

SUMMER INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements of
the award of degree

of

BACHELOR OF TECHNOLOGY

in

CIVIL ENGINEERING

Submitted by

ANIKET RANJAN

ROLL NO - 21024104



**SCHOOL OF STUDIES OF ENGINEERING AND
TECHNOLOGY**

**GURU GHASIDAS VISHWAVIDYALAYA
BILASPUR – 495006, CHATTISGARH**



Government of Bihar

OFFICE OF THE EXECUTIVE ENGINEER
NEW CAPITAL ROAD DIVISION, PATNA,
ROAD CONSTRUCTION DEPARTMENT, PATNA, BIHAR.

Letter No. :- 2000

Date :- 26/06/2024

This is to certify that

ANIKET RANJAN S/O- ASHOK KUMAR SINGH

Student of GURU GHASIDAS VISHWAVIDYALAYA

(A Central University)

Bilaspur (C.G.) -495009

Enrollment No.- GGV/21/01004 Roll No.-21024123

has completed his Industrial/Vocational Training

from Dated :-18.05.2024 to 25.06.2024

at NEW CAPITAL ROAD DIVISION,

ROAD CONSTRUCTION DEPARTMENT, PATNA, BIHAR.

We wish him/her every success in life.


Executive Engineer,

New Capital Road Division,
Road Construction Department,
Patna, Bihar.

ABSTRACT

Flexible pavements are critical infrastructure components in modern transportation networks, designed to accommodate varying traffic loads and environmental conditions. This abstract explores the fundamental aspects of flexible pavement, focusing on its composition, design principles, and performance characteristics.

The composition of flexible pavement typically includes multiple layers, each serving a specific function such as distributing load, providing structural support, and enhancing durability. Key materials commonly used in flexible pavements include aggregates, bitumen, and stabilizers, each selected based on their engineering properties and performance requirements.

Design considerations for flexible pavements involve complex analyses of traffic volumes, climate conditions, and soil characteristics. Various methodologies such as the American Association of State Highway and Transportation Officials (AASHTO) design method and mechanistic-empirical (M-E) approaches are employed to ensure the pavement meets specified performance criteria over its service life.

Performance evaluation of flexible pavements encompasses aspects such as rutting, cracking, roughness, and moisture susceptibility. Techniques such as pavement condition assessment, non-destructive testing, and modeling are utilized to monitor performance and inform maintenance strategies.

This abstract provides a comprehensive overview of flexible pavements, highlighting their significance in modern infrastructure and the ongoing research efforts aimed at improving their design, construction, and longevity. Understanding these aspects is crucial for developing sustainable transportation systems that can efficiently meet the demands of today's dynamic traffic environments.

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