



## SUMMER INTERNSHIP REPORT

A Report Submitted in partial Fulfilment of the Requirements  
For the Award of Degree of  
Bachelor of Technology

In

Mechanical Engineering

By

HIMANSHU UPRELIYA

ENROLLMENT No: GGV/21/01725

ROLL No: 21039125

Under Supervision of



SEC, RAILWAY, BILASPUR

(Duration: 16 May, 2024 to 14 July, 2024)



DEPARTMENT OF MECHANICAL ENGINEERING  
GURU GHASIDAS VISHWAVIDYALAYA  
INSTITUTE OF TECHNOLOGY

(A Central University established by the Central Universities Act 2009 No. 25 of 2009)

Approved by AICETE

Bilaspur, Chhattisgarh

2021-2025



## Table of contents: -

1. CERTIFICATE
2. ACKNOWLEDGEMENT
3. ABOUT ORGANISATION
4. ABSTRACT
5. BCN DEPOT
6. TYPES OF BRAKE POWER SYSTEM
7. TYPES OF WAGONS
8. RAIL WHEEL AND BEARING
9. CHG DEPOT
10. ICF COACHES
11. LHB COACHES
12. COMPARISON BETWEEN ICF, LHB AND WAGONS
13. CONCLUSION



link in the Indian Railways network, connecting the eastern and western parts of the country.

### **Modern Condition of the South East Central Railway (SECR)**

In recent years, the SECR has undergone significant modernization to meet the growing demands of passengers and freight customers. Bilaspur Railway Station, the headquarters of SECR, is set to receive a mega makeover worth ₹435 crore. This redevelopment project aims to transform the station into a modern transportation hub capable of handling future demands. The station will feature separate entry and exit routes, expanded waiting areas, and enhanced facilities for passengers.

The modernization plan includes the construction of new foot overbridges, installation of lifts and escalators, and the development of a commercial area within the station premises. Additionally, a solar energy plant and rainwater harvesting system will be installed to promote environmental sustainability. These upgrades are expected to significantly improve the passenger experience and operational efficiency at Bilaspur Railway Station.

The SECR zone has also been focusing on enhancing its freight operations. The addition of a fourth railway line between Bilaspur and Jharsuguda is expected to be operational by 2024, further boosting the zone's capacity to handle heavy freight movements. The zone's commitment to modernization and infrastructure development underscores its importance in the Indian Railways network and its role in driving regional economic growth.





**SOUTH EAST CENTRAL RAILWAY, BILASPUR**



**TO WHOM SO EVER IT MAY CONCERN**

It is hereby certified that Mr. HIMANSHU UPRELIYA student of "GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR, CHHATTISGARH [A Central University]" has undergone 'Vocational Training at BCN Depot and Coaching Depot in Mechanical Engineering Department of SECR, Bilaspur Division from 16.05.2024 to 14.06.2024.

During this period of training he was very active. He has taken keen interest during the training period and has performed excellently. We wish him all success in his future endeavors.



Date: 13/06/2024  
Place: Bilaspur (C.G.)

  
Sr. Divisional Mechanical Engineer  
South East Central Railway, Bilaspur

  
Sr. Divl. Mech. Engineer (Co-ord)