Department : **Civil**

Year : **2017-2018**

Group No: **4**

Guided By

PROF. HIREN V. PATEL

SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA

Project Title

PAVEMENT MAINTENANCE AND REHABILITATION BY OVERLAY DESIGN USING IRC:81 GUIDELINE

Abstract:

In the flexible pavement there are many defects occurring like cracks, potholes, rutting etc. the cracks are deform due to deterioration of pavement functionally and structurally with time due to traffic loading and the different climatic condition. So that we need to evaluate the condition of existing pavement in terms of functionally and structurally. If pavement is Maintained in fix time period then the strength of pavement will increases and it will be less costly in compare of reconstruction of Pavement. Our aim of project is estimate and design of overlay for strengthening of weak pavement. so we studies the existing pavement data and design for the selection of the method of pavement maintenance and rehabilitation after analysis of the data we performed Benkelman beam test on existing pavement

Highway are backbone of transportation engineering and carrying the4 major part of traffic among almost of transportation. With the age of pavement, deterioration of pavement take place Functionally as well as structurally flexible pavements are frequently seen in road network in India with defects due to exceeding traffic loading and temperature variation etc. common defects (i.e. pothole, rutting, cracks are frequently seen.) Huge amount is required to reconstruct this pavement. India is developing country there is a need to maintain the roads periodically so that pavement life can be increase and economically pavement can be worth full If pavement is Maintained in fix time period then the strength of pavement will increases and it will be less costly in compare of reconstruction of pavement. There for the objective of this study is to repair and rehabilitation of flexible pavement and overlay design using IRC:81 assessment of the fictional condition and structural condition first & for most work to analysis the pavement functional condition is evaluated by considering the percentage of deteriorated pavement area. Structural condition evaluated by Deflection approach using Benkleman beam study.IRC procedure adopted to design the flexible overlay over flexible pavement and if it also expected to simplify the procedure. there for it is expected that this study wull be useful to field engineer in repair and rehabilitation pavement.

Prepared By:

Sr. No.	Student Name	Enrollment No
1	TRIVEDI MILAN S.	140780106053
2	PATEL SMIT N.	140780106040
3	RAJPUT AJAYSINH D.	140780106046
4	OZA ADESH P.	140780106018