

Pursuing **Minor Degree in Management** from **SJM School of Management** in Management courses

MAJOR ACADEMIC ACHIEVEMENTS

- Current **Department Rank** 10 out of 116 students
- Recipient of '**Merit-Cum-Mean**' **Scholarship** from the Institute IIT Bombay
- Secured All India Rank **2547 in IIT-JEE 2010** out of 0.47 million students appeared
- Secured All India Rank **522 in AIEEE 2010** out of 1 million students appeared
- **34th** rank in **International Mathematics Olympiad**, conducted by Science Olympiad Foundation (SOF)
- **9th** rank in **UPSEE 2010** (Regional Engineering Entrance Exam conducted by UPTU)
- **School Topper** in Class 10th & **School 2nd Topper** in class 12th CBSE Board Exam

INTERNSHIPS

❖ **Hospet-Hungund National Highway Project, Ilkal, Karnataka, India** **May - Jun, 2011**
(Oriental Structural Engineers Pvt. Ltd. & Gammon India Limited)

It was a 99 Km National Highway Project of **1600 Cr**, Client - National Highway Authority of India (NHAI), in which the existing 2-Lane road was widened to 4 or 6-Lane road along with repairing of existing road.

- Analyzed the relevant aspects of the **Highway Construction** Field.
- Performed **Soil and Concrete Testing** in the *Quality Control Laboratory* like determination of Liquid Limit (LL) & Plastic Limit (PL), Water Content-Dry Density Relation by Proctor Test and by Constant Soil Method, Unconfined Compressive Strength and CBR value & Free Swell Index.
- Performed **Workability Test for Concrete**, Concrete Slump Test & determined Specific Gravity, Density, Absorption and Aggregate Impact Value of some sample different sized aggregates.
- Analyzed the design of **Bridge Structures** i.e. Foundation, Sub-Structure and Super- Structure both theoretically as well as learning on site. Analyzed the different layers of Highway Road cast-in-situ like Embankment, Sub-grade, GSB, WMM, DBM and Final Paver Work.
- Analyzed the **Surveying aspects** necessary for Highway Road Construction.

KEY ACADEMIC PROJECTS

❖ **Database for 'Online Movie Library' and creating an interface between administrator and user**

Guide : Prof. Deepak. B. Phatak, HOD, KRESIT Building, CSE Department, IIT Bombay

- Team of 13 in which I was **leading a group of 5 members**, devised & coded a program in C++ which would handle a movie library & provide an interface between the administrator & viewers.
- **Individually created & programmed** an algorithm using file handling extensively which enables the administrator to add new movies & new users to existing database.
- Movies can be rated and rented; administrator can access entire processes, add new movies, remove old ones, make new administrators and add new users.

❖ **To Develop an integrated Client-Server based Geographical Information System**

Guide : Prof. Surya S. Durbha, CSRE Department, IIT Bombay

- It was a project on to develop an AJAX-Driven Web Client to access and retrieve geospatial data from a WMS/WFS/WCS Server.
- Coding was written in Eclipse Helios using Java and GWT kit. Apache Tomcat Server and Geoserver were used for answering any query. I queried about a map of China and added different layers like roads, borders, rail roads and watershed areas to the map.
- Added various controls like Navigation Tool Bar, Pan Zooming, Layer Switching, Mouse position and Overview of the map from where the map can be navigated directly.

❖ Spatial Interpolation of various Data sets using R Language for Geographical Information System

Guide : Prof. Surya S. Durbha, CSRE Department, IIT Bombay.

- Created **Inverse Distance Weighting plots** and **Trend Surfaces** of Rain Data and Lead Data set.
- **Spatial interpolation** of the two data sets using various Spherical, Gaussian, Exponential models.
- **Kriging** process of Rain data values to predict rain fall in a region.

Robotics : Remote Controlled Car With Onboard Battery suitable for Rough Terrains

- Made a miniature **running model of a remote controlled car** which could run under rough conditions like different surface roughness, varying terrains, varying altitudes.
- Tested the car's performance in an artificial arena having varying roughness, height from the datum surface & slopes. The arena had obstacles & portions of it had movable track.

MANAGERIAL POSITIONS

- **Co-ordinator, Robowars Event, Techfest-2012, IIT Bombay**
 - Robowars is a competition of Techfest, where **manually controlled robots** fight .
 - Managed the database of the teams taking part in it and worked in designing the arena.
 - Guided participants in managing their robots before fighting on the day of event.
- **Co-ordinator, Workshops, Techfest-2012, IIT Bombay**
 - Managed the Space Expedition Astronaut Workshop in Techfest 2012, IIT Bombay.
 - This workshop was about making a fully functional Humanoid Astronaut model.
- **Organizer, Events, Techfest-2011, IIT Bombay**
 - Was a part of the organizing team for Robowars Event in Techfest 2011, IIT Bombay.

PROGRAMING AND SOFTWARES

- **Languages** : C/C++, Java
- **Software** : MATLAB(R2011a), MS Office, AutoCAD 2009, Eclipse Helios, R for GIS
- **Operating System** : Windows and Ubuntu

KEY COURSES UNDERTAKEN

- Numerical Methods in Civil Engineering as **Honors' Course**
- Water Resource Engineering as **Honors' Course**
- Introduction to Remote Sensing & Image Processing as **Minor Course**
- Introduction to GIS as **Minor Course**
- Introduction to Accounting and Finance as **Minor Course**
- Structural Mechanics I & II, Solid Mechanics, Engineering Mechanics
- Geodesy /Surveying (Theory and Lab)
- Hydraulics and Fluid Mechanics (Theory and Lab)
- Introduction to Economics (HS)
- Engineering Drawing and Graphics Lab
- Computer Programming and Utilization(C++)
- Calculus and Differential Equations

EXTRA CURRICULAR ACTIVITIES

- **Cultural** : Worked in a short movie named 'Dafaa 302' which was a horror movie based on the theme of ragging. The movie was screened in **Theatre Fest-2010**, annual movie screening event at IIT Bombay.
- **Arts** : Designed and painted the arena of Robowars Event, **Techfest-2011**, the Tech Event of IIT Bombay, with the help of two other colleagues.
- **Social** : Was a cadet in **National Cadet Corps (NCC)**, **2 Maharashtra Engineering Regiment** & was awarded a '**B**' level certificate for participation in the activities of the regiment over the year 2010-2011.

AWARDS

- **Best Student Award** by Director of 'Malviya Classes' for **Academic Excellence** in year 2010.
- **Award** by Prof. Jagdamba Singh, Dept. of Chemistry, Allahabad University, for standing **1st** out of 5000 students in a Test Series conducted at City level in year 2010.
- **2nd** prize in class 9th in a **Social Science Quiz** organized by Maharshi Patanjali Vidya Mandir.
- **Awarded Medals and Prizes** by **Mitra Parishad, Allahabad** for standing **1st** for two consecutive years 2008 & 2009 in the exam Pratibha Khoj Pratiyogita organized by the Parishad at **State level**.