



Department : Industrial and Production Engineering		
Academic Year : 2021-22		
Sr. No.	Programme Code	Name of the Programme
01.	215	B. Tech. Industrial and Production Engineering

Following students have carried out their Project work/ Internship/
Field Project/Industrial Training for the academic session 2021-22

Si.No.	Name of the Students	Page No 4 To 3
1.	Mamtaj Ratre	4-6
2.	Mohd Asfaq	7-9
3.	Priya Dixit	10-12
4.	Maraka Praneeth Kumar Reddy	13-15
5.	Rahul Pandey	16-18
6.	Rahul Singh	19-21
7.	Aryan Verma	22-24
8.	Aabhas Bajpai	25-27
9.	Dudekula Moulali	28-30
10.	Ankit Sisodiya	31-33
11.	Aviral Singh Thakur	34-36
12.	Dugesh	37-39
13.	Gaurav Yadav	40-42
14.	Gaurav Rathore	43-45



15.	Dara Jaya Vardhan	46-48
16.	Beeravelly Gandhi	49-51
17.	Prakash Singh Rajput	52-54
18.	Perumalla Venkata Srinivas	55-57
19.	Badavath Srinivas Nayak	58-60
20.	Vicky Thakur	62-63
21.	Harshit Mohite	64-66
22.	Subodh Kumar Mahto	67-69
23.	Rishikesh Kumar	70-72
24.	Swapnil Dronkar	73-75
25.	Suryamani Dongre	76-78
26.	Shiv Om Singh	79-81
27.	Ravi Kant Upadhyay	82-84
28.	Subramanium K	85-87
29.	Leena Raj	88-90
30.	Mohammad Manzar Hussain	91-93
31.	Komati	94-96
32.	Kotha Sandeep	97-99
33.	Kishan Kumar Nag	100-102
34.	Jeggili Vikas Kumar	103-105
35.	Guntreddi Naimisha	106-108
36.	Kendruka Mohanchandu	109-111
37.	Ishan Rajak	112-114

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

38.	Gontumukkala Venkata Naresh	115-117
39.	Karanam Deves Prasad	118-120
40.	Khilendra Kumar Nirmalkar	121-123
41.	Kaushal Prasad	124-126
42.	Gourav Bansal	127-129

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Signature and Seal of the Head



Report of summer training done
at
South East Central Railway, Bilaspur
Submitted by
Mamtaj Ratre
7 th Sem (Roll No: - 19105525)



Submitted to
Mr. Anurag Singh (Asst. Professor)
Department of Industrial & Production Engineering School of Studies of
Engineering & Technology Guru Ghasidas Vishwavidyalaya
(A central University) Bilaspur (C.G.)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियंत्रिकी
Industrial & Production Engineering
कोनी, बिलासपुर / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



DECLARATION

I, the undersigned solemnly declare that this report of the Internship work is my own work, carried out during the course of my study of 4th year in under graduation Department of Industrial & Production Engineering, Institute of Technology, Guru Ghasidas Vishwavidyalaya. I assert that the statements made and conclusions drawn are the outcome of my work. I further declare that to the best of my knowledge and belief this report does not contain any part of any work, which has been submitted for the award of any degree in this or any other University.

Sign.....

MAMTAJ RATRE
Roll No. - 19105525
Enrolment No.- GGV/19/1156

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



DEPARTMENT OF INDUSTRIAL & PRODUCTION
ENGINEERING
INSTITUTE OF TECHNOLOGY
GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR
(C.G.)



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

CERTIFICATE

Certified that the Internship Report submitted by MAMTAJ RATRE in partial fulfilment of the requirements of the award of degree of Bachelor of Technology in Industrial & Production Engineering, Institute of Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur, is accorded to the student's own work, carried out by her at "south east central railway", bilaspur during session 2022-23 under supervision and guidance.

Signature _____
Mr. Anurag
(Assistant Professor & Guide)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
संशोधन संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Signature _____
Dr. Saradh Srivastav
HOD Department of Industrial & Production Engineering I.T., G.G.V.



Report of summer training done

at

Jindal Steel And Power Limited

Submitted by

Mohd Asfaq

7th Sem (Roll No:- 19105527)



Submitted to

Mr. Anurag Singh

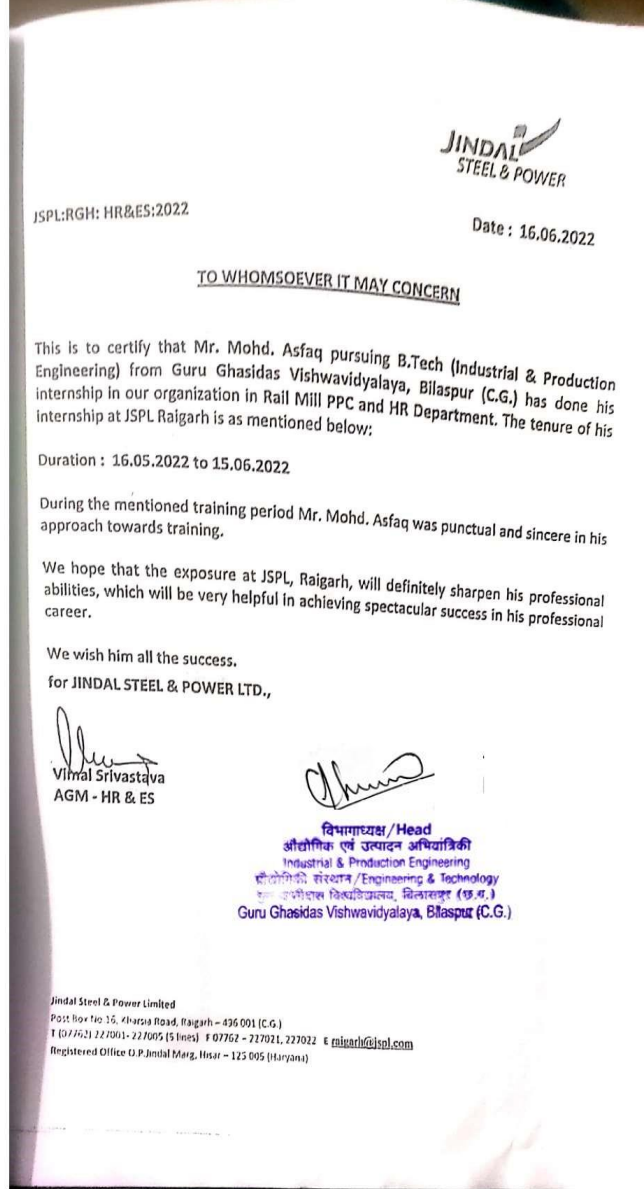
(Asst. Professor)

Department of Industrial & Production Engineering

School of Studies of Engineering &
Technology

Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियंत्रिकी
Industrial & Production Engineering
संशोधन, संरक्षण / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Scanned with CamScanner



Acknowledgement

Industrial exposure is the most crucial part of the technical studies in which a student is able to synchronize his technical knowledge with practical knowledge gained in any of the organization in which he gets his training from. It is a matter of great pleasure and privilege for us to present this report of one-month industrial training in Rail and Universal Beam mill (RUBM) at Jindal Steel and Power Limited, Raigarh.


We hope that the word of our project communicates the actual experience gained with subtlety and precision, which is unapproachable, by any other means. From the medium of this project report, we would like to thank each and every honourable employee of JINDAL STEEL AND POWER LIMITED, who has helped us to gain all the knowledge in the respective production shop, where production process was involved.

Thanking you,

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)




Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)


GURU GHASIDAS VISHWAVIDYALAYA,
BILASPUR
School of Studies of Engineering & Technology

Report on
Summer Training (4 weeks)
May-June (2022)
at
Electric Loco Shed, DDU
Indian Railway


Submitted to:
Mr. Anurag Singh
(Assistant Professor)
Department of Industrial & Production Engineering

Submitted by:
Priya Dixit
Roll no. - 19105531
IPE 7 Sem


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
श्री. गुरुदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Scanned with CamScanner




East Central Railway
CERTIFICATE
TRAINING ASSESSMENT


This unit comments on training of the trainees (Work & Behavior) from their immediate supervisors on the following point :-

1. Name of the candidate	:	PRIYA DIXIT
2. Name of Institute	:	Industrial & Production Engineering Guru Ghasidas Vishwavidyalaya Bilaspur
3. Date of Joining	:	20.05.22
4. Date of Leaving	:	20.06.22
(A) Regularity and Punctuality:	:	Excellent
(B) Sense of Responsibility	:	Excellent
(C) Readiness to work/learn	:	Excellent
(D) Obedience	:	Excellent
(E) Skill Acquired	:	Excellent
5. Name of the Section of the Unit attended	:	Section - E1,E2,E3,E4,M1,M2,M3,M5 Section In Traction Rolling Stock (T. R. S.) East Central Railway/DDU
6. Remarks, if any	:	Her behavior was good

Wish her very well success in life.

Note :- No any claim can be made for Job or economical benefit from Railway on the basis of this certificate.

Date...21.06.22


विभागप्रमुख / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Signature of the Assessor
पंडित दीन दयाल
Div. Electrical Engineer (TRS)
East Central Railway
Deen Dayal Upadhyaya Division



Certificate


This is to certify that Ms. Priya Dixit, student of Bachelor of technology in IPE (IV year) has successfully completed the project entitled "Electric loco shed, DDU Indian Railway" under guidance of Mr. Anurag Singh, Department of IPE during Year 2022-23.

Date- 02/08/2022

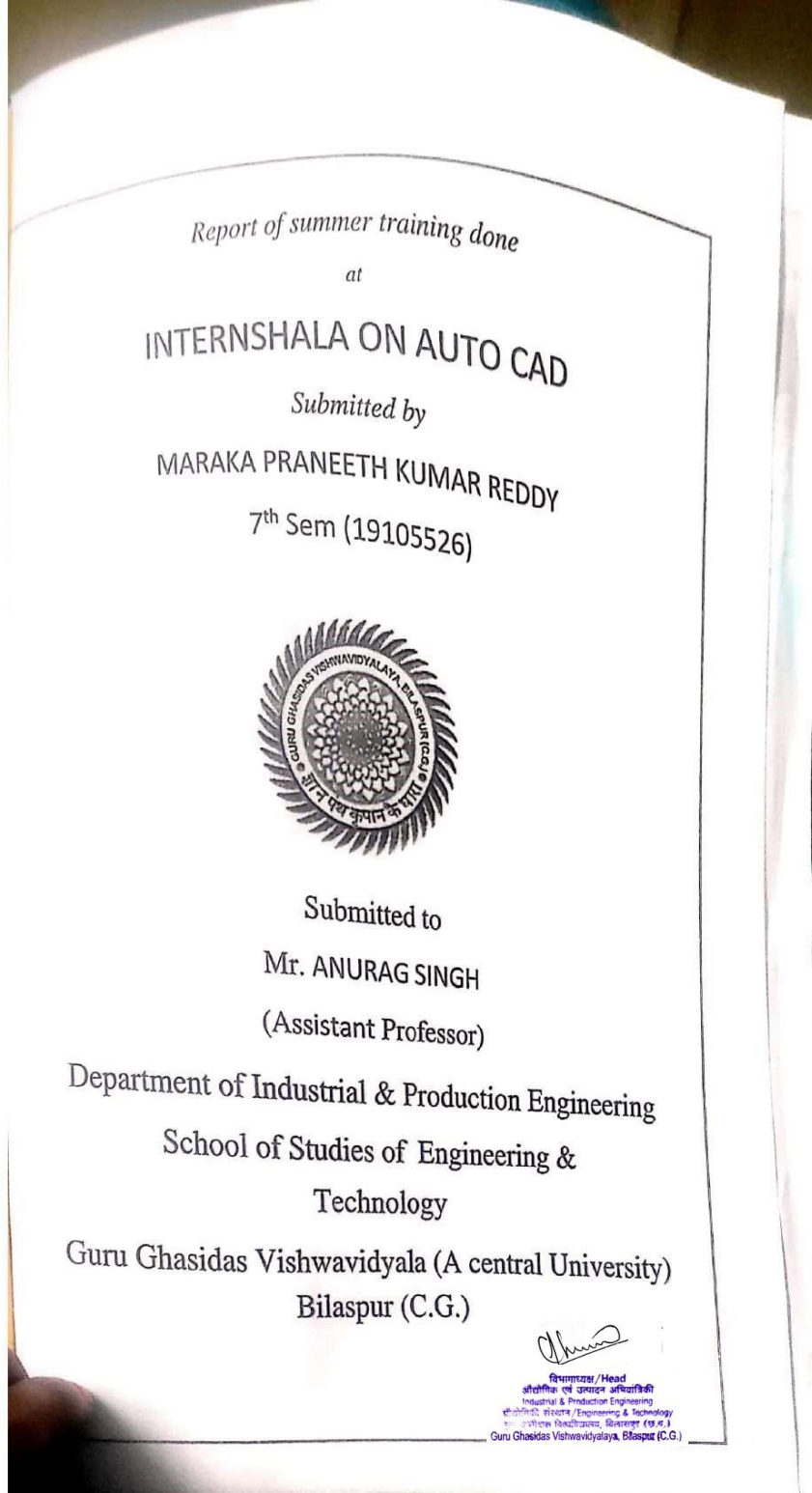
Submitted by
Priya Dixit
Roll no.- 19105531

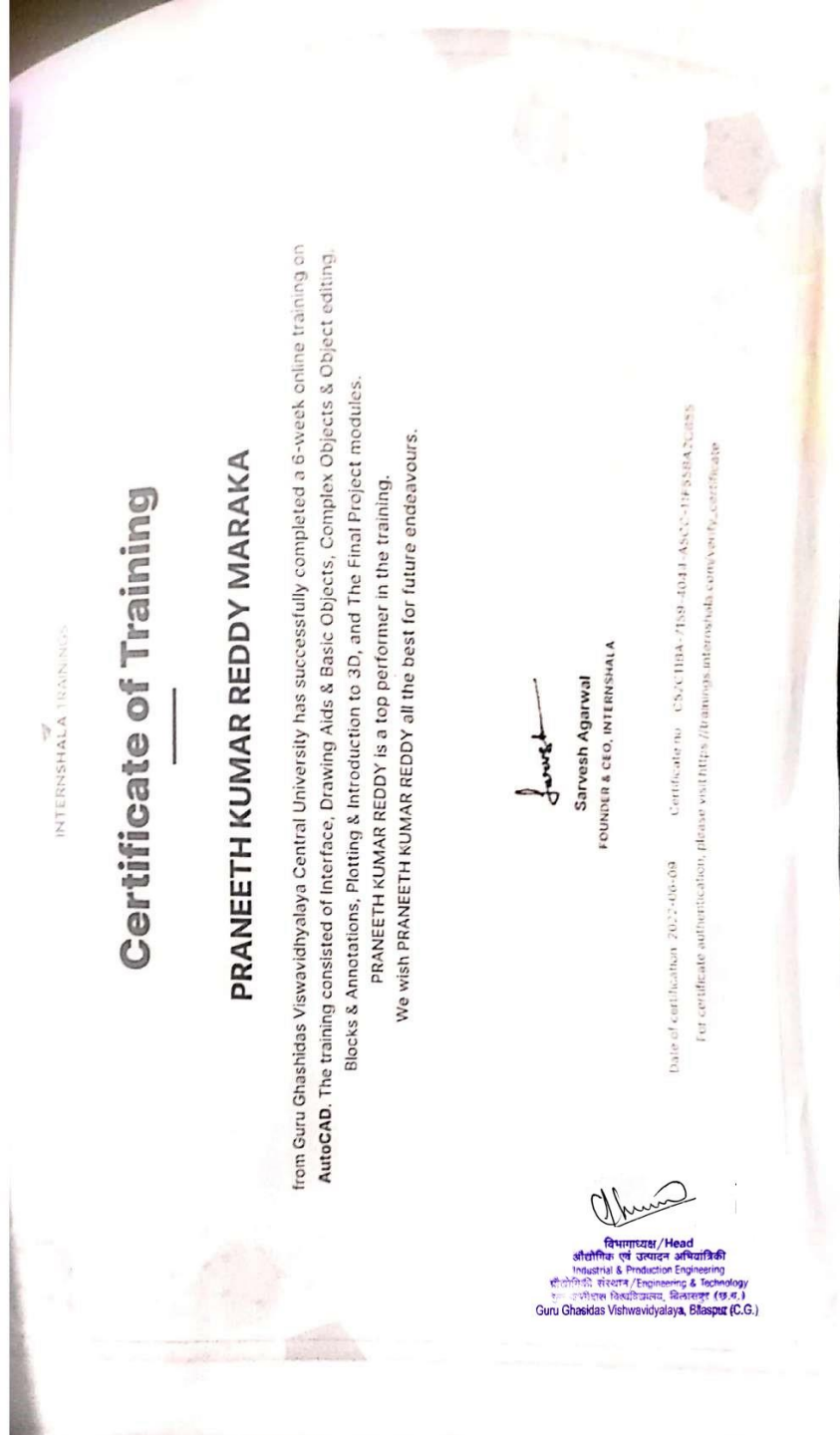
Submitted to
Mr. Anurag Singh
Assistant Professor (IPE)

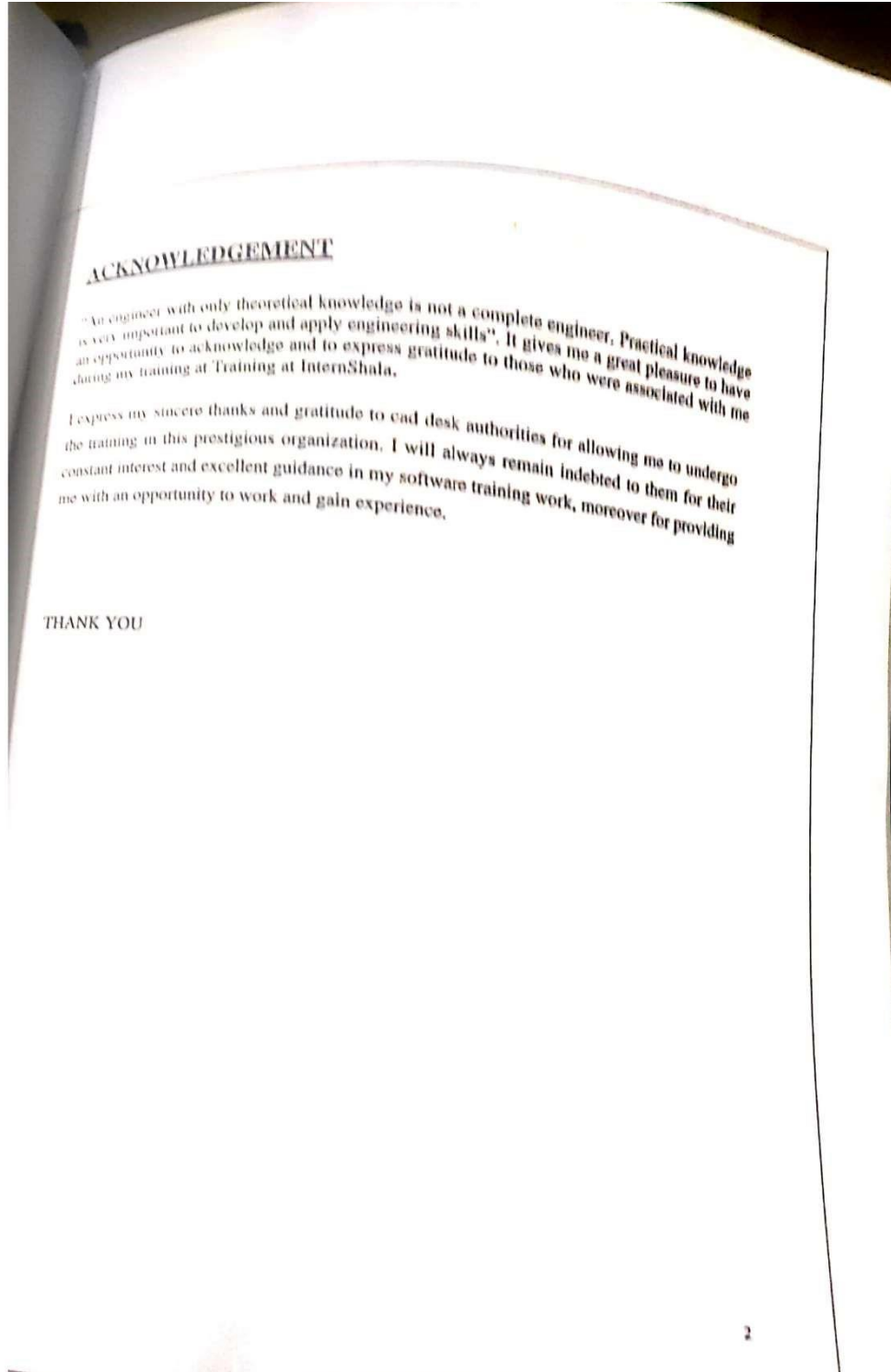
Signature:


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौकर्यसिद्धि, संरक्षण / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Scanned with CamScanner



