

CURRICULAM VITAE

PERSONAL: **PRASHANT KUMAR**

School of Chemical and Biomolecular Engineering
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EDUCATION AND QUALIFICATIONS:

- 2007 – current: PhD Student – Chemical Engineering
School of Chemical and Biomolecular Engineering
Georgia Institute of Technology, Atlanta, GA, USA
- 2002 – 2006: Bachelors (Honors) of Engineering, Chemical Engineering
Graduated with First Class Honors
Department of Chemical Engineering
University of BATH, BATH, UK
- 2000 – 2001: Class XII (English, Mathematics, Chemistry, Physics, Computers)
Aggregate, 87.4%
Delhi Public School, R.K.Puram, New Delhi, India
- 1998 –1999: Class X (English, Mathematics, French, Social Science, Science)
Aggregate, 87.6%
Delhi Public School, R.K.Puram, New Delhi, India

RESEARCH EXPERIENCE

- 2006: Individual Research Project, University of BATH, UK
Title: Gas Separations using Hollow Fibers
Summary: Polymeric hollow fibre (HF) membranes containing zeolite adsorbents offer a good potential for the control of CO₂ emissions. While adsorption can be applied successfully for CO₂ separations, a new technique involving regeneration of the adsorbent bed on application of electrical voltage has been recently developed. Work was carried out to study separation of CO₂ using 13X zeolite HF membranes and to develop techniques for electrical regeneration of adsorbents.
- 2006: Final Year Group Design Project, University of BATH, UK
Title: Isomerisation of butane to isobutane
Summary: The main purpose of this design project was to produce isobutane

by isomerisation of n-butane in an existing refinery. The isobutane hence produced could then be used as a feedstock for the alkylation unit or in the production of MTBE. The stand-alone plant was proposed for build up in the UK, on an existing refinery site, and was primarily designed to obtain maximum profitability.

2000: Department of Chemical Engineering, Indian Institute of Technology, Delhi, India
Project on "Effects and Application of HEAT TRANSFER " for 2 months

INDUSTRIAL RESEARCH EXPERIENCE:

Duration: August 2004 - August 2005

Name: DuPont Teijin Films Limited, UK

Job Profile: Industrial Placement Student, Global Process Development Group
DuPont Teijin Films is the world's leading producer and supplier of PEN and PET polyester films specializing in film products and related services for advanced magnetic media and photo systems.

Responsibilities

- Integral member of the Research and Development Group
- Modeling and Development of user interface
- Research and Analysis
- Rheological Support
- Production and Design
- Extensive training of STAR CFD to computationally solve engineering solutions related to heat transfer.
- Semi-tech trials

ACHIEVEMENTS AND AWARDS:

2006: **Shell International Prize** – awarded for most meritorious performance in final year of degree

2005: **Exxon Mobil** Business Skill Development – 1 of the 6 students selected for the weekend course

2005: Certified trainee and user of Computation fluid dynamics software, STAR CD

2003: **British Petroleum** Safety and Environment competition - Third (3rd) position

2002: Student member of Institute of Chemical Engineers (IChemE), UK

2002: Undergraduate Residence scholarship at University of BATH on the basis on academic excellence

2002: Department of Chemical Engineering Undergraduate Scholarship.

2000: Awarded with scholar blazers for receiving scholar badges for a consecutive period of six years based on academic excellence

2000: Received certificate from the FRENCH High Commission in India for academic excellence in French.

RESEARCH INTERESTS:

- Effect of Atmospheric Particulates Matter on Climate Change
- Mineral Dust Interaction with Clouds
- Aerosol – Cloud Interactions
- Environmental Applications - Hollow Fiber Membranes for selective gas adsorptions
- Fabrication of nano-structures and development of techniques endeavoring sustainable growth

PRESENTATIONS AND POSTERS:

Oral Presentations

- Sept 2004: DuPont Teijin Films, R& D Centre, Middlesbrough, UK
- Quantifying the effects of moisture uptake by PEN/PET films
- Jan 2005: DuPont Teijin Films, Production Plant, Dumfries, UK
- Moisture uptake by PET chips in silos
 - Comparison of inline and laboratory IV measurement
- Aug 2005: DuPont Teijin Films, R& D Centre, Middlesbrough, UK
- Detailed presentation of work done during 1 year industrial placement

Posters Presentations

- Sept 2005: Industrial Placement Experience with DuPont Teijin Films
- Mar 2006: Research Project Highlights at the University of Bath, UK

ADDITIONAL TRAINING:

- Computer Skills
 - Languages: C, C++, Visual Basic 6, Visual Basic for applications, FORTRAN, Basic, Sequel Database, MATLAB, ASPEN
 - Operating Systems: Windows: 98/2000/XP, MS DOS
 - Additional Skills: MICROSOFT OFFICE
- Languages - English Fluent
Hindi Fluent
French Basic