

DKTE Society's
TEXTILE & ENGINEERING INSTITUTE

Rajwada , Ichalkaranji 416115

DEPARTMENT: ELECTRONICS ENGINEERING

CURRICULUM

Master of Technology Program (Electronics)

Second Year

With Effect From

2017-18



Promoting Excellence in Teaching
Learning & Research

**Teaching and Evaluation Scheme for
Second Year M.Tech.: Electronics Engineering
Semester-III**

Sr No	Course Code	Name of the Course	Group	Teaching Scheme				Credits
				Theory Hrs/Week	Tutorial Hrs/Week	Practical Hrs/Week	Total	
1	ELD601	Seminar-III (Related to Dissertation Phase-I)	F	0	0	8	8	4
2	ELD602	Dissertation Phase-I	F	0	0	18	18	16
3	ELI603	Professional Management	C	0	0	-	-	Grading
Total				0	0	26	26	20

**ELD601: Seminar-III
ELD602: Dissertation Phase-I**

Teaching Scheme		
Practical Seminar-III	8 Hrs./student/week	4 credits
Practical Dissertation Phase-I	18 Hrs. /student/week	16 credits
Total Credits	20	

Evaluation Scheme		
	Seminar-III	Dissertation Phase-I
CIE	50	50
SEE	-	50
Total	50	100

Course Objectives

1. To select a problem based on the interest field
2. To carry out literature review and find gaps
3. To formulate problem statement and to form the framework to solve the problem statement
4. To get exposure and seek industry related problems
5. To improve the creativity thinking

Course Outcomes

At the end of the course students will be able to

1. Appropriate and select problem based on topic of his field of interest
 2. Comprehend and summarise the literature review
 3. Analyze and form problem statement
 4. Prepare the framework for the problem statement based on research or industry related issues
 5. Show improvement in confidence for problem solving
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1. The Dissertation needs to encompass the concepts learnt in a courses in the previous/current semesters, so that the student will learn to integrate, the knowledge acquired to provide a solution to the defined problem statement of the major dissertation.
 2. Student can select a project in the areas of modern technology related to Electronics Engineering which leads to a product or model or prototype related to following areas (not limited to these areas).
 - a. Embedded systems
 - b. Advanced CMOS VLSI design
 - c. Advanced Signal Processing
 - d. Advanced Image processing
 - e. Advanced Communications
 - f. Any allied electronics fields
 3. Time plan: Effort to do the project should be between 40 hours,

The title and objectives of the Dissertation will be chosen by the student in consultation with the Supervisor (s) and the same will be required to be defended by the student in open defence in front of the **Dissertation Monitoring Committee** approved by the Head of Department.

The title and objectives will be approved by the Dissertation Monitoring Committee having main Supervisor (Guide) as one of its members.

The progress will also be monitored at weekly coordination meetings with the Supervisor (s). The student will be required to present a talk to the gathering in open defence in front of the Dissertation Monitoring Committee having main Supervisor as one of its members. The Dissertation Monitoring Committee will be constituted by Head of Department for the purpose examining the suitability of the work carried out by the student in the Dissertation for its evaluation by the external examiner.

Continuous internal evaluation: CIE

Continuous evaluation of the dissertation shall be made by dissertation monitoring committee members. The student is required to present the **ELD-601: Seminar-III**

related to dissertation Synopsis Preparation and work to be carried out in sem-I and this will be **evaluated for 50 marks**.

CIE of Dissertation Phase-I includes demonstration of the dissertation work carried out in front of dissertation committee, submission of the partial report of work carried after green signal by internal monitoring committee including guide which shall be evaluated for 50 marks.

Semester End Evaluation (SEE)

SEE carries 50 marks for dissertation phase-I. Semester end examination (SEE) includes viva-voce & demo and will be done jointly by the main Supervisor and External Examiner. The dissertation will be either approved or rejected. **Student has to carry out 50% of the total dissertation work.**

**Second Year M.Tech., Sem-III
ELI603: Professional Management**

Teaching Scheme	
Self Study	-
Total Credits	Audit course

Evaluation Scheme	
CIE	50
Result	*Grading only

*** Passing grade is essential for awarding degree**

Prerequisites- Industrial Management and operational Research

Course Objectives

1. To make the students learn basics of Marketing Management
2. To make the students learn basics of Financial Management
3. To make the students learn basics of Human Resource Management
4. To make the students learn professional ethics and Business Etiquettes

Course Outcomes

At the end of the course students will be able to

1. Understand basics of Marketing Management.
2. Understand basics of Financial Management
3. Understand basics of Human Resource Management
4. Understand and use professional ethics and Business Etiquettes

