RK UNIVERSITY

# DETAILED TEACHING SCHEME

SCHOOL OF ENGINEERING
ACADEMIC YEAR – 2022-23
PROGRAM: M. TECH – ELECTRICAL POWER SYSTEM
SEMESTER – I (Batch - 2022-24)
DEFINATION OF CREDIT: **1. Lecture (L):** 1 hour/week/semester, **2. Practical (P)**: 2 hours/week/semester **3. Tutorial (T):** 2 hours/week/semester

| TEACHING SCHEME | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Course Code | Course Name | Teaching Hours | | | SSH | Credits | Max. Marks of TSEE | CIE | PSEE | Remarks if any |
| | | Theory | Tutorial | Practical | | | | | | |
| RM103 | Research Methodology and Intellectual Property Rights | 3 | 0 | 0 | 3 | 3 | 100 | Y | N | - |
| EPS106 | Power System Dynamics | 4 | 2 | 0 | 2 | 5 | 100 | Y | N | - |
| EPS107 | Advanced Power System Operation and Control | 3 | 0 | 2 | 2 | 4 | 100 | Y | Y | - |
| EPS112 | Flexible AC Transmission System | 4 | 0 | 0 | 1 | 4 | 100 | Y | N | - |
| EPS115 | Green Energy Technologies | 4 | 0 | 0 | 3 | 4 | 100 | Y | N | - |
| EPS213 | EHV AC and HVDC Transmission Systems | 3 | 0 | 0 | 1 | 3 | 100 | Y | N | - |
| EPS71* | Department Elective-I | 4 | 0 | 0 | 2 | 4 | 100 | Y | N | - |
| | **TOTAL** | **25** | **2** | **2** | **14** | **27** | | | | |
| | | **Total Teaching Hours- 29** | | | | | | | | |

1. CIE – Continuous internal evaluation (TCIE &/OR PCIE)
2. SSH - Self-study hours
3. PSEE – Practical semester end examination including ITD, Dissertation, Industrial project, Industrial training etc..
4. (@) Audit Course / Non-Gradial Course
5. TSEE – Theory Semester End Examinations
6. Y – Yes I N- No

**Signature of HOD**

**Signature of Director**

RK UNIVERSITY

# DETAILED TEACHING SCHEME

SCHOOL OF ENGINEERING
ACADEMIC YEAR – 2022-23
PROGRAM: M. TECH – ELECTRICAL POWER SYSTEM
SEMESTER – II (Batch - 2022-24)
DEFINATION OF CREDIT: **1. Lecture (L):** 1 hour/week/semester, **2. Practical (P)**: 2 hours/week/semester **3. Tutorial (T):** 2 hours/week/semester

| TEACHING SCHEME | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Course Code | Course Name | Teaching Hours | | | SSH | Credits | Max. Marks of TSEE | CIE | PSEE | Remarks if any |
| | | Theory | Tutorial | Practical | | | | | | |
| EPS206 | Computer Aided Power System Analysis | 3 | 0 | 2 | 3 | 4 | 100 | Y | Y | - |
| EPS207 | Electrical Power Markets | 3 | 0 | 0 | 2 | 3 | 100 | Y | N | - |
| EPS208 | Power System Stability Analysis | 4 | 2 | 0 | 3 | 5 | 100 | Y | Y | - |
| EPS209 | Energy Management | 3 | 0 | 0 | 1 | 3 | 100 | Y | N | - |
| EPS211 | Advanced Power System Protection | 4 | 0 | 2 | 3 | 5 | 100 | Y | Y | - |
| EPS215 | Power Quality Management | 3 | 0 | 0 | 1 | 3 | 100 | Y | N | - |
| EPS70* | Department Elective II | 4 /3 | 0 | 0 / 2 | 2 | 4 | 100 | Y | Y / N | - |
| | **TOTAL** | **24/23** | **2** | **4/2** | **15** | **27** | | | | |
| | | **Total Teaching Hours- 30/31*** | | | | | | | | |

1. CIE – Continuous internal evaluation (TCIE &/OR PCIE)
2. SSH - Self-study hours
3. PSEE – Practical semester end examination including ITD, Dissertation, Industrial project, Industrial training etc..
4. (@) Audit Course / Non-Gradial Course
5. TSEE – Theory Semester End Examinations
6. Y – Yes I N- No

