

Curriculum for M.Tech Electronics and Communication Engineering

I Semester

| S. No. | Course Code | Course Title | H/S | L-T-P | Credits |
|-------------------------------------|-------------|--------------------------------------|-----|-------|-----------|
| 1. | EENG 410 | Electronic Systems Laboratory | H | 0-0-2 | 2 |
| 2. | EENG 411 | Probability and Stochastic Processes | H | 3-1-0 | 4 |
| 3. | EENG 412 | Advanced Digital Communication | H | 3-1-0 | 4 |
| 4. | EENG 413 | Advanced Digital Signal Processing | H | 3-1-0 | 4 |
| 5. | EENG 414 | High Speed Semiconductor Devices | H | 3-1-0 | 4 |
| 6. | EENG 415 | VLSI Design Techniques | H | 4-0-0 | 4 |
| 7. | | Elective I | S | 3-0-0 | 3 |
| Total Credits for Semester I | | | | | 25 |

(H – Hard Core Course; S – Soft Core Course)

II Semester

| S. No. | Course Code | Course Title | H/S | L-T-P | Credits |
|--------------------------------------|-------------|--|-----|-------|-----------|
| 8. | EENG 420 | Advanced Communication and Embedded Systems Laboratory | H | 0-0-2 | 2 |
| 9. | EENG 421 | Credit Seminar | H | 2-0-0 | 2 |
| 10.. | EENG 422 | Advanced Electromagnetics | H | 3-1-0 | 4 |
| 11. | EENG 423 | High Performance Communication Networks | H | 3-1-0 | 4 |
| 12. | EENG 424 | Fault Tolerance for Digital Logic Circuits | H | 3-1-0 | 4 |
| 13. | | Elective II | S | 3-0-0 | 3 |
| 14. | | Elective III | S | 3-0-0 | 3 |
| 15. | | Elective IV | S | 3-0-0 | 3 |
| Total Credits for Semester II | | | | | 25 |

(H – Hard Core Course; S – Soft Core Course)

III Semester

| S. No. | Course Code | Course Title | H/S | L-T-P | Credits |
|---------------------------------------|-------------|------------------------------|-----|-------|-----------|
| 16. | EENG 510 | Project & Viva Voce : Part I | H | 0-0-9 | 9 |
| 17. | | Elective V (Directed Study) | S | 3-0-0 | 3 |
| Total Credits for Semester III | | | | | 12 |

(H – Hard Core Course; S – Soft Core Course)

IV Semester

| S. No. | Course Code | Course Title | H/S | L-T-P | Credits |
|--------------------------------------|-------------|------------------------------|-----|--------|-----------|
| 18. | EENG 520 | Project & Viva voce: Part II | H | 0-0-15 | 12 |
| Total Credits for Semester IV | | | | | 12 |

(H – Hard Core Course; S – Soft Core Course)

Total number of credits required to complete

M.Tech in Electronics and Communication Engineering

:

74

List of Level I Soft Core Courses

| S.NO | Course Code | Name of the Course | L-T-P | Credits |
|------|-------------|--|-------|---------|
| 1. | EENG 4E10 | Recent Trends in Wireless Technologies | 3-0-0 | 3 |
| 2. | EENG 4E11 | Advanced Optical Communication | 3-0-0 | 3 |
| 3. | EENG 4E12 | Embedded Systems | 3-0-0 | 3 |
| 4. | EENG 4E13 | Free Space Optical Networks | 3-0-0 | 3 |
| 5. | EENG 4E14 | Micro-Electromechanical Systems | 3-0-0 | 3 |
| 6. | EENG 4E15 | VLSI Systems | 3-0-0 | 3 |
| 7. | EENG 4E16 | Quantum Mechanics | 3-0-0 | 3 |

List of Level II Soft Core Courses

| S.NO | Course Code | Name of the Course | L-T-P | Credits |
|------|-------------|--|-------|---------|
| 1. | EENG 4E20 | RF Engineering | 3-0-0 | 3 |
| 2. | EENG 4E21 | Advanced Image Processing | 3-0-0 | 3 |
| 3. | EENG 4E22 | Advanced Radiation Systems | 3-0-0 | 3 |
| 4. | EENG 4E23 | Advanced Satellite and Radar Communication | 3-0-0 | 3 |
| 5. | EENG 4E24 | Advanced Technologies in Wireless Networks | 3-0-0 | 3 |
| 6. | EENG 4E25 | Advanced Wireless Communications | 3-0-0 | 3 |
| 7. | EENG 4E26 | CMOS RF Circuit Design | 3-0-0 | 3 |
| 8. | EENG 4E27 | Computer Communication Networks | 3-0-0 | 3 |
| 9. | EENG 4E28 | Design of Analog and Mixed Mode VLSI Circuits | 3-0-0 | 3 |
| 10. | EENG 4E29 | Electromagnetic Interference and Compatibility | 3-0-0 | 3 |
| 11. | EENG 4E2A | Green Radio Communication Networks | 3-0-0 | 3 |
| 12. | EENG 4E2B | Information and Network Security | 3-0-0 | 3 |
| 13. | EENG 4E2C | Low Power Digital VLSI Design | 3-0-0 | 3 |

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|-----|-----------|---|-------|---|
| 14. | EENG 4E2D | Modeling and Simulation of Wireless Communication Systems | 3-0-0 | 3 |
| 15. | EENG 4E2E | Monolithic Microwave Integrated Circuits | 3-0-0 | 3 |
| 16. | EENG 4E2F | OFDM for Wireless Communication | 3-0-0 | 3 |
| 17. | EENG 4E2G | Optical Networking | 3-0-0 | 3 |
| 18. | EENG 4E2H | Principles of ASIC Design | 3-0-0 | 3 |
| 19. | EENG 4E2I | RF Transceivers for Wireless Communications | 3-0-0 | 3 |
| 20. | EENG 4E2J | Ultra Wideband Communication Systems | 3-0-0 | 3 |
| 21. | EENG 4E2K | Wavelet Transform | 3-0-0 | 3 |