

Yuvarajendra Anjaneya Reddy

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CAREER OBJECTIVE

To pursue my career in a challenging environment with an opportunity to put my skills and knowledge and to gain immense satisfaction clubbed with personality development. Good communication, zeal for learning and exploring new things, out of box thinking are the elements, that briefly describe my personality. A highly enthusiastic, goal-oriented effective team player who is passionate about developing innovative and efficient ways of solving physics in the field of computational fluid dynamics, mechanical design, aerodynamics, thermodynamics and heat transfer. Intrigued about simulations and analysis, I hold my master's degree in Aeronautical engineering at Linköping university, with a hope that, someday I'll make a valuable contribution in aerodynamics, CFD, thermodynamic within automotive and aviation world.

WORK EXPERIENCE

Ericsson AB

Masters thesis work

Stockholm, Sweden

January 2020 – June 2020

EDUCATION

Linköping university

Masters program

Aeronautical engineering, CGPA : 3.6/4

Linköping, Sweden

August 2018 – Present

MVJ college of engineering

Engineering Bachelors

Aeronautical engineering, 82.33 %

Bengaluru, India

August 2013 – June 2017

Venkatadri Independent College

Pre university education, 90.33 %

Chintamani, India

May 2011 – June 2013

MAJOR SUBJECTS

- Aerodynamics basic course, advanced course and project course, Flight Mechanics
- Computational fluid dynamics (CFD), Fluid Dynamics, Computational heat transfer
- Aircraft performance, Aircraft structures, Aircraft stability and Control, Composite materials
- Aircraft detailed and Conceptual Design, Helicopter Dynamics, Computational Mechanics (FEM and FEA)
- Engineering Management, Engineering System Design, Control Engineering
- Gas turbines, Road Vehicle Dynamics, Thermodynamics (Basic, Advanced and Applied)

TECHNICAL SKILLS

- CFD - ANSYS Fluent, CFX, Mechanical APDL, Star CCM+, ICEM Mesh, COMSOL, Flowtherm
- Design and CAE - Catia V5, CREO, Solidworks, SolidEdge ST4, ModeFrontier, DoE, LS Dyna
- Programming -Python, C, Java, MATLAB, GPU
- Photoshop, Simulink, HPC, Cluster computations, Paraview, L^AT_EX, Excel Macros, VBA
- Lean and Agile, Microsoft Word, Excel, Powerpoint, Minitab

PROFESSIONAL QUALIFICATION & SKILLS

- **Wind turbine** (Blade design, rotor aerodynamics and MATLAB code implementation)
- **Overall drag estimation, simulations and analysis** of Fokker 70 aircraft,
- **Conceptual design, Measurements and Prototype building** of a fixed wing UAV
- **Multi-Disciplinary Optimisation, Verification and Trouble shooting**
- **Digital Signal Processing in MATLAB and Lean Six Sigma Green belt certification**

LANGUAGES

- o English [fluent], Swedish [intermediate] and German [A1 certified]
- o Kannada,Hindi,Telugu,Urdu,Tamil [fluent]

SOFT SKILLS

- o Optimizing mundane tasks
- o Scientificness
- o Adaptability
- o Effective communication

MAJOR PROJECTS

Master Thesis - Towards a Virtual climate chamber

Ericsson AB, Stockholm, SE

Involves CFD methodology. The project was about making the testing, measurement and simulation, verification techniques more sustainable in telecommunication industries. A numerical model of a physical climate chamber(used for conducting reliability and thermal tests on electrical equipment), was developed in ANSYS Fluent and was verified against experimental calculations made using ultrasonic anemometer.

Thermal simulations of an 'Antenna' and 'District Heating' simulations in COMSOL

Linköping university, SE

Real time transient simulations were performed on an antenna used in the telecommunication, analysing its heat transfer capabilities and behaviour. A District heating network was simulated in COMSOL for heat transfer analysis. Modeling software like CATIA V5 and ModeFrontier were used for CAD and optimisation.

UAV design and analysis for medical goods transport

Linköping university, SE

Project was about building a detailed CAD model in CATIA V5, prototyping electric UAV that would aid in the transport of medical emergency goods in remotely inaccessible parts of the world. Later on extensive aerodynamic analysis in ANSYS Fluent, Xfoil and COMSOL were carried out.

Aerodynamic optimisation of pipe flow in ANSYS Fluent

Linköping university, SE

The main goal of this study is to optimise the geometry of the pipe flow, so as to minimise the pressure losses as the fluid flows over the bends using NLQPL and MISQP algorithms in ANSYS Fluent.

Car roof box design and performance optimisation in CFD using ANSYS Fluent

Linköping university, SE

Roof top box on the Ahmed body was built and optimised for aerodynamic performance analysis to achieve lowest possible quantity of drag. Also, the effects of the rear spoiler were determined.

Design and Fabrication of a Gas Turbine Engine.

MVJCE, Bengaluru, IN

A very interesting project of manufacturing a scaled down model of working gas turbine engine. This prototype would help to serve as a efficient replacement for the long running motor driven machinery in the industries. The software used were Solidworks, Gambit mesher, AutoCAD and SolidEdge ST5

LEADERSHIP ACTIVITIES AND ACHIEVEMENTS

- o **Award:** 'Know Your Flow' award, for best poster presentation in CFD [2019]
- o **Organiser:** Cultural activities at Linköping university [2019]
- o **Host:** Event coordinator in the aero modeling event at MVJ College of Engineering [2016]
- o **House captain** for 2 years in High school [2008 – 2010]
- o **Stage anchor** in the annual school fest [2011]
- o **State level athlete:** Runner up in Discus throw competition [2009]

REFERENCES

Roland Gårdhagen

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Applied Thermodynamics
and Fluid Mechanics
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