

Vijaya Mohan S

Materials Technology Engineer

Obtain enriched knowledge in my area of interest and grow along with the company to showcase my technical and managerial skills in a challenging environment, while contributing my best for the company.



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SKILLS

Thermocalc

JMAT Pro

CES EduPack - Material Screening

2D Optimization using BESO 2D

COMSOL

Selenium IDE

Manual Testing

FZG Rig testing

XRD - Residual Stress

Profilometry

White light Interferometry

SEM

Micro Hardness

Optical Microscopy

Sharepoint

JIRA

MATLAB

Design Thinking

EDUCATION

Master of Science in Materials Engineering

Chalmers University of Technology

08/2015 – 11/2017

Gothenburg, Sweden

Bachelor of Engineering in Aeronautical Engineering

Anna University

2009 – 2013

Chennai, India

WORK EXPERIENCE/INTERNSHIPS

Research Intern

Scania CV AB

06/2017 – 08/2017

Achievements/Tasks

- FZG gear testing in the test bench.
- Material Investigation - Surface Roughness, Case Depth, Microstructural characterization, SEM, XRD (Residual stress and Retained Austenite).

Contact: Lars Gunnarsson – lars.gunnarsson@scania.com

Master thesis student

SCANIA CV AB

01/2017 – 05/2017

Surface Characterization of contact fatigue tested ground spur gears

Södertälje, Sweden

Tasks

- Worked on 'Surface characterization of contact fatigue tested spur ground gears' which involves testing of the gears using FZG test rig and characterizing them.
- Evolution of surface topography by White light Interferometry morphology of micropitting characterization by high resolution SEM.
- Analysis of material response (Residual stress development) to contact fatigue by X-Ray diffraction.
- Microstructural characterization by high resolution SEM.

Summer Intern

VOLVO MATERIALS TECHNOLOGY (Volvo Powertrain AB)

05/2016 – 07/2016

Gothenburg, Sweden

Tasks

- Worked for different Volvo projects which involved characterization of materials by using SEM, Optical microscopes and various other techniques. In addition to this performed etching to detect grinding burns, Prepared samples and performed micro hardness tests and various other mechanical testing, analyzed the results and documented reports.

Contact: Ulla Boman – ulla.boman@volvo.com

WORK EXPERIENCE/INTERNSHIPS

Software Engineer

ACCENTURE SERVICES PVT.Ltd

05/2013 – 07/2015

Chennai, India

Tasks/Achievements

- Worked for Schlumberger AB as a consultant for their automatic vendor payment application called 'PHUB' and implemented many new features and designed test cases and documents for all the functionalities.
- Worked for Universal Music Group as a Business Analyst for their internal application called 'Digiplug' and involved in most of the design overview of the application and made major functionality changes to the application in a short period of time.

Managing Partner

FLYERS TECH ENGINEERING

12/2013 – Present

India

Achievements

- As the Entrepreneur in me accelerated, I started up this concern in late 2013 and am working as a Managing Partner, we deal with Manufacturing and trading of Pure Aluminum ingots which we produce from metal scrap, foils and other aluminum waste (sustainable and environment friendly).

PROJECTS

Surface Integrity Characterization of tested ground spur gears – Scania CV AB and Chalmers University of Technology, Sweden
(01/2017 – 07/2017)

- Micropitting in gears has been extensively studied over recent years. Still, there is lack of knowledge in fully understanding the root cause and progression mechanism of the failure. One way to address micropitting is closely follow evaluation of surface characteristics and material alterations of gears tested interruptedly from initial cycles to run out. This project involves in usage of various material characterization techniques such as Surface Topography, SEM, XRD and light optical microscopy.

Failure Analysis of Square drive tool made of Maraging steel – 18Ni (300) – Atlas Copco (11/2015 – 12/2015)

- The objective of the failure analysis was to examine the fracture surface to track possible crack initiation points, study the nature of the rupture in aspect of brittle/ductile/fatigue fracture and see differences in the material. From the conclusions advices about the material should be given.
- Macro- and micro level inspections was performed in a stereomicroscope, by optical microscopy and scanning electron microscope (SEM). A composition study by energy dispersive spectroscopy (EDS) and a Vickers hardness test were also performed.

Design and fabrication of Tiger-Moth airplane with an automobile engine and enhancement of fuel efficiency. (01/2013 – 05/2013)

- A Historic Tiger Moth airplane structure was repaired and strengthened to power it with an automobile engine and electromagnets and thermo electric generators were introduced in the fuel lines to enhance the fuel efficiency and was successfully taxied with its own power.

ADDITIONAL QUALIFICATIONS

Airport Management - South Korea (06/2012 – 08/2012)

Korea Aerospace University

- I got a great opportunity to work under Dr. Seth Young who is ranked among top 10 Airport planners in the world. I have learnt the insights of Airport planning and operations and also air traffic controlling.

International Relations (06/2012 – 08/2012)

Korea Aerospace University

- This management course helped me to learn how to build a relationship between international organisations and during the course period we were fortunate enough to meet some of the top managers of Korean Air at Incheon Intl Airport and discussed on the challenges they face every day.

ACHIEVEMENTS

Chalmers Avancez Scholarship

Awarded the Prestigious Scholarship for my studies at Chalmers University of Technology

Accenture Celebrates Excellence (ACE)

Awarded for outstanding performance in Q4 2014.

President of RANG-Chalmers Indian Association

Elected as the President of 'RANG-Chalmers Indian Association' for the Year 2016

THE MOST COMMENDABLE PROJECT

Won this award at IET Project challenge 2013 for Design and fabrication of Tiger-Moth airplane with an automobile engine and enhancement of fuel efficiency.

LANGUAGES

English

Expert

Swedish

Beginner

