

## Pavement Engineering Lab –Rigid Pavement

**01TR0208**

**(LC)**

**Objective of the Course:**

- To provide skills for testing pavement material.
- To mix design for Rigid pavement layers
- To impart knowledge on mix design of CC concrete as per IRC.

**Credit Earned: 2**

**Students learning outcomes:**

After successful completion of the course it is expected that student will be able to,

1. Understand concept of mix design for wearing course of rigid pavement.
2. Understand concept of mix design for base course of rigid pavement.
3. Understand working principle of NDT test.

**Teaching and Examination Scheme**

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	IA (M)	CSE (I)	Viva (V)	Term Work (TW)	
0	0	4	02	-	-	-	25	25	100

**Detailed Syllabus**

Sr No.	Title of Experiment	Number of hours
<b>1</b>	Mix design for Pavement Quality Concrete (PQC)	<b>08</b>
<b>2</b>	Mix design of Dry Lean Concrete (DLC)	<b>07</b>
<b>3</b>	Nondestructive testing for	<b>03</b>
<b>4</b>	Carryout mix design for Rigid pavement using futuristic Pavement Material	<b>06</b>
<b>5</b>	Preparation of Reports for Various types of Mix Design	<b>04</b>
		<b>28</b>

**Suggested Theory Distribution**

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
5%	5%	20%	25%	25%	20%

**Instructional Method and Pedagogy:**

1. Use of Learning Management system like canvas
2. Demonstration through presentations on power point and videos and lectures
3. Brainstorming and group discussion sessions
4. Collaborative learning

**Reference Material:**

1. Ministry of Road Transport & Highways, MoRTH, 5<sup>th</sup> Revision
2. S.K. Khanna , C.E.G Justo and A.Veeragavan, "Highway Engineering" Revised 10<sup>th</sup> Edition, Nem Chand & Bros., Roorkee
3. Read J. and Whiteoak D. "The shell Bitumen Handbook", Fifth edition, Shell Bitumen, Thomas Telford Publishing, London