### **MANOSIJ BASU**

Bachelor Of Technology, Department Of Chemical Engineering, Indian Institute Of Technology, Guwahati .

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#### PRESENT ADDRESS:

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### **ACADEMIC QUALIFICATIONS:**

2011(pursuing) B.Tech in Chemical Engineering, Indian Institute of Technology Guwahati

Cumulative Performance Index – **8.63** on a scale of 10.00 (up to 6<sup>th</sup> semester)

2007 Intermediate Examination, Board of Intermediate Education Andhra Pradesh.

95% marks obtained.

2005 Secondary Examination, Indian School Certificate Examination

94% marks obtained.

### **SCHOLASTIC ACHIEVEMENTS:**

- Recipient of the prestigious **IIT GUWAHATI Institute Merit Scholarship** for the year 2008-9 for being ranked **first** in the Department of Chemical Engineering
- Ranked in the top 0.25<sup>th</sup> percentile in both of the All-India Engineering entrance exams, ie. IIT-JEE and AIEEE
- ➤ Was placed in the statewise top 1% of all students who attempted the prestigious National Standard Examination in Chemistry, 2006, precursor to the Indian National Chemistry Olympiad.

#### **EXPERIENCE:**

### ➤ **HPCL Refinery**, Visakahpatnam, India

[JUNE - JULY '09]

Internship in the Minor Projects(Technical) department of HPCL, Viskahpatnam refinery. Project objective was to determine the fouling rate in a pre-heat exchanger and the requirement for maintenance in the near future, predicted using the upstream and downstream temperature and flow rate data of the heat exchanger; the data used was for 1 year.

### > University of Michigan, Michigan, USA

[MAY – JULY '10]

Project Guide: Prof. Scott H. Fogler

Asphaltene deposition is a problem that plagues petroleum production. Project objective was to study the kinetic nature of asphaltene precipitation in well mixed crude-precipitant systems under laboratory conditions. Experimental data generated is now being used to develop a population balance based model for asphaltene precipitation in the Group. The project was sponsored by SHELL.

# ► B.Tech Project: New Catalyst Formulation for Low Temperature Water Gas Shift Reaction

[Ongoing]

Project Guide: Prof. Bishnupada Mandal

Low temperature water gas shift reaction may find widespread use in fuel cells in the near future. The novel polymeric membrane developed in our group is cost effective and provides high  $CO_2$  /  $H_2$  selectivity, but is stable only at low temperatures. The project objective is the preparation and characterization of a novel catalyst with high conversion at low temperatures.

## **EXTRA CURRICULAR ACTIVITIES:**

- ➤ Led the organizing team of 'Stratagem', the marketing strategy event in Techniche '09, the annual techno-management festival of IIT Guwahati
- > Organized the Marketing Strategy event in Kriti, the inter-hostel Technical Championship of IIT Guwahati.

## **SOFTWARE SKILLS:**

**Programming Languages** : C, C++, JAVA with Data Structures

Software Packages : MATLAB 7.0/8.0, Mathematica 5.0, Polymath 5.0/6.0

Operating Systems : Windows Vista/Xp, Ubuntu