

DEPARTMENT OF ECE

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE PLAN – PART I			
Name of the programme and specialization	B.Tech. ECE		
Course Title	Microwave LABORATORY		
Course Code	<u>ECLR19</u>	No. of Credits	2
Course Code of Pre-requisite subject(s)	ECPC25, ECPC29		
Session	July 2021	Section (if, applicable)	B
Name of Faculty	Dr. Hemant Kumar	Department	ECE
Email	hemant@nitt.edu	Telephone No.	8369070783
Name of Course Coordinator(s) (if, applicable)			
Course Type	<input checked="" type="checkbox"/> Core course	<input type="checkbox"/> Elective course	ELR
Syllabus (approved in BoS)			
List of Experiments:			
<ol style="list-style-type: none"> 1. Characteristics of Gunn Diode 2. Characteristics of Reflex Klystron 3. Measurement of Directional Coupler Parameters 4. Characteristics of Isolator and Circulator 5. Characteristics of Waveguide Tees 6. Frequency and Wavelength Measurement 7. Impedance Measurement 8. Antenna Measurement 9. Propagation of Microwaves 10. VSWR measurement 			

COURSE OUTCOMES (CO)	
Course Outcomes	Aligned Programme Outcomes (PO)
Understand the characteristics of Gunn Diode and Reflex Klystron	3,4
Understanding different parameters of Directional Coupler, isolator, Circular and Magic tee	3,4,12
Antenna Parameters measurements and the EM wave propagation	1,2,3,4,7,8,12

COURSE TEACHING AND LEARNING ACTIVITIES			
S.No.	Week	Topic	Mode of Delivery
1	WEEK 1 (3 Contact Hours)	Antenna Measurement	Virtual Platform Online
2	WEEK 2 (3 Contact Hours)	Measurement of Directional Coupler Parameters	
3		Characteristics of Isolator and Circulator	

	WEEK 3 (3 Contact Hours)	
4	WEEK 4 (3 Contact Hours)	Frequency and Wavelength Measurement
5	WEEK 5 (3 Contact Hours)	Impedance Measurement
6	WEEK 6 (3 Contact Hours)	Characteristics of Waveguide Tees
7	WEEK 7 (3 Contact Hours)	VSWR measurement
8	WEEK 8 (3 Contact Hours)	Characteristics of Reflex Klystron
9	WEEK 9 (3 Contact Hours)	Characteristics of Gunn Diode
10	WEEK 10 (3 Contact Hours)	Propagation of Microwaves

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Lab File	During Class Hours	180 min	20
2	Project Review/Viva 1	During Class Hours	180 min	20

3	Project Review/Viva 2	During Class Hours		30
4	End Semester Lab Exam	4 th week of November	--	30

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

Feedback from the students during class committee meetings

Anonymous feedback through questionnaire

COURSE POLICY (preferred mode of correspondence with students, compensation assessment policy to be specified)

MODE OF CORRESPONDENCE (email/ phone etc)

Email or phone

COMPENSATION ASSESSMENT POLICY

Only genuine cases of absence shall be considered.


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

- **At least 75% attendance in each course is mandatory.**
- Students with **less than 75% of attendance** shall be prevented from writing the final assessment and **shall be awarded 'V' grade.**
- **The course shall have a final assessment on the entire syllabus with 30% weightage.**
- There will be one compensation assessment for absentees in assessments (other than final assessment). Only genuine cases of absence shall be considered.
- **The passing minimum shall be as per the regulations.**

ACADEMIC DISHONESTY & PLAGIARISM

- **Copying from others during an online 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.

FOR APPROVAL


Course Faculty _____
Dr. Hemant Kumar

 
CC-Chairperson _____ HOD _____