NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	**I Year B.Tech, EEE**		
Course Title	**INTRODUCTION TO ELECTRICAL AND ELECTRONICS ENGINEERING**		
Course Code	**EEIR15**	**No. of Credits**	**02**
Course Code of Pre-requisite subject(s)	**NIL**		
Session	**January 2023**	**Section (if, applicable)**	**B**
Name of Faculty	**Dr. Aneesa Farhan M A**	**Department**	**EEE**
Email	aneesa@nitt.edu **aneesafma@gmail.com**	**Telephone No.**	**7598164452** **8015877137**
Name of Course Coordinator(s) (if, applicable)	**N A**		
Course Type (please tick appropriately)	**General Institute Requirement (GIR)** ☐ **Branch Specific Course**		

Syllabus (approved in BoS)

History, major inventions, scope, significance and job opportunities in electrical and electronics engineering, brief overview of various energy resources.

Basics of energy conversion, Power apparatus used in power generation, transmission and distribution, Power apparatus used in various industries.

Basic ideas about utility supply, electrical tariff, energy audit and importance of energy saving.

Introduction to different types of electrical circuits, house wiring, electronic circuits for signal processing, specifications of electronic components.

Brief overview of curriculum, laboratories and various software packages, electronic testing and measuring equipment.

COURSE OBJECTIVES

This course facilitates the students to get a comprehensive exposure to electrical and electronics engineering

MAPPING OF COs with Pos

Course Outcomes	Programme Outcomes (PO) (Enter Numbers only)
Upon completion of the course, the students shall develop an insightful knowledge on various fundamental elements of electrical and electronics engineering	**1,3,8,13**

COURSE PLAN – PART II			
COURSE TEACHING AND LEARNING ACTIVITIES			
S.No.	**Week/Contact Hours**	**Topic**	**Mode of Delivery**
1	Week 1 (1 Lectures) 20-24 March	Introduction to the course, History,	**Chalk & Talk/PPT**
2	Week 2(2 Lectures) 27-31 March	major inventions, scope, significance and job opportunities in electrical and electronics engineering,	**Chalk & Talk/PPT**
3	Week 3(1 Lectures) 03-07 April	brief overview of various energy resources	**Chalk & Talk/PPT**
4	Week 4(2 Lectures) 10-14 April	Basics of energy conversion, Power apparatus used in power generation and distribution.	**Chalk & Talk/PPT**
5	Week 5(1 Lectures) 17-21 April	Power apparatus used in various industries Basic ideas about utility supply	**Chalk & Talk/PPT**
6	Week 6(2 Lectures) 24-28 April	electrical tariff, energy audit First Assessment	**Chalk & Talk/PPT**
7	Week 7(2 Lectures) 01-05 May	importance of energy saving.	**Chalk & Talk/PPT**
8	Week 8(2 Lectures) 08-12 May	Introduction to different types of electrical circuits	**Chalk & Talk/PPT**
9	Week 9(2 Lectures) 15 May -19 May	house wiring,	**Chalk & Talk/PPT**
10	Week 10(2 Lectures) 22-26 May	electronic circuits for signal processing Second Assessment	**Chalk & Talk/PPT**
11	Week 11(2 Lectures) 29 May -02 June	specifications of electronic components	**Chalk & Talk/PPT**

12	Week 12(2 Lectures) 05-09 June	electronic testing and measuring equipment.	**Chalk & Talk/PPT**
13	Week 13(2 Lectures) 12-16 June	Brief overview of curriculum, laboratories and various software packages	**Chalk & Talk/PPT**
14	Week 14(1 Lectures) 19-22 June	electronic testing and measuring equipment.	**Chalk & Talk/PPT**
15	Week 15 26-30 June	**Compensation Assessment**	

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	**Assessment I (CT1)**	Week6 24-28 April	1 hour	**20%**
2.	**Assessment II(CT2)**	Week 10 22 May -26 May	1 hour	**20%**
3.	**Assssment III**	Surprise test / report / viva/assignment -	-	**10%**
	Compensation Assessment (Written test)	Week 15 27-29 June	1hour	**80% of CT1/CT2**
4	**Final Assessment**	3- 7 July	3 hours	**50%**

ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc

1. Clayton Paul, Syed A Nasar and Louis Unnewehr, 'Introduction to Electrical Engineering', 2nd Edition, McGraw-Hill, 1992.

2. Kothari D.P. & Nagrath I.J., 'Basic Electrical Engineering', 2nd Edition, Tata McGraw-Hill, 2001.

3. P.S. Dhogal, 'Basic Electrical Engineering – Vol. I& II', 42nd Reprint, McGraw-Hill, 2012.

COURSE EXIT SURVEY

- Feedback from the students during class committee meetings
- Anonymous feedback through questionnaire

COURSE POLICY

- All students are expected to attend all the laboratory sessions

Compensation Examination shall have 80% weightage

ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

- At least 75% attendance in each course is mandatory.
- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

ACADEMIC DISHONESTY & PLAGIARISM

- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.
- The above policy against academic dishonesty shall be applicable for all the programmes.

ADDITIONAL INFORMATION, IF ANY

FOR APPROVAL

Course Faculty _____ **CC- Chairperson** _____ **HOD** _____

S. Kayalvizhi 29/03/23

Dr. S. KAYALVIZHI

Aneesa Farhan

30/03/23

Guidelines

a) The number of assessments for any theory course shall range from 4 to 6.

b) Every theory course shall have a final assessment on the entire syllabus with at least 30% weightage.

c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered.

d) The passing minimum shall be as per the regulations.

B.Tech. Admitted in				P.G.
2018	2017	2016	2015	
35% or (Class average/2) whichever is greater.		(Peak/3) or (Class Average/2) whichever is lower		40%

e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.

f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.

g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.