



**HINDUSTAN PETROLEUM CORPORATION LIMITED**  
**VISAKHAPATANAM**  
**INTERNSHIP REPORT ON**  
**STUDY OF CATALYSTS FOR REFINING PROCESSES**

**SUBMITTED BY:**

**P VANDANA**

**GGV/20/01538**

**B.TECH., CHEMICAL ENGINEERING**

**GURU GHASIDAS VISHWAVIDYALAYA**

**BILASPUR, CHHATISGARH**

**SUBMITTED TO:**

**MR. KOLLARAPU NITHISH BHARADWAJA**

**OFFICER - HR**

**HPCL VISAKH REFINERY**

S.NO	CONTENTS	PAGE NO.
		9 - 10
1	CATALYSTS	11 - 14
2	REFINING PROCESSES	15
3	CATALYST SELECTION AND DESIGN	16 - 17
4	CATALYST PREPARATION AND ACTIVATION	17 - 19
5	CATALYST DEACTIVATION AND REGENERATION	19 - 20
6	CATALYST PERFORMANCE EVALUATION	21
7	ENVIRONMENTAL AND ECONOMICAL IMPLICATIONS	22
8	CHALLENGES AND FUTURE TRENDS	23
9	CATALYSTS FOR SPECIFIC REFINING PROCESSES	24
10	CATALYSTS IN SUSTAINABLE REFINING	25
11	CONCLUSION	25
12	REFERENCE	25



हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार संस्थान) रजिस्टर्ड ऑफिस 17 जमशेदजी टाटा रोड, मुंबई - 400 020

**HINDUSTAN PETROLEUM CORPORATION LIMITED**

(A GOVERNMENT OF INDIA ENTERPRISE) REGISTERED OFFICE: 17 JAMSHEDJI TATA ROAD, MUMBAI-400 020

CIN : L23201MH1952GOI008858



विशाख रिफाइनरी, पोस्ट बॉक्स नं. 15, विशाखपट्टनम-530 011 (आंध्रप्रदेश), फोन - 2895000, 2895100  
VISAKH REFINERY, POST BOX NO. 15, VISAKHAPATNAM-530 011 (A.P.), PHONES : 2895000, 2895100

HR: RK: VSI: 2023:23

Visakh Refinery  
12 JULY, 2023

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that PAPPALA VANDANA (Roll No: GGV/20/01538) from GURU GHASIDAS VISHWAVIDHYALAYA, has successfully completed an internship from 01-05-2023 to 10-07-2023 at HPCL-Visakh Refinery on "STUDY OF CATALYSTS FOR REFINING PROCESSES".

During her project work she demonstrated exceptional skills, dedication and a strong work ethic. We acknowledge her outstanding contributions and wish her continued success in her future endeavors.

*Ravi Kumar*  
Ravi Kumar  
Sr. Manager - HR

रवि कुमार / RAVI KUMAR  
वरिष्ठ प्रबंधक - मा.सं. / Senior Manager - HR  
एच.पी.सी.एल. - विशाख रिफाइनरी  
H.P.C.L. - Visakh Refinery