

Shripad Jayant Gade
Aerospace Engineering
IIT Bombay

08D01013
UG (Dual Degree)
30/05/1991

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	8.27
Intermediate/+2	Mumbai	V. G. Vaze College	2008	89.0
Matriculation	Mumbai	Guru Nanak English High School	2006	89.46

INTERNSHIPS:

Suzlon Energy Pvt. Ltd., Pune

(May-July 2011)

“Thermal and Flow Simulation of S6X Nacelle”

- Studied various numerical schemes, their accuracy and stability issues; and turbulence modeling for performing flow simulations of S6X Nacelle.
- Performed a test flow simulation of internal flow in S6X nacelle in Phoenix for software validation.

Indian Institute of Science, Bangalore

(May-July 2010)

Aircraft Design

Guide: Dr. S. N. Omkar, Principal Research Scientist.

- Studied extensively the process of Aircraft Design and implemented it to **develop Preliminary Design** of a Regional Transport Aircraft (RTA).
- Designed the **Wing Plan-form** and **Wing Mechanical Structure** for the Transport Jet.
- **Modeled the Detailed Wing Structure** for the RTA design and **conducted Structural Analysis using FEM**.

PROJECTS:

Active Vibration Control using Piezoelectric Sensors and Actuators

(Mar-Apr 2011)

Guide: Prof. Mira Mitra

- Modeling of a cantilever beam, piezoelectric sensors and actuators was done.
- Linear Quadratic Gaussian Control was studied and implemented to control vibrations. Kalman Filter was used to estimate states of the system.

Finite Volume Methods for Flow Simulation (Roe Scheme)

(March 2011)

- Studied finite volume method for flow simulation of hypersonic flows and Roe Solver for calculating fluxes.
- Developed a code to calculate flow fluxes using the Roe Scheme.

Aircraft Design optimization using Evolutionary Algorithms

(Jul-Nov 2010)

Guide: Prof. P. M. Mujumdar

- Studied **Genetic Algorithms** and implemented it on a Design Optimization problem.
- FLOPS was used to solve a **Multi-Objective Aircraft Design Optimization** problem.

- An **Optimized Design** of a 70 passenger Regional Transport Jet was generated by using GA and FLOPS codes.

GPS Navigation and Satellite Orbits

(Jul-Nov 2009)

Guide: Prof. Hari Hablani

- Studied GPS navigation and **developed programs for position and user velocity calculation.**
- Detailed analysis of error models in GPS was done and used MATLAB for **simulating the error models.**
- Studied satellite orbits **and modeled GPS satellite trajectories and ground trace** using MATLAB.

Engineering Design Project

(Jul-Nov 2009)

Guide: Prof. K. Sudhakar

- Studied the **process of engineering design** and **conceptualized a security system** that can prevent mass terrorist attacks in closed areas.
- This design used **thermal imaging** and **millimeter wave cameras** for weapons and explosive detection.

Cell phone Sniffer

(Jun-Jul 2009)

- Had made a device that could **detect GSM band frequencies.** This device could detect incoming and outgoing calls, text message and video transmission and reception.

SCHOLASTIC ACHIEVEMENTS:

- Awarded prestigious **National Talent Search Examination** scholarship, awarded only to top 1000 students all over the country on the basis of a 3-tier examination (2006).
- Secured **first position** Maharashtra State Board in **Mathematics** subject (Class X 2006) and an aggregate of 89.46%.
- Stood **15th in state** in **Maharashtra Talent Search Examination** (2005).
- Awarded certificate of **top 1%** in state for National Standard Examination in Chemistry (2007).
- Awarded **Silver medal** in **Homi Bhabha Young Scientist Examination** (2005).

POSITIONS OF RESPONSIBILITY:

- **HAM Club Convener** (2009-10).
 - **Conducted and arranged many lectures** on Radio Frequency circuits, morse code, and wireless communication.
 - Successfully conducted a **Transmitter making hands-on workshop** in **Aagomani '09**, the Electrical Engineering department festival and was attended by 60 students all over Mumbai.
- **Hostel Technical Mentor**
 - Mentored freshmen for various technical competitions conducted in the institute , Techfest and qualification rounds of ROBOCON.
- Was a **team leader of NSS** (National Service Scheme) during a rural area survey.
- Held position of an coordinator at Mood Indigo('09) & TechFest ('10).

EXTRA-CURRICULAR ACTIVITIES:

- **Technical:**

- **Secured 2nd position in AERORACE** competition conducted in Zephyr (2009) which tested teams in various specializations of Aerospace Engineering.
- **Designed a Remote Controlled Aircraft** and flew it in MachInfinity, competition in Zephyr 2009.
- **Awarded Hostel Technical Special Mention** for the year 2009-10. Participated in various intra and inter hostel level technical competitions. Member of hostel team for technical general championship (GC).
- Participated and qualified in NEXUS India's first solar robotics competition conducted by TECHFEST 2009.
- **Cultural:**
 - Actively involved in **quizzing and debating events** in school and interschool events. Won debating and quiz competitions at school.
 - Awarded **“Best Student of the Year”** in school (2005) for all round performance.
- Have been delivering **Guidance lectures** for **NTSE interviews** for past 3 years.
- Participated in Kho-Kho, football and cricket tournaments and **won Kho-Kho tournament** at school.

SPECIFIC SKILLS:

- **Operating Systems:** Windows and Linux
- **Programming Languages:** C++, Python
- **Simulation Software's:** MATLAB, LTspice, ANSYS, AMESim, Fluent, Gambit.
- **Designing Software:** Catia, EAGLE
- **Design Frameworks:** ISIGHT, modeFRONTIER
- Conversant in **French** (studied at intermediate level for two years).