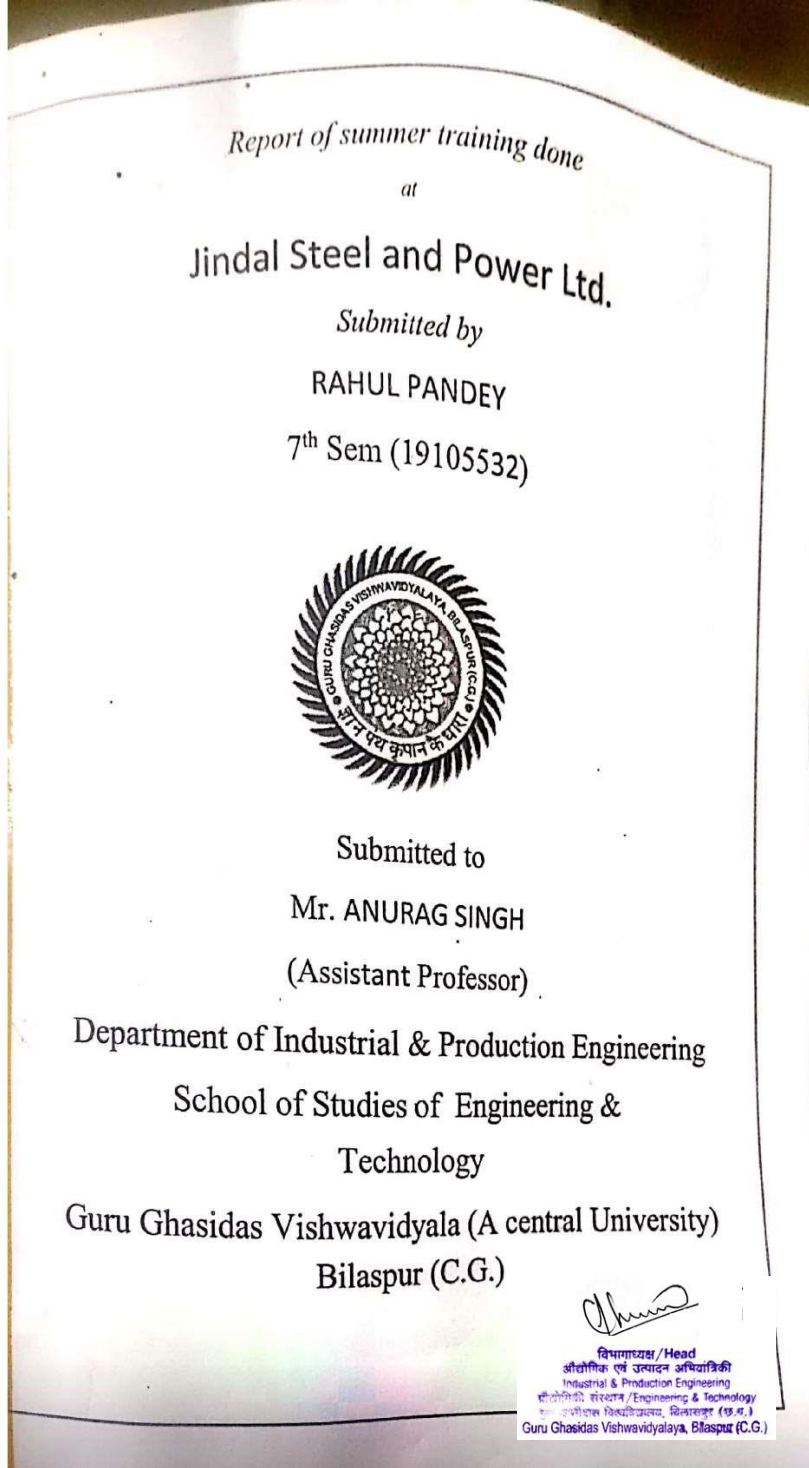




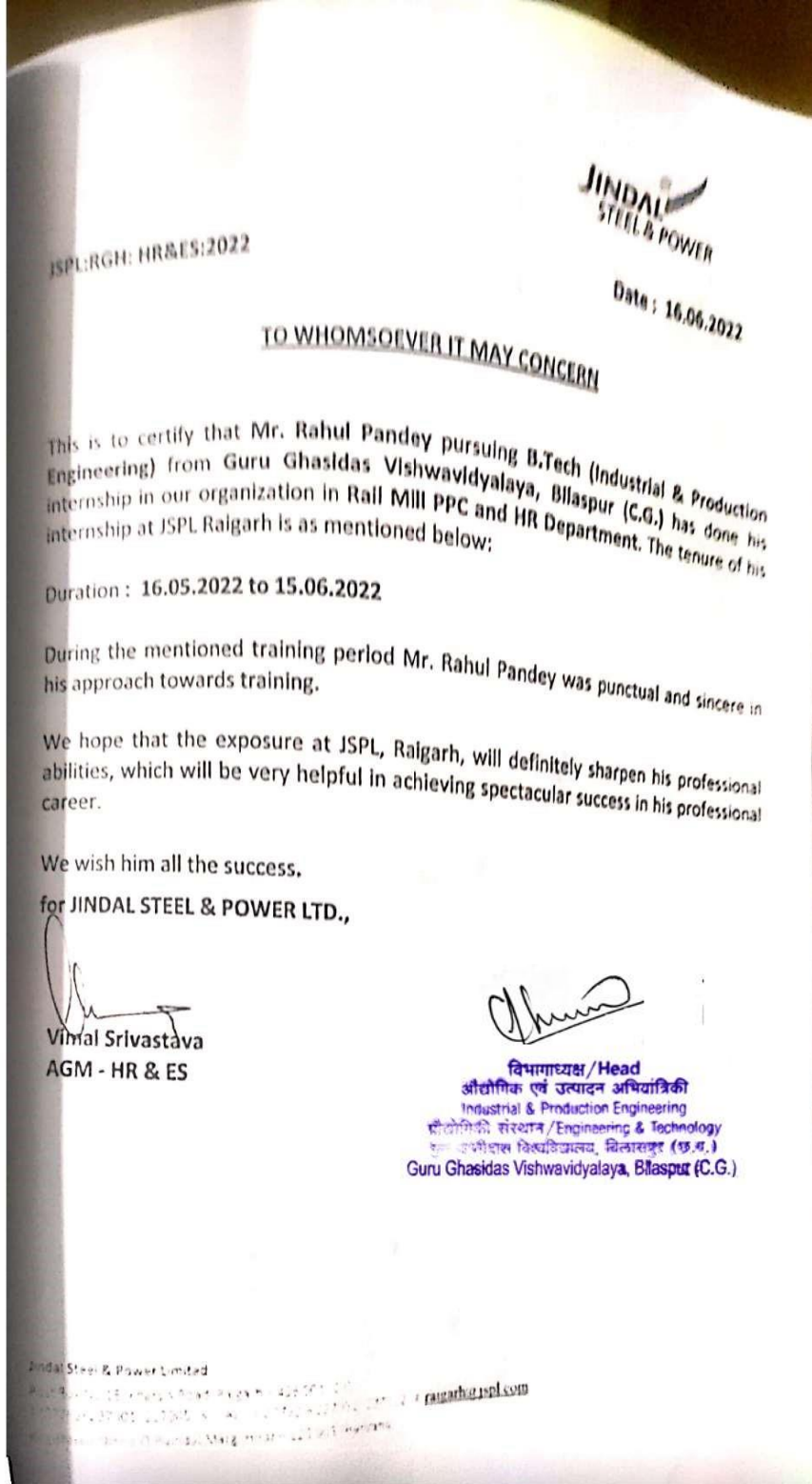
गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)



Scanned with CamScanner





Acknowledgement

Industrial exposure is the most crucial part of the technical studies in which a student is able to synchronize his technical knowledge with practical knowledge gained in any of the organization in which he gets his training from. It is a matter of great pleasure and privilege for us to present this report of one-month industrial training in Rail and Universal Beam mill (RUBM) at Jindal Steel and Power Limited, Raigarh.

We hope that the word of our project communicates the actual experience gained with subtlety and precision, which is unapproachable, by any other means. From the medium of this project report, we would like to thank each and every honourable employee of JINDAL STEEL AND POWER LIMITED, who has helped us to gain all the knowledge in the respective production shop, where production process was involved.

Thanking you,

Rahul Pandey

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

Report of summer training done
at

Pixaflip Technologies

Submitted by

Rahul Singh
7th Sem (Roll No: - 19105533)



Mr. Anurag Singh
(Asst. Professor)

Department of Industrial & Production
Engineering
School of Studies of Engineering &
Technology

Guru Ghasidas Vishwavidyalaya (A central
University) Bilaspur (C.G.)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
कोनी, बिलासपुर / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Scanned with CamScanner



DECLARATION

This training program has been undertaken during the summer break 2022
asa trainee by me after completion of my third year under the guidance of
my mentor Mr. Anurag Singh.

Further I would like to declare that this project (Internship) is my original
work and has been prepared solely for academic purpose.

This project has not been presented in any seminar or submitted elsewhere
for the award of any degree or diploma.

Countersigned by:

Mentor:

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Acknowledgement

Gratitude is the hardest emotion to express and often one does not find adequate words to convey one's entire feeling. I express my sincere gratitude and deep indebtedness to the H.R management for choosing me as a summer intern at the role of **Business Development**

Executive.

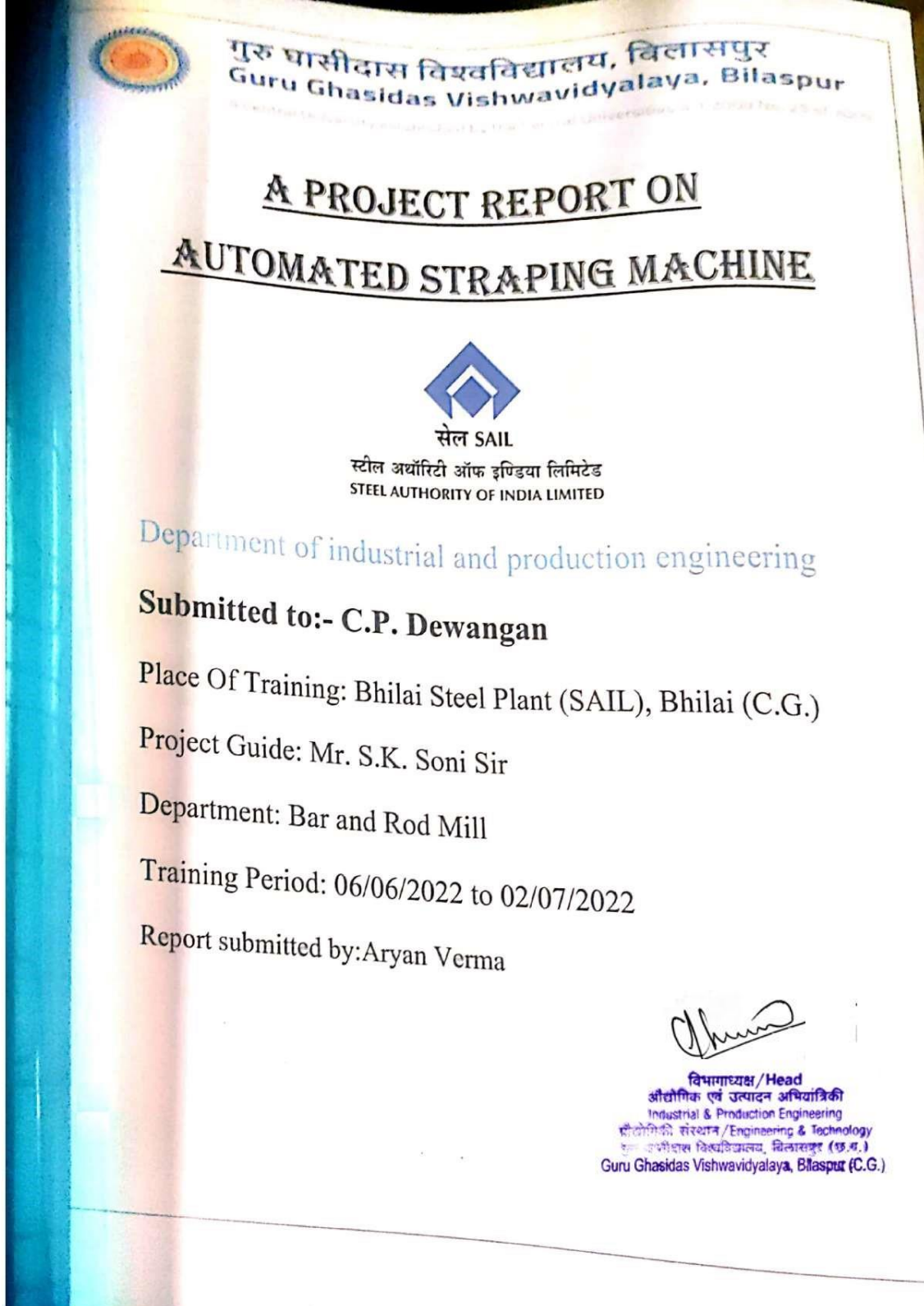
I own my gratitude to Pixafliip Technologies, for providing me the opportunity to undergo this internship and allowing me to gained vast knowledge about the sales division and the other aspects of an IT firm during my training period.

It is my foremost duty to express my deep sense of gratitude and respect to Mr. Anurag Singh for his valuable guidance as well as uplifting tendency and inspiring me for taking up this internship and completing it successfully.

I greatly appreciate his motivation and understanding extended for this project work and very thankful to him for his encouragement and instructions otherwise it could not have been possible for me.

I am also very thankful to each and every staff of Pixafliip Technologies who gave their supports in their own ways.

As we know well that no work is possible without the help of parents and teachers so i thank my parents and teachers with my heart who motivated me to extend to my reach and with their support i have been able to complete this work





ACKNOWLEDGMENT

It gives us great pleasure to accept the opportunity to undergo Project based training at BHILAI STEEL PLANT of SAIL for the period June 6 to July 2, 2022. This training has been a constant learning experience and we look forward to undertake more such stimulating training in the future.

Firstly, we would like to express our deepest gratitude to our advisor Mr. S. K. Soni Sir (GM of BRM, BSP), who assigned us this project and it is solely due to him that we learn a lot. It has been a wonderful learning experience in Bhilai Steel Plant. We would never be able to finish our dissertation without his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing training.

We would not forget to remember Mr. S. K. Marathe sir for his encouragement and more ever for timely support and guidance till the completion of our project work.

The data presented in this report have been drawn from a large number of sources and people. We shall be happy to receive criticism if thereby we may learn more. We acknowledge our debt to all those people who helped us in preparing this project report in its present form.



<u>CONTENT</u>	
<u>Chapter namepage</u>	
ABSTRACT	4
CHAPTER 1: INTRODUCTION	
1.1 Introduction	5-6
1.2 Objective of project work	7
1.3 Conclusion	7
CHAPTER 2: BAR AND ROD MILL	
2.1 Introduction	8-9
2.2 Process and step involved	10-13
2.3 Conclusion	14
CHAPTER 3: HUMAN PROFILE	15
CHAPTER 4: AUTOMATED STRAPPING MACHINE	
4.1 Components	16
4.2 Objective of project work	16-19
4.3 Conclusion	19
CHAPTER 5: CONCLUSION	20



गुरु घासीदास विश्वविद्यालय
NTPC

REGIONAL LEARNING INSTITUTE, NTPC, SIPAT
क्षेत्रीय ज्ञानार्जन संस्थान, एनटीपीसी, सीपत
CERTIFICATE OF VOCATIONAL TRAINING 2022
औद्योगिक प्रशिक्षण प्रमाण पत्र 2022

Ref No. RL/SIPAT/CERT/2022/VT22INP285

THIS CERTIFICATE IS AWARDED TO
Aabhas Bajpai
VT Roll No - VT22INP285
Production & Industrial ENGG
GGU BILASPUR

For satisfactorily completing Vocational Training at NTPC-Sipat, Bilaspur for a period of four weeks from 15/06/2022 to 15/07/2022. The participant has successfully completed the course and has also completed the project assigned to him/her as part of this course. We wish him/her a bright and successful future.

This certificate is digitally signed.

Date: 17.07.2022

G. Praveen Kumar
Sr. Manager (RLI)

Vikash Malhotra
DGM (RLI-Simulator)

A K Tripathi
GM & Head (RLI-Simulator)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
औद्योगिकी, संरचना / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009

Project Report

submitted

as part of Vocational Training Program (VT 2022)

to

NTPC Regional learning institute (RLI) SIPAT

Topic

DIFFERENT TYPES OF PUMPS USED IN POWER PLANT

Submitted by:

Name- Aabhas Bajpai
Branch- Industrial and Production
Department- B Tech.
Roll No- 19105501
Semester- 7th Sem
Year- 4th

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियंत्रिकी
Industrial & Production Engineering
प्रौद्योगिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ACKNOWLEDGEMENT



We would like to express our special thanks of gratitude to Mr. Alok Kumar Tripathi, GM & Sr Faculty, NTPC, Regional Learning Institute (RLI), executives and support team of RLI Sipat for their able guidance and support in completing our project.

We would also wish to express our sincere gratitude to all the faculties of NTPC who delivered informative lectures which helped us a lot to understand about the Power Industry.

We also thank our institutes all our HODs, professors and placement coordinators for supporting us in this learning journey.

Last but not the least, we express sincere thanks to all our fellow group members for the stimulating discussions and working together before deadline




 
गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009

Project Report submitted
as part of Vocational Training Program (VT 2022)
to
NTPC Regional learning institute (RLI) SIPAT

Topic
DIFFERENT TYPES OF PUMPS USED IN POWER PLANT

Submitted by group INP-01:

Comprising of –
O DUDEKULA MOULALI, Guru Ghasidas University (C.G)- VT Roll No-
VT22INP286


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
कोनी, बिलासपुर / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Submitted to:
Mr. C. P. Dewangan
Associate Professor
Department of Industrial and Production Engineering

Department of Industrial and Production Engineering
Institute of Technology, Guru Ghasidas Vishwavidyalaya (A Central University)
Bilaspur (Chattisgarh)



REGIONAL LEARNING INSTITUTE, NTPC, SIPAT
क्षेत्रीयज्ञानार्जनसंस्थान, एनटीपीसी, सीपट
CERTIFICATE OF VOCATIONAL TRAINING 2022
औद्योगिक प्रशिक्षण प्रमाण पत्र 2022

एनटीपीसी
NTPC

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
क्षेत्रीय संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Ref.No. RI/SIPAT/CERT/2022/VT22INP286

THIS CERTIFICATE IS AWARDED TO
DUDEKULA MOULALI
VT Roll No - VT22INP286
Production & Industrial ENGG
GGU BILASPUR

For satisfactorily completing Vocational Training at NTPC-Sipat, Bilaspur for a period of four weeks from 15/06/2022 to 15/07/2022. The participant has successfully completed the course and has also completed the project assigned to him/her as part of this course. We wish him/her a bright and successful future.

This certificate is digitally signed.

Date: 17.07.2022

G. Praveen Kumar
Sr. Manager (RI)

V. Malhotra
Vikash Malhotra
DGM (RI-Simulator)

A. K. Tripathi
GM & Head (RI-Simulator)



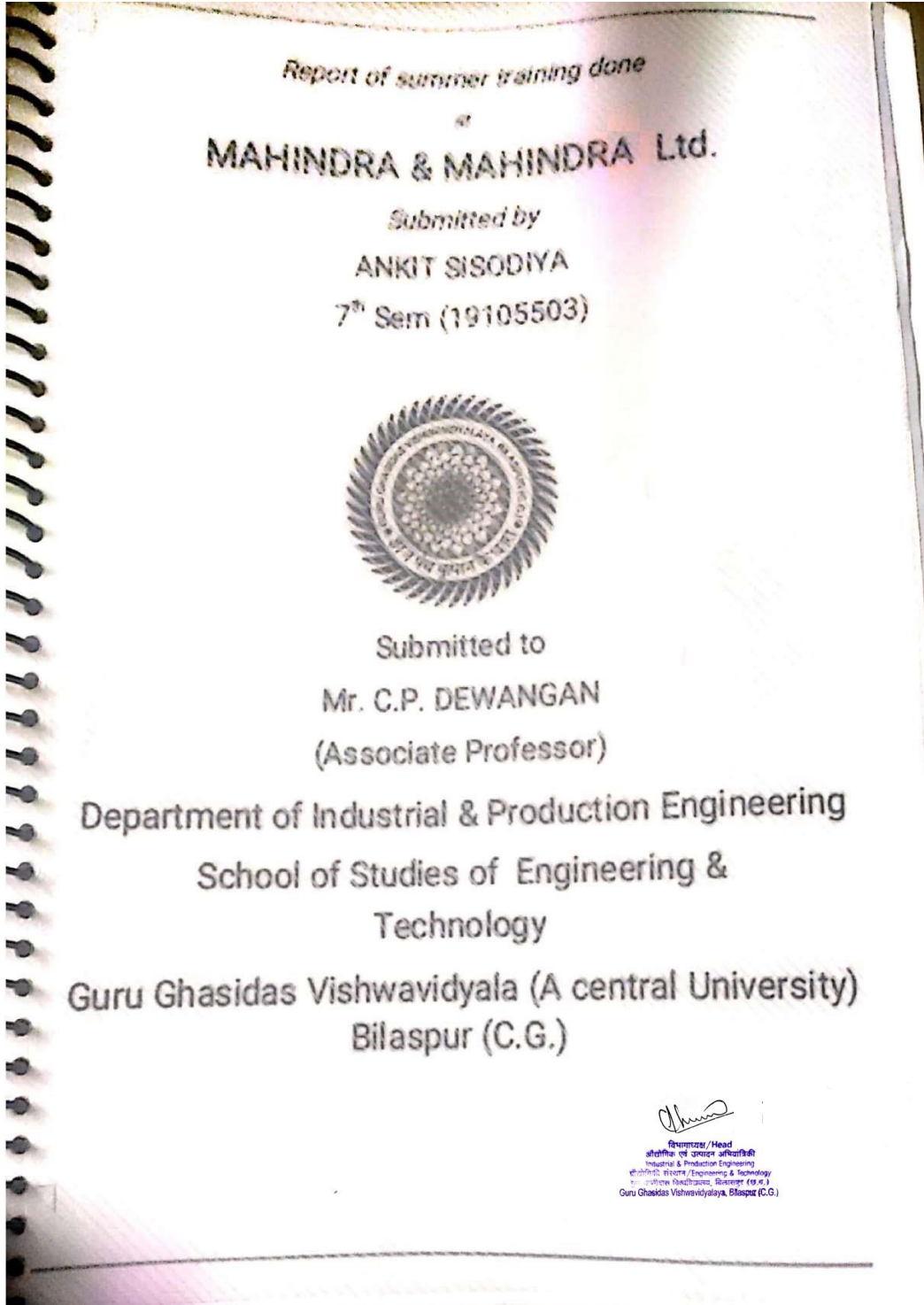
ACKNOWLEDGEMENT

We would like to express our special thanks of gratitude to Mr. Alok Kumar Tripathi, GM & Sr Faculty, NTPC, Regional Learning Institute (RLI), executives and support team of RLI Sipat for their able guidance and support in completing our project.

We would also wish to express our sincere gratitude to all the faculties of NTPC who delivered informative lectures which helped us a lot to understand about the Power Industry.

We also thank our institutes all our HODs, professors and placement coordinators for supporting us in this learning journey.

