UG IVth Year
Mechanical Engineering
Indian Institute of Technology Patna
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ANKITA PALIWAL

EDUCATION

- Will be completing graduation in Mechanical Engineering in May 2016 from Indian Institute of Technology Patna. Current CPI: 8.48/10.
- Passed XII CBSE Board Examination in 2011 from St. Andrews Public School, Agra with 87.4%.
- Passes X ICSE Board Examination in 2009 from St. Conrad's Inter College Agra with 94.4%.

TECHNICAL EXPERIENCE

Internships

A co-simulation of Fluent and Matlab to obtain motion parameters of Aircraft Arrester Barrier System (AABS)
Aerial Delivery Research and Development Establishment (ADRDE), Agra (May 2015 – Jul 2015)
Aircraft Arrester Barrier is a system to engage a fighter aircraft toprevent it from overshooting the runway in the event of emergency during landing or take-off**.** For real time simulation of AABS, the ANSYS FLUENT data is used to supply the instantaneous torque to MATLAB code to calculate the instantaneous tension in the purchase tape as a function of the aircraft deceleration.

- Carried out co-simulation of Fluent and Matlab by developing user defined functions for Fluent in C and a MATLAB equations of motion for the aircraft and energy absorber. Results for tension in purchase tape, g-load were compared with the theoretically obtained results.
- Performed meshing for energy absorber on ANSYS ICEM-CFD.

Designing Machine Components and CAD Modelling
Indian Institute of Technology Delhi (May 2014 – Jul 2014)
- Modelled CAD drawings of several components and assemblies that were used in teaching and research.
- Designed fire chamber of mild steel, fire wool for Fire Testing Lab and India Mark III Hand Pump.

Projects

Parallel Hybridization of CFD Solvers *(July 2015-Present)*
- To develop code to simultaneously run a CFD code on multiple systems such that the results of last node on a given system are available for the first node of the adjoining system for every iteration.

Fabrication of fixture for Laser Machine *(Mar 2014 – Apr 2014)*
- Fixture was made to tightly hold a curved work piece so that it gets stretched and laser machining is uniform.
- EDM technique was used for cutting and work piece was fitted using rack and pinion arrangement.

SKILLS

- AutoCAD, Inventor, Matlab
- ANSYS Fluent
- ANSYS ICEM-CFD
- Programming Languages : JAVA and C
- Data Structures : Linked List, Stack, Queue, Binary Trees

POSITIONS OF RESPONSIBILITY

- **Cultural Sub-coordinator at Anwesha 2014** (Sept2013 - Feb 2014).Managed various cultural events during the fest and organized and brought sponsors for the Fashion Show.
- **Public Relations Task Manager at Anwesha 2013** (Dec 2012- Feb 2013). Conducted meetings with student representatives of other colleges to bring participation from different colleges.

OTHER ACHIEVEMENTS

- Received **Science Student Award** for the year 2009-2010 by Science and Technology Council, Uttar Pradesh Government.
- Secured **International rank-490** in **International Cyber Olympiad, 2008** organized by EduHeal Foundation.
- Secured 1st Rank at School Level in International Level Science Talent Examination in 2004, 2005 and 2006 organized by PutaniVignana Group.
- Awarded **A grade in National Scholarship Examination** organized by Millennium Arts Club.