Unit No.	Course Contents	
Unit 1	Human Resource Management: Meaning, Objectives, Importance, Scope of HRM, Nature of HRM, Functions-operative and managerial, Challenges. Qualifications and qualities of HR Manager, Personnel Management Vs. Human Resource Management, HR policies –need and advantages, Organization of HR department, HRP- Objectives and Process, Problems in HRP, Benefits of HRP, HRP at different levels, Job Analysis-Process, job description and job specification, Recruitment- policy, sources of recruitment, Selection- Selection Process. Induction of new employees. Compensation Management- objectives, Components. Training- Meaning, importance and process, Need for training.	8Hrs
Unit 2	Marketing Management Introduction, Definitions of market and marketing, Nature and scope of marketing, The Exchange Process, Elements of Marketing Concept, Functions of Marketing, the core concepts of marketing, Company orientation towards market place, Marketing environment: Micro and Macro marketing environment, Techniques used in environment analysis, Consumer Behaviour Analysis and Market Segmentation, Targeting & Positioning, Marketing Mix.	6Hrs
Unit 3	Financial Management Introduction, meaning, objectives, Scope of financial management, Finance functions, Structure of finance department, Emerging role of the finance manager, Profit maximization to wealth maximization approach. Sources of Funds: Short term sources, Long term sources, Techniques of Financial Statement Analysis, Nature and need of working capital, determinants of working capital estimation of working capital, financing of working capital.	8Hrs
Unit 4	Professional Ethics and Business Etiquettes Professional Ethics: Meaning of ethics, Purposes of engineering ethics, Professional code of conduct, Professional roles to be played by an engineer, Environmental ethics, Computer ethics, Case studies, NSPE Engineer's creed, Engineers as managers – consulting engineer, Engineers as expert witnesses and advisors. Business Etiquette: Developing a culture of excellence, principles of exceptional work behaviour, Role of Managers in Business Development. Guidelines for planning a meeting and conducting meeting. Guidelines for attending the meeting for the chairperson, for attendees and for presenters.	4Hrs

Reference Books

1. Marketing Management: A South Asian Perspective – Kotler, Keller, Koshy & Jha, 13/e, Pearson Education, 2012
2. Marketing Management – Rajan Saxena, Tata McGraw Hill
3. Financial Management - Khan and Jain
4. Financial Management – Prasanna Chanra
5. Human Resource Management- Text and Cases, K. Aswathappa, Tata McGraw Hill
6. Human Resource Management- P. Subba Rao, Himalaya Publications
 Professional Ethics and Human Values by A.Alavudeen, R.Kalil Rehman,
 M.Jaykumaran ,University Science Press, Laxmi Publications Pvt.Ltd. Delhi
7. Business Etiquette: A Guide for the Indian Professional - ShitalKakkarMehra.
8. <http://www.ieee.org/about/corporate/governance/p7-8.html>
9. <https://www.nspe.org/resources/ethics/code-ethics>
10. <https://www.nspe.org/resources/ethics/ethics-resources/engineering-ethics-videos>

Teaching and Evaluation Scheme
Second Year M.Tech: Electronics Engineering
Semester-IV

Sr No	Course Code	Name of the Course	Group	Teaching Scheme				Credits
				Theory Hrs/ Week	Tutorial Hrs/ Week	Practical Hrs/ Week	Total	
1	ELD604	Seminar-IV (Related to Dissertation Phase-II)	F	0	0	8	8	6
2	ELD605	Dissertation Phase-II	F	0	0	20	20	18
Total				0	0	28	28	24

Second Year M.Tech., Sem-IV
ELD604: Seminar –IV
ELD605: Dissertation Phase-II

Teaching Scheme		Evaluation Scheme		
		Seminar-IV	Dissertation Phase-II	
Practical Seminar-IV	8 Hrs/student/week	CIE	100	-
Practical Dissertation Phase-II:	20 Hrs/student/week	SEE	-	200
Total Credits	24	Total	100	200

- Each student will be required to complete a Dissertation and submit a written hard bound report on the topic on any of the areas of modern technology related to Electronics Engineering including interdisciplinary fields in the Final semester of M.E. course.
- Semester end examination (SEE) includes demonstration of the dissertation project in front of dissertation committee, submission of the project report after green signal by internal monitoring committee including guide.

Continuous internal evaluation: CIE

Continuous evaluation of the dissertation shall be made by dissertation monitoring committee members. The student is required to present the seminar and dissertation demo. This will be evaluated for **100 marks during Seminar-IV**.

Semester End Evaluation (SEE)

Dissertation Viva-voce will be conducted by the examiners consisting of internal and external and they will approve/reject the dissertation. In case, the dissertation is rejected, the candidate will rework and resubmit the dissertation. The dissertation will be again be evaluated jointly by the same external examiner and the main Supervisor (Guide).

SEE carries 200 marks for dissertation and student is required to **carry out 100%** of the total dissertation work.

Note: Two papers based on dissertation should be published preferably one in conference and another in journal.