

Narasimha Shastri

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Professional history

2002 Jan-2002 Dec	Technical Graduate Trainee (Application Engineer)	MICO-BOSCH, Bangalore, India
2003 May-2003 July	Intern	Temasek Laboratories, Singapore

Academic history

- **M.Sc. (Mechanical Engineering)** The National University of Singapore, Singapore. January 2003 to present. Current **CGPA 3.875/5.0**
- **B.E. (Mechanical Engineering)** The National Institute of Engineering, Mysore, India. 1997-2001. Aggregate percentage **73.15%**
- **Schooling:** Various schools. 1984-1997. Above 85% throughout.

Professional Experience and Skills

Experience in Application of Diesel Fuel Injection Equipment at MICO-BOSCH (<http://www.micoindia.com/>), Bangalore India.

- Knowledge of **IC engines**, their testing and optimization for performance and emission.
- Combustion optimization by engine and FIE parameter optimization.
- Exposure to advanced technologies like Electronic Diesel Injection, Common rail fuel pump, Exhaust Gas re-circulation etc.
- Exposure to various **emission standards** for Automotive and Industrial engines viz. Euro II, Euro III standards for Automotive, Tractor and Industrial Engines.
 - Presently taking a post graduate course with specialization in '**Computation and Modeling**' with special interest in **Computational Fluid Dynamics (CFD)**
 - Experience in writing CFD codes for **Reactive flows** and other basic codes for Euler solvers, analysis of natural convection etc.
 - Experience with a commercial Multigrid Euler solver MGAERO during summer internship at Temasek Laboratories (<http://www.temasek-lab.nus.edu.sg/>). Internship involved working on the design of new aero components. Refer to <http://www.am-inc.com/MGAERO.htm> for details on MGAERO

Other relevant Information

- Presently working on a graduate project on modeling **detonation** using various methods including CESE. Please refer to <http://www.grc.nasa.gov/WWW/microbus/> for details on CESE method.
- The project also involves understanding various projection methods used to in the field.
- Courses taken at Graduate level include Computational Fluid Mechanics, Advanced Fluid Dynamics, Instability in Flows, Mass transport, Cooling of Electronic components etc.
- Undergraduate project "Effect of different curing methods on fiber reinforced polymer composites" done under a funding from National Aerospace Laboratories, Bangalore, India.
- Programming proficiency in **FORTRAN 90** and **C**. Platform familiarity with Windows 2000, Linux. Other skills include MATLAB, Microsoft Office etc.
- Languages known and proficiency levels: English (very good), Hindi (very good), Kannada (very good), German (Elementary).

Present Salary

Last obtained salary (Nov,2002) at MICO was about 240,000 INR per annum on cost to company basis.

Expected Remuneration

On par with present industry standards for a junior level position, subject to negotiation based on other benefits and career growth potential.

Personal details

Sex: Male

Date of Birth : 12th July 1979

Family background: Father is a Senior Ayurvedic physician in government service. Mother is a housewife and a younger brother is doing his Bachelor degree in Science.

Personal Characters: Honest, Hardworking, and intelligent team player with good communication skills. Self motivated with good problem solving skills.

Extra curricular activities: Avid debater and quizzer in school and college. Presented Radio Talks on AIR Mysore. Amateur singer with a junior level certificate in Carnatic Classical singing. Photography and astronomy enthusiast.

Scholarships : Recipient of NTSE (National Talent Search Examination) scholarship by Govt. of India. Recipient of Kannan Devan scholarship for Academic Excellence.

Residential Status:

India: A citizen of India.

Singapore: Permanent Resident status will be given subject to obtaining employment.

Availability for employment: January 2004. Will be available for interviews in India by January 2004. However, will be available for telephonic/teleconferencing interviews earlier to January 2004.

Hobbies: Reading, Photography, Watching Formula-1 racing, Singing, Music, Quizzing.

Details of academic work

Graduate project: "Multispecies detonation capturing using CESE method"

Pulse Detonation Engines (PDE) are envisaged as the next generation aerospace engines. Computationally predicting the phenomena involved in the PDE are challenging due to the numerically stiff chemical reaction terms in the governing equation. This project involves modeling chemically reactive flows in a PDE using various CFD schemes and projection methods.

Undergraduate project: "Study of effect of different curing methods on the static properties of Fiber reinforced polymers"

Fiber reinforced Polymers (FRP) are an important structural material in modern aero and automotive design. This project, executed under collaboration between NIE and NAL (National Aerospace Laboratories, India), studies the effect of different curing methods used on the static properties of the FRPs.

Publication:

Shastri, Narasimha and Nataraja, Aditya; *"Design of Experiments Based on Taguchi Techniques with particular reference to Fiber Reinforced Polymers."* Presented at National Level Technical symposium at JNTUCE, Ananthpur, India. (1999)

This publication concerning the design of Experiments, illustrates the application of Taguchi techniques with reference to FRPs so that with minimal experiments, reliable and complete data are obtained.

Declaration:

I hereby declare that all the information given in this document is true to the best of my knowledge

Place: Singapore

Date: 4 October, 2003

Narasimha Shastri