Last but not the least, we express sincere thanks to all our fellow group members for the stimulating discussions and working together before deadline





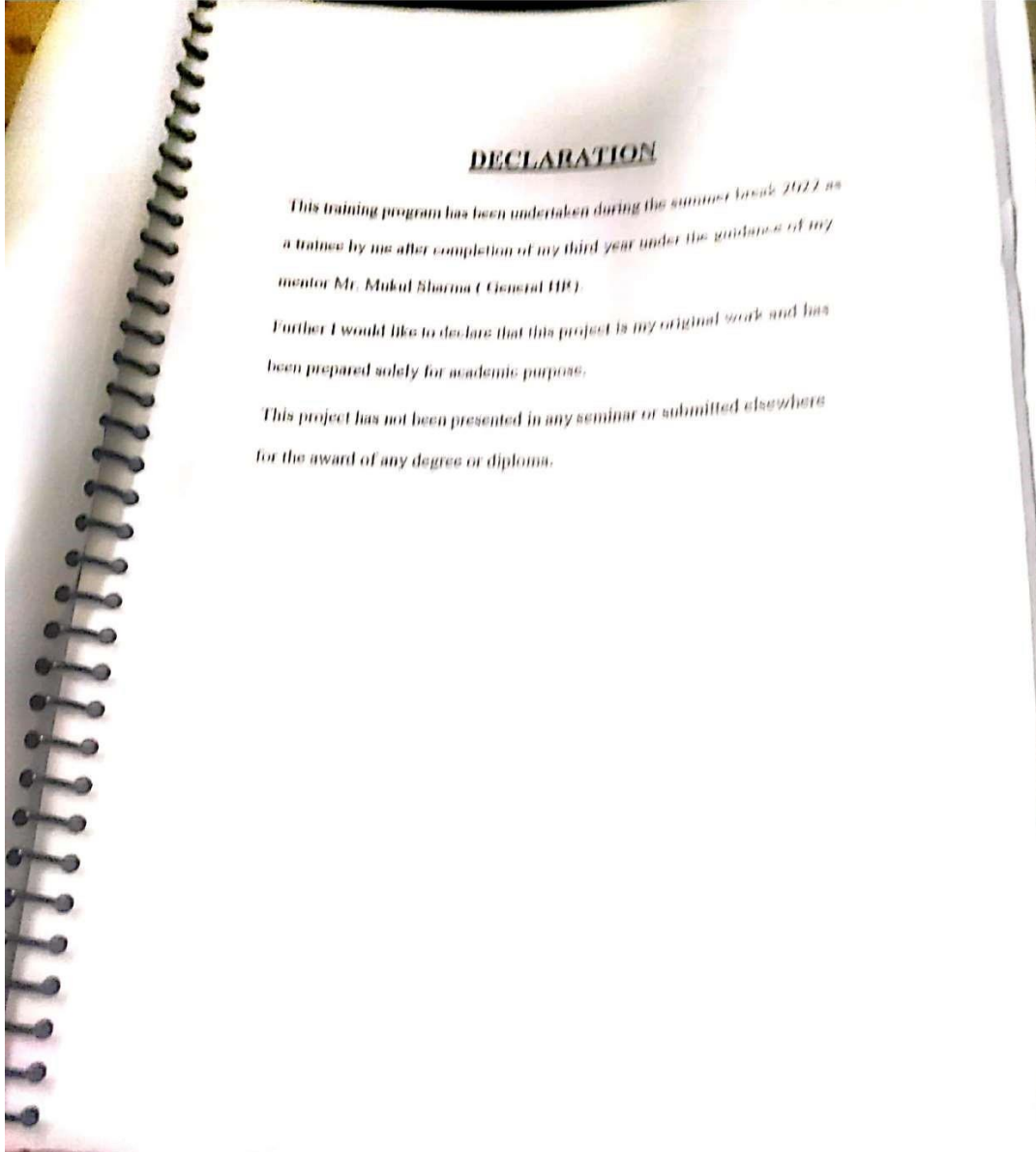
MAHINDRA & MAHINDRA Ltd.
, JAIPUR (RAJASTHAN)

An industrial training report submitted
in partial fulfillment of my Bachelor degree
in (IPE)
&
PROJECT
ON
ASSEMBLING MAHINDRA TRACTORS

Submitted To:
Mr. C.P.DEWANGAN
Lect. -IPE-Dept.

Submitted By:
Mr. ANKIT SISODIYA
IPE- 4th YEAR
R.No.-19105503

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
संशोधन संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



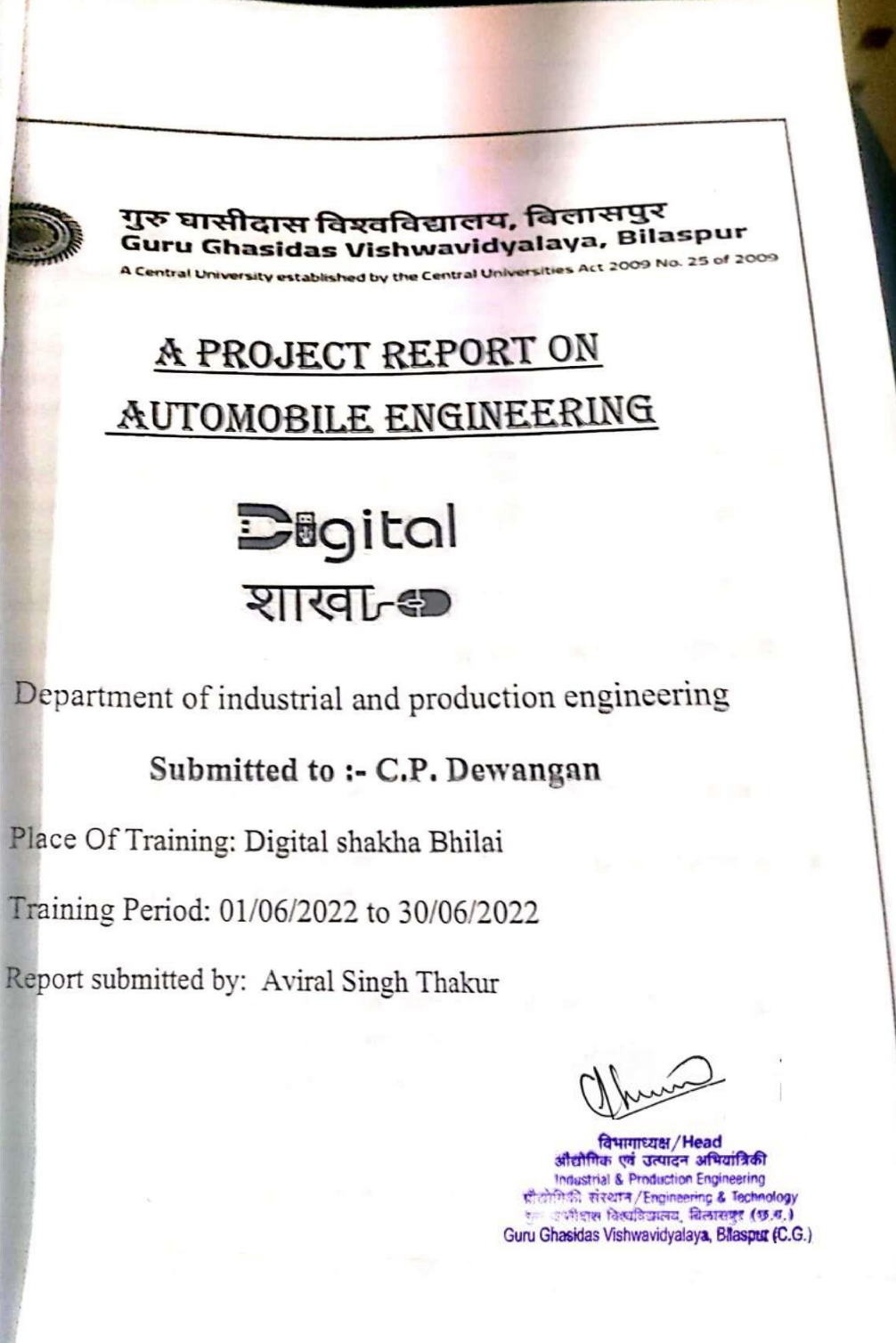




Table of content

- Introduction
- Components of an engine
- Clutching system
- Gear system
- Braking system
- Steering geometry and front axle
- Suspension system
- Objective of project work
- Conclusion



INTRODUCTION

What is Automobile

A self-propelled passenger vehicle that usually has four wheels and an internal-combustion engine, used for land transport. Also called *motorcar*.

An automobile (or automotive) is a vehicle that is capable of propelling itself. Since seventeenth century, several attempts have been made to design and construct a practically operative automobile.

Today, automobiles play an unimaginable role in the social, economic and industrial growth of any country. After the introduction of internal combustion engines, the Automobile industry has seen a tremendous growth.

Classification of automobile:

Automobiles can be classified into several types based on several criteria. A brief classification of automobiles is listed below:

Based on purpose:

1. Passenger vehicles - These automobiles carry passengers - e.g.: Buses, Passenger trains, cars
2. Goods vehicles - These vehicles are used for transportation of goods from one place to another. e.g.: Goods lorry, goods carrier

Based on capacity:

1. Heavy Motor Vehicle (HMV) - Large and bulky motor vehicles - e.g.: Large trucks, buses
2. Light Motor Vehicle (LMV) - Small motor vehicles - e.g.: Cars, Jeeps
3. Medium Vehicle - Relatively medium sized vehicles - e.g.: Small trucks, mini buses

Based on fuel source:

1. Petrol engine vehicles - Automobiles powered by petrol engine - e.g.: scooters, cars, mopeds, motorcycles
2. Diesel engine vehicles - Automotives powered by diesel engine - e.g.: Trucks, Buses

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

GURU GHASIDAS VISHWAVIDYALAYA
(A Central University)

Reports of summer training done
at
National Thermal Power Corporation Sipat

Submitted by
DUGESH
7th Sem (Roll No: -19105509)



Submitted to
Mr. CP DEWANGAN Sir
(Associate professor)

Department Of Industrial and Production Engineering
School Of Studies of Engineering and Technology

Date: -


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
इंजीनियरिंग संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



REGIONAL LEARNING INSIIUIE, NIPC, SIPAT
क्षेत्रीयज्ञानार्जनसंस्थान, एनटीपीसी, सीपत
CERTIFICATE OF VOCATIONAL TRAINING 2022
औद्योगिक प्रशिक्षण प्रमाण पत्र 2022

Ref No. RLI/SIPAT/CERT/2022/VT22INP290

THIS CERTIFICATE IS AWARDED TO
Dugesh
VT Roll No – VT22INP290
Production & Industrial ENGG
GGU BILASPUR

विभागप्रमुख/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौरभ/संस्कृत/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

For satisfactorily completing Vocational Training at NTPC-Sipat, Bilaspur for a period of four weeks from 15/06/2022 to 15/07/2022. The participant has successfully completed the course and has also completed the project assigned to him/her as part of this course. We wish him/her a bright and successful future.

This certificate is digitally signed.

Date: 17.07.2022

G. Praveen Kumar
Sr. Manager (RLI)

A K Tripathi
GM & Head (RLI-Simulator)

Vikash Malhotra
DGM (RLI-Simulator)



Acknowledgment

It gives us great pleasure to accept the opportunity to undergo Project based training at NTPC Regional Learning Institute (RLI) SIPAT for the period June 15 to July 15, 2022. This training has been a constant learning experience and we look forward to undertake more such stimulating training in the future.

Firstly, we would like to express our deepest gratitude to **Dr. Ganesh Prasad Shukla Sir (Assistant Professor, IPE) and entire Industrial and production Engineering department** for their approach to NTPC. They provide information about NTPC Sipat Summer training and we got opportunity to do training on NTPC Sipat. I take privilege to express my sincere thanks to our advisor **Mr. Alok Kumar Tripathi Sir (GM of RLI NTPC, SIPAT)**, who assigned us this project and it is solely due to him that we learn a lot. It has been a wonderful learning experience in NTPC SIPAT. We would never be able to finish our dissertation without his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing training.


We shall be happy to receive criticism if thereby we may learn more. We acknowledge our debt to all those people who helped us in preparing this project report in its present form.

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)




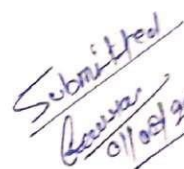
Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

Report of summer training done
at
Banaras Locomotive Works
Submitted by
GAURAV YADAV
7th Sem (19105511)



Submitted to
Mr. C.P. DEWANGAN
(Associate Professor)
Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)


विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)


Submitted
Reviewer
01/08/2021

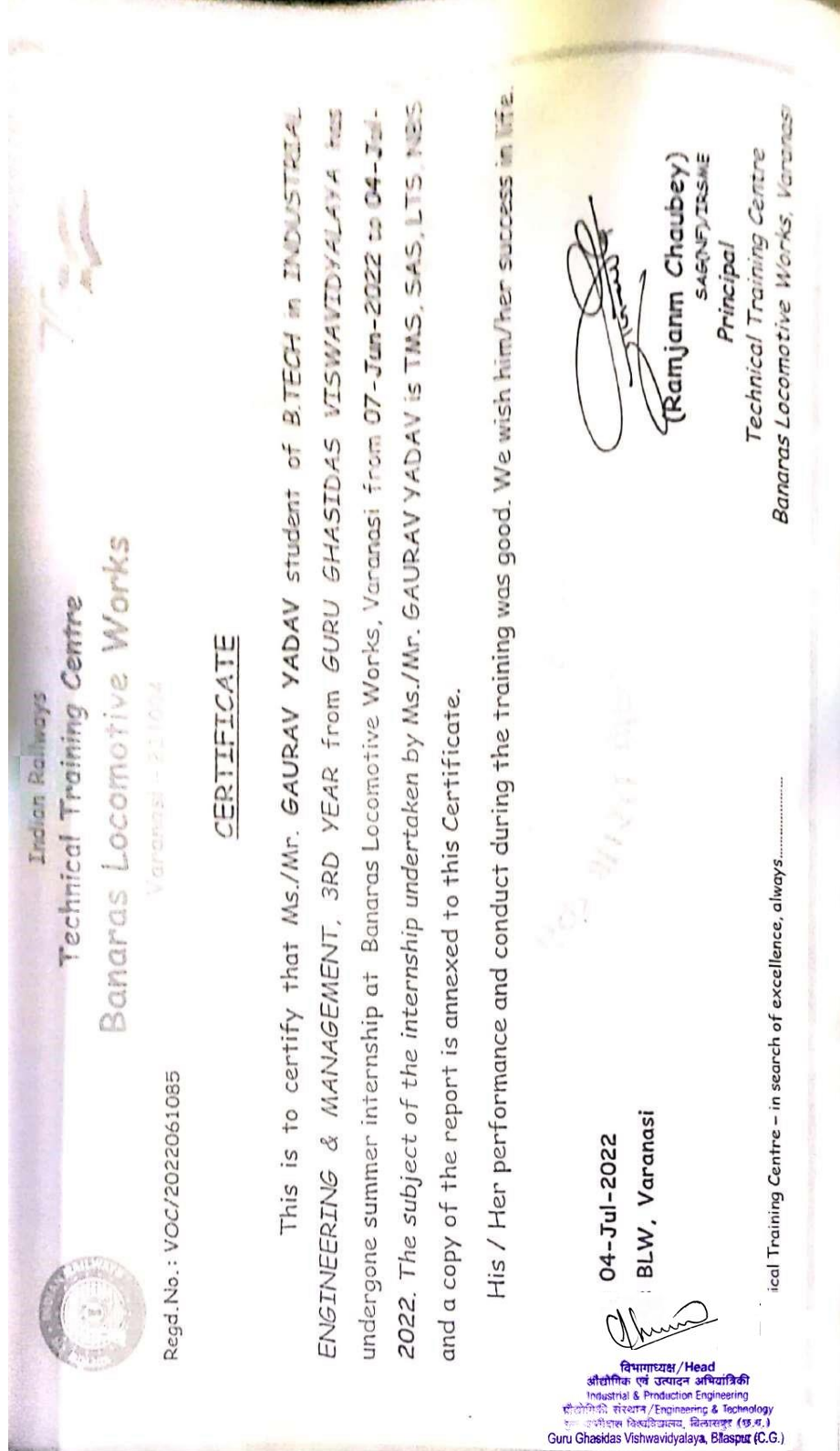




TABLE OF CONTENT

- ACKNOWLEDGEMENT
- PREFACE
- INTRODUCTION TO BLW
- BRIEF HISTORY
- TRUCK MACHINE SHOP (TMS)
- SUB ASSEMBLY SHOP (SAS)
- LOCO TRAINING SHOP (LTS)
- NEW BLOCK SHOP (NBS)
- CONCLUSION

STC/11/1

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

**GURU
GHASIDAS
VISHWAVIDYALYA
BILASPUR (C.G.)**

Vocational Training at Black Diamond Motors Pvt. Ltd.

**BLACK DIAMOND™
motors**
'a new definition to road transport'

Submitted To:
MR. B SHRINIWAS
(HR MANAGER)

Guided By:
MR. SURENDRA YADAV

Submitted By:
GAURAV RATHORE
INDUSTRIAL PRODUCTION ENGINEERING - 6TH SEM
GURU GHASIDAS UNIVERSITY BILASPUR (CG)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौभाग्यनिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



BLACK DIAMOND
motors
PRIVATE LIMITED
AN ISO 9001:2015 COMPANY

PLOT NO. 119, SECTOR 'B'
SIRGETTI INDUSTRIAL ESTATE
BILASPUR (C.G.) 495 004 INDIA
TOLL FREE : 18002740001
www.blackdiamondmotors.com

MSME - 229071205088
PIN - 49544201154
GST No - 22AAACJ012229124
ECC - 18A50122291240001
www.blackdiamondmotors.com

Date: 28/06/2022


Ref No. BDM/HR/TRG/2022/7


To Whome So Ever It May Concern

This is to certify that Mr. GAURAV RATHORE student of B Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.


CEO
(Alok Shrivastava)


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैकोमिटी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

" a new definition to road transport "

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

WELCOME TO BLACK DIAMOND MOTORS PVT. LTD.
SIRGITTI, BILASPUR (C.G.)




Address:

Black Diamond Motors Pvt. Ltd.
Plot No. 119, Sector B,
Sirgitti Industrial Area,
Bilaspur, Chhattisgarh- 495004

Established Year: Dec. 2006




Report of summer training done
at
INTERNSHALA ON AUTO CAD
Submitted by
DARA JAYA VARDHAN
7th Sem (19105509)



Submitted to
Mr. C.P. DEWANGAN
(Associate Professor)

Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)


विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदीयिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

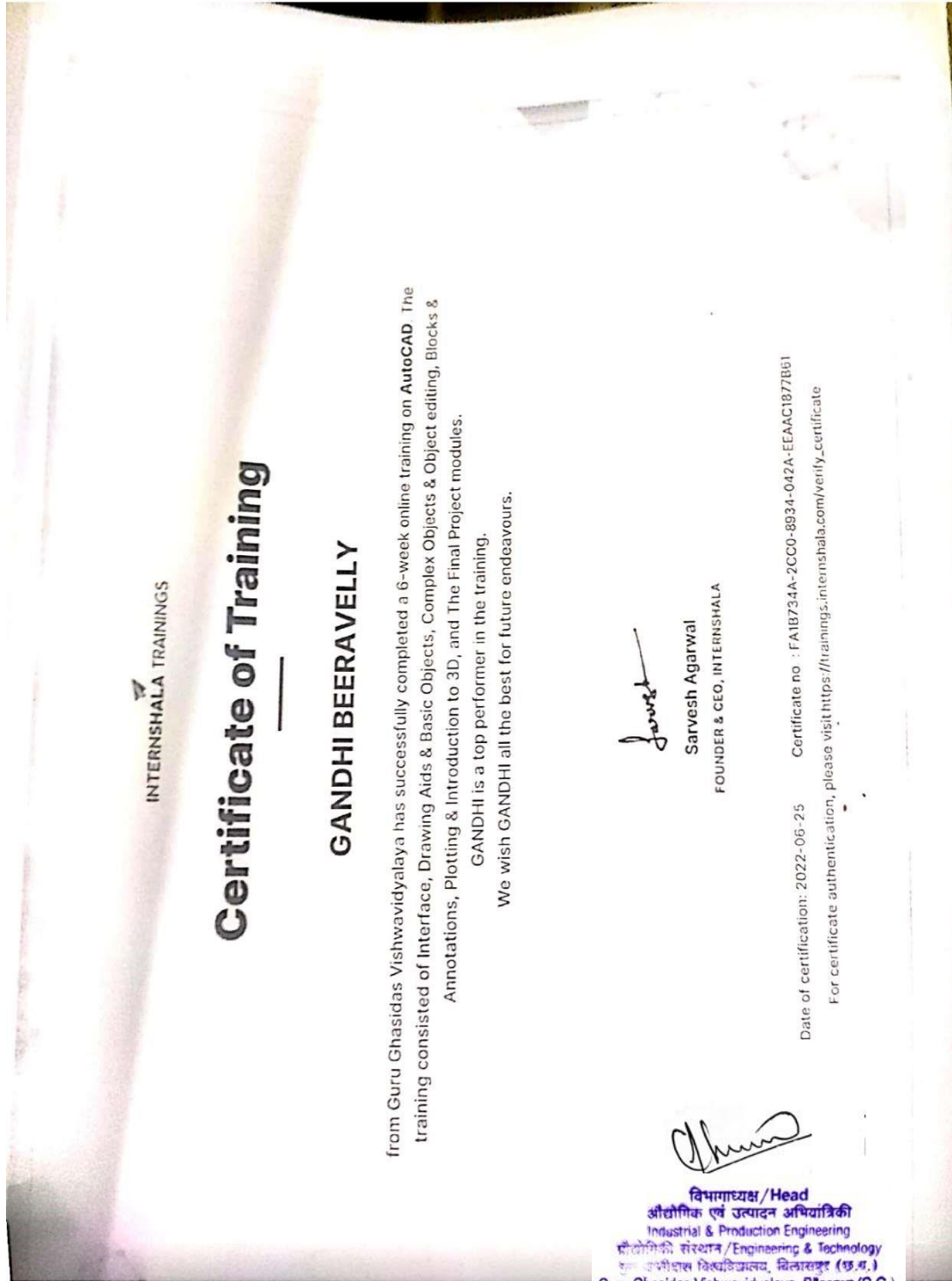


ACKNOWLEDGEMENT

"An engineer with only theoretical knowledge is not a complete engineer. Practical knowledge is very important to develop and apply engineering skills". It gives me a great pleasure to have an opportunity to acknowledge and to express gratitude to those who were associated with me during my training at Training at InternShala.

