ANIMESH HARDIA(07MF1009)

ACADEMIC QUALIFICATIONS:

- B.Tech. Undergraduate program **Indian Institute of Technology, Kharagpur**
- Currently studying in Final year of 4-year undergraduate program, Bachelor of Technology (Honors) in Manufacturing Science and Engineering
- C.G.P.A.[Cumulative Grade point average]: 7.39/10
- All India Senior School Certificate Examination[Class XII]: 91.0%
- All India Secondary School Examination[Class X]: 89.2%

ACHIEVEMENTS:

- Won 3 school level drawing competitions :
  - Corus India limited-1998
  - All India camel colour contest-2000
  - UV world club school level drawing competition-2001
- 1st prize-Generation United's inter generational photography Contest-2005
- Proficiency Awards for 1st position in Mathematics-Class VII(2001-02), Class VIII(2002-03) and Class IX(2003-04)
- Statewise ranked 28th in **Regional Maths Olympiad**(**RMO)** 2006 Phase-I
- Secured a position in top 1% of the candidates enrolled in the state for **National Standard Examination in Chemistry**-2006
- **All India rank 1619** in **IIT JEE** 2007 out of 250,000
- **State Rank 38** and **All India rank 798**(Top 0.2%) in **AIEEE** 2007(more than 400,000 appear for the examination)
- **All India rank 92** in **GATE** 2010(96.86 percentile)

EXTRA ACADEMIC PURSUITS/ACHIEVEMENTS:

- Member, Nehru Museum of Science & Technology
- A**wareness regarding diseases causes by improper hygiene in rural areas** and cloth distribution scheme organised by NSS, IIT Kharagpur
- Member of American Society of Mechanical Engineers(ASME)
- **Library committee member** of Radhakrishnan hall of residence for the session 2008-09
- Significant reduction in funds required for running the library, from INR 43000(previous year) to INR 31000
- Music : playing **guitar**

PROJECTS COMPLETED:

Universidade do Porto, Portugal **Heuristic Algorithms** **May, 2010-June, 2010**

- Use of 2 different heuristics for the single machine scheduling -heuristic with weighted tardiness and heuristic with quadratic earliness and tardiness penalties.
- Use of different Improvement Procedures and their combinations to reach optimum values
- Upon Statistical observation threefold reduction in objective function value was observed
- Number of iterations used were almost half of those used by earlier algorithms to reach the optimum values
- Computation times were 30% less

Volvo Eicher Commercial Vehicles Ltd., Pithampur **Dec 2009**

- Project : Connecting Rod Bearing Failure Analysis due to process related defects
- Need for this project arose owing to the increase in number of engine failures in the market
- Analysis and inspection of the processes involved in the arrangement of crank shaft sub-assembly was done
- Main concentration was laid on the connecting rod
- The observed data pointed towards damage to the bearings before assembling
- Possible causes were reported

Bhabha Atomic Research Centre **Solid modelling** **May 2009-June 2009**

- Division : Division of Remote Handling and Robotics(DRHR)
- Modelling of a rough terrain robot(CRAB) designed for assistance during natural disasters
- Parallel bogie arrangement was used as the basic skeleton of the robot
- With a payload of 25 kgs the robot assembly was able to overcome an obstacle of almost twice its size
- Tests were done in the software using the dimensions of the steps of DRHR (24cm×30cm)

KRAIG(Kharagpur Robotix and Artificial Intelligence Group) **Automata**

- Winter workshop 2008
- Designing an algorithm for an autonomous robot named **Automata** objected to move on the gridlines of arena
- Arena containing 16 square grids was browsed and stations(numbered 1-7) were detected
- Arena was then traversed in increasing order of station
- Path planning was done using Dijkstra's algorithm for shortest distances

UNDERGOING PROJECT:

Computational model for Lid driven cavity flow problem in 3-D **B.Tech Project**

- Comparison of centerline velocity profiles of 2-D and 3-D representations for different Reynolds Numbers
- Use of 2 main configurations-unit cavity and a cavity with an aspect ratio of 2(Reynolds number between 100 and 5000)
- Use of new method of extending Jacobi collocation technique called spectral difference together with a unique computational grid
- Use of an iterative method for solving the pressure problem

SKILLS:

- Software : Autocad, MS Office, Matlab7.1, 3dSolidworks, 2DWorking model, MSC Adams, Engineering Equation Solver(EES), Visual basic 2010, 2008, SPSS
- Programming language : C,C++
- Operating system : Windows,Linux-Debian(Ubuntu)
- Design : Photoshop