Aman Mangal   100050015
Computer Science & Engineering   UG Second Year
Indian Institute of Technology, Bombay   Male
                                                   DOB: 09/05/1993

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	8.23
Intermediate/+2	RBSE	Maa Bharti Sr Sec School, Kota	2010	94.00
Matriculation	RBSE	Adarsh Vidya Mandir Hindaun City	2008	93.83

SCHOLOSTIC ACHIEVEMENTS

- **All India Rank 70 in IIT JEE 2010**
- **All India Rank 256 in AIEEE 2010**
- Awarded **Narotam Sekhsaria Scholarship-2010** for Undergraduate Studies in Engineering 2010-11
- Distinguished by **CM** of **Rajasthan, Vasundhara Raje** for **13th merit** in **Secondary Board Exam**
- Was in **Top 1%** students of country in **INPhO,** Secured **56th** position in the final round of **12th National Science Olympiad, 8th** Position **Indian National Mathematics Olympiad**
- Invited for the session of **CSIR (Council of Scientific and Industrial Research) Programme on Youth for Leadership in Science (CPYLS) 2008** in **CEERI Pilani**

PROJECTS UNDERTAKEN

- **CONNECT 4 (Guided by Prof Amitabha Sanyal)**   *[Jan2011-Apr2011]*
  - Language **MIT Scheme**
  - Developed a strategy based 2 players game with **GUI** enabled
  - Implemented an **AI player** using **minimax algorithm** with **alpha beta pruning**
  - **Undo and Redo** facilities are provided for player(s) during the game

- **VOICE RECOGNITION SYSTEM (Electronics Club Summer Project)**   *[May2011-June 2011]*
  - Languages **MATLAB, C**
  - Developed a **Speaker Independent Human Voice Recognition System,** which can recognize more than 20 different commands and display them on a LED matrix
  - Based on **Discrete Wavelet Transformation, Pre-Emphasis, De-Emphasis, Kmeans Algorithm**

- **SNAKE RETURNS (Guided by Dr. Deepak B Phatak)**   *[Sep2010-Nov 2010]*
  - Languages **C++, EzWindows**
  - Programmed Snake game having **10 levels** of difficulty with features like **storing high score**
  - Implemented Graphical User Interface using EzWindows

- **ELECTRONIC EYES FOR BLINDS (Guided by Amarnath Chitta)**   *[May2011-June2011]*
  - Developed a prototype of electronic eyes for blinds to cross the road on Atmega-32 platform
  - Successfully completed within **timeframe of 3 days**
  - Notifies the person with buzzer as soon as a vehicle reaches the person
  - Based on **Doppler effect** of sound

- **GRAPH PLOTTER (Guided by Dr. Deepak B Phatak)**   *[July2010-Aug 2010]*
  - Languages **C++, OpenGL**
  - Plots graphs of all the standard mathematics functions and combination of these functions

- **SCILAB TEXTBOOK COMPANION INTERNSHIP PROJECT**   *[Apr2011-Aug 2011]*
  - An initiative taken by FOSEE group of IIT Bombay
  - Coded **more than 400 solved** example of the book **Fundamental of Physics** by **Resnick Haliday and Walker** in **Scilab**
  - Solutions are explained using graphs and diagrams whenever required

AREAS OF INTEREST

- Computer Graphics and Animation
- Graph theory and Automata theory
- Signal and Image Processing
- Data Structure and Algorithm

POSITION OF RESPONSIBILITY

- **Convener** of **IIT-BBC,** Online Broadcasting Channel of IIT Bombay
  - **Initiated** the channel with the help of **Insight**, IIT Bombay's Student Media Body and Newsletter
  - **Publicized** the channel by various means like **social networking sites**
  - Provides cultural, technical, sports and academics updates through videos on the website
- **Co-ordinator** in the events team of **Techfest 2011-12**
- **Organiser** in Exhibition team of **Techfest 2010-11** (Asia's largest science and technological festival)
  - Invited various artists and exhibitor for coming and show up their exceptional talent in Techfest
  - Worked in **International Exhibition** and managed an exhibitor during the exhibition
- **Organiser** in **Convergence 2011**(annual festival of Dept. of **Computer Science and Engineering** IITB)
  - Organized event this year after two years of discontinuity
  - Key part of the website design team
- **Organiser** in the **Mood-Indigo 2010-11** (Asia's largest cultural festival)
  - Successfully oraganised the event **Pool Side Party**

SOFTWARES AND PROGRAMMING SKILLS

- **Programming Languages** : C, C++, MIT Scheme, SWI-Prolog, JAVA, C#, Python
- **Web Designing and Development** : HTML, CSS, Adobe Photoshop, Adobe Flash
- **Scripting and Database System** : JavaScript, PHP, MySQL
- **Engineering Packages** : MATLAB, Scilab, Sony Vegas, Audacity, Sound Forge, LaTeX OpenOffice, Microsoft Office, SolidWorks, Arduino
- **Operating System** : Windows, Linux

EXTRA CURRICULAR ACTIVITIES

- Pursuing a course in **Japanese** offered by **Japanese Embassy, Mumbai**
- Guide the under-privileged in regular doubt clearing classes organized by **Group for Rural Activities**
- Designed a **Wireless car** using RF Module
- Successfully engineered an **Autonomous Line Follower**
- Successfully completed training in **NSO Music(Keyboard)** in 2010-11

COURSES UNDERTAKEN

Core

- Data Structure and Algorithms
- Discrete Structures
- Abstraction and Paradigms
- Computer Programming and Utilization
- Automata Theory and Logic*
- Design and Analysis of Algorithms*
- Logic Design*
- Software Design Lab*
- Logic Design Lab*

Breadth

- Real Analysis(minor)
- Differential Calculus
- Linear Algebra
- Data Analysis and Interpretation
- Introduction to Electrical and Electronic circuits
- Numerical Analysis*
- Experimentation and Measurements Laboratory

(Marked courses are to be completed by the end of April 2012)

DECLARATION

I, Aman Mangal, hereby declare that the information given above is true to the best of my knowledge, as of August 2011.

Aman Mangal