

## OBJECTIVE:

Want to work with an organization that can use a disciplined, motivated and resourceful professional with three years hands-on experience in manufacturing, plant operation and technical sales.

## EDUCATION:

Georgia Institute of Technology, Atlanta, GA

Doctor of Philosophy: Chemical Engineering/Paper Science and Engineering (December 2008)

Title of Research: Gasification and pyrolysis of lignin at high temperature using a laminar entrained flow reactor and thermogravimetric analyzer.

GPA: 3.35

Georgia Institute of Technology, Atlanta, GA

Master of Science: Chemical Engineering (May 2008)

GPA: 3.51

Miami University, Oxford, OH

Master of Science: Paper Science and Engineering (August 2004)

GPA: 3.66

Title of Research: An investigation of nanostructured tungsten oxide/vanadia/titania catalysts for the control of organic air emissions from pulp and paper industries.

Indian Institute of Technology, Roorkee, UA, India,

Bachelor of Engineering: Pulp and Paper Engineering (May 1999)

## WORK EXPERIENCE:

**Voith Paper Environmental Solutions, (Meri Entsorgungstechnik)**, Munich, Germany (May 2007 – August 2007)

Summer Internship: Design and Engineering Division

- Designed and modeled waste treatment and reject handling system.
- Did material balance and optimized waste streams for different loops in waste treatment plant.

**Geotech Instruments**, Roorkee, UA, India (February 2001 – May 2002)

Executive Marketing: Sales Division

- Overachieved yearly targets for sale of industrial measurement equipments.
- Created new market opportunities after adding new products and features.

**Ballarpur Industries Ltd.**, Ballarpur, MS, India (February 2000 – January 2001)

Executive Engineer: Production Division

- Increased paper production by process improvement on paper machine.
- Supervised stock preparation, paper machine and managed daily operations.
- Conducted and administered mill trials from different chemical suppliers.

**Shree Krishna Paper Mills and Industries Ltd.**, Bahadurgarh, HR, India (June 1999 – December 1999)

Graduate Engineer Trainee: Coating Division

- Promoted to supervise two coating machines independently after one month of training.
- Formulated and tested new chemicals for different coating requirements.

**The Maysore Paper Mills Ltd.**, Bhadravati, KA, India (June 1998 – July 1998)

Summer Internship: Integrated Paper Plant

- Analyzed waste treatment division.

## PUBLICATION:

Vipul Kumar, Nathan Lee, Catherine Bothe Almquist, "An investigation of the thermal stability and performance of wet-incipient  $WO_3/V_2O_5/TiO_2$  catalysts and a comparison with flame aerosol catalysts of similar composition for the gas-phase oxidation of the methanol", *Applied Catalysis B: Environmental* 69(2006) 102 -115.

## PRESENTATIONS:

- Vipul Kumar, "Lignin gasification and pyrolysis using LEFR and TGA", American Institute of Chemical Engineers, annual meeting 2007, Salt Lake City, UT.

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- Vipul Kumar, “Lignin gasification at high heating rates using laminar entrained flow reactor”, fourth year colloquium 2007, School of Chemical and Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA.
  - Vipul Kumar, “An investigation of nanostructured tungsten oxide/vanadia/titania catalysts for the control of methanol” American Association for Aerosol Research, annual conference 2003, Anaheim, CA and also in engineering expo-2004, Miami University, Oxford, OH.

**PROJECTS:**

- Project titled “Reduction of pollution loads in the papermaking and wastewater treatment processes”, at International Paper, Hamilton, OH.
- Design project titled “Overall Improvement in the Working of an Existing Paper Mill” with emphasis on pulping and bleaching sections, as a part of undergraduate course curriculum.
- Midterm design project titled “Low Pollution Bleaching Techniques for Paper Mills” as a part of undergraduate course curriculum.
- Led a team to make a paper of desired properties on paper machine pilot plant at Miami University, Oxford, OH.

**TEACHING EXPERIENCE:**

**Georgia Institute of Technology**, Atlanta, GA

(August 2004 – Present)

Graduate Research Assistant: School of Chemical and Biomolecular Engineering

- Provided course assistance for “Process Design and Economics” course.

**Miami University**, Oxford, OH

(August 2002 – August 2004)

Graduate Research and Teaching Assistant: Department of Paper and Chemical Engineering

- Provided course assistance for “Material and Energy Balances” and “Mass Transfer” courses.
- Administered laboratory for “Unit Operation Laboratory” course.

**ACTIVITIES AND HONORS:**

- Currently social chair of “Technical Association of Pulp and Paper Industry (TAPPI)”, student chapter at Georgia Institute of Technology, Atlanta, GA.
- Treasurer of “Technical Association of Pulp and Paper Industry (TAPPI)”, student chapter at Georgia Institute of Technology, Atlanta, GA (2004-2006).
- Graduate student representative of “Technical Association of Pulp and Paper Industry (TAPPI)”, student chapter at Miami University, Oxford, OH (2003-2004).
- Receiving Otto Kress Scholarship covering fees and assistantship at IPST.
- Executive Member of “Association for India’s Development (AID)”, Oxford, OH (2003-2004).
- Received National Scholarship for academic excellence in High School Exam.

**COMPUTER SKILLS:**

- Operating Systems: Microsoft Office
- Programming Languages: Java, C++, MATLAB, AutoCAD
- Environmental models: EPI Suite, Level I and Level II Environmental Equilibrium Partitioning Model
- Wastewater Treatment Model: WATER 9

**REFERENCE:**

- Furnished upon request