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# DETAILED TEACHING SCHEME

SCHOOL OF ENGINEERING
ACADEMIC YEAR – 2022-23
PROGRAM: M. TECH – ELECTRICAL POWER SYSTEM
SEMESTER – III (Batch – 2021-23)
DEFINATION OF CREDIT: **1. Lecture (L):** 1 hour/week/semester, **2. Practical (P)**: 2 hours/week/semester **3. Tutorial (T):** 2 hours/week/semester

| TEACHING SCHEME | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Course Code | Course Name | Teaching Hours | | | SSH | Credits | Max. Marks of TSEE | CIE | PSEE | Remarks if any |
| | | Theory | Tutorial | Practical | | | | | | |
| EPS301 | Seminar | 0 | 0 | 0 | 03 | 05 | - | Y | Y | Non-Dissertation topic only |
| EPSDP1 | Dissertation Phase-I | 0 | 0 | 0 | 14 | 20 | - | Y | Y | - |
| | **TOTAL** | **0** | **0** | **0** | **17** | **25** | | | | |
| | | **Total Teaching Hours – 00** | | | | | | | | |

1. CIE – Continuous internal evaluation (TCIE &/OR PCIE)
2. SSH - Self-study hours
3. PSEE – Practical semester end examination including ITD, Dissertation, Industrial project, Industrial training etc..
4. (@) Audit Course / Non-Gradial Course
5. TSEE – Theory Semester End Examinations
6. Y – Yes I N- No

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# DETAILED TEACHING SCHEME

SCHOOL OF ENGINEERING
ACADEMIC YEAR – 2022-23
PROGRAM: M. TECH – ELECTRICAL POWER SYSTEM
SEMESTER – IV (Batch - 2021-23)
DEFINATION OF CREDIT: **1. Lecture (L):** 1 hour/week/semester, **2. Practical (P)**: 2 hours/week/semester **3. Tutorial (T):** 2 hours/week/semester

| | TEACHING SCHEME | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Course Code | Course Name | Teaching Hours | | | SSH | Credits | Max. Marks of TSEE | CIE | PSEE | Remarks if any |
| | | Theory | Tutorial | Practical | | | | | | |
| EPSDP2 | Dissertation Phase – II | 0 | 0 | 0 | 14 | 25 | - | Y | Y | - |
| | **TOTAL** | **0** | **0** | **0** | **14** | **25** | | | | |
| | | **Total Teaching Hours – 00** | | | | | | | | |

1. CIE – Continuous internal evaluation (TCIE &/OR PCIE)
2. SSH - Self-study hours
3. PSEE – Practical semester end examination including ITD, Dissertation, Industrial project, Industrial training etc..
4. (@) Audit Course / Non-Gradial Course
5. TSEE – Theory Semester End Examinations
6. Y – Yes I N- No

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# SYLLABUS

| Course Title | Dissertation Phase – II |
|---|---|
| Course Code | EPSDP2 |
| Course Credit | Lecture : 0 |
| | Practical : 0 |
| | Tutorial : 0 |
| | Total : 25 |

**Course Learning Outcome**

At the end of the course the students will be able to

- **Implement** solution of identifies research problem.
- **Analyze** outcomes of implementation.
- **Identify** future research directions.
- **Develop** effective communication skills for oral and written presentation of research work

**Guide line:**

- Dissertation Phase-II is the continuation of the work done in dissertation phase-I. The student is required to submit thesis as a partial fulfillment of the M. Tech degree. The thesis should consist of detailed study of the problem under taken, concluding remarks and scope of future work, if any.
- The dissertation report (thesis) is expected to show clarity of thought and expression, critical page appreciation of the existing literature and analytical, computational and experimental aptitude of the student.
- Publication of at least one research paper is compulsory in reputed conference/journal.

**Students Learning Outcomes:**

At the end of the course the students will be able to

- Make a contribution with a degree of originality and significance to the knowledge in an area of Electrical engineering.
- Have the skills to execute a research plan and to generate and analyze original research results.