

AFFILIATED INSTITUTIONS
ANNA UNIVERSITY, CHENNAI
REGULATIONS 2013
M.E. ENERGY ENGINEERING
I TO VI SEMESTERS CURRICULUM (PART TIME)

SEMESTER I

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|---------------|-------------|--|----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1 | MA7169 | Advanced Numerical Methods | 3 | 1 | 0 | 4 |
| 2 | EY7101 | Fluid Mechanics and Heat Transfer | 3 | 1 | 0 | 4 |
| 3 | EY7102 | Thermodynamic Analysis of Energy Systems | 3 | 1 | 0 | 4 |
| TOTAL | | | 9 | 3 | 0 | 12 |

SEMESTER II

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|---|----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1 | EY7201 | Energy Conservation in Electrical Systems | 3 | 0 | 0 | 3 |
| 2 | EY7202 | Design and Analysis of Turbomachines | 3 | 0 | 0 | 3 |
| 3 | | Elective I | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 4 | EY7211 | Seminar | 0 | 0 | 2 | 1 |
| 5 | EY7212 | Simulation Laboratory | 0 | 0 | 3 | 2 |
| TOTAL | | | 9 | 0 | 5 | 12 |

SEMESTER III

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|--|----------|----------|----------|-----------|
| THEORY | | | | | | |
| 1 | EY7103 | Energy Resources | 3 | 0 | 0 | 3 |
| 2 | EY7104 | Energy Conservation in Thermal Systems | 3 | 0 | 0 | 3 |
| 3 | | Elective II | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 4 | EY7111 | Energy Laboratory | 0 | 0 | 3 | 2 |
| TOTAL | | | 9 | 0 | 3 | 11 |

SEMESTER IV

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|---------------|-------------|--|----------|----------|----------|----------|
| THEORY | | | | | | |
| 1 | EY7203 | Measurement and Control for Energy Systems | 3 | 0 | 0 | 3 |
| 2 | | Elective III | 3 | 0 | 0 | 3 |
| 3 | | Elective IV | 3 | 0 | 0 | 3 |
| TOTAL | | | 9 | 0 | 0 | 9 |

SEMESTER V

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|------------------------|----------|----------|-----------|-----------|
| THEORY | | | | | | |
| 1. | | Elective V | 3 | 0 | 0 | 3 |
| 2. | | Elective VI | 3 | 0 | 0 | 3 |
| 3. | | Elective VII | 3 | 0 | 0 | 3 |
| PRACTICAL | | | | | | |
| 3. | EY7311 | Project Work (Phase I) | 0 | 0 | 12 | 6 |
| TOTAL | | | 6 | 0 | 12 | 15 |

SEMESTER VI

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|------------------|-------------|-------------------------|----------|----------|-----------|-----------|
| PRACTICAL | | | | | | |
| 1. | EY7411 | Project Work (Phase II) | 0 | 0 | 24 | 12 |
| TOTAL | | | 0 | 0 | 24 | 12 |

TOTAL CREDITS TO BE EARNED FOR THE AWARD OF THE DEGREE = 71

ELECTIVES FOR M.E ENERGY ENGINEERING

Elective I

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|--------|-------------|--|---|---|---|---|
| 1 | EY7001 | Energy Systems Modeling and Analysis | 3 | 0 | 0 | 3 |
| 2 | TE7001 | Design of Heat Exchangers | 3 | 0 | 0 | 3 |
| 3 | EB7071 | Electrical Drives and Controls | 3 | 0 | 0 | 3 |
| 4 | EY7002 | Power Generation, Transmission and Utilization | 3 | 0 | 0 | 3 |
| 5 | PX7301 | Power Electronics for Renewable Energy Systems | 3 | 0 | 0 | 3 |
| 6 | EY7003 | Hydrogen and Fuel Cell Technologies | 3 | 0 | 0 | 3 |

Elective II, III & IV

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|--------|-------------|---|---|---|---|---|
| 1 | EY7004 | Energy Conversion Techniques | 3 | 0 | 0 | 3 |
| 2 | EY7005 | Solar Energy Technologies | 3 | 0 | 0 | 3 |
| 3 | EY7006 | Wind Energy Technologies | 3 | 0 | 0 | 3 |
| 4 | EY7007 | Bio Energy Conversion Techniques | 3 | 0 | 0 | 3 |
| 5 | EY7008 | Nuclear Engineering | 3 | 0 | 0 | 3 |
| 6 | EY7009 | Computational Fluid Dynamics for Energy Systems | 3 | 0 | 0 | 3 |

Elective V, VI & VII

| SL. NO | COURSE CODE | COURSE TITLE | L | T | P | C |
|--------|-------------|---|---|---|---|---|
| 1 | TE7010 | Advanced Power Plant Engineering | 3 | 0 | 0 | 3 |
| 2 | EY7010 | Steam Generator Technology | 3 | 0 | 0 | 3 |
| 3 | EY7011 | Fluidized Bed Systems | 3 | 0 | 0 | 3 |
| 4 | EY7012 | Advanced Energy Storage Technologies | 3 | 0 | 0 | 3 |
| 5 | EY7013 | Waste Management and Energy Recovery | 3 | 0 | 0 | 3 |
| 6 | EY7014 | Energy Efficient Buildings | 3 | 0 | 0 | 3 |
| 7 | TE7203 | Environmental Engineering and Pollution Control | 3 | 0 | 0 | 3 |
| 8 | EY7015 | Energy forecasting, Modeling and Project Management | 3 | 0 | 0 | 3 |