I express my sincere thanks and gratitude to cad desk authorities for allowing me to undergo the training in this prestigious organization. I will always remain indebted to them for their constant interest and excellent guidance in my software training work, moreover for providing me with an opportunity to work and gain experience.

THANK YOU



INTERNSHALA TRAININGS

Certificate of Training

GANDHI BEERAVELLY

from Guru Ghasidas Vishwavidyalaya has successfully completed a 6-week online training on **AutoCAD**. The training consisted of Interface, Drawing Aids & Basic Objects, Complex Objects & Object editing, Blocks & Annotations, Plotting & Introduction to 3D, and The Final Project modules.

GANDHI is a top performer in the training.

We wish GANDHI all the best for future endeavours.

Sarvesh Agarwal
FOUNDER & CEO, INTERNSHALA

Certificate no : FA1B734A-2CC0-8934-042A-EEAAC1877B61

Date of certification: 2022-06-25

For certificate authentication, please visit https://trainings.internshala.com/verify_certificate

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौधेसिद्धि संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

Scanned with CamScanner



Scar


विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
संशोधन विभाग/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)




CONTENTS

- ABOUT INTERNSHALA
- ABOUT AUTODESK
- INTRODUCTION ON AUTO CAD
- AUTO CAD WINDOW
- SELECTING THE WORK SPACE
- FILE SAVING
- CLOSING A FILE
- COORDINATES ENTRY
- NAVIGATION TOOLS
- DRAWING UNITS AND LIMITS
- COMMANDS
- DIMENSION TOOL BAR
- TEXT COMMAND
- ISO METRIC DRAWINGS
- PRINTING AND PLOTTING
- CONCLUSION




Report of summer training done
at
Black Diamond Motors Pvt. Ltd
Submitted by
PRAKASH SINGH RAJPUT
7th Sem (Roll NO. 18105014)



Submitted to
Mr. Kailash Kumar Borkar
(Asst. Professor)

Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)


विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



BLACK DIAMOND
motors
PRIVATE LIMITED
IN ISO 9001 : 2015 COMPANY

PLOT NO. - 119, SECTOR - 'B'
SURGITI INDUSTRIAL ESTATE
BILASPUR (C.G.) 491 004 INDIA
TOLL FREE : 18002740001
www.blackdiamondmotors.com

MOBILE : 9997130008
PIN : 22944309164
GST No : 22AAG0501223001A
REG : RAJG0505040001

Ref. No. BDM/HR/TRG/2022/8

Date: 28/06/2022

To Whome So Ever It May Concern

This is to certify that Mr. PRAKASH SINGH RAJPUT student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

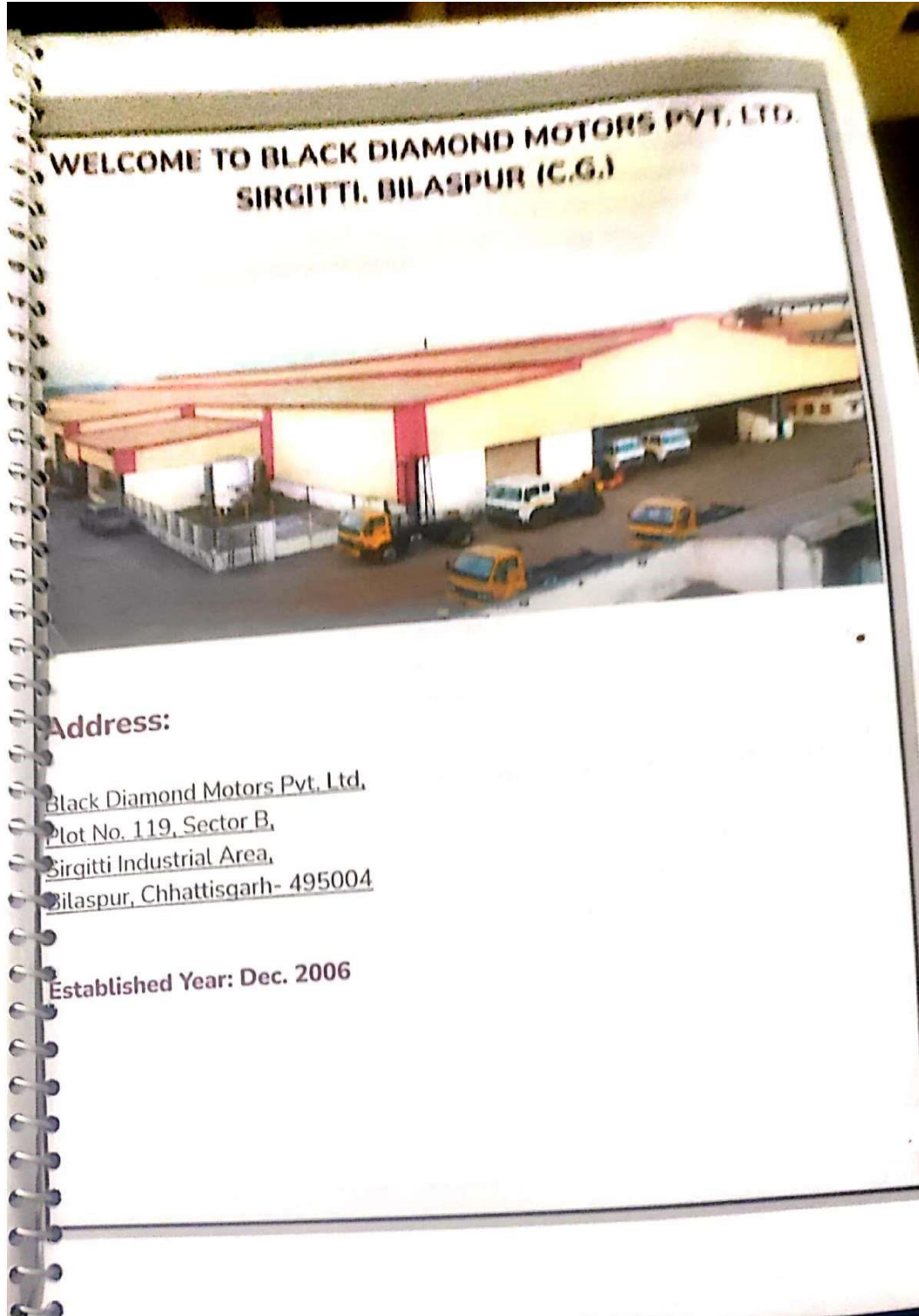
For, Black Diamond Motors Pvt. Ltd.



CEO
(Alok Shrivastava)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्योगिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

" a new definition to road transport "





Report of summer training done
at
RINL VISAKHAPATNAM

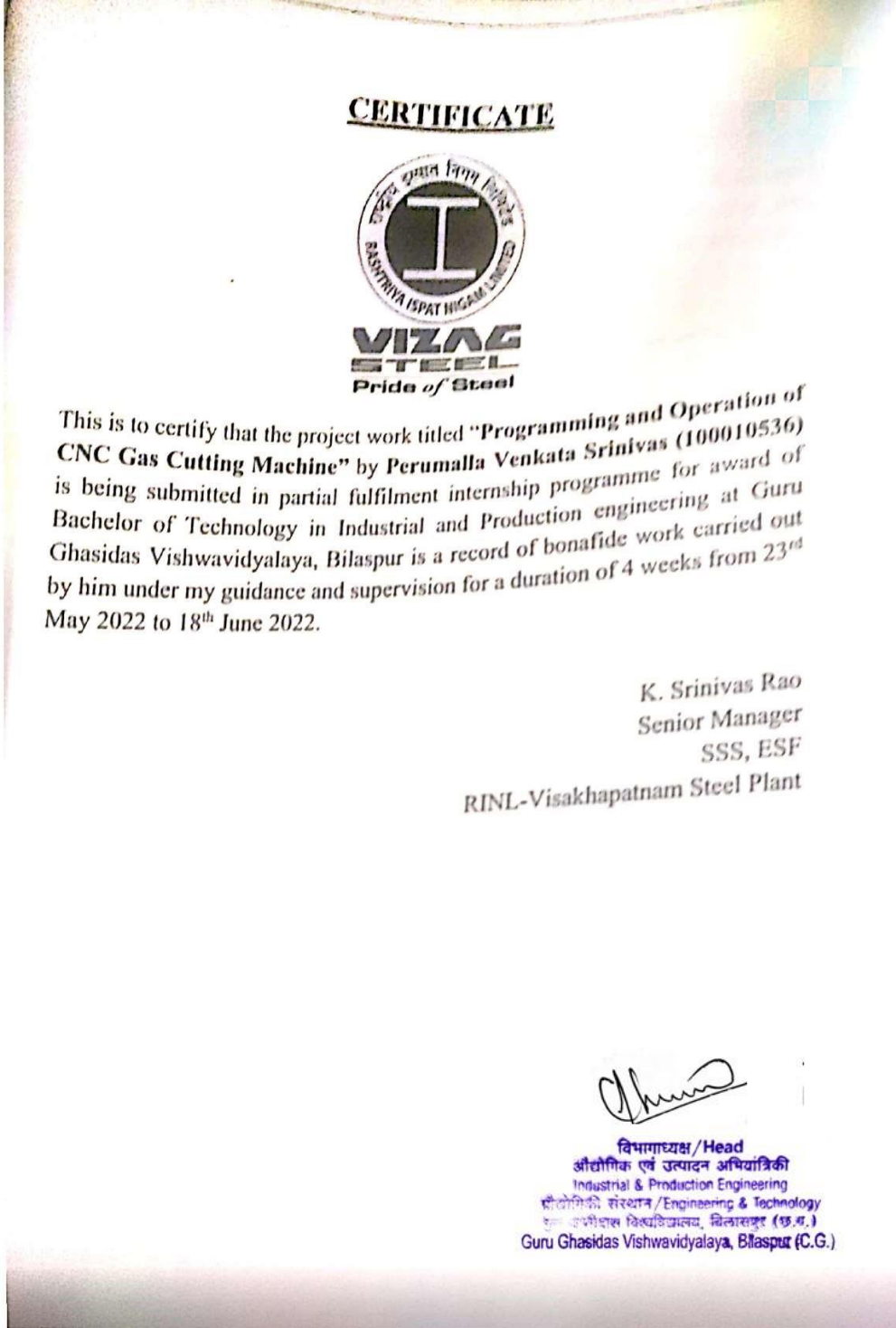
submitted by
PERUMALLA VENKATA SRINIVAS
7th Sem (19105530)



Submitted to
Mr. ANURAG SINGH
(Assistant Professor)

Department of Industrial & Production
Engineering
School of Studies of Engineering &
Technology

Guru Ghasidas Vishwavidyalaya (A central
University) Bilaspur (C.G.)





ABSTRACT

The efficiency of the plant depends on the smooth working of its machinery. Hence Engineering Shops and Foundry department was setup for the manufacture of spare parts and the repair of damaged equipment, which are frequent in nature, in the plant.

In this project "Programming and operation of CNC gas cutting", one can get exposure to the industrial processes and procedures that are required to fabricate a spare part or any job and to develop repair shapes by cutting required shape from plates or sheets.

The process of gas cutting, which starts with the need of the customer or user, attains its drawing required for a worker to understand the dimensions to be made and then a code is written and fed to the machine which cuts the plate accordingly. This whole process is as essential in many industries as there will be a continuous urge of new fabricated parts.

This fabrication department can be observed in industries such as automobiles, aircraft, and shipbuilding. A lot of engineering knowledge is incorporated in these basic techniques used in fabrication.

Various departments of steel plants require fabricated structural, and equipment spares like Tundishes, Ladle covers, scrap holding buckets, hoppers, gratings, slag pots etc. and various activities like drilling, shearing, forming, pressing, gas cutting, bending of cone from sheet, welding are required to carry out fabrication.



Report of Summer Training done
at
NTPC-Sipat, Bilaspur

Submitted by
BADAVATH SRINIVAS NAYAK
7th Sem (18105005)



Submitted to
Mr. Kailash Kumar Borkar Sir
(Assistant Professor)
Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya
(A central University)
Bilaspur (C.G.)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



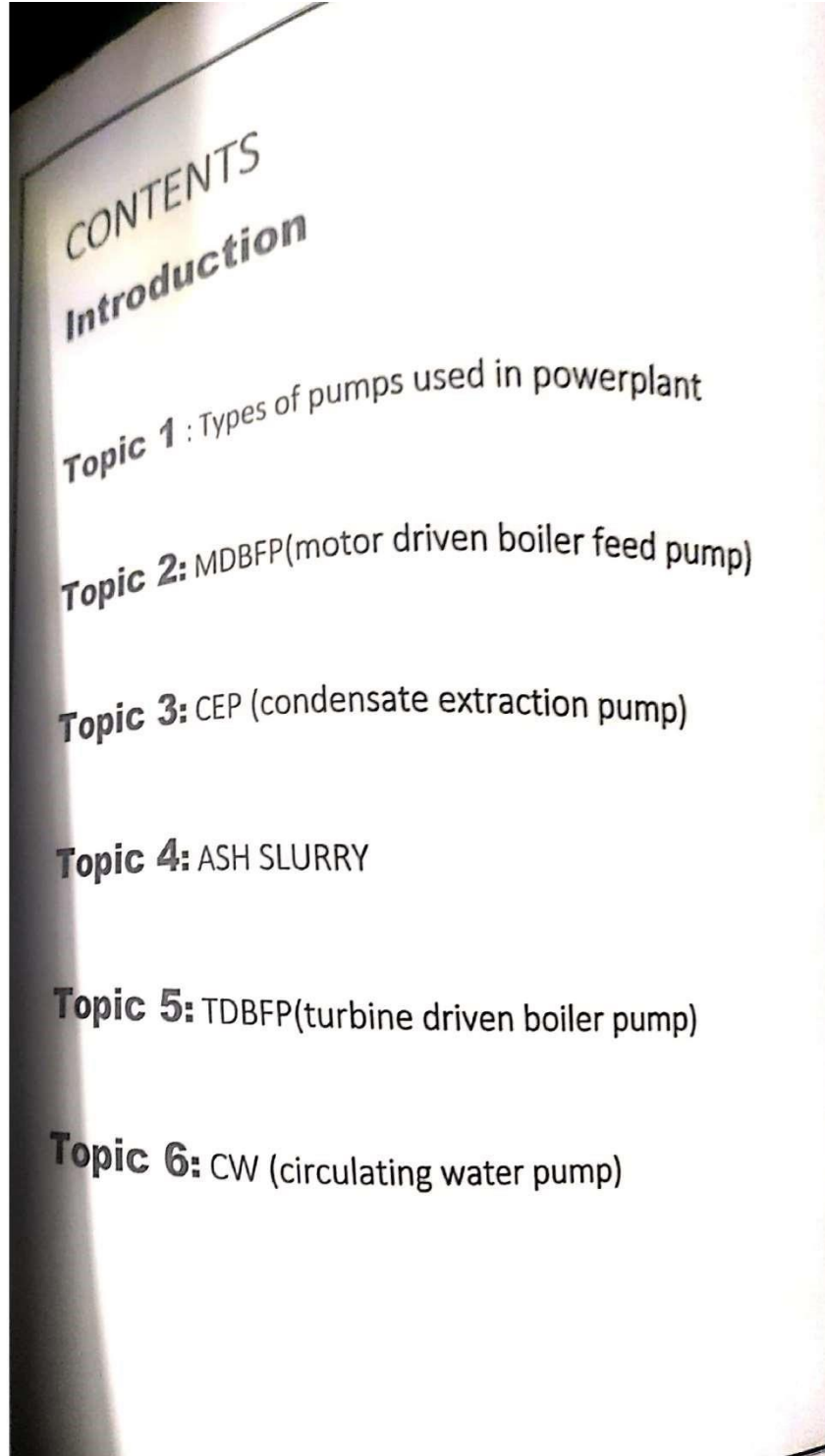
ACKNOWLEDGEMENT

We would like to express our special thanks of gratitude to Mr. Alok Kumar Tripathi, GM & Sr Faculty, NTPC, Regional Learning Institute (RLI), executives and support team of RLI Sipat for their able guidance and support in completing our project.

We would also wish to express our sincere gratitude to all the faculties of NTPC who delivered informative lectures which helped us a lot to understand about the Power Industry.

We also thank our institutes all our HODs, professors and placement coordinators for supporting us in this learning journey.

Last but not the least, we express sincere thanks to all our fellow group members for the stimulating discussions and working together before deadline





Report of summer training done
at
Jindal Steel And Power Limited
Submitted
by
VICKY THAKUR
7th Sem (Roll No:- 19105541)



Submitted to
Mr. Kailash Kumar Borkar
(Asst. Professor)
Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Acknowledgement

Industrial exposure is the most crucial part of the technical studies in which a student is able to synchronize his technical knowledge with practical knowledge gained in any of the organization in which he gets his training from. It is a matter of great pleasure and privilege for us to present this report of one-month industrial training in Rail and Universal Beam mill (RUBM) at Jindal Steel and Power Limited, Raigarh.

We hope that the word of our project communicates the actual experience gained with subtlety and precision, which is unapproachable, by any other means. From the medium of this project report, we would like to thank each and every honourable employee of JINDAL STEEL AND POWER LIMITED, who has helped us to gain all the knowledge in the respective production shop, where production process was involved.

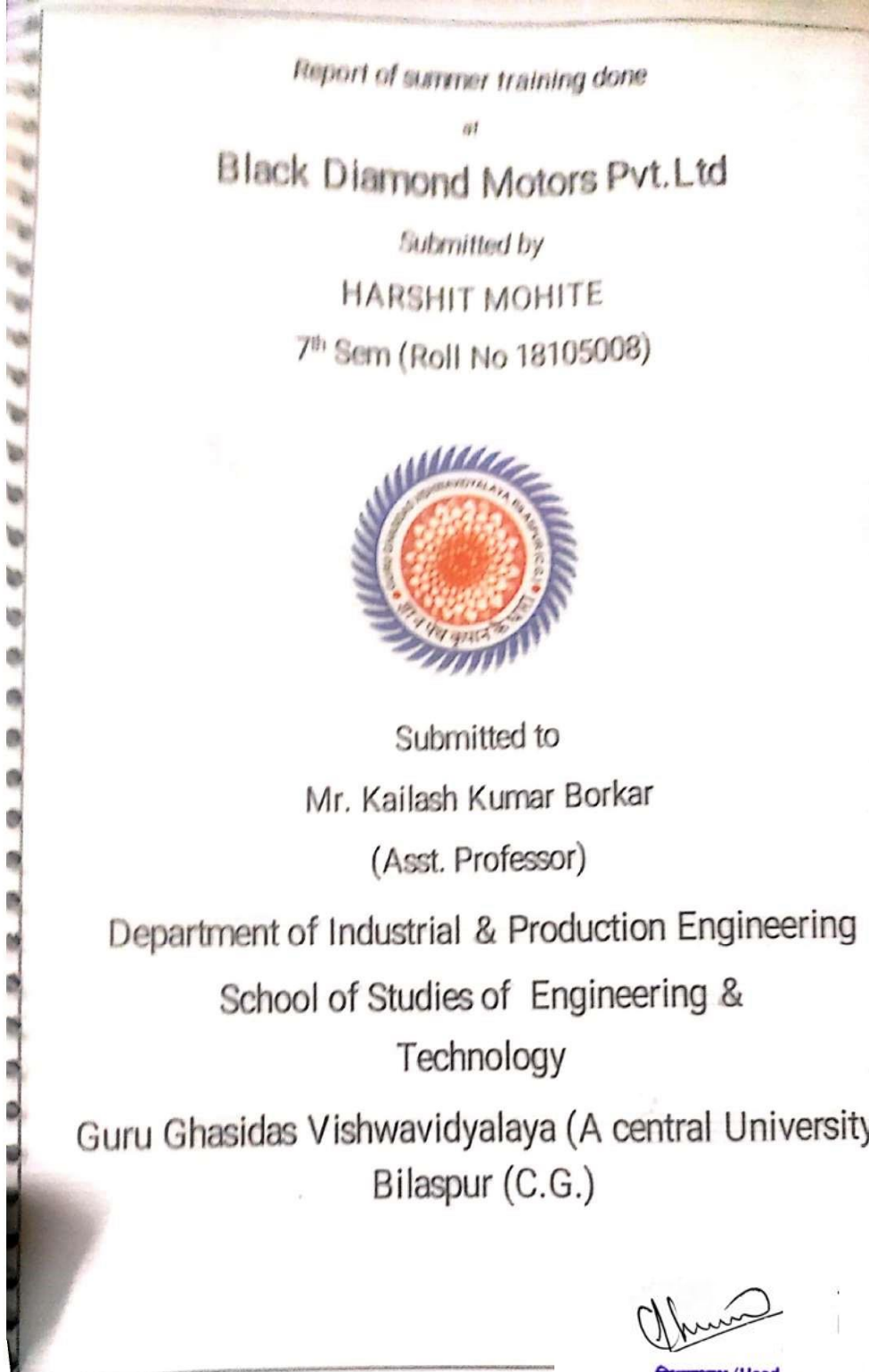
Thanking you,

Rahul Pandey
Mohammad Asfaq
Vicky Thakur
Ravikant Upadhyay



Index

- ❖ About JSPL
- ❖ Facilities at Raigarh Plant
- ❖ About RUBM
- ❖ Products produced at RUBM
- ❖ Layout of RUBM
- ❖ PPC department
- ❖ Walking beam Reheating furnace
- ❖ Hot saw
- ❖ Cooling Bed
- ❖ Non Destructive Testing unit
- ❖ Long Rail Welding Plant
- ❖ Logistics Department
- ❖ Conclusion





Ref. No. BDM/HR/TRG/2022/1

To Whome So Ever It May Concern

This is to certify that **Mr. Harshit Mohite** student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.


