anna University Chennai.

A. CIRCUIT BRANCHES

I Faculty of Electrical Engineering

1. B.E. Electrical and Electronics Engineering
2. B.E. Electronics and Instrumentation Engineering
3. B.E. Instrumentation and Control Engineering

II Faculty of Information and Communication Engineering

1. B.E. Computer Science and Engineering
2. B.E. Electronics and Communication Engineering
3. B.E. Bio Medical Engineering
4. B.Tech. Information Technology

B. NON – CIRCUIT BRANCHES

I Faculty of Civil Engineering

1. B.E. Civil Engineering

II Faculty of Mechanical Engineering

1. B.E. Aeronautical Engineering
2. B.E. Automobile Engineering
3. B.E. Marine Engineering
4. B.E. Mechanical Engineering
5. B.E. Production Engineering

III Faculty of Technology

1. B.Tech. Chemical Engineering
2. B.Tech. Biotechnology
3. B.Tech. Polymer Technology
4. B.Tech. Textile Technology
5. B.Tech. Textile Technology (Fashion Technology)
6. B.Tech. Petroleum Engineering
7. B.Tech. Plastics Technology

SEMESTER III


(Applicable to the students admitted from the Academic year 2008 – 2009 onwards)

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|----------------|--|-----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1. | MA 2211 | <u>Transforms and Partial Differential Equations</u> | 3 | 1 | 0 | 4 |
| 2. | EE 2201 | <u>Measurements & Instrumentation</u> | 3 | 0 | 0 | 3 |
| 3. | EE 2202 | <u>Electromagnetic Theory</u> | 3 | 1 | 0 | 4 |
| 4. | GE 2211 | <u>Environmental Science and Engineering</u> | 3 | 0 | 0 | 3 |
| 5. | EE 2203 | <u>Electronic Devices & Circuits</u> | 3 | 0 | 0 | 3 |
| 6. | EE 2204 | <u>Data Structures and Algorithms</u> | 3 | 1 | 0 | 4 |
| PRACTICAL | | | | | | |
| 1. | EE 2207 | <u>Electron Devices and Circuits Laboratory</u> | 0 | 0 | 3 | 2 |
| 2. | EE 2209 | <u>Data Structures and Algorithms Laboratory</u> | 0 | 0 | 3 | 2 |
| 3 | EE 2208 | <u>Measurements & Instrumentation Laboratory</u> | 0 | 0 | 3 | 2 |
| TOTAL | | | 18 | 3 | 9 | 27 |

SEMESTER IV

(Applicable to the students admitted from the Academic year 2008 – 2009 onwards)

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|--|-----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1. | MA 2264 | <u>Numerical Methods</u> | 3 | 1 | 0 | 4 |
| 2. | EE 2251 | <u>Electrical Machines – I</u> | 3 | 1 | 0 | 4 |
| 3. | EE 2252 | <u>Power Plant Engineering</u> | 3 | 1 | 0 | 4 |
| 4. | EE 2253 | <u>Control Systems</u> | 3 | 1 | 0 | 4 |
| 5. | EE 2254 | <u>Linear Integrated Circuits and Applications</u> | 3 | 0 | 0 | 3 |
| 6. | EE 2255 | <u>Digital Logic Circuits</u> | 3 | 1 | 0 | 4 |
| PRACTICAL | | | | | | |
| 1. | EE 2257 | <u>Control Systems Laboratory</u> | 0 | 0 | 3 | 2 |
| 2. | EE 2258 | <u>Linear and Digital Integrated Circuits Laboratory</u> | 0 | 0 | 3 | 2 |
| 3. | EE 2259 | <u>Electrical Machines Laboratory – I</u> | 0 | 0 | 3 | 2 |
| TOTAL | | | 18 | 5 | 9 | 29 |


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SEMESTER V


(Applicable to the students admitted from the Academic year 2008 – 2009 onwards)

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|---------------|---|-----------|----------|-----------|-----------|
| THEORY | | | | | | |
| 1. | EC2311 | <u>Communication Engineering</u> | 3 | 0 | 0 | 3 |
| 2. | EC2314 | <u>Digital Signal Processing</u> | 3 | 1 | 0 | 4 |
| 3. | CS2311 | <u>Object Oriented Programming</u> | 3 | 0 | 0 | 3 |
| 4. | EE2301 | <u>Power Electronics</u> | 3 | 0 | 0 | 3 |
| 5. | EE2302 | <u>Electrical Machines II</u> | 3 | 1 | 0 | 4 |
| 6. | EE2303 | <u>Transmission & Distribution</u> | 3 | 1 | 0 | 4 |
| PRACTICAL | | | | | | |
| 1. | CS2312 | <u>Object Oriented Programming Laboratory</u> | 0 | 0 | 3 | 2 |
| 2. | GE2321 | <u>Communication Skills Laboratory</u> | 0 | 0 | 4 | 2 |
| 3. | EE2304 | <u>Power Electronics Laboratory</u> | 0 | 0 | 3 | 2 |
| 4. | EE2305 | <u>Electrical Machines Laboratory II</u> | 0 | 0 | 3 | 2 |
| TOTAL | | | 18 | 3 | 13 | 29 |

SEMESTER VI

(Applicable to the students admitted from the Academic year 2008 – 2009 onwards)

