

# Ganesh Arunkumar Samdani

**Ph.D. Chemical Engineering**

Room- C-429, Hostel 12, IIT Bombay, Mumbai-76

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## Education

| Year | Degree/ Certificate                                       | Institute/ School              | CGPA/ % |
|------|---|--------------------------------|---------|
| 2012 | Duel Degree (M. Tech. + Ph. D.)<br>(Chemical Engineering) | IIT Bombay                     | 9.36    |
| 2007 | B.Tech. (Chemical Engineering)                            | LIT Nagpur                     | 72.97   |
| 2003 | Class XII   | D. Raja Jr. College of Science | 90.50   |
| 2001 | Class X   | Nootan Madhyamik Vidyalaya     | 86.80   |

## Academic Achievements

- Secured **AIR-03** in the GATE-08 in Chemical Engineering Discipline among the 3915 appeared students
- Secured **MERIT NO. 15**, in Amravati Divisional Board, in Higher Secondary School Certificate Examination, Maharashtra Board of Education, Pune
- Best Oral Presentation Award, at COMSOL Conference, Bangalore-2011.

## Curricular Activities

### Ph.D. Project: Modeling of Underground Coal Gasification

Guide: Prof. Sanjay Mahajani, IIT Bombay, Mumbai.

Duration: Jan'09-Present

Co-Guide: Prof. Anuradda Ganesh, IIT Bombay, Mumbai

The project consists of:

- Developing a process model to predict the overall performance, and the shape of the cavity during the Gasification Process using MATLAB, ANSYS-Fluent and COMSOL
- Kinetic modeling of reactions involved e.g. combustion and gasification
- Compartment modelling as a tool for modelling of complex UCG reactor

### M. Tech. Seminar: Wet Granulation: Describing the Process and Effect of Key Parameters

Guide: Prof. D V Khakhar, IIT Bombay, Mumbai.

Duration: Aug'08-Nov'08

The seminar consists of:

- Study of Nucleation, Growth and Breaking of Granules
- Explanation of effect of different parameters like binder content, particle size, binder quality and equipment speed and type

### B. Tech. Dissertation: Manufacture of Polystyrene

Guide: Prof. K V Koranne, LIT, Nagpur.

Duration: Jun'06-April'07

The project consists of:

- Study on different processes of manufacture and thermodynamics & kinetics of the Polymerization
- Design of polymer reactor (CSTR) & Heat exchanger (Pre-heaters), which are the part of process with Energy & Material balance for the entire plant
- Economic Feasibility calculations

## Technical Presentation

- Poster presentation on boat reactor experiments in 5<sup>th</sup> Research Scholar Symposium at IIT Bombay (2011)
- Poster presentation on process model at Global Alliance of Technological Universities Workshop on Energy Research for Global Sustainability at IIT Bombay (2011)
- Oral presentation on effect of operating parameters on UCG in COMSOL Conference, Bangalore (2011)

## Industrial Exposure

Worked as **Process Engineer** in “**Ore Beneficiation Plant**” at Rampura Agucha Mines in Hindustan Zinc Ltd, Rajasthan (Vedanta Resources Plc) Duration: June’07-June’08

### Job Profile:

- Troubleshooting during Shift wide Production to achieve the target throughput
- Maintaining the Quality of Product (Using **TQM** and **6-Sigma Projects**)
- Coordinating with different Maintenance sections for the smooth running of plant
- Basic knowledge of **Distributed Control System** operations
- Process and Operational knowledge of Grinding Section, Froth Flotation Section and Reagent Section

### Industrial In-plant Training

- **Supreme Petrochemical Ltd**, Aamdoshi, Dist: Raigad, Maharashtra. Duration: four weeks of June-2006
  - Studied the process of Polymerization of Styrene to form General Purpose and High Impact Polystyrene
- **Hazira Gas Processing Corporation, ONGC**, Hazira, Surat, Gujrat. Duration: two weeks of Dec. 2005
  - Studied the process of Manufacture of LPG from sweetened natural gas
- **Industrial Project: C3– C4 Balance across LPG Plant.** Duration: two weeks of Dec. 2005
  - At Hazira Gas Processing Corporation, ONGC, Hazira, Surat, Gujarat
  - Propane and Butane material balance across the LPG plant and estimating the cause of the mismatch
- One day Industrial visit to **Sulphuric Acid Plant, Rashtriya Chemical Fertilizers, Chembur**

## Positions of Responsibilities

**General Secretary Academic Affairs (PG)**, IIT Bombay. Duration: March’09 to Present

- Streamlined the proactive participation of PG Representative of Depts/Centres/Schools/IDPs in respective Post Graduate Committee, and a recognizable hierarchy is established to deal with academic issues
- Successfully started Institute Student Mentor Programme (ISMP) for PGs. The program is made-up to ensure that PG students of IITB find the correct, sound and timely advice for solving educational, extra-academic and individual problems, as the need arises.
- Part of IITB Senate and Post-Graduate Programme Committee, the apical body responsible for taking decisions in academia of IITB and forming policies related to all the academic issues
- Took initiative to form a much needed Master Student Representative’s Forum which systematically deals with the academic related problems of Master Students

**Manager, Competitions**, “Azeotropy”, IIT Bombay Duration: Jan’09-March’09

- Pre-event management including Intra Institute Publicity, Planning and arranging the pre-requisites. Post-event management for finding the scope for improving event and its management in future
- Organizing Design Events, Industry Defined Problems’ event, online and on time Quizzes, Paper and Poster Presentation Competitions (around 800 participants in total)

**President, Ganesh Festival Celebrations**, LIT, Nagpur Duration: July’05-Sept’05

- Leading a 3-tier team of 12 Coordinators and 60 student volunteers to plan and organize one of the greatest cultural festival at Institute with direct participation of over 450 students
- The two-month exercise included selecting and motivating the team, planning, budgeting and a flawless execution of the plan.
- I was creditworthy of introducing Low Budget Ganesh-Festival.

**PRO, Research Scholars’ Symposium**, IIT Bombay

## Extra Curricular / Co-Curricular Activities

- Winner of the title “*Mr. Persona*” in the Personality Contest at the Annual Social Gathering (Spandan) of the Institute, LIT, Nagpur in the year of 2007
- Represented MT-08 batch in *Intradepartmental Cricket Tournament* in the year of 2009
- Winner of *Inter College Debate Competition*, at Govt. Ayurvedic College, Nagpur in the year of 2004