CEO
(Alok Shrivastava)


विभागध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदोगिकी, संरक्षण/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

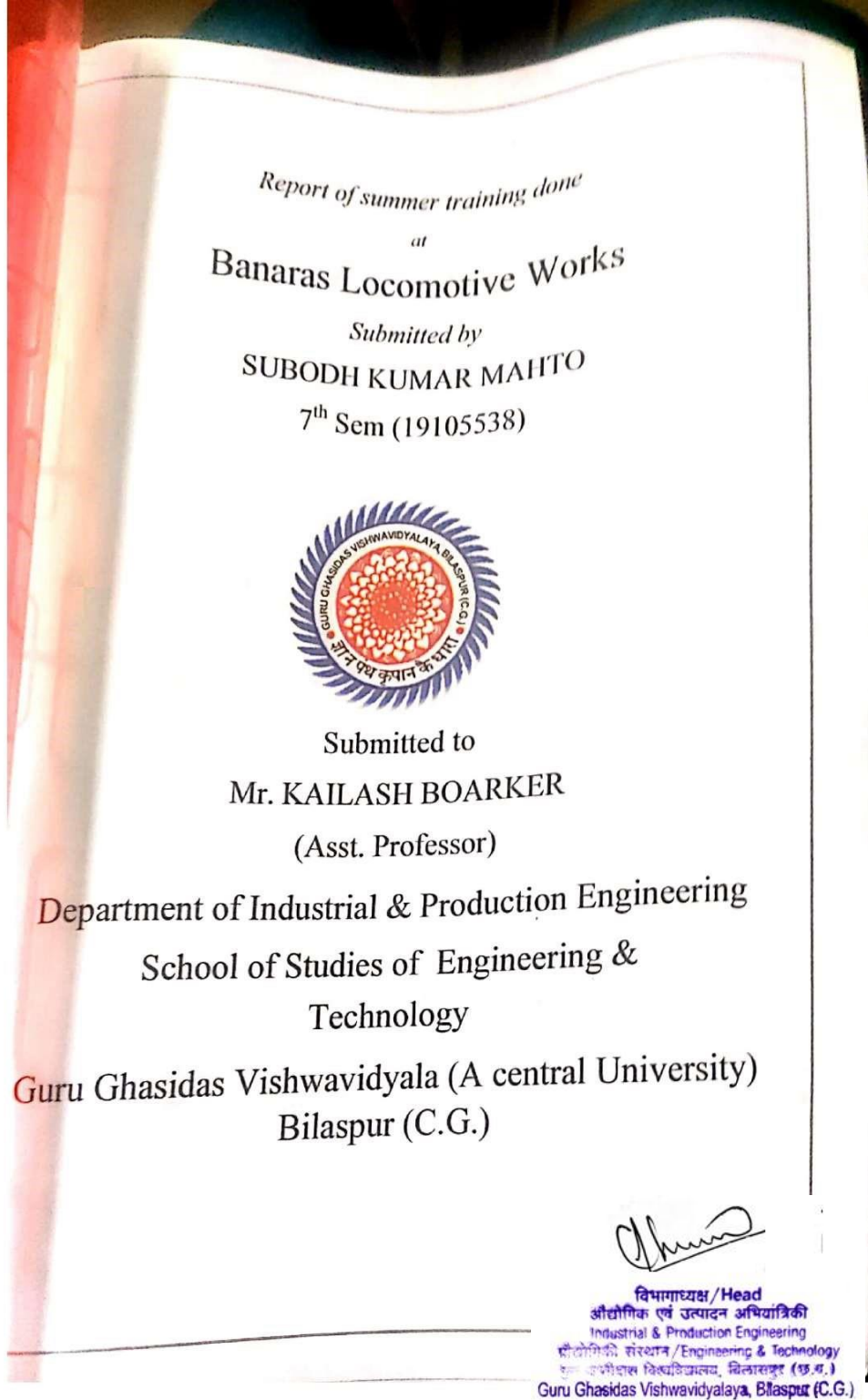
**WELCOME TO BLACK DIAMOND MOTORS PVT. LTD.
SIRGITTI. BILASPUR (C.G.)**



Address:

Black Diamond Motors Pvt. Ltd.
Plot No. 119, Sector B,
Sirgitti Industrial Area,
Bilaspur, Chhattisgarh- 495004

Established Year: Dec. 2006





Technical Training Centre
Banaras Locomotive Works
Varanasi - 221004

Regd.No.: VOC/2022061315

CERTIFICATE

This is to certify that Ms./Mr. SUBODH KUMAR MAHTO student of B.TECH in INDUSTRIAL ENGINEERING & MANAGEMENT, 3RD YEAR from GURU GHASIDAS VISHWAVIDYALAYA BILASPUR CHHATTISGARH has undergone summer internship at Banaras Locomotive Works, Varanasi from 07-Jun-2022 to 04-Jul-2022. The subject of the internship undertaken by Ms./Mr. SUBODH KUMAR MAHTO is LAS, LFS, EES, HWS and a copy of the report is annexed to this Certificate.

His / Her performance and conduct during the training was good. We wish him/her success in life.

Date : 04-Jul-2022
Place : BLW, Varanasi

Technical Training Centre - in search of excellence, always.....

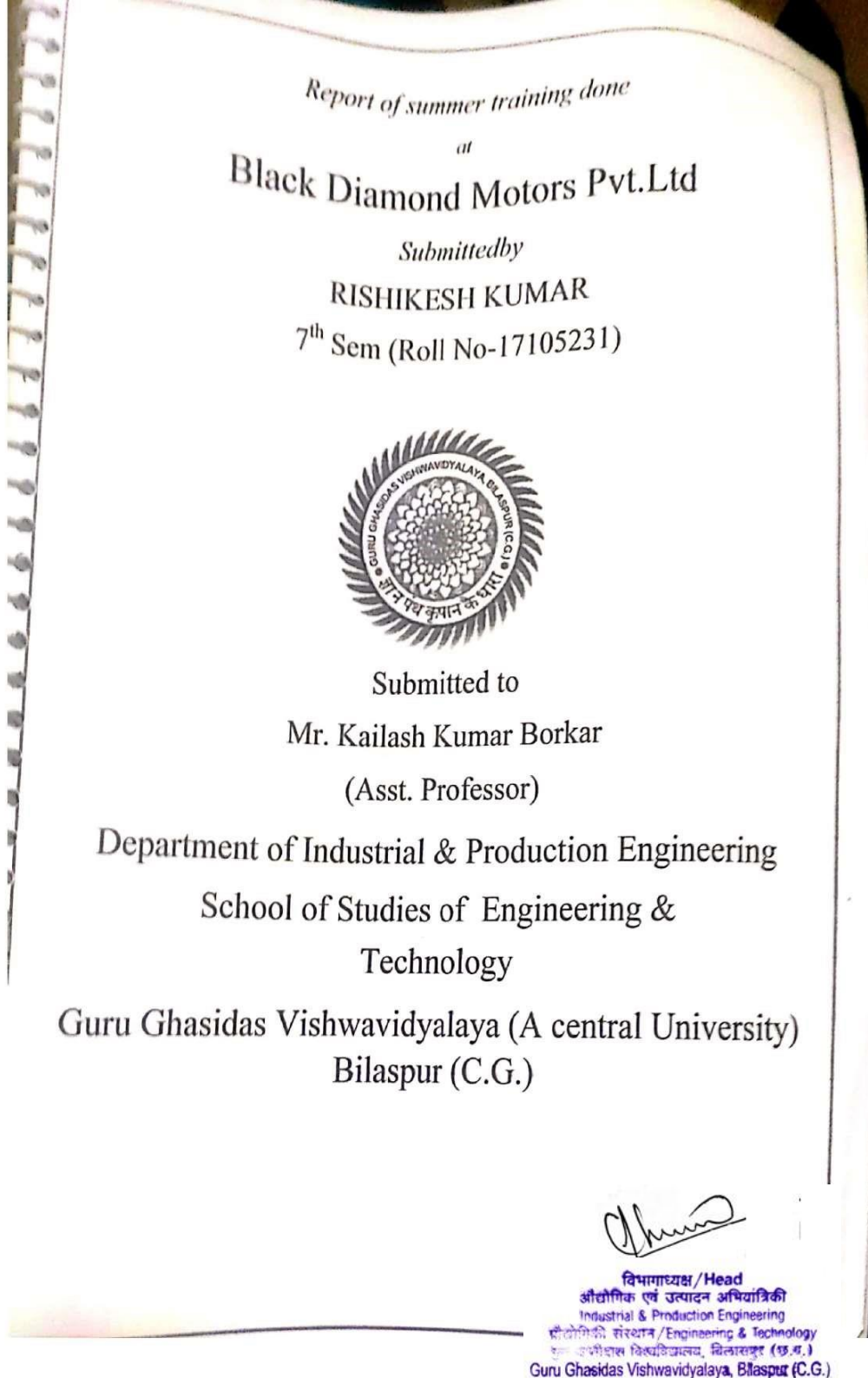
(Ranjann Chaubey)
SAG(NF)/ERS/ME
Principal
Technical Training Centre
Banaras Locomotive Works, Varanasi





CONTENTS

1. PREFACE
2. ACKNOWLEDGEMENT
3. INTRODUCTION
4. LAS (LOCO ASSEMBLY SHOP)
5. LFS (LOCO FRAME SHOP)
6. EES (ENGINE ERECTION SHOP)
7. HWS (HEAVY WELD SHOP)
8. CONCLUSION





BLACK DIAMOND
motors
PRIVATE LIMITED
ISO 9001 : 2015 COMPANY

PLOT NO. 119, SECTOR - 'B'
SIRGITTI INDUSTRIAL ESTATE
BILASPUR (C.G.) 495 004 INDIA
TOLL FREE : 18002740001
www.blackdiamondmotors.com

Date: 28/05/2022


Ref. No. BDM/HR/TRG/2022/4


To Whome So Ever It May Concern

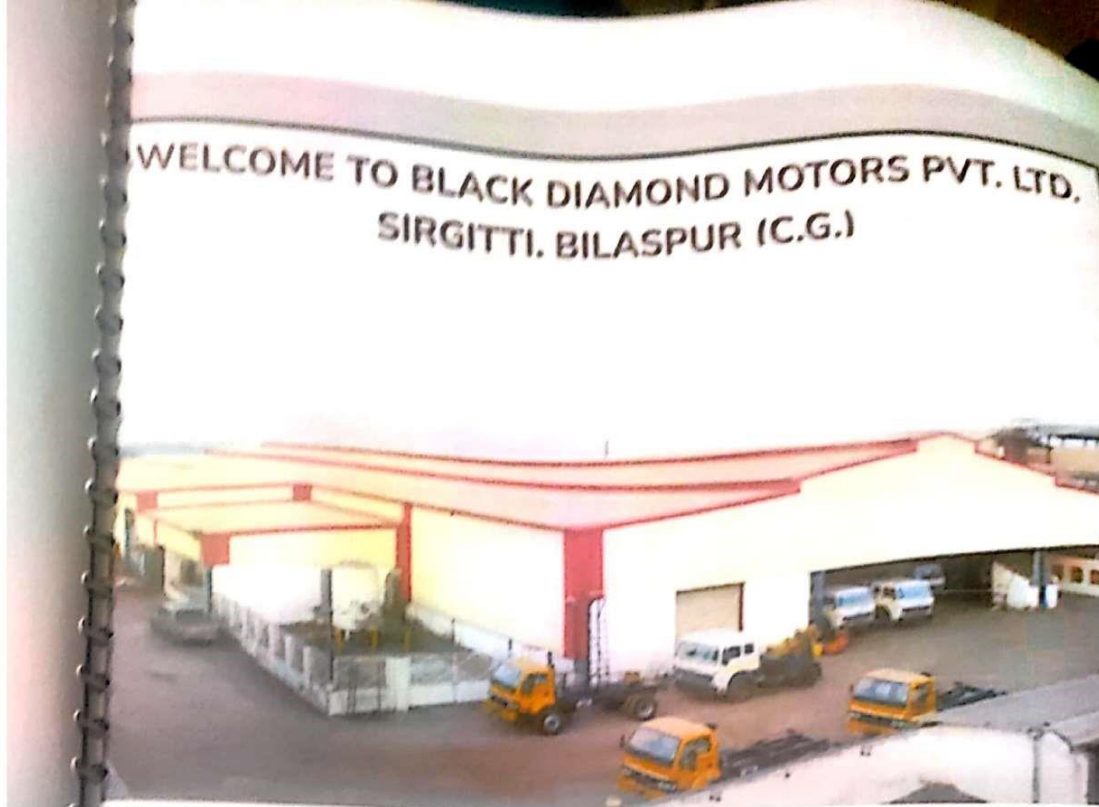
This is to certify that **Mr. RISHIKESH KUMAR** student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.


CEO
(Alok Shrivastava)


विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Address:

Black Diamond Motors Pvt. Ltd,
Plot No. 119, Sector B,
Sirgitti Industrial Area,
Bilaspur, Chhattisgarh- 495004

Established Year: Dec. 2006



Report of summer training done
at
Black Diamond Motors Pvt.Ltd
Submitted by
Swapnil Dronkar
7th Sem (Roll No:- 19105540)



Submitted to
Kailash Borkar Sir
Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
संशोधन/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Ref. No. BDM/HR/TRG/2022/2

Date: 28/06/2022

To Whome So Ever It May Concern

This is to certify that Mr. SWAPNIL DRONKAR student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.



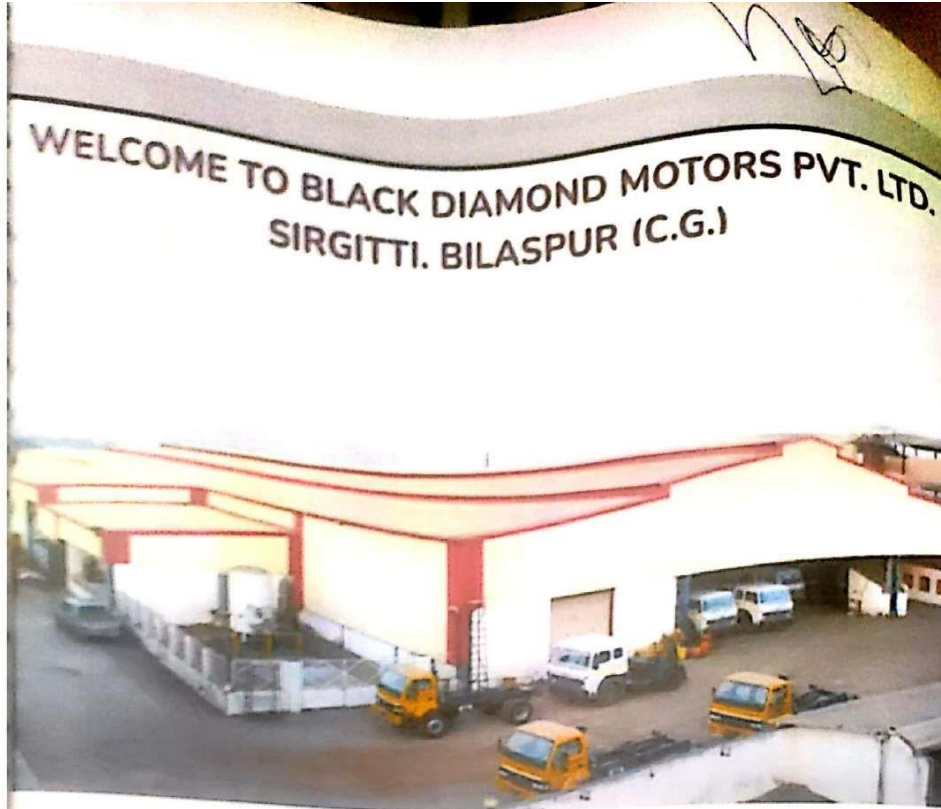
CEO
(Alok Shrivastava)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
इंजीनियरिंग एवं प्रौद्योगिकी विभाग/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

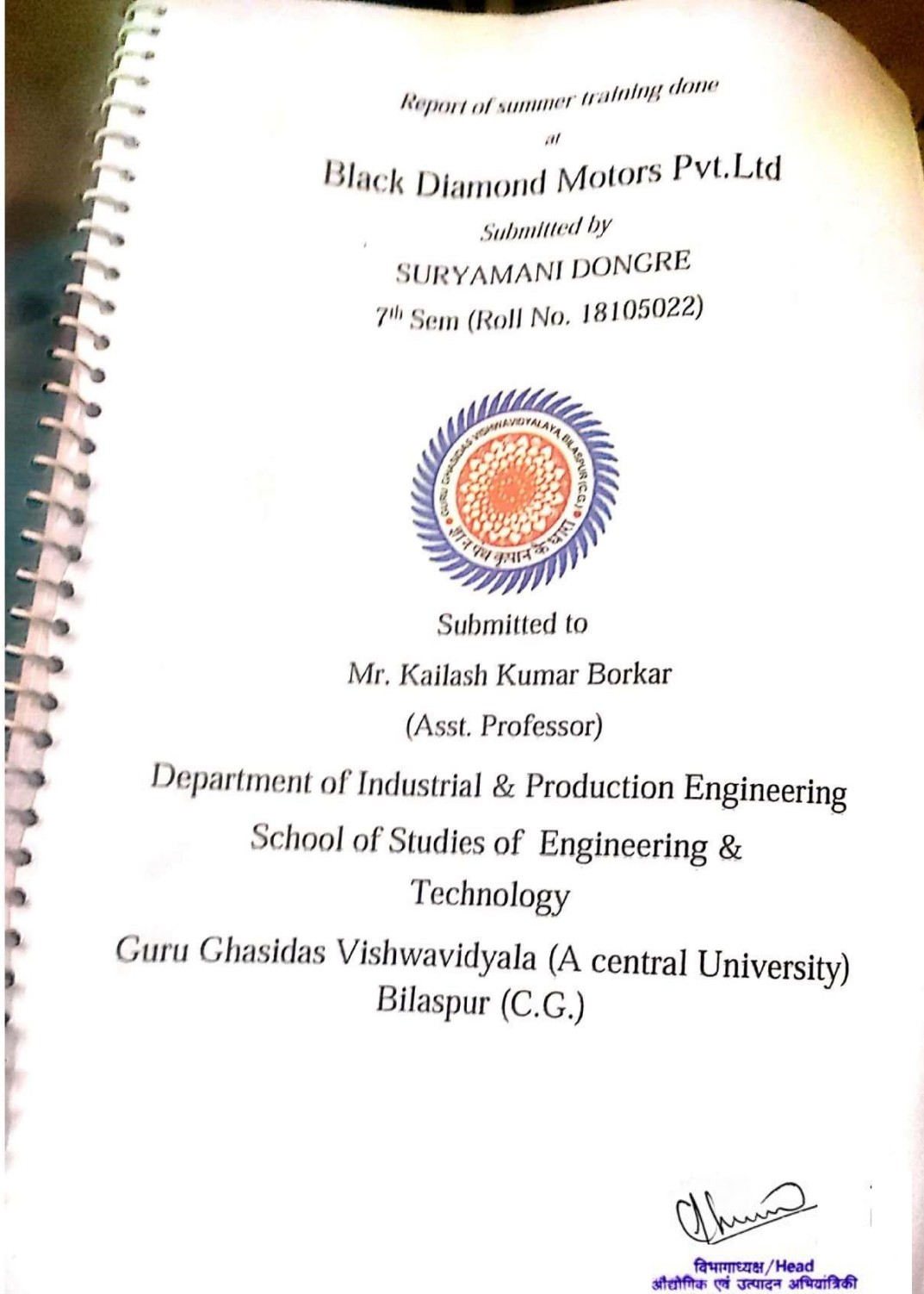


Address:

Black Diamond Motors Pvt. Ltd.
Plot No. 119, Sector B,
Sirgitti Industrial Area,
Bilaspur, Chhattisgarh- 495004

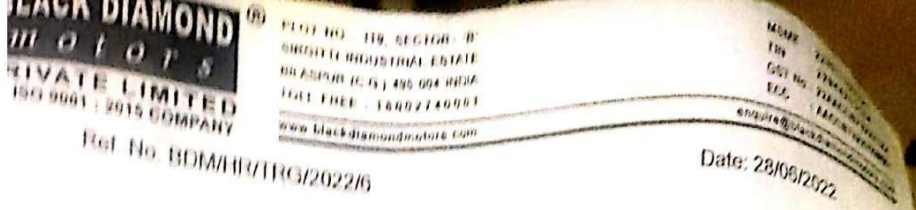
Established Year: Dec. 2006

Scanned with CamScanner



[Handwritten Signature]

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्धांतिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Ref No BDM/HR/TRG/2022/6

Date: 28/06/2022

To Whome So Ever It May Concern

This is to certify that Mr. SURYAMANI DONGRE student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.