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|---|-----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1. | EE2351 | <u>Power System Analysis</u> | 3 | 1 | 0 | 4 |
| 2. | EE2352 | <u>Solid State Drives</u> | 3 | 0 | 0 | 3 |
| 3. | EE2353 | <u>High Voltage Engineering</u> | 3 | 0 | 0 | 3 |
| 4. | EE2354 | <u>Microprocessors and Micro controller</u> | 3 | 0 | 0 | 3 |
| 5. | EE2355 | <u>Design of Electrical Machines</u> | 3 | 1 | 0 | 4 |
| 6. | CS2363 | <u>Computer Networks</u> | 3 | 0 | 0 | 3 |
| 7. | | Elective I | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 1. | EE2356 | <u>Microprocessor and Micro controller Laboratory</u> | 0 | 0 | 3 | 2 |
| 2. | EE2357 | <u>Presentation Skills and Technical Seminar</u> | 0 | 0 | 2 | 1 |
| TOTAL | | | 21 | 2 | 5 | 26 |


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SEMESTER VII

(Applicable to the students admitted from the Academic year 2008 – 2009 onwards)

| SL. No. | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|---|-----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1. | EE2401 | <u>Power System Operation and Control</u> | 3 | 0 | 0 | 3 |
| 2. | EE2402 | <u>Protection & Switchgear</u> | 3 | 0 | 0 | 3 |
| 3. | EE2403 | <u>Special Electrical Machines</u> | 3 | 0 | 0 | 3 |
| 4. | MG2351 | <u>Principles of Management</u> | 3 | 0 | 0 | 3 |
| 5. | CS2411 | <u>Operating Systems</u> | 3 | 0 | 0 | 3 |
| 6. | | <u>Elective – II</u> | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 1. | EE2404 | <u>Power System Simulation Laboratory</u> | 0 | 0 | 3 | 2 |
| 2. | EE2405 | <u>Comprehension</u> | 0 | 0 | 2 | 1 |
| TOTAL | | | 18 | 0 | 5 | 21 |

SEMESTER VIII

(Applicable to the students admitted from the Academic year 2008 – 2009 onwards)

| THEORY | | | L | T | P | C |
|------------------|--------|---|----------|----------|-----------|-----------|
| 1. | EE2451 | <u>Electric Energy Generation, Utilization and Conservation</u> | 3 | 0 | 0 | 3 |
| 2. | | <u>Elective – III</u> | 3 | 0 | 0 | 3 |
| 3. | | <u>Elective – IV</u> | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 1. | EE2452 | Project work | 0 | 0 | 12 | 6 |
| TOTAL | | | 9 | 0 | 12 | 15 |

LIST OF ELECTIVES - R 2008

ELECTIVE I

| SL.NO | CODE NO. | COURSE TITLE | L | T | P | C |
|-------|----------|---|---|---|---|---|
| 1. | EI2404 | <u>Fibre Optics and Laser Instruments</u> | 3 | 0 | 0 | 3 |
| 2. | CS2070 | <u>Visual Languages and Applications</u> | 3 | 0 | 0 | 3 |
| 3. | IC2351 | <u>Advanced Control System</u> | 3 | 0 | 0 | 3 |
| 4. | EE2023 | <u>Robotics and Automation</u> | 3 | 0 | 0 | 3 |
| 5. | GE2025 | <u>Professional Ethics in Engineering</u> | 3 | 0 | 0 | 3 |
| 6. | EE2027 | <u>Power System Transients</u> | 3 | 0 | 0 | 3 |


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ELECTIVE II


| | | | | | | |
|-----|--------|-----------------------------------|---|---|---|---|
| 7. | EI2311 | <u>Biomedical Instrumentation</u> | 3 | 0 | 0 | 3 |
| 8. | EE2025 | <u>Intelligent Control</u> | 3 | 0 | 0 | 3 |
| 9. | EE2026 | <u>Power System Dynamics</u> | 3 | 0 | 0 | 3 |
| 10. | CS2071 | <u>Computer Architecture</u> | 3 | 0 | 0 | 3 |
| 11. | GE2022 | <u>Total Quality Management</u> | 3 | 0 | 0 | 3 |

ELECTIVE III

| | | | | | | |
|-----|--------|---|---|---|---|---|
| 12. | EE2028 | <u>Power Quality</u> | 3 | 0 | 0 | 3 |
| 13. | EE2029 | <u>System Identification and Adaptive Control</u> | 3 | 0 | 0 | 3 |
| 14. | EE2030 | <u>Operations Research</u> | 3 | 0 | 0 | 3 |
| 15. | EI2403 | <u>VLSI Design</u> | 3 | 0 | 0 | 3 |
| 16. | EE2032 | <u>High Voltage Direct Current Transmission</u> | 3 | 0 | 0 | 3 |

ELECTIVE IV

| | | | | | | |
|-----|--------|--|---|---|---|---|
| 17. | GE2023 | <u>Fundamental of NanoScience</u> | 3 | 0 | 0 | 3 |
| 18. | EE2033 | <u>Micro Electro Mechanical Systems</u> | 3 | 0 | 0 | 3 |
| 19. | EE2034 | <u>Software for Circuit Simulation</u> | 3 | 0 | 0 | 3 |
| 20. | EE2035 | <u>Computer Aided Design of Electrical Apparatus</u> | 3 | 0 | 0 | 3 |
| 21. | EE2036 | <u>Flexible AC Transmission Systems</u> | 3 | 0 | 0 | 3 |


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