



**Varun Dameera**  
**Chemical Engineering**  
**Indian Institute of Technology, Bombay**  
**Specialization: none**

**10D020047**  
**UG Third Year(Dual Degree )**  
**Male**  
**DOB: 05/06/1993**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	8.33
Intermediate/+2	Board of Intermediate, Andhra Pradesh	Sri Chaitanya Junior College, Hyderabad	2010	97.30
Matriculation	Board of Secondary Education, Andhra Pradesh	Carmel Convent High School	2008	91.70

## AWARDS

- Received **Undergraduate Research Award (URA-01)** for my work in my research project “Extraction of Ferric ion using liquid emulsion membrane technique”
- URA-01** is a Prestigious award a Undergraduate is awarded with for his Outstanding work in a **Research project**

## PROJECT ACCOMPLISHMENTS

### **Liquid Emulsion Membrane Technique: - Summer Project** [May'12- Present]

*Faculty Mentor: Prof. Vinay A Juvekar, Chemical Engineering Department, IIT Bombay*

Extraction of **Ferric** ions from their dilute aqueous solution using **liquid emulsion membrane technique**:

- For the first time ever, Developed a protocol to produce a **Stable W/O Emulsion**
- Optimized** the process parameters to get higher rates of extraction, high enrichment ratio of Ferric ions
- Participated in the poster presentation in **Under Graduate Research Symposium '12**

### **Bio-ethanol Plant** [August 2012- Present]

- Project by collaboration of **IIT-Bombay** and US based NGO “**Together as One (Tao)**” to setup plants in rural areas to produce fuel from vegetable waste.
- Performing experiments in a **team of 15** to draft a process for working and optimizing the efficiency of **bio-ethanol plant** and to run the process in **pilot plant** situated in Pune.
- Producing ethanol by **initially** hydrolysing the vegetable waste following it by **fermentation**.

### **Industrial Training at Rashtriya Chemicals and Fertilizers Limited** [January 2011]

*Guide – Prof. Sanjay M. Mahajani and Prof. Madhu Vinjamur, IIT Bombay*

- It included a **thorough study of the sulphuric acid plant** and the technologies used for the production of sulphuric acid at RCF
- Studied and prepared a report on the **Double Conversion Double Absorption (DCDA)** process used for the production of sulphuric acid at RCF

### **Project Bio-synth** [December 2011]

*Faculty Mentor: Prof. Sanjay M Mahajani, Chemical Department, IIT Bombay*

- The Main objective of the project was to find the effect of stirring speed on esterification and then go on to Obtain a correlation which can effectively find the **relation between stirring speed** which affects the Reynolds' number in the reactor) and the rate of reaction of **esterification** in the reactor
- Performed various lab runs in different conditions to **optimise** the process protocol

### **Minesweeper Game Program: - Course project** [October 2010]

*Faculty Mentor: Prof. Deepak B Phatak, IIT Bombay*

- The project involved designing the **graphics interface** and data storage and handling
- Implemented a minesweeper program by using **C++** and **EZ Windows** graphics

## RELEVANT COURSES

Data Analysis & Interpretation	Chemical reaction engineering
Numerical Analysis	Computer Programming & Utilization
Advanced Transport Phenomenon ,CFD	Heat & Mass transfer
Transport Phenomenon	Thermodynamics
Experimental & Measurement lab	Solid Mechanics
Calculus I & II	Linear Algebra
Differential Equations I & II	Basic Electrical Engineering

## COMPUTER SKILLS

- **Programming Languages:** C/C++
- **Operating Systems:** Windows, Linux(Ubuntu)
- **Others:** MS-OFFICE
- **Soft wares:** MATLAB, Basics of Lab-View, Basics of COMSOL

## SCHOLASTIC ACHIEVEMENTS

- Secured An **All India Rank 7603** in IIT Joint Entrance Examination (Year-2010) amongst 4,72,000 applicants
- Secured State Rank of **931** in **EAMCET** (Year-2010) amongst 3.3 lakh applicants
- Secured an **ACADEMIC PROFICIENCY PRIZE** from school (year-2007)

## EXTRA-CURRICULAR ACTIVITIES

### Positions of Responsibility

**Techfest** (IIT Bombay's Technical Festival)

- Worked as a **coordinator** under **Publicity** Department of **Techfest 2012**
- Mentored a group of organisers In **regulating Crowd** Flow during the fest
- Worked in collaboration with Coordinators of other Departments to make it a Grand success
- Also worked as an **organiser** for **Techfest 2011** under **Publicity** Department

### Social Service

- Received certificate of appreciation for helping **ITRRODDD ORGANIZATION**
- Received certificate of social service from **HELPAGE INDIA** organization for helping them

### Sports

- Represented hostel in **Cricket** and **Hockey** in **Inter Hostel** General Championships
- Attended and completed the **NSO (National Sports Organisation)** programme of **Cricket** in the year **2010-2011**
- Represented hostel in **Cricket** and **Hockey** In **Sophie GC** in my Second year

### Technical activities

- Built an **autonomous robot** that follows a line of specific width and participated in Line Follower Inter-Hostel Competition.
- Built a basic **automobile with wireless remote** control.

### Interests

- **Research** Work, Exploring Industries, Watching and Playing **Cricket**, Travelling around the world
- Reading **books** and also Hanging out with **friends**

### Miscellaneous

- Can Speak fluently in **English, Telugu** and **Hindi**
- Actively participated in **Freshiezza, PAF**
- Recipient of **MCM scholarship** from the institute since **2010**