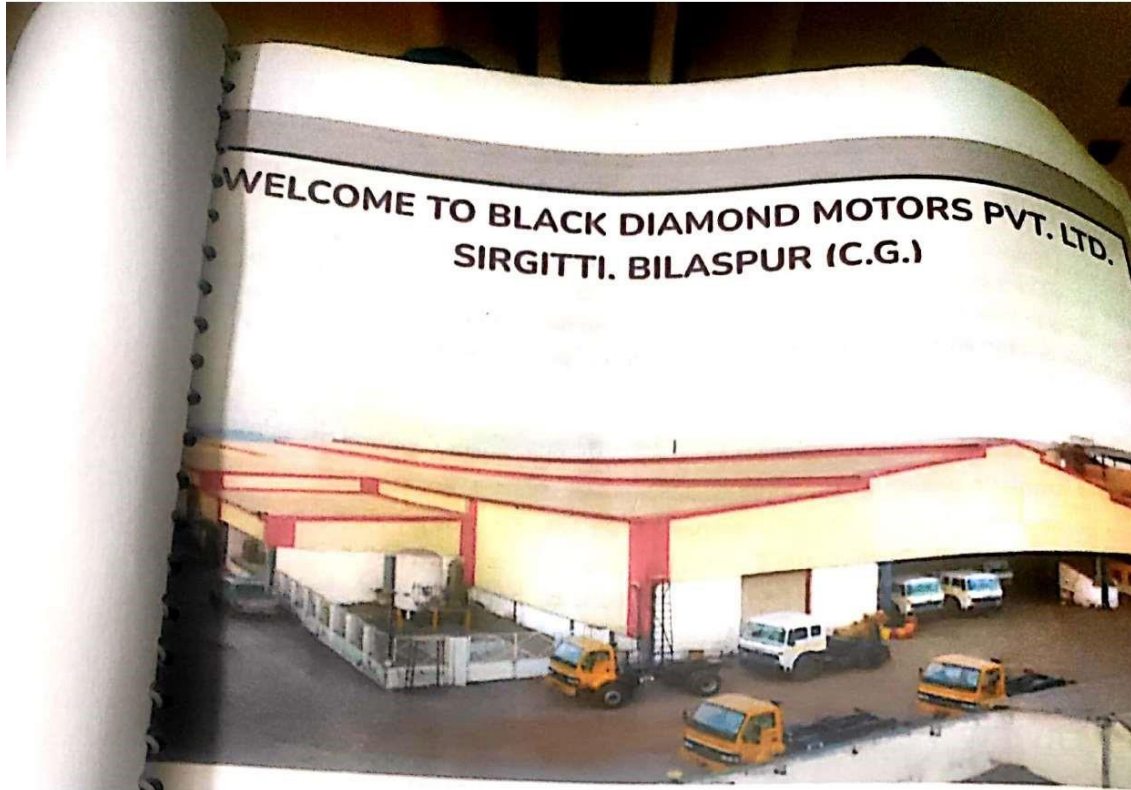
CEO
(Alok Shrivastava)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



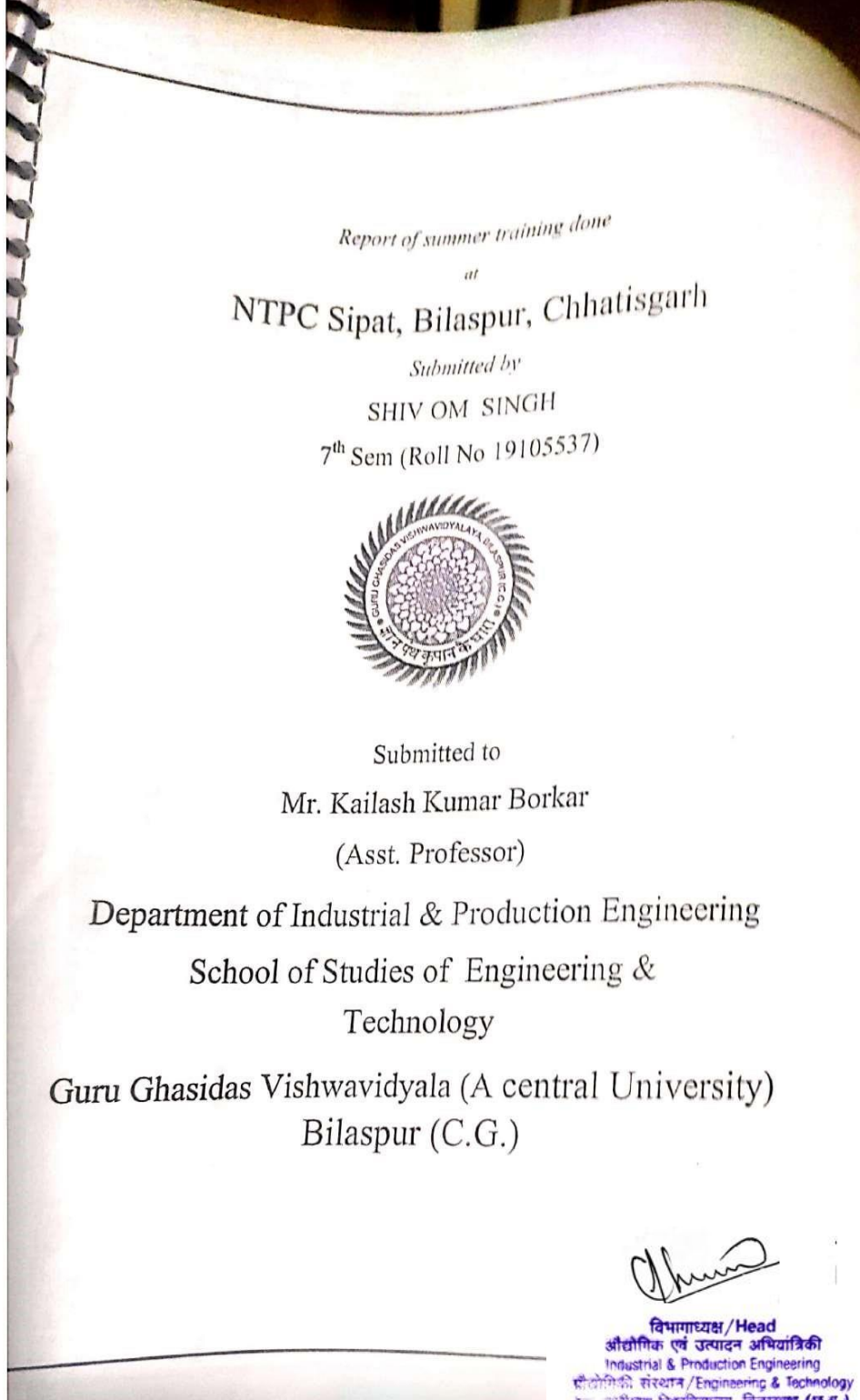
Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)



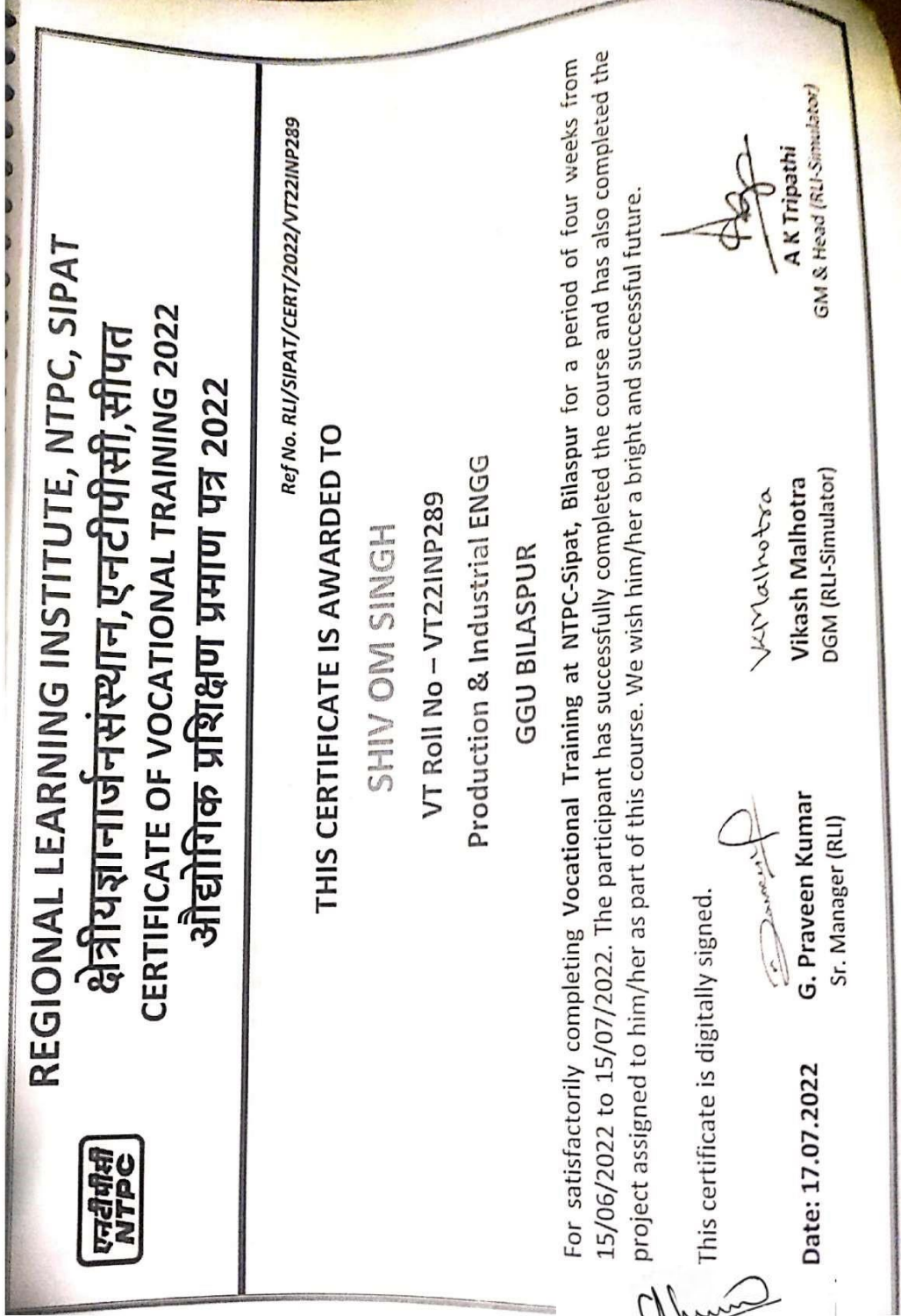
Address:

Black Diamond Motors Pvt. Ltd.
Plot No. 119, Sector B,
Sirgitti Industrial Area,
Bilaspur, Chhattisgarh- 495004

Established Year: Dec. 2006



विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
संशोधन संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



REGIONAL LEARNING INSTITUTE, NTPC, SIPAT
क्षेत्रीयज्ञानार्जनसंस्थान, एनटीपीसी, सीपट
CERTIFICATE OF VOCATIONAL TRAINING 2022
औद्योगिक प्रशिक्षण प्रमाण पत्र 2022



Ref No. RLI/SIPAT/CERT/2022/VT22INP289

THIS CERTIFICATE IS AWARDED TO

SHIV OM SINGH

VT Roll No - VT22INP289

Production & Industrial ENGG

GGU BILASPUR

For satisfactorily completing Vocational Training at NTPC-Sipat, Bilaspur for a period of four weeks from 15/06/2022 to 15/07/2022. The participant has successfully completed the course and has also completed the project assigned to him/her as part of this course. We wish him/her a bright and successful future.

This certificate is digitally signed.

G. Praveen Kumar
Sr. Manager (RLI)

Date: 17.07.2022

A K Tripathi
GM & Head (RLI-Simulator)

Vikash Malhotra
DGM (RLI-Simulator)



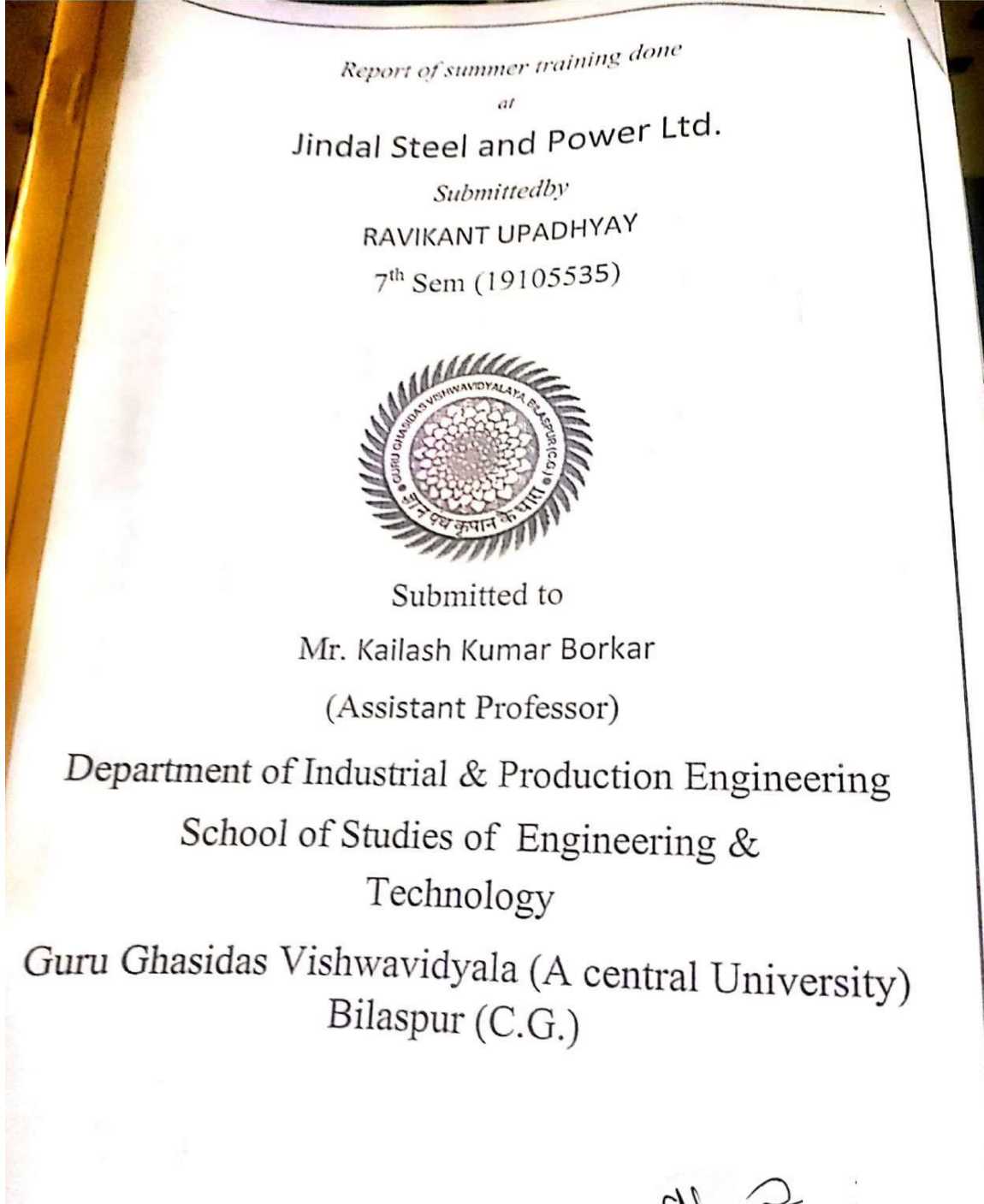
ACKNOWLEDGEMENT

It gives us great pleasure to accept the opportunity to undergo Project based training at NTPC Regional Learning Institute (RLI) SIPAT for the period June 15 to July 15, 2022. This training has been a constant learning experience and we look forward to undertake more such stimulating training in the future.

Firstly, we would like to express our deepest gratitude to our advisor Mr. Alok Kumar Tripathi Sir (GM of NTPC RLI, SIPAT), who assigned us this project and it is solely due to him that we learn a lot. It has been a wonderful learning experience in NTPC SIPAT. We would never be able to finish our dissertation without his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing training.

We would not forget to remember All the admis of vt22official group for their encouragement and more ever for timely support and guidance till the completion of our project work.

The data presented in this report have been drawn from a large number of sources and people. We shall be happy to receive criticism if thereby we may learn more. We acknowledge our debt to all those people who helped us in preparing this project report in its present form.



विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्धांतिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



JINDAL
STEEL & POWER

JSPL:RGH:HR&ES:2022

Date: 16.06.2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Ravikant Upadhayay pursuing B.Tech (Industrial & Production Engineering) from Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) has done his internship in our organization in Rail Mill PPC and HR Department. The tenure of his Internship at JSPL Raigarh is as mentioned below:

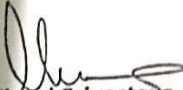
Duration : 16.05.2022 to 15.06.2022

During the mentioned training period Mr. Ravikant Upadhayay was punctual and sincere in his approach towards training.

We hope that the exposure at JSPL, Raigarh, will definitely sharpen his professional abilities, which will be very helpful in achieving spectacular success in his professional career.

We wish him all the success.

for JINDAL STEEL & POWER LTD.,


Vimal Srivastava
AGM - HR & ES

Jindal Steel & Power Limited
Post Box No 15, Kharola Road, Raigarh - 496 001 (C.G.)
T (07762) 227001-227005 (5 lines) F 07762 - 227021, 227022 E raigarh@jspl.com
Registered Office O.P.Jindal Marg, Hisar - 125 005 (Haryana)


विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
इंजीनियरिंग संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



Acknowledgement

Industrial exposure is the most crucial part of the technical studies in which a student is able to synchronize his technical knowledge with practical knowledge gained in any of the organization in which he gets his training from. It is a matter of great pleasure and privilege for us to present this report of one-month industrial training in Rail and Universal Beam mill (RUBM) at Jindal Steel and Power Limited, Raigarh.

We hope that the word of our project communicates the actual experience gained with subtlety and precision, which is unapproachable, by any other means. From the medium of this project report, we would like to thank each and every honourable employee of JINDAL STEEL AND POWER LIMITED, who has helped us to gain all the knowledge in the respective production shop, where production process was involved.

Thanking you,

Rahul Pandey

Mohammad Asfaq

Vicky Thakur

Ravikant Upadhyay



Guru Ghasidas Vishwavidyalaya,
Bilaspur (C.G.)



Report on Summer Vocational Training
Done at SECR Bilaspur (C.G.)

Department of Industrial and
production Engineering (SOSET)

K. SUBRAMANIAM
ROLL NO. 19105539

Submitted to
KAILASH BORKAR SIR

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



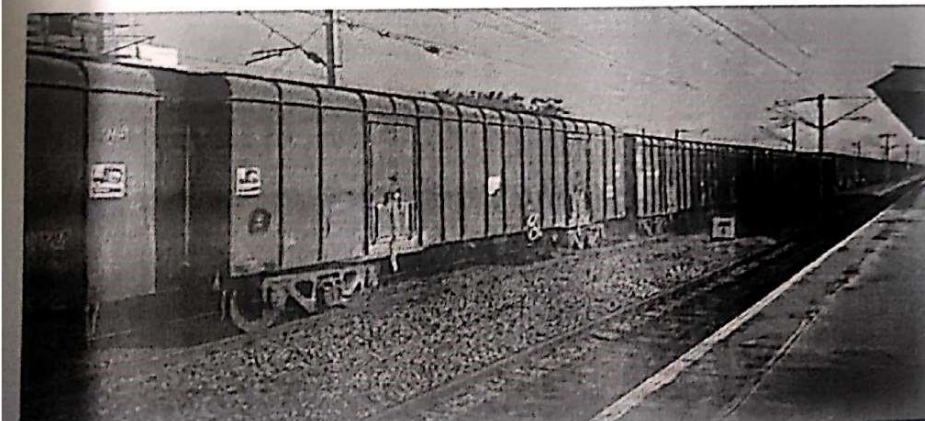
ACKNOWLEDGEMENT

I would like to thank the entire Workshop, **BILASPUR**, who has provided me with this sessional training. I am thankful to the **BCN DEPOT TRAINING**, who organized my training schedule and also for their benevolent guidance and kind cooperation throughout my training along with completing this project report and providing me with various knowledge about their stations.

I also thank the workers of their respective stations, who were always ready to clarify my doubts and helped me to increase my knowledge by illustrating me to the finer points.

I wish to express my deep gratitude to all the concerned persons, whose enthusiasm, support and coordination have given me the success to complete my training in the organization.

I hope that my report will reflect my technical knowledge and innovativeness, which I gained at **SOUTHERN EASTERN RAILWAY WORKSHOP BCN DEPOT BILASPUR (C.G.)**.





PREFACE

The objectives of the practical training are to learn something about industries practically and to be familiar with the knowledge with the working style of a technical person to adjust according to the industrial environment.

It is rightly said practical life is far away from theoretical one. We learn in class room can give the practical exposure to the real life experience no doubt they help in improving the personality of the student, but the practical exposure in the field will help in improving the personality of the student in long run of life and will be able to implement the theoretical knowledge.

As a part of academic syllabus of four years degree course in Industrial Production Engineering, every student is required to undergo a practical training. I am student of third year and this report is written on the basis of practical knowledge required by me during the period of practical training taken at BCN Coach depot and CHG Care Centre of SECR Railway - Bilaspur Division.



SUMMER TRAINING PROJECT REPORT ADVANCED WELDING

undertaken at

IIT INDORE

Submitted by: Leena Raj

Bachelor of technology

Industrial and production Engineering

From

Institute of Technology, GGV Bilaspur

(A CENTRAL UNIVERSITY)



Session 2022-23

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



INDIAN INSTITUTE OF TECHNOLOGY INDORE

(An autonomous institute under the Ministry of Education, Government of India)

e-CERTIFICATE

This is to certify that Ms. Leena Raj has successfully completed the "Online Internship for the Undergraduate Students" with IIT Indore Faculty Mentor Dr. Ashish Rajak, Department of Mechanical Engineering, from March 01, 2022, to April 30, 2022. She has worked on the area entitled "Mechanical polymer clinching process".

