CURRICULUM VITAE

PAVNESH ARORA

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4th Year of Bachelor of Technology (B.Tech.)Program

Mechanical Engineering Department, Indian Institute of Technology, Bombay.

Achievements

Educational Status

- Was ranked in the top 0.5% among over 100,000 students nationwide who appeared for the Joint Entrance Examination for admission to the undergraduate program of the IITs (Indian Institute of Technology)
- Awarded Summer Research Fellowship by the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore under SRFP 2002, a national level programme in affiliation with Department Of Science and Technology, New Delhi (The Government of India) and Rajiv Gandhi Foundation, New Delhi.
- Took part in Yantriki 2000, an All India Level Robotics competition organized by IIT Bombay. The aim was to manufacture a working machine, most economically to play water polo in a customized glass pool with Table Tennis balls.
- Participated in Last Straw 2000, a national level competition in which a bridge was to be made out of plastic straws and was tested for the amount of weight it could sustain.
- In the **All India Secondary School Examination** 1998 for class 10th, I have scored 80% aggregate and 84% in Physics, Chemistry and Mathematics. In the **All India Senior Secondary School Certificate Examination** 2000 for class 12th (science), I have scored 78% aggregate and 82% in Physics, Chemistry and Mathematics.

Projects

B.Tech. Project:- Enhancement of Convergence in Numerical Solution of Conduction Equation (Guide: Prof. A. W. Date, IIT Bombay)

Currently, the important concepts of heat transfer are being re-analyzed and their usage through numerical codes is being studied. Future study would involve a detailed literature survey on the work that has already been done in the field. On the basis of these enhancements in the accuracy of solutions will be made.

Summer Fellowship (JNCASR):- Radiation Analysis of Enclosures with Non-Gray Surfaces (Guide: Prof. S. P. Venkateshan, IIT Madras)

Involved simulation for obtaining heat transfer characteristics of closed radiative heat furnaces with real surfaces for industrial applications. The surfaces dealt with were non gray with band emissions. The code was validated by the results obtained for gray surface enclosures.

Junior Thesis:- Study of Natural Circulation (Guide: Prof. Kannan N. Iyer, IIT Bombay)

Dealt with a literature survey of the basic heat transfer formulations and techniques involved with natural circulation loops of single phase fluids. Thermosyphon loop steady state, stability and flow characteristics were also analyzed.

Engineering Design Project:- Retro-Fit Device for Automation of Windows

(Guide: Dr. H. Hirani, IIT Bombay)

Aimed at building a prototype for remote operation of conventional windows by an appropriate mechanism. The deployment of the product is aimed for old age homes and hospitals to facilitate the old and incapable. **Currently**, the design is being improved to work on solar power with sensing for closing during rain and heavy winds.

Computational Projects

- Shortest Path Finder based on the **Djikstras algorithm**
- Determination of Temperature distribution in two dimensions given the boundary conditions based on **finite difference** method
- Simulation of four bar linkage mechanisms

Extra Curricular

Organizational

Events Manager, Techfest 2003

- Was part of a team of 19 core group members responsible for planning, conceptualization and execution of Techfest 2003, the largest annual technology festival of India. Techfest 2003 turned out to be the largest ever since inception in 1998.
- As Manager Events, handled the planning and execution of major **competitions** with a team of 20 student volunteers. Was also instrumental in conceptualization of many new competitions introduced in Techfest 2003, which became a prime highlight of the festival.
- Was involved as organizer in Mood Indigo 2000 for Competitions and in Techfest 2001 for Marketing and Media. Continued as Coordinator for Open Software at Techfest 2002 in my second year.
- Held the post of Maintenance Secretary as an office bearer of Hostel Four for the term of 2000-01.

Sports and Cultural

- Aquatics
 - Currently, a part of the IIT Bombay contingent for the Inter-IIT Aquatics Meet (among the 7 IIT's of India) for Water-Polo and Swimming.
 - Member of the hostel team for Inter-Hostel Swimming and Water-polo and have been contributing significantly in winning the Inter-Hostel Aquatics Trophy for the last two years.
 - Took part in Swimmathon 2002 and completed an endurance challenge of swimming continuously for 6 hours, covering a distance of 8.15 kms.
- Regularly involved in hostel activities by participating in elocution, debating and dramatics events at institute level. Was part of the Hindi and English play staged for Inter-hostel in 2001-02.
- Was part of the dramatics and direction team in the Performing Arts festival (PAF) 2003 which grabbed the second position at institute level.

Software Proficiency	Programmi
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Programming languages C, C++, BASIC, QBASIC, FORTRAN, Pascal

Scripting Language HTML, Shell

Platforms DOS, WINDOWS, UNIX, Linux, SOLARIS
Packages AutoCAD, ProE, MATLAB, MS Office, Corel

Personal Information

Date of Birth 24th November 1982

Nationality Indian Sex Male

Linguistic Skills

English, Hindi. English has been my medium of instruction for the last 17 years.

Declaration

I hereby affirm that the information given above is accurate and true to the best of my knowledge.

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