

Manikuntala Mukhopadhyay

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EDUCATION

MTECH| JUNE 2016| UNIVERSITY OF CALCUTTA COLLEGE OF SCIENCE,TECHNOLOGY AND AGRICULTURE(RAJABAZAR SCIENCE COLLEGE)

· Department: **CHEMICAL ENGINEERING**

· University: UNIVERSITY OF CALCUTTA

· SEMESTER : GPA

· I 8.5

· II 8.17

· III 10

· IV 10

· **1st year YGPA 9.1**

· **Related coursework:** The course included various core subjects like transport phenomenon, process modeling and simulation, mathematical methods in chemical engineering, optimization methods and reaction engineering. A course on MATLAB was also included. The elective papers included water pollution and waste water treatment, industrial hazards and plant safety, air pollution and control and solid waste management and environmental management systems.

BTECH | JUNE 2014 | HERITAGE INSTITUTE OF TECHNOLOGY

· Department: **CHEMICAL ENGINEERING**

· University: WEST BENGAL UNIVERSITY OF TECHNOLOGY

· SEMESTER : GPA

· I 8.19

· II 8.28

· **1st year YGPA 8.23**

· III 8.76

· IV 8.89

· **2nd year YGPA 8.82**

· V 9.08

· VI 9.15

· **3rd year YGPA 9.12**

· VII 9.14

· VIII 9.41

· **4th year YGPA 9.25**

· **TOTAL DGPA 8.93**

- **Related coursework:** The course included various core subjects like mass transfer, fluid mechanics, heat transfer, process control, chemical process technology, mechanical operations, petrochemicals, polymer science as well as various other subjects like industrial safety, project engineering, techno economic feasibility study and various management subjects like principles of management, Total Quality Management and a subject of commerce and economics- Economics for engineers. Presentations and seminars were also included in the curriculum. A project work on Removal of Arsenic from contaminated water – a comparative study was also performed.

CLASS 12 | 2009 | HARIYANA VIDYA MANDIR (CBSE)

- Marks: 80%
- Related coursework: The subjects that were included in the curriculum were English, Hindi, Mathematics Physics ,Chemistry and Computer Science

CLASS 10 | 2007 | HARIYANA VIDYA MANDIR (CBSE)

- Marks: 91.2%
- Related coursework: Mathematics, Science, Social Science, English, Hindi were included in the course.

ACHIEVEMENT

Qualified **GATE** examination in the year 2014. Availing the stipend since August 2014 as according to the norms by AICTE. The stipend will continue till the completion of the Mtech program (**June 2016**)

RESEARCH WORKS

MTECH PROJECT

SACHHARIFICATION OF *Acacia Nilotica* HEARTWOOD USING SULPHONATED ACTIVATED CARBON CATALYST

PREPARED FROM COCONUT SHELL: Coconut shell was carbonized and then sulfonated to prepare the solid catalyst. Characterisation of the prepared catalyst was being done. Hydrolysis of biomass was then done using the prepared catalyst and the yield of reducing sugar was found out. Catalyst reusability and the influence of process parameters like temperature and catalyst:biomass ratio on sugar yield has also been studied.

BTECH PROJECT

REMOVAL OF ARSENIC FROM CONTAMINATED WATER- A COMPARATIVE STUDY: Arsenic removal was being done using two methods: one by adopting a combination of coagulation/flocculation followed by filtration using Whatman filter paper of suitable pore size and another one using polyelectrolyte assisted Ultrafiltration technique.

EXPERIENCE

SUMMER TRAINEE | WEST BENGAL CHEMICAL INDUSTRIES LIMITED (WBCIL) | 18TH JUNE TO 6TH JULY 2012

- The company produces mainly API (Active Pharmaceutical Ingredients). Various equipment and machinery that were used included a spray drier, a nautical mill, rotary drier, tray drier and various pumps like diaphragm pump, centrifugal pumps and coating equipment. The operations of water purification unit and

the waste water treatment plant used in the factory were also understood. Basic ideas about R & D and Quality Control techniques used in the plant were also given.

SUMMER TRAINEE | HALDIA PETROCHEMICALS LIMITED (HPL) | 17TH JUNE TO 12TH JULY 2013

- I was assigned to the LLDPE plant. Idea about safety measures and fire protection used in the plant were given. Detailed description of the production procedure, various raw materials used and finally the storage and packaging procedures were understood. The various equipment and machinery like Gas phase reactors, Loop reactor , bag filter , cyclone separator ,silos, plate heat exchangers , shell and tube heat exchangers, double pipe heat exchangers , reciprocating compressors, liquid ring compressors , centrifugal compressors and different types of pumps were seen and their principles were understood. The process of extrusion and packing were also understood.

INDUSTRIAL VISIT & PARTICIPATION IN EVENTS

- Visited **BERGER PAINTS** factory in Howrah.
During the visit a brief description of the manufacturing process were given. Resin kettles and various size reduction equipment like ball mill and rod mill were seen during the visit.
- Participated in **SCHEMCON 2011** held in Heritage Institute Of Technology, Kolkata.
- Participated in the Workshop on Petroleum Refinery Engineering Process held in IChE, Jadavpur University Campus.
- Participated in the Workshop on Occupational Health and Safety with Related Environmental Issues.

SKILLS & ABILITIES

MANAGEMENT

- I have basic idea about management and total quality management.

COMMUNICATION

- Presented a poster on Contactless Dielectrophoresis in National Seminar on Advanced Separation Process & Application (date: 25th February, 2012)
- Conducted a Seminar on Hazard Identification Techniques and its importance in industries.
- Participated in group discussions

LEADERSHIP

- I was a prefect from class 7 to class 9.
- I was the group leader of the team during the feasibility study of melamine production in the 6th semester.

COMPUTER

- I have knowledge of operating computers and use of various applications like Microsoft Word, Microsoft Excel, Microsoft PowerPoint and different browsers.
- I have basic knowledge of C programming and SQL.
- I also have knowledge on MATLAB

DECLARATION

I hereby declare that the above written particulars are true to the best of my knowledge and belief.

MANIKUNTALA MUKHOPADHYAY