HARNAV PREET SINGH GILL

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EDUCATION

Indian Institute Of Technology, Patna
B.Tech Mechanical Engineering
Expected Graduating Year: 2016
CGPA: 8.08/10

D.A.V Public School
Matriculation (CBSE) |Amritsar
Graduated: 2010
CGPA: 9.4

Harkrishan Public School
Intermediate (CBSE) |Amritsar
Graduated: 2012
Percentage: 87.2%

EXPERIENCE

INTERNSHIPS

Mathematical Modeling of evaporation of suspension droplet on a substrate

Location: MEMS Lab, IISc Bangalore

Guide: Dr Saptrishi Basu, Associate Professor, IISc Bangalore.

- Using Image processing and numerical methods development of mathematical equation of process of evaporation.
- Developing of algorithm to track the flow of solid and liquid front in suspension

Aerodynamic modelling of AGNI-4 missile, Research Laboratory (RCI) –DRDO, Hyderabad.

Guide: EV Subba Rao. Scientist-D Ministry of Defense INDIA.

- Modelled and simulated aerodynamic subsystems of ballistic missile usingANSYS-FLUENT.
- Quantified principle aerodynamic forces in the missile for different composite materials.
- Got exposure to vibration analysis of the systems and actuation systems in missiles.

ACADEMIC PROJECTS

Simulation of Fluid-Structure Interaction Using Parallel Programming (CUDA)

Guide: Dr. Somanth Roy, Assistant Professor, IIT Patna.

- Implementation of IBM to analyze flow past oscillating airfoil at low Reynolds number.
- Optimizing various solvers like Residual Gradient and Jacobi.
- Enhancing the GPU performance through memory synchronization.

Fabrication of an All-Terrain Vehicle (ATV) For SAE-BAJA- 2015

Guide**:** Dr. Akhilendra Singh, Assistant Professor, IIT Patna.

- Captain of Suspensions Department for team BAJA IIT Patna which has successful manufactured All-Terrain Vehicle representing the college at BAJA -2015, Indore
- Using Solid works and ANSYS, modeled the suspension system for the car starting from calculation of roll center, length of the A-arms, spring rates and mounting points.

Accolades

The team qualified amongst top 100 from a pool of 500 Indian and 40 International teams.

Fabrication of Manual Wheat Harvester

Guide: Dr.Subrata Kumar, Assistant Professor, IIT Patna.

- Genesis of this project resides in the fact that every farmer in rural India should be able to afford an efficient harvester.
- The project in undertaken Rural Technology Development Club, IIT Patna and its prototype which consists of a quad cycle enabled with a peddling mechanism in front which helps in harvesting.

Accolades

Design **Patent** has been successfully filled and is in review stage.

POSITIONS OF RESPONSIBILITY

- **Co-Founder** and **Technical Coordinator** of **Rural Technology Development Club** at Indian Institute of Technology (IIT), Patna. The club aims at fostering the technological needs of rural populace and strives to bridge the technological gap ensuring better levels of productions and living in rural areas. The club since its advent has touched thousands of lives across villages of Bihar.
- **Coordinator** of the Training and Placement Cell at Indian Institute of Technology (IIT), Patna

INTERESTS

- Computational Fluid Dynamics using CUDA, Aerospace design and materials, Carbon -Nanotubes and properties, Heat and mass transfer, IC engines.
- Modeling and simulation using ANSYS and MATLAB and CUDA-C.

TECHNICAL SKILLS

Programming Languages

- C
- Java
- CUDA

Application Soft wares

- MATLAB
- ANSYS.
- PRO-E
- Aurduino Microcontroller

EXTRA CIRRICULAR

- Captain Of Bhangra Team IIT Patna
- State Level Boxing Player

DECLARATION

I hereby declare that all the information given above is true to the best of myknowledge