

DEPARTMENT OF CIVIL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE PLAN – PART I			
Course Title	CAD IN TRANSPORTATION ENGINEERING		
Course Code	CE610	No. of Credits	3
Course Code of Pre-requisite subject(s)	-		
Session	Jan. 2018	Section (if, applicable)	
Name of Faculty	Dr. Nisha Radhakrishnan	Department	Civil Engineering
Email	nisha@nitt.edu	Telephone No.	9843260869 (M) 3162 (O)
Name of Course Coordinator(s) (if, applicable)	NIL		
E-mail	NIL	Telephone No.	NIL
Course Type	<input type="checkbox"/> Core course <input type="checkbox"/> Elective course		
Syllabus (approved in BoS)			
Traffic related Software – VISSIM, VISWALK, TRANSYT, Mx Road Transportation Planning Software – NLOGIT, CUBE, CUBE VOYAGER Pavement Engineering Software – KENPAVE, IITPAVE, HDM4, GAMS GIS and Remote Sensing Packages – ArcGIS, ERDAS Imagine, Spreadsheet concepts – Worksheet calculations in Civil Engg. - Regression & Matrix Inversion, Transportation Planning Development of C programs to solve problems using numerical techniques References: 1. Rajaraman, V., <i>Computer Oriented Numerical Methods</i> , Prentice – Hall of India, 1995 2. Chapra S.C., and Canale R.P., <i>Numerical Methods for Engineers</i> , McGraw – Hill, 2004 3. Software Manuals			
COURSE OBJECTIVES			
<ul style="list-style-type: none"> • To be acquainted with transportation software, and the latest developments such as GIS and Remote sensing • To be introduced to various software packages on Windows • To learn the fundamentals of CAD and DBMS 			
COURSE OUTCOMES (CO)			
Course Outcomes			Aligned Programme

	Outcomes (PO)
Upon completion of this course, the students should be able to	
1. employ various transportation software	a, b, c, d, e, g
2. operate various GIS and Remote Sensing packages	a, b, c, d, e, g
3. develop C programs for various numerical techniques	a, b, c, d, e, g, h

COURSE PLAN – PART II				
COURSE OVERVIEW				
To give an overall overview of different soft skill tools applicable to transportation engineering problems through theoretical, practical assignments and real time problems				
COURSE TEACHING AND LEARNING ACTIVITIES				
Main Requirement (All Lab experiments):				
<ul style="list-style-type: none"> Long size book 				
Units No.	Topic		Week/Month	
1.	Spreadsheet concepts – Worksheet calculations in Civil Engg. - Regression & Matrix Inversion, Transportation Planning, Development of C programs to solve problems using numerical techniques		January 2017	
2.	Traffic related Software – VISSIM, VISWALK, TRANSYT, Mx Road		February 2017	
3.	Transportation Planning Software – NLOGIT, CUBE, CUBE VOYAGER		February – March 2017	
4.	Pavement Engineering Software – KENPAVE, IITPAVE, HDM4, GAMS		March 2017	
5.	GIS and Remote Sensing Packages – ArcGIS, ERDAS Imagine		April 2017	
6.	Repeat Class			
COURSE ASSESSMENT METHODS (shall range from 4 to 6)				
S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	Experiments – Unit 1 to Unit 5	Experiments will be conducted during Lab hours and marks allotted based on submission.		70
2.	Final Exam	Exam from All Units		30
*mandatory; refer to guidelines on page 4				
COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)				
It is proposed to take feedback from the students, at the end of the semester to evaluate the execution of the course.				
COURSE POLICY (preferred mode of correspondence with students, policy on attendance, compensation assessment, , academic honesty and plagiarism etc.)				
MODE OF CORRESPONDENCE (email/ phone etc):				
<ul style="list-style-type: none"> Mode of Correspondence would be through phone/Email only to the Class Representatives 				

and Vice Versa.

ATTENDANCE

- The Closing date of attendance for the subject is Week 14
- 100% attendance is desirable for every student, with minimum attendance being 75% (as per institute norms).
- Attendance during each assessment is mandatory.
- Passing minimum would be followed as per institute norms.

ACADEMIC HONESTY & PLAGIARISM

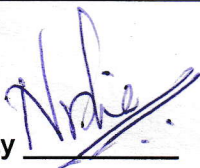
- Maintaining décor in the Examination Hall
- Maintaining punctuality and Silence in the Examination Hall
- Use of Mobile phones during class rooms and Examination is strictly prohibited. If seen, the student would be debarred from entering the class room and the final examination

ADDITIONAL INFORMATION

- The Course Coordinator is available for consultation during office hours.
- Queries, if any, can also be emailed to the Course Coordinator directly at nisha@nitt.edu.

FOR APPROVAL

Course Faculty



CC-Chairperson



HOD

