

**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES****(Autonomous)****DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING****B.Tech R20::HONOR COURSE STRUCTURE AND SYLLABI**

1.Student shall earn 20 additional credits to be eligible for the award of B. Tech (Honors) degree (16 credits shall be earned by undergoing specified courses listed as pools, with four courses, each carrying 4 credits, the remaining 4 credits must be acquired through two MOOCs, which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of studies).

2.The subjects opted for Honors should be Advanced type which are not covered in regular curriculum

3.Students has to acquire 16 credits with minimum one subject from each pool

POOL-1(Power System)

| S.No | Course Code | Course Title | Scheme of Instructions Hours per Week | | | | Scheme of Examination Maximum Marks | | |
|------|-------------|-------------------------------|---------------------------------------|---|---|---|-------------------------------------|----|-------|
| | | | L | T | P | C | I | E | Total |
| 1 | 20EEEHR1A | Power System Planning | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2 | 20EEEHR1B | Elements of Power System | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 3 | 20EEEHR1C | Electrical Power Distribution | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 4 | 20EEEHR1D | Smart Grid Infrastructure | 3 | 1 | - | 4 | 30 | 70 | 100 |

POOL-2(Power Electronics)

| S.No | Course Code | Course Title | Scheme of Instructions Hours per Week | | | | Scheme of Examination Maximum Marks | | |
|------|-------------|--|---------------------------------------|---|---|---|-------------------------------------|----|-------|
| | | | L | T | P | C | I | E | Total |
| 1 | 20EEEHR2A | Power Semiconductor Devices | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2 | 20EEEHR2B | Digital Control of Power Electronics | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 3 | 20EEEHR2C | Application of Power Electronics in Smart Grid | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 4 | 20EEEHR2D | FPGA Based Digital Design System | 3 | 1 | - | 4 | 30 | 70 | 100 |

POOL-3 (Control Engineering)

| S.No | Course Code | Course Title | Scheme of Instructions Hours per Week | | | | Scheme of Examination Maximum Marks | | |
|------|-------------|----------------------------|---------------------------------------|---|---|---|-------------------------------------|----|-------|
| | | | L | T | P | C | I | E | Total |
| 1 | 20EEEHR3A | Optimal control Theory | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2 | 20EEEHR3B | Adaptive Control System | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 3 | 20EEEHR3C | System Theory | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 4 | 20EEEHR3D | Distributed Control System | 3 | 1 | - | 4 | 30 | 70 | 100 |

POOL-4 (Renewable Energy System)

| S.No | Course Code | Course Title | Scheme of Instructions Hours per Week | | | | Scheme of Examination Maximum Marks | | |
|------|-------------|--|---------------------------------------|---|---|---|-------------------------------------|----|-------|
| | | | L | T | P | C | I | E | Total |
| 1 | 20EEEHR4A | Solar Energy Conversion System | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2 | 20EEEHR4B | Wind Energy Conversion system | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 3 | 20EEEHR4C | Renewable Power Generation and Control | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 4 | 20EEEHR4D | Power Electronics for Renewable Energy | 3 | 1 | - | 4 | 30 | 70 | 100 |

BOS-Chairman**Principal**