

Branch Name:	Transportation Engineering
Program Code:	ET211
Course Name:	Pavement Design and Construction Practical
Course Code:	2ET2110201P
Pre-requisite Course:	Construction and Evaluation

Course Objective:

1. To study the different types of pavements (highway and airfield) depending upon the mode of transportation, use and structural behaviour.
2. To study the various types of structural responses (stresses and deformations) inducing the pavements due to wheel load and other climatic variations.
3. To study the various methods of analysis and design of the pavements and its subsequent applications to the various types of pavements.

Credit	Teaching Scheme				Evaluation Scheme (Marks)								
	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
					SEE		CCA		SEE		CCA		
	L	T	P	Total	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

Practical work:

List of tests/ practical are given below:

1. Plate Bearing Test.
2. Field CBR Test.
3. Pavement Evaluation by Benkelman Beam Method.
4. Road Unevenness Measurement by Bump-Integrator.
5. Evaluation of Pavement Roughness by Roughometer / Profilometer.
6. Marshall Stability Test

Course Learning Outcomes (CLO):

After successful completion of the course the students shall be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand the structural actions involved in the pavement due to different types of load acting thereon and the various methods of analysis of pavements.	L-1, L-2
CLO2	Understand the various aspects of the construction of concrete roads and low volume roads.	L-2, L-3, L-4, L-5, L-6
CLO3	Understand the pavement management system and quality control and assurance criteria and subsequently, its application in the highway construction.	L-1, L-2, L-3

L1- Remember, L2- Understand, L3- Apply, L4- Analyze, L5- Evaluate, L6- Create

Mapping of CLOs with Pos & PSOs

	Program Outcomes (POs)												Program Specific Outcomes (PSOs)		
Course Learning Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CLO1	M		H		M	L	M		M		L	M	M	M	M
CLO2		M	H	M		M	H			M			M	M	H
CLO3	H	M		M	L		M		H			M	M	H	M

H: High, M: Medium, L: Low