

M.Tech. in ECE
(Power and Control)
Course Structure

| Semester I | | | |
|---------------------|-------------------|---|----------------|
| S.No. | Course No. | Course Title | Credits |
| 1. | HS501 | Professional and Communication Skills (compulsory) | 1-0-2-2 |
| 2. | EC521 | Special topics in Power and Control Systems (core1) | 3-0-0-4 |
| 3. | EC522 | Power Electronics and Drives (core2) | 3-0-0-4 |
| 4. | MT612 | PLC and Microcontroller (Core3) | 2-0-4-5 |
| 5. | | Elective 1 | 3-0-0-4 |
| 6. | MT612L | Lab is attached to course Core3 | -- |
| Semester II | | | |
| 1. | EC523 | System Design: Power and Control (core4) | 3-0-2-5 |
| 2. | | Elective 2 | 3-0-0-4 |
| 3. | | Elective 3 | 3-0-0-4 |
| 4. | EC699a | Thesis/Elective 4 | 3-0-0-4 |
| 5. | EC523L | Lab is attached to course core4 | -- |
| Semester III | | | |
| 1. | EC598a | Graduate Seminar I | 2 |
| 2. | EC699a | M.Tech. Dissertation | 16 |
| Semester IV | | | |
| 1. | EC599b | Graduate Seminar II | 2 |
| 2. | EC699b | M.Tech. Dissertation | 16 |

Electives:

| Sl No | Course No | Courses | Credits |
|--------------|------------------|--|----------------|
| 1. | EC524 | Optimal Control | 3-0-0-4 |
| 2. | ES306 | Optimization Techniques | 3-0-0-4 |
| 3. | EC526 | Intelligent Systems and Control | 3-0-0-4 |
| 4. | EC525 | Control Techniques In Power Electronics | 3-0-0-4 |
| 5. | EC602 | Application of Signal and Image processing | 3-0-0-4 |
| 6. | EC603 | Power Electronics Applications In Power Systems | 3-0-0-4 |
| 7. | EC604 | Simulation of Modern Power Systems | 3-0-2-5 |
| 8. | EC511 | Advanced Digital Signal Processing | 3-0-0-4 |
| 9. | EC527 | Robust Control Systems | 3-0-0-4 |
| 10. | EC529 | Modelling and Simulation of Power Electronic Systems | 3-0-0-4 |
| 11. | EM661 | Fuzzy logic and its application | 2-0-0-2 |
| 12. | EM528 | Simulation of Power Systems | 2-0-1-2 |