

# Chetan Shyam Borkar

(M.Tech – Chemical Technology)

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## **Objective:**

To seek assignment and responsibility in a challenging environment that boost up my thinking, strengthen knowledge, tailor skills and thrust career to innovate, achieve, grow and lead.

Effectively endow to the organization's talent pool with my fueled passion, enthusiasm, hard work, dedication, sincerity, accuracy, and contribute to its ongoing growth, development and success.

## **Professional & Academic Profile:**

Sr. no.	Exam Name	Year of Passing	Board/University	CGPA	Percentage (%)
1.	M.Tech. ( <i>Chemical Technology</i> )	2019	Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur	8.05	71.35
2.	B. Tech. ( <i>Chemical Technology</i> )	2017	Sant Gadge Baba Amravati University, Amravati	7.01	64.00
3.	HSC	2013	Maharashtra State Board, Pune	-	56.00
4.	SSC	2011		-	82.36

## **Areas of Interest:**

- Production
- Research & Development
- Quality
- Operations

## **Experiential Learning (Summer Internship):**

**Company Name:** Bharat Petroleum Corporation Limited, Mumbai Oil Refinery  
(6<sup>th</sup> June 2016 to 1<sup>st</sup> July 2016)

**Project Title :** Make-up hydrogen gas compressor efficiency

**Details :** Hydrocracking is the process in which high molecular weight hydrocarbons are converted to low molecular weight hydrocarbons by application of high temperature, pressure & high quantity of hydrogen environment. A make-up hydrogen gas compressor provides additional hydrogen to the recycle stream since some hydrogen is consumed during the reaction phase. The compressor compresses the hydrogen gas to decreases its volume (make it liquid hydrogen) to make up to the reactor for the reaction. Efficiency is work done/input power and made up to 70% total.

## **Details of Project Submitted at Post-Graduate & Graduate Level:**

### **M.Tech Major – Dissertation (2019):**

*"Synthesis of Environmentally Acceptable Bio-Based Lubricant from Soya Acid Oil (SAO)"*, Laxminarayan Institute of Technology, RTM Nagpur University, Nagpur

**Details:**

- Bio-Based Lubricant is synthesized from renewable resources (plant seed oil) by chemical modifying the structure of fatty acids.
- Soya acid oil a by-product of soybean oil refining, has high acid value, low pH, dark black color & has no commercial value is used as a cost-effective feedstock.
- Chemical modification through epoxidation process (peroxyacids), ring opening (alcohol) and then esterification (anhydride) bio-based lubricant is synthesized.

**Achievements of the project are:**

- Developed a process to produce bio-based lubricant in the laboratory.
- Experimentally produced bio-based lubricant using soya acid oil.
- Determined the effect of molar ratio of process parameters to oil on the yield of bio-based lubricant
- Evaluated the physico-chemical properties of obtained bio-based lubricant & compared to conventional lubricant.
- Bio-based lubricant are environmentally acceptable, non-toxic, renewable and sustainable value-added product.
- Product serve as an alternative to conventional lubricant that is hazardous to the environment.

**M.Tech Minor – Dissertation (2018):**

*“Grease Formulation by utilizing Waste Engine Oil & a By-product of Vegetable Oil Refining”,* Laxminarayan Institute of Technology, RTM Nagpur University, Nagpur.

**Details:**

- Grease is formulated from soapstock & waste engine oil under the condition of vigorous mixing and suitable temperature.
- Soapstock a by-product of vegetable oil refining degumming process (soapy material) and waste engine oil is a degraded engine oil obtained from the engine of vehicles.

**Achievements of the project are:**

- Grease is formulated from waste & and non-commercial materials.
- Waste oil is harmful to the environment, so reusing is mandatory for acceptable environment.
- Texture of the grease was smooth & appearance was shiny.
- Physical properties were competitive to fresh petroleum grease.

**B.Tech Major – Dissertation (2017):**

*“Continuous Thermal Cracking of Used Petrol Engine Oil”,* University Department of Chemical Technology, SGB Amravati University, Amravati

**Details:**

- Thermal cracking of used engine oil to break the complex mixture structure.
- Thermally cracked material is used to give diesel & petrol like fuel.
- Disposal of used lubricating oil into the eco system creates environmental hazards.

**Achievements of the project are:**

- Thermal cracking reactor was indigenously made in the laboratory.
- Vital source of energy is used engine oil.
- From the standpoint of energy conservation, recycling & reusing used oil is efficient.

- Thermal cracking of used lube oil may help to increase its potential to use as product obtained from that can be blended with gasoline and diesel fractions.

### **Co-curricular Activity:**

- Visited SAIL's Bhilai Steel Plant, Bhilai, Chhattisgarh, India (2018)
- Visited HPCL Bottling Plant, Nagpur, Maharashtra, India (2017)
- Visited Rashtriya Chemicals & Fertilizers Limited, Thal Plant, Alibaug, India (2016)

### **Achievements:**

- Maharashtra State – Certificate in Information Technology 2013 (MS Office – Excel, Powerpoint, Word)
- Awardee of Amul Vidya Shree for outstanding academic achievement in SSC examination (2011)
- National Cadet Corp (NCC) Cadre (2008-2010)
- Attended NCC Camp at Lonara, Nagpur (2009)
- Appreciation certificate from Helpage India – 2004, 2005, 2006, 2007 & 2008
- Contributed in Social Work (Global Cancer Concern India – 2009 & 2010)

### **Key Skills:**

- |                                  |  |
|----------------------------------|--|
| ▪ Active listener & learner      | ▪ Expeditious with time & committed            |
| ▪ Critical thinking & innovative | ▪ Good team leader, flexible as team member    |
| ▪ Detailed-oriented & integrated | ▪ Adaptive of situation                        |
| ▪ Flexible, sanguine & diligent  | ▪ Management of personnel & material resources |
| ▪ Good communication             |  |

### **Hobbies:**

- |   |  |
|---|--|
| ▪ Reading newspapers & magazines                          | ▪ Listening to inspirational speakers      |
| ▪ Playing outdoor & indoor games (Cricket, Chess & Carom) | ▪ Listening old songs & stand-up comedians |

### **Personal Information:**

- |                   |  |
|-------------------|--|
| ➤ Date of Birth   | : 26 <sup>th</sup> May 1995                      |
| ➤ Sex             | : Male   |
| ➤ Address         | : 6, Pragati Colony Wardha Road, Nagpur – 440015 |
| ➤ Father's Name   | : Mr. Shyam Mahadeorao Borkar                    |
| ➤ Mother's Name   | : Mrs. Geeta Shyam Borkar                        |
| ➤ Nationality     | : Indian   |
| ➤ Languages known | : English, Hindi & Marathi                       |

### **Declaration:**

I hereby declare that the information furnished above is authentic and true to the best of my knowledge.

**Date** : 10/04/2020

**Place** : Nagpur

Yours truly,

**Chetan Shyam Borkar**