Dr. Ashish Rajak
IIT Indore Faculty Mentor

Professor Anand Parey
Dean, Resources Generation

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



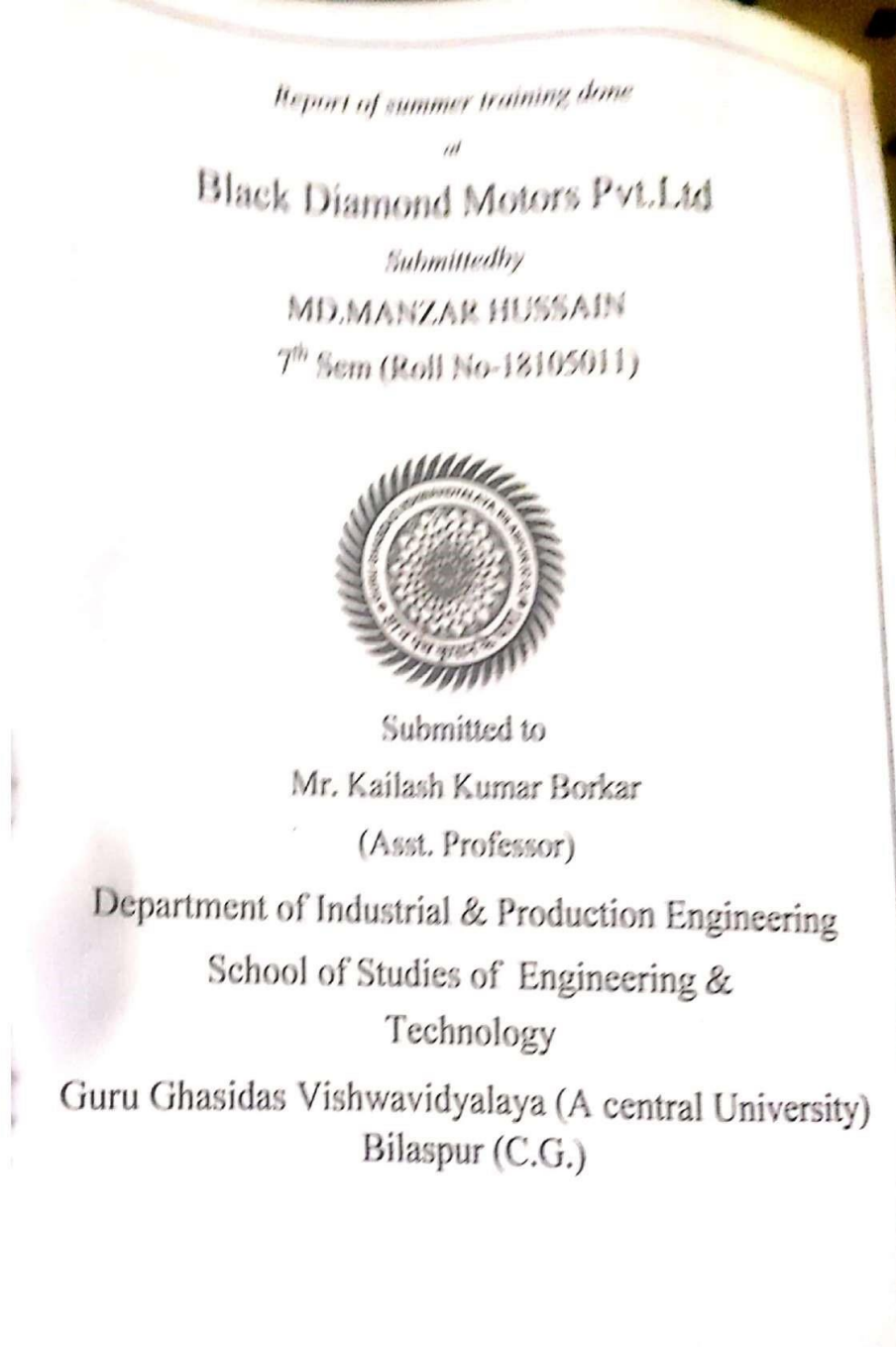
Acknowledgment

First, I would like to express my special thanks of gratitude to my teacher "Mr. Aashish Rajak" for giving me an opportunity to work under their able guidance on advanced manufacturing field and support me in completing my project.

I hope that I can build upon the experience and knowledge that I have gained and make a valuable contribution towards the industries in coming future.

DATE: 4/07/2022

Leena Raj



विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदीयिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



BLACK DIAMOND MOTORS
VATE LIMITED
O 9001 : 2015 COMPANY

Ref. No. BDM/HR/TRG/2022/3

Plot No. 119, Sector 'B'
SIRGITA INDUSTRIAL ESTATE
BILASPUR (C.G.) 495 004 INDIA
TOLL FREE : 18002740001
www.blackdiamondmotors.com


Date: 28/06/2022


To Whome So Ever It May Concern

This is to certify that Mr. MANZAR HUSSAIN student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Traller".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.


CEO
(Alok Shrivastava)

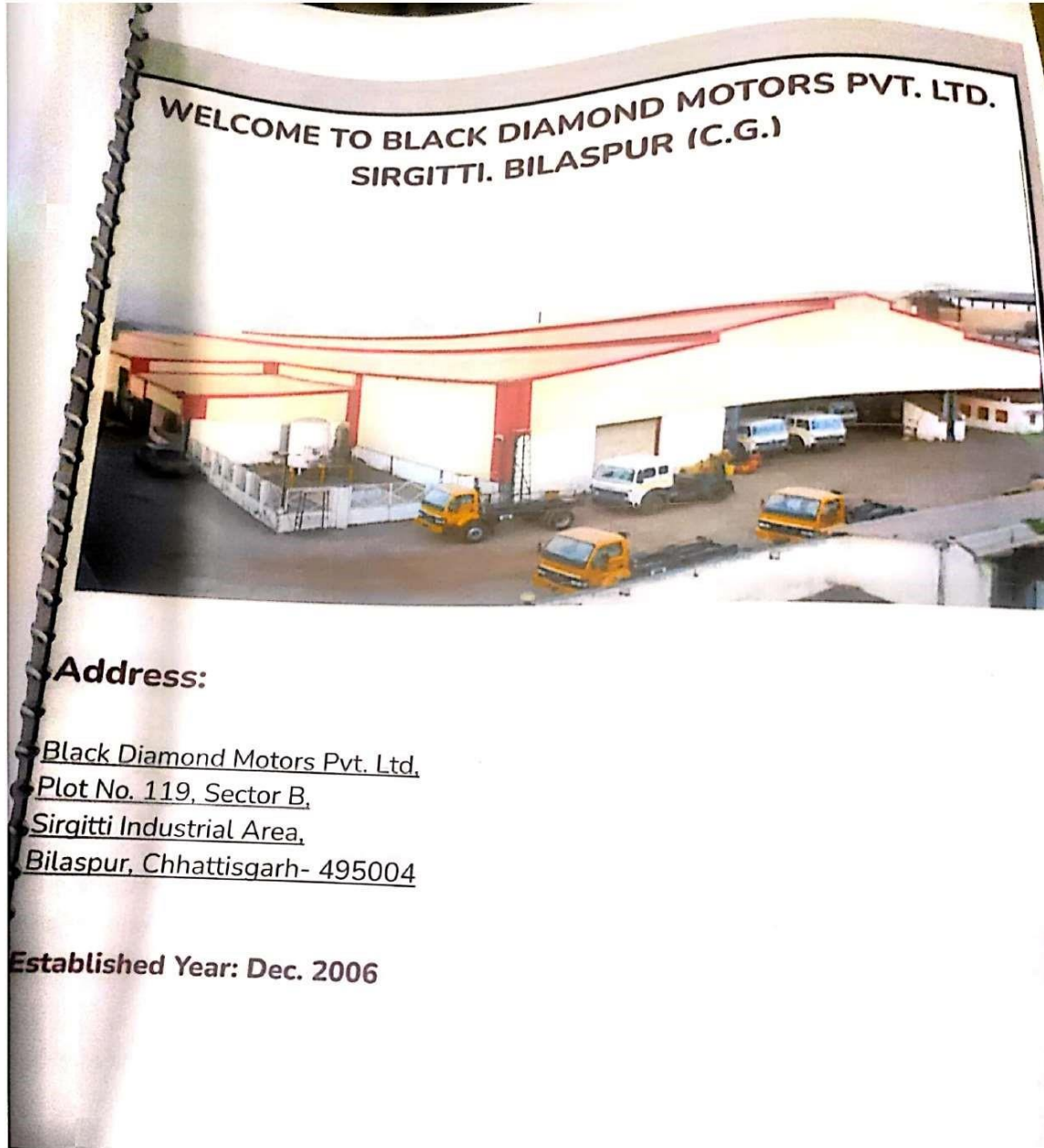


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)



Address:

Black Diamond Motors Pvt. Ltd.
Plot No. 119, Sector B,
Sirgitti Industrial Area,
Bilaspur, Chhattisgarh- 495004

Established Year: Dec. 2006



Report of summer training done
at
NTPC Regional Learning Institute (RLI) SIPAT
Submitted by
KOMATI ANVESH
7th Sem (Roll NO. 19105522)



Submitted to
Mr. ANURAG SINGH
(Asst. Professor)

Department of Industrial & Production Engineering
School of Studies of Engineering &
Technology
Guru Ghasidas Vishwavidyalaya (A central University)
Bilaspur (C.G.)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदासिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



REGIONAL LEARNING INSTITUTE, NTPC, SIPAT
क्षेत्रीयज्ञानार्जनसंस्थान, एनटीपीसी, सीपट
CERTIFICATE OF VOCATIONAL TRAINING 2022
औद्योगिक प्रशिक्षण प्रमाण पत्र 2022

Ref No. RLI/SIPAT/CERT/2022/VT22INP282

THIS CERTIFICATE IS AWARDED TO

KOMATI ANVESH

VT Roll No – VT22INP282

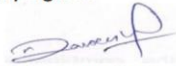
Production & Industrial ENGG

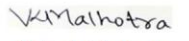
GGU BILASPUR


For satisfactorily completing **Vocational Training at NTPC-Sipat, Bilaspur** for a period of four weeks from 15/06/2022 to 15/07/2022. The participant has successfully completed the course and has also completed the project assigned to him/her as part of this course. We wish him/her a bright and successful future.

This certificate is digitally signed.

Date: 17.07.2022


G. Praveen Kumar
Sr. Manager (RLI)


Vikash Malhotra
DGM (RLI-Simulator)


A K Tripathi
GM & Head (RLI-Simulator)


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
औद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ACKNOWLEDGEMENT

We would like to express our special thanks of gratitude to Mr. AlokKumar Tripathi, GM & Sr Faculty, NTPC, Regional Learning Institute(RLI), executives and support team of RLI Sipat for their able guidance and support in completing our project.

We would also wish to express our sincere gratitude to all the faculties of NTPC who delivered informative lectures which helped us a lot to understand about the Power Industry. We also thank our institutes all our HODs, professors and placement coordinators for supporting us in this learning journey.

Last but not the least, we express sincere thanks to all our fellow group members for the stimulating discussions and working together before deadline.



Report of summer training done

at

INTERNSHALA ON AUTO CAD

Submitted by

KOTHA SANDEEP

7th Sem (19105523)



Submitted to

Mr. ANURAG SINGH

(Assistant Professor)

Department of Industrial & Production
Engineering

School of Studies of Engineering &
Technology

Guru Ghasidas Vishwavidyalaya (A central
University) Bilaspur (C.G.)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौश्रुतिक संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)




विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी, संरक्षण/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



INTERNSHALA



Software training is one of the requirements to be fulfilled in order to obtain the bachelor's degree in technology. Each student needs to do software training in a recognized company of their respective domain. The students are compulsory to do training for duration of 3 to 4 week which is intended for their exposure to the software industry. A well planned, properly executed and evaluated software training helps a lot in developing a professional attitude. It develops an awareness of software approach to problem solving based on a broad understanding of processes. Besides software training built self confidence among 6 students and let students know the technical knowledge and professionalism.

During industrial training at INTERNSHALA, most of the theoretical knowledge gained during the course of studies was put to test. Various efforts and processes involved in



Report of summer training done

at

Black Diamond Motors Pvt.Ltd

Submitted by

KISHAN KUMAR NAG

7th Sem (Roll No:- 19105521)



Submitted to

DR. GANESH SHUKLA

(Asst. Professor)

Department of Industrial & Production Engineering

School of Studies of Engineering &

Technology

Guru Ghasidas Vishwavidyalaya (A central University)

Bilaspur (C.G.)

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
शैक्षणिक संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



BLACK DIAMOND
motors
PRIVATE LIMITED
AN ISO 9001 : 2015 COMPANY

PLOT NO. - 119, SECTOR - 'B'
SIRGITTI INDUSTRIAL ESTATE
BILASPUR (C.G.) 495 004 INDIA
TOLL FREE : 18002740001

www.blackdiamondmotors.com

MSME : 2200712

TIN : 2294420

GST No. : 22AACCE

ECC : AACCB73

enquire@blackdiamondn

Ref No BDM/HR/TRG/2022/5

Date: 28/06/2022

To Whome So Ever It May Cencern

This is to certify that **Mr. KISHAN KUMAR NAG** student of B.Tech semester VI branch Industrial and Production Engineering of Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) has undergone vocational training from 23/05/2022 to 21/06/2022 in our organization under the topic "Industrial training Report On manufacturing Of Tip Trailer".

During training his performance was found good.

For, Black Diamond Motors Pvt. Ltd.



CEO
(Alok Shrivastava)

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्धांतिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

" a new definition to road transport "



INTRODUCTION

Black Diamond Motors was launched in Dec 2006 and started its commercial production in 2007. The New Company was exclusively for Tipper and Trailer manufacturing. We have infused our long experience in Hi-Tech Fabrication and Engineering in our new venture in the Automobile Sector and thereby achieved a significant position in this industry very soon.

Black Diamond Motors Pvt. Ltd. is a name synonymous with high quality, ground breaking technology and futuristic design in the India trailer industry. Black Diamond Motors Pvt. Ltd. was incorporated in the year 2007 as a company which offers a wide range of Tippers, Tip-Trailer, Rock Bodies, Bulk Carriers and Custom Designed Bodies which find acceptance among highly designed Bodies which find wide acceptance among highly discerning customers in Goods Transporting Segment of Automobile Industry.

COMPANY OVERVIEW

Black Diamond as a brand name was established in 1980 as a manufacturer of Mining Machinery Spares and service providers to the Mining Industry. In the past 3 decades we have emerged as the leaders of Hi-Tech Earthmoving Machinery's Spares and Service Providers in the Central and East India region.

In Dec 2006 we launched our new Company exclusively to cater the Goods Transporting Segment of the Automobile Industry. Our new company Black Diamond Motors Pvt. Ltd. is spread over 7 acres at Sirgitti Industrial Area, Bilaspur, and the manufacturing hub in Chhattisgarh State. We have infused our long experience in Hi-Tech Fabrication and Engineering in our new venture in the automobile sector and thereby achieved a significant position in this industry in a very short span of time.

We are ahead of our production targets and multiplying productivity while maintaining quality at the same time.

Hyva (India) Pvt. Ltd. The leaders in manufacturing. Hydraulic Cylinders worldwide and Tipper Bodies in India have been awarded us as an authorized body builder.



Guru Ghasidas Vishwavidyalaya, Bilaspur

Department of Industrial Production Engineering

SIX WEEKS SUMMAR TRAINING REPORT

ON

AUTOCAD



A Project report submitted to the Guru Ghasidas Vishwavidyalaya, Bilaspur
Towards the partial fulfillment of Bachelor of Technology
in

Industrial Production Engineering

Submitted by

Name: **JEGGILI VIKAS KUMAR**
ROLL NO: 19105516

Submitted to

Dr. Ganesh Shukla
Assistant Professor

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
प्रौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ACKNOWLEDGEMENT

“An engineer with only theoretical knowledge is not a complete engineer. Practical knowledge is very important to develop and apply engineering skills”. It gives me a great pleasure to have an opportunity to acknowledge and to express gratitude to those who were associated with me during my training at Training at InternShala.

I express my sincere thanks and gratitude to cad desk authorities for allowing me to undergo the training in this prestigious organization. I will always remain indebted to them for their constant interest and excellent guidance in my software training work, moreover for providing me with an opportunity to work and gain experience.

THANK YOU



**RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT**



A PROJECT REPORT
ON

**“PROGRAMMING AND OPERATION OF CNC
GAS CUTTING MACHINE”**

Submitted to:

Dr Ganesh Shukla sir, Asst. Professor,
Dept. of Industrial of Production
Engineering, GGV Bilaspur.



Submitted by:

GUNTREDDI NAIMISHA -19105514

**DEPARTMENT OF INDUSTRIAL & PRODUCTION
ENGINEERING**

**GURU GHASIDAS VISHWAVIDYALAYA,
Bilaspur (C.G).**

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





राष्ट्रीय इस्पात निगम लिमिटेड Rashtriya Ispat Nigam Limited
विशाखापत्तनम इस्पात संयंत्र Visakhapatnam Steel Plant
तकनीकी प्रशिक्षण केंद्र, Technical training Institute
विशाखापत्तनम Visakhapatnam-530031

Reg.No. : 100007527
प्रमाणपत्र Certificate



प्रमाणित किया जाता है कि श्री /This is to certify that Mr./Ms. GUNTREDDI NAIMISHA student of
(वर्ष/पाठ्यक्रम/शाखा-Year/course/Branch) 3/BE/B TECH/MECHANICAL/INDUSTRIAL & PRODUCTION/INDUSTRIAL
विद्यार्थी ने from
GURU GHASIDAS VISWA VIDYALAYA, BILASPUR से has undergone
4 Week प्रशिक्षण training विशाखापत्तनम इस्पात
संयंत्र के at Visakhapatnam Steel Plant in **ENGINEERING SHOPS & FOUNDRY (ES&F)** विभागों में
department from दि. 23-05-2022 से to 18-06-2022 प्राप्त तक किया |

परियोजना शीर्षक The Project Title is **PROGRAMMING & OPERATION OF CNC GAS CUTTING** है।
प्रशिक्षण अवधि में उनका आचरण His/Her conduct during the period of training
is **GOOD** है।

स्थल/Place : Visakhapatnam
दि./Date : 22-06-2022


अभिषेक कुमार श्री अशोक
Signature of Training Co-ordinator
एन गौरी शंकर श्री गणेश शर्मा
सहायक प्रशिक्षण अधिकारी/ Assistant General Manager (Training)
तकनीकी प्रशिक्षण केंद्र/ Technical Training Institute
आर.आई.एन.ए.ए. विश्वविद्यालय इस्पात विभाग, विशाखापत्तनम इस्पात संयंत्र
विशाखापत्तनम - 530031/Visakhapatnam-530031


विभागाध्यक्ष /Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
तकनीकी संस्थान /Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ABSTRACT

The efficiency of the plant depends on the smooth working of its machinery. Hence Engineering Shops and Foundry department was setup for the manufacture of spare parts and the repair of damaged equipment, which are frequent in nature, in the plant.

In this project “Programming and operation of CNC gas cutting”, one can get exposure to the industrial processes and procedures that are required to fabricate a spare part or any job and to develop repair shapes by cutting required shape from plates or sheets.

The process of gas cutting, which starts with the need of the customer or user, attains its drawing required for a worker to understand the dimensions to be made and then a code is written and fed to the machine which cuts the plate accordingly. This whole process is as essential in many industries as there will be a continuous urge of new fabricated parts.

This fabrication department can be observed in industries such as automobiles, aircraft, and shipbuilding. A lot of engineering knowledge is incorporated in these basic techniques used in fabrication.

Various departments of steel plants require fabricated structural, and equipment spares like Tundishes, Ladle covers, scrap holding buckets, hoppers, gratings, slag pots etc. and various activities like drilling, shearing, forming, pressing, gas cutting, bending of cone from sheet, welding are required to carry out fabrication.



Guru Ghasidas Vishwavidyalaya, Bilaspur

Department of Industrial Production Engineering

SIX WEEKS SUMMAR TRAINING REPORT

ON

AUTOCAD



A Project report submitted to the Guru Ghasidas Vishwavidyalaya, Bilaspur
Towards the partial fulfillment of Bachelor of Technology

in

Industrial Production Engineering

Submitted by

Name: KENDRUKA
MOHANCHANDU
ROLL NO: 19105519

Submitted to

Dr. Ganesh Shukla
Assistant Professor

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
प्रौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)



[Signature]
विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

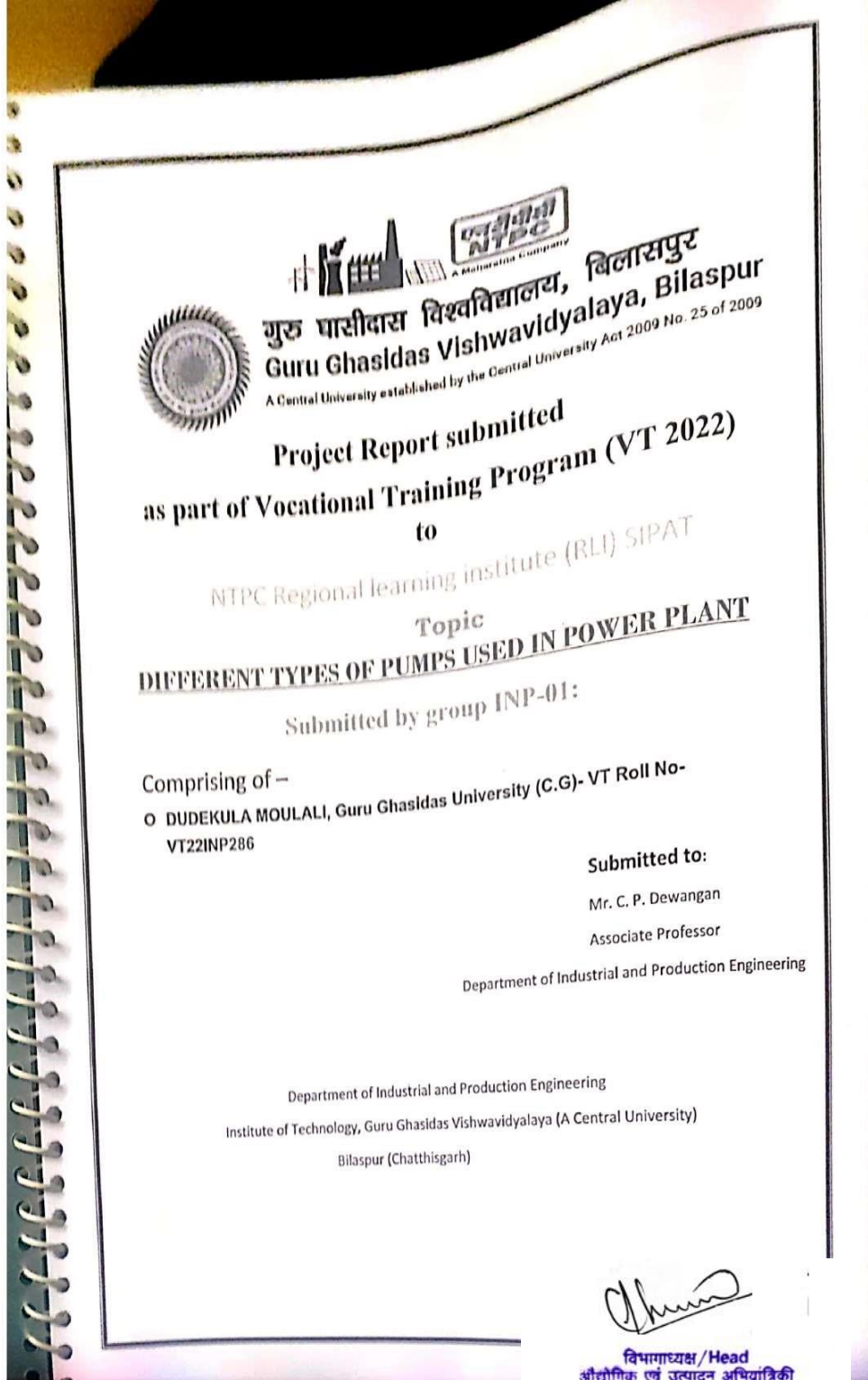


ACKNOWLEDGEMENT

"An engineer with only theoretical knowledge is not a complete engineer. Practical knowledge is very important to develop and apply engineering skills". It gives me a great pleasure to have an opportunity to acknowledge and to express gratitude to those who were associated with me during my training at Training at InternShala.

I express my sincere thanks and gratitude to cad desk authorities for allowing me to undergo the training in this prestigious organization. I will always remain indebted to them for their constant interest and excellent guidance in my software training work, moreover for providing me with an opportunity to work and gain experience.

THANK YOU




विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



REGIONAL LEARNING INSTITUTE, NTPC, SIPAT

क्षेत्रीयज्ञानार्जनसंस्थान, एनटीपीसी, सीपट
CERTIFICATE OF VOCATIONAL TRAINING 2022
औद्योगिक प्रशिक्षण प्रमाण पत्र 2022

Ref No. RLI/SIPAT/CERT/2022/VT22INP287

THIS CERTIFICATE IS AWARDED TO

Ishan Rajak

VT Roll No - VT22INP287


Production & Industrial ENGG

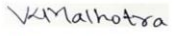
GGU BILASPUR


For satisfactorily completing Vocational Training at NTPC-Sipat, Bilaspur for a period of four weeks from 15/06/2022 to 15/07/2022. The participant has successfully completed the course and has also completed the project assigned to him/her as part of this course. We wish him/her a bright and successful future.

This certificate is digitally signed.

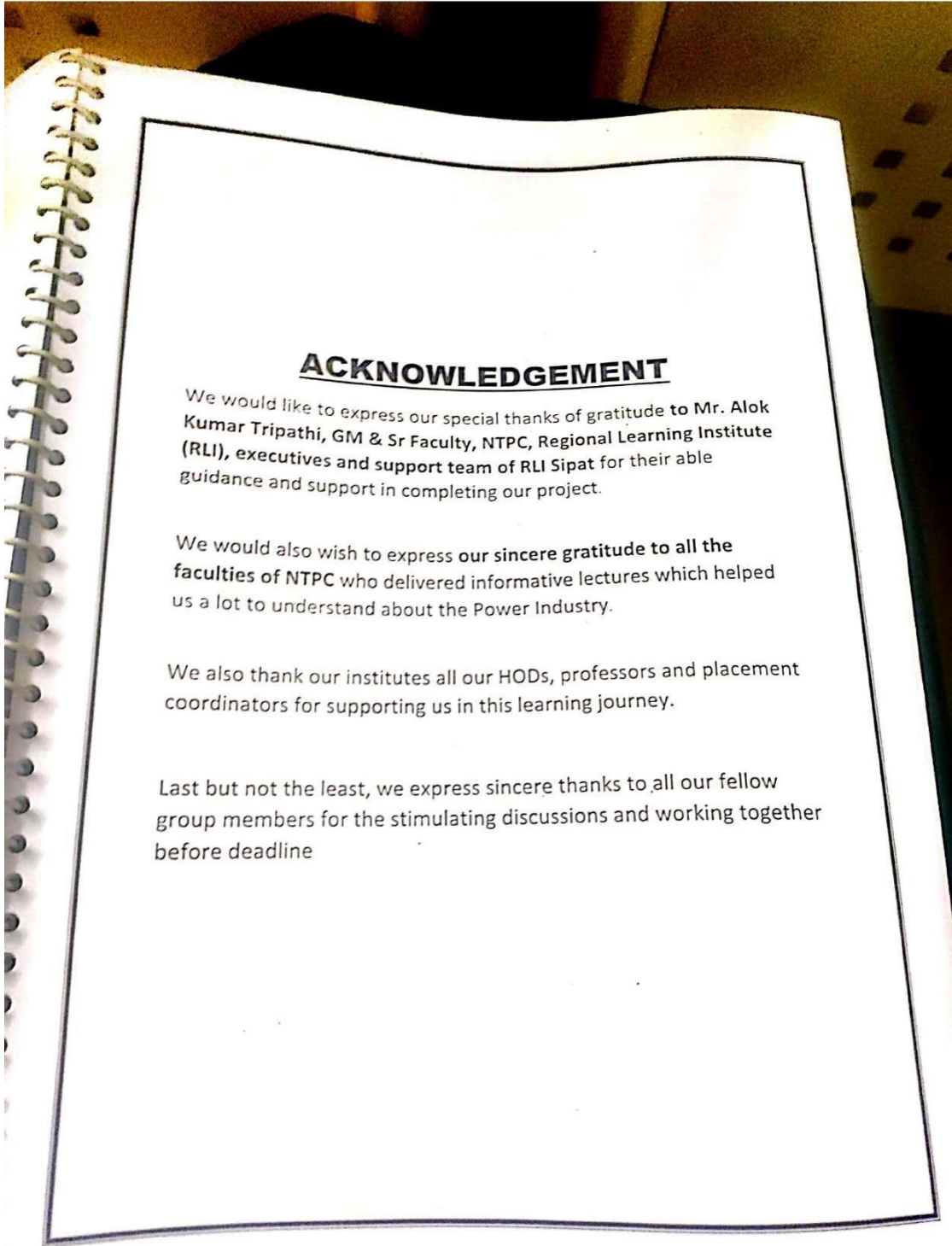
Date: 17.07.2022


G. Praveen Kumar
Sr. Manager (RLI)


Vikash Malhotra
DGM (RLI-Simulator)


A K Tripathi
GM & Head (RLI-Simulator)


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
क्षेत्रीयज्ञान संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)





Guru Ghasidas Vishwavidyalaya, Bilaspur

Department of Industrial Production Engineering

SIX WEEKS SUMMAR TRAINING REPORT

ON

AUTOCAD



A Project report submitted to the Guru Ghasidas Vishwavidyalaya, Bilaspur
Towards the partial fulfillment of Bachelor of Technology
in

Industrial Production Engineering

Submitted by

Name: **Gontumukkala Venkatanaresh**

ROLL NO: 19105512

Submitted to

Dr. Ganesh Shukla

Assistant Professor

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी, संरक्षण/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)




विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ACKNOWLEDGEMENT

“An engineer with only theoretical knowledge is not a complete engineer. Practical knowledge is very important to develop and apply engineering skills”. It gives me a great pleasure to have an opportunity to acknowledge and to express gratitude to those who were associated with me during my training at Training at InternShala.

I express my sincere thanks and gratitude to cad desk authorities for allowing me to undergo the training in this prestigious organization. I will always remain indebted to them for their constant interest and excellent guidance in my software training work, moreover for providing me with an opportunity to work and gain experience.

THANK YOU

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)

RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT



A PROJECT REPORT
ON

**“MECHANICAL MAINTENANCE OF BAR MILL EQUIPMENT &
HYDRAULIC SYSTEMS IN LMMM”**

Submitted to
Dr Ganesh Shukla sir,
Asst. Professor,
Dept. of Industrial of Production Engineering,
GGV Bilaspur.



Submitted by:
KARANAM DEVEE PRASAD 19105517

DEPARTMENT OF **INDUSTRIAL & PRODUCTION
ENGINEERING**

GURU GHASIDAS VISHWAVIDYALAYA,
Bilaspur (C.G).
A Central University established by the Central Universities Act 2009 No.
25 of 2009.

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
शैक्षणिक संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



राष्ट्रीय इस्पात निगम लिमिटेड Rashtriya Ispat Nigam Limited
विशाखापत्तनम इस्पात संयंत्र Visakhapatnam Steel Plant
तकनीकी प्रशिक्षण केंद्र, Technical training Institute
विशाखापत्तनम Visakhapatnam-530031

Reg.No. : 100008971
प्रमाणपत्र Certificate



प्रमाणित किया जाता है कि श्री /This is to certify that Mr./Ms. **KARANAM DEVEE PRASAD** student of

(वर्ष/पाठ्यक्रम/शाखा-Year/course/Branch) **3/BE/B TECH/MECHANICAL/INDUSTRIAL & PRODUCTION/INDUSTRIAL** विद्यार्थी ने from

GURU GHASIDAS VISWA VIDYALAYA, BILASPUR से has undergone

4 Week प्रशिक्षण training विशाखापत्तनम इस्पात

संयंत्र के at Visakhapatnam Steel Plant in **LIGHT & MEDIUM MERCHANT MILL (LMMM)** विभागों में

department from दि. **09-05-2022** से to **04-06-2022** प्राप्त तक किया |

परियोजना शीर्षक The Project Title is **STUDY OF HYDRAULIC SYSTEMS IN LMMM** है।

प्रशिक्षण अवधि में उनका आचरण His/Her conduct during the period of training is **GOOD** है।

स्थल/Place : Visakhapatnam

दि./Date : 16-06-2022


प्रशिक्षण सहयोगक का इस्पात
Signature of Training Co-ordinator
एन एचएस बाहु, M Ganesh Babu
सहायक महासंचालक (प्रशिक्षण) / Assistant General Manager (Training)
राष्ट्रीय इस्पात निगम लिमिटेड/Technical Training Institute
अनर अर्ब एन एल इस्पात संयंत्र द्वारा संयंत्र/In: Visakhapatnam Steel Plant
विशाखापत्तनम - 530031/Visakhapatnam-530031

विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
प्रौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ABSTRACT

This project deals with “**Mechanical Maintenance of Bar Mill Equipment & Hydraulic systems in LMMM**” at VSP.

Light and medium merchant mill (LMMM) is a type of rolling mill. LMMM comprises of billet mill and bar mill.

This project describes the basic principle and working of the hydraulic system in detail with specifications. The troubles that may be encountered in various components of hydraulic systems in cellar 10 such as pressure failure in supply lines and jamming of valves and pin due to bending of the frame along with possible solutions have been dealt with. The merits and demerits of the system were also discussed.

Due to this unsynchronized speeds between counter and hydro motor the counter is transferring the more than one bar at a time without proper counting and it is creating over weighted bundle.



A PROJECT REPORT ON AUTOMATED STRAPING MACHINE



सेल SAIL

स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED

Department of industrial and production engineering

Submitted to :- Dr. GANESH P. SHUKLA

Place Of Training: Bhilai Steel Plant (SAIL), Bhilai (C.G.)

Project Guide: Mr. S.K. Soni Sir


Department: Bar and Rod Mill

Training Period: 06/06/2022 to 02/07/2022

Reports submitted by: -Khilendra Kumar Nirmalkar

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्युगिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



 सल SAIL
भिलाई इस्पात संयंत्र
BHILAI STEEL PLANT

मानव संसाधन विकास विभाग
HUMAN RESOURCES DEVELOPMENT DEPARTMENT

प्रमाणपत्र
CERTIFICATE

पंजीयन क्र. P-21/7708
Regn. No.....

प्रमाणित किया जाता है कि श्री / कुमारी
This is to certify that Shri / Ku. **Khilendra Kumar Nirmalkar**

सेमेस्टर विद्यार्थी
Sixth Sem., student of B.Tech. of G.G.U., Bilaspur. College / संस्थान
(Industrial & Production)

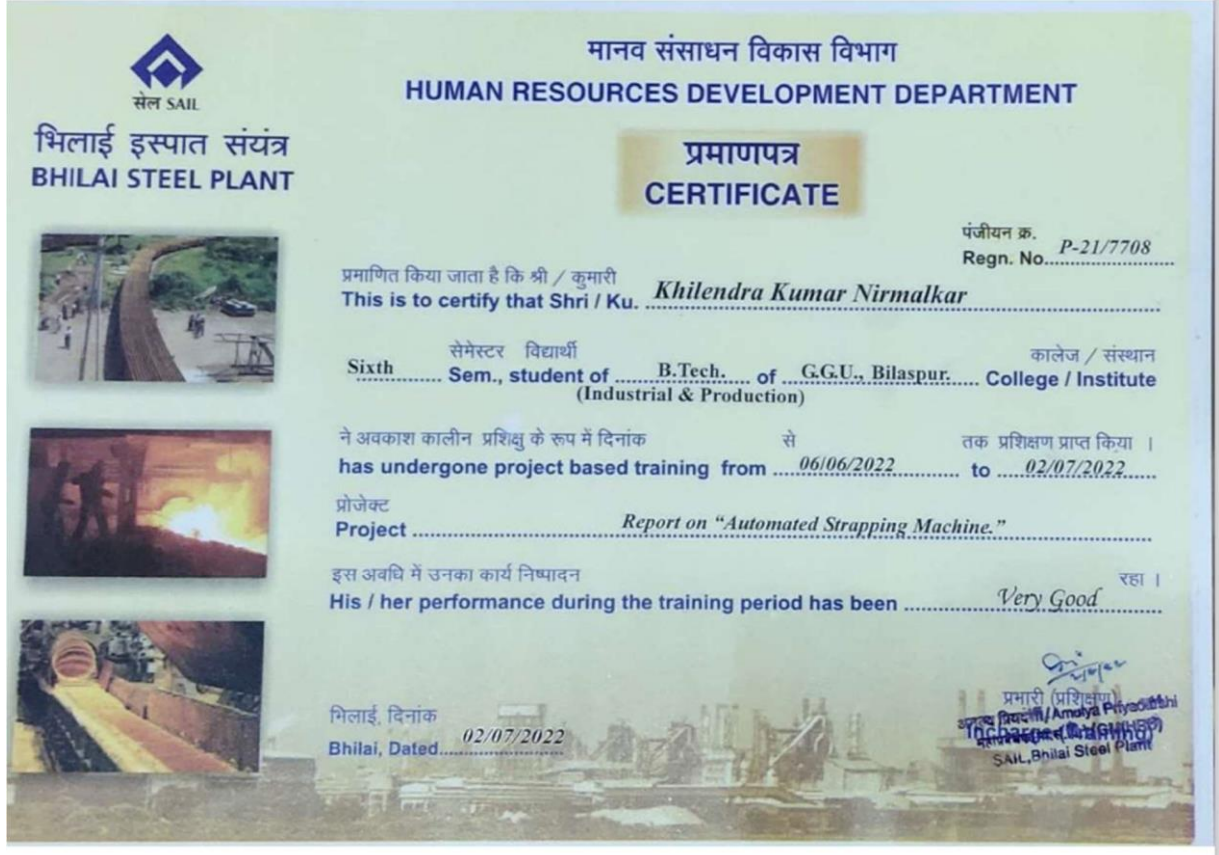
ने अवकाश कालीन प्रशिक्षु के रूप में दिनांक से तक प्रशिक्षण प्राप्त किया ।
has undergone project based training from 06/06/2022 to 02/07/2022

प्रोजेक्ट
Project Report on "Automated Strapping Machine."

इस अवधि में उनका कार्य निष्पादन रहा ।
His / her performance during the training period has been Very Good

भिलाई, दिनांक
Bhilai, Dated 02/07/2022

प्रमारी (प्रशिक्षण)
अमोया प्रियदर्शि / Amoya Priyadarshi
इंजीनियरिंग (उत्पादन)
SAIL, Bhilai Steel Plant



विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

ACKNOWLEDGMENT



It gives us great pleasure to accept the opportunity to undergo Project based training at BHILAI STEEL PLANT of SAIL for the period June 6 to July 2, 2022. This training has been a constant learning experience and we look forward to undertake more such stimulating training in the future.

Firstly, we would like to express our deepest gratitude to our advisor Mr. S. K. Soni Sir (GM of BRM , BSP), who assigned us this project and it is solely due to him that we learn a lot. It has been a wonderful learning experience in Bhilai Steel Plant. We would never be able to finish our dissertation without his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing training.

We would not forget to remember Mr. S. K. Marathe sir for his encouragement and more ever for timely support and guidance till the completion of our project work.

The data presented in this report have been drawn from a large number of sources and people. We shall be happy to receive criticism if thereby we may learn more. We acknowledge our debt to all those people who helped us in preparing this project report in its present form.



A PROJECT REPORT ON AUTOMATED STRAPING MACHINE



सेल SAIL

स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED

Department of industrial and production engineering

Submitted to :- Dr. GANESH P. SHUKLA

Place Of Training: Bhilai Steel Plant (SAIL), Bhilai (C.G.)

Project Guide: Mr. S.K. Soni Sir

Department: Bar and Rod Mill

Training Period: 06/06/2022 to 02/07/2022

Reports submitted by: -Kaushal Prashad

विभागाध्यक्ष/Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौदागिकी संस्थान/Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)




विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सौद्योगिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



ACKNOWLEDGMENT

It gives us great pleasure to accept the opportunity to undergo Project based training at BHILAI STEEL PLANT of SAIL for the period June 6 to July 2, 2022. This training has been a constant learning experience and we look forward to undertake more such stimulating training in the future.

Firstly, we would like to express our deepest gratitude to our advisor Mr. S. K. Soni Sir (GM of BRM , BSP), who assigned us this project and it is solely due to him that we learn a lot. It has been a wonderful learning experience in Bhilai Steel Plant. We would never be able to finish our dissertation without his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing training.

We would not forget to remember Mr. S. K. Marathe sir for his encouragement and more ever for timely support and guidance till the completion of our project work.

The data presented in this report have been drawn from a large number of sources and people. We shall be happy to receive criticism if thereby we may learn more. We acknowledge our



debt to all those people who helped us in preparing this project report in its present form.

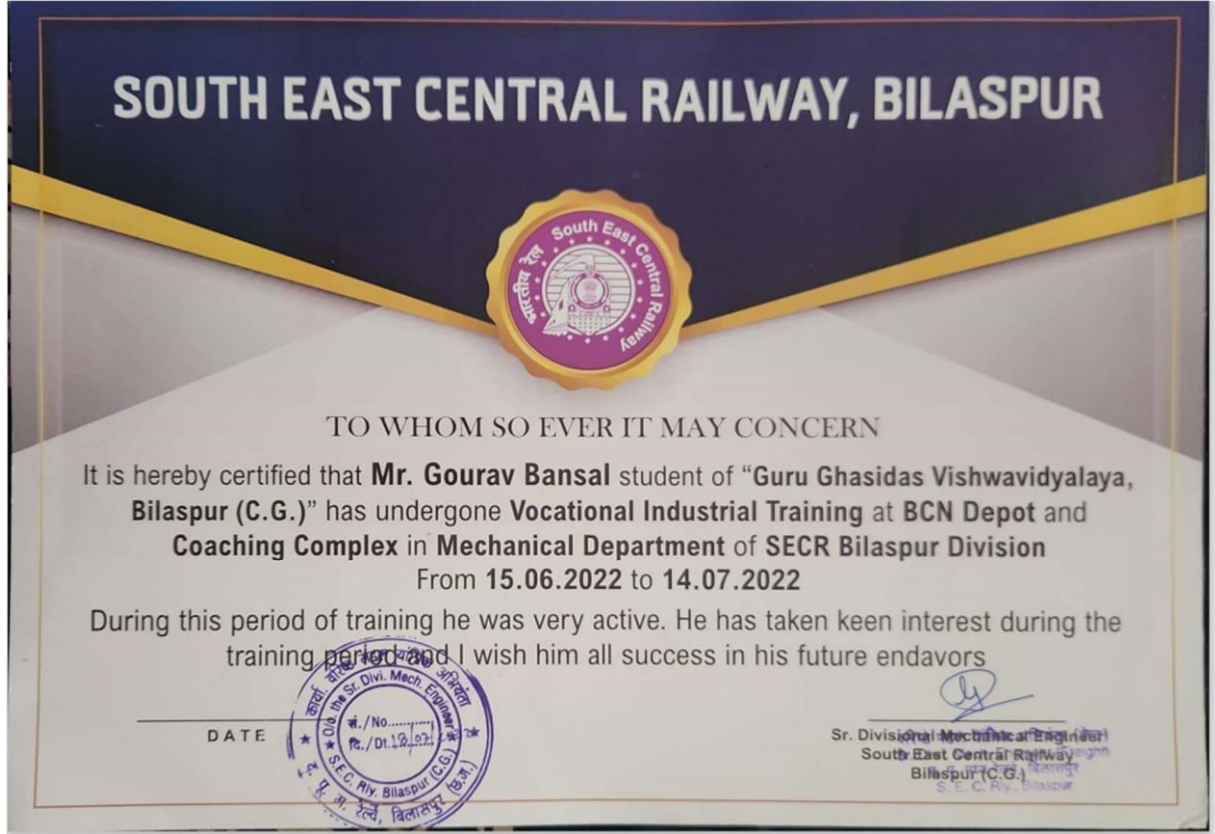
The cover page features a white central area with a blue and purple gradient background. At the top right, there is a circular logo of Guru Ghasidas Vishwavidyalaya. The main title 'Vocational Training' is in large black font, followed by 'at' in a smaller font, and 'BCN and CHG depot of SEC Railway' in blue font. Below this, the author's details are listed: 'Submitted by - Gourav Bansal', 'Roll No. - 19105513', 'Branch - Industrial Production Engineering', 'Semester - 7th', and 'AY - 2022-23'. At the bottom, there is a signature and the name of the department: 'विभागाध्यक्ष / Head औद्योगिक एवं उत्पादन अभियांत्रिकी Industrial & Production Engineering'. The background of the cover page includes illustrations of a train and a station platform.


विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्धांतिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर - 495009 (छ.ग.)



Guru Ghasidas Vishwavidyalaya
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)
Koni, Bilaspur - 495009 (C.G.)




विभागाध्यक्ष / Head
औद्योगिक एवं उत्पादन अभियांत्रिकी
Industrial & Production Engineering
सैद्धांतिकी संस्थान / Engineering & Technology
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



About Indian Railway

- ❖ Indian Railway is a state owned Railway company of India. It is managed under Ministry of Railway.
- ❖ Indian Railway has the 4th Largest railway network in the world. It transports 1.8 million passengers and 2 million tons of goods daily.
- ❖ It owns 200000 freight wagons, 50000 coaches, 8000 locomotives.
- ❖ It has 19 divisions. South East Central (SECR) Railway is one of them where we did our Vocational Training
- ❖ Bilaspur is the Headquarter of SECR Railway. In bilaspur Railway has BCN depot ,CHG Depot , Electric Loco shop, etc.

