

# Ankit Bhardwaj

MS, Mechanical Science and Engineerin, UIUC

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## EDUCATION

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**Master of Science** 2016

*University of Illinois at Urbana-Champaign*

Cumulatve Grade Point Average: **3.83**/4

**Bachelor of Technology** 2012

*Indian Institute of Technology, Patna*

Cumulative Grade Point Average: **9.5**/10(Class Rank: **1**)

## AWARDS AND SCHOLARSHIPS

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- Received **Institute Silver Medal** at Indian Institute of Technology Patna for best student in the order of merit.
- Received **Institute Proficiency Prize** for the best B. Tech project at Indian Institute of Technology Patna.

## WORK EXPERIENCE

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**Associate Engineer, Caterpillar India Private Limited** 07/12-07/14

*Intellectual Property Analytics team, Product Development*

- Developed a tool in VBA which performs autonomous analytics on large patent data.
- Literature study of advanced control strategies and their applications in engines and manufacturing processes.
- Improved the design of truck body liners to decrease adhesion of raw material.

**Cost and Strategy team, Product Group, Off-Highway Trucks**

- Devised MGPP (Multi generation project plan) for trucks in low cost markets of India, Russia, Indonesia and China.
- Developed a cost reduction framework and project plan for trucks with cross functional teams.
- Monitored and executed material cost reduction projects for Off-Highway Trucks.
- Completed training on Six Sigma Green Belt.

**Hydraulics Team(Hydraulic Excavator Development Center)**

- Led a team of hydraulic engineers in HEDC-India team.
- Worked on Modeling and Detailing of hydraulic systems in Hydraulic Excavators.
- Streamlined the complete process and significantly improved the quality and velocity matrix.

## **ACADEMIC PROJECTS**

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**B.Tech Thesis Project** 08/11-5/12

*Prof. Swanpan Majumdar, Indian Institute of Technology, Patna*

- Modeled, designed and fabricated unmanned flapping wing aircraft.

**Internship, CACM, University of Auckland** 05/11-07/11

*Prof. Debes Bhattacharya*

- Manufactured Fiber Reinforced Plastic composites with flame retardant resins using wet hand layup technique.
- Performed Cone Calorimetry test on flax laminates, to determine and compare their fire properties against glass and glass-flax hybrid laminates, for their application in aircrafts.
- Determined thermo physical properties of flax laminates using Thermo Gravimetric Analysis (TGA).

**Internship, DSCL, University of Houston** 05/10-07/10

*Prof. David Zimmerman*

- Updated the AUTO-ID software (which performs autonomous modal identification) with the then latest version of MATLAB.
- Modeled helicopter blades as rotating cantilever beam and wrote a programme to determine damage in the beam using structural and modal properties.

**Robotics Projects** 2008-2012

*Indian Institute of Technology*

- Built two autonomous robots which exchanged data and coordinated through wireless communication.
- Built a semi-autonomous robot, which traverse a kingdom using image processing and parallel port programming.

## **PUBLICATIONS**

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1. Vishwanath Pratap Singh and Dr.Ashok Singh, “[“On energy consumption analysis for ad hoc routing protocols”](#)”, **ICACCI Internation Conference on Advances in Computing, Communication and Inforamtics**, Chennai (2012).

## **SKILLS**

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- Programming Languages: C, Java
- Software Packages: Matlab, Ansys, Creo, Microsoft Office
- Operating System: Windows XP/Vista/7, Linux

## **EXTRA-CURRICULAR ACTIVITIES**

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- Captain basketball team, Mechanical Engineering Department, IIT Patna.
- Training and Placement Cell Coordinator, Mechanical Engineering Department, IIT Patna
- Co-founded Robotics Club at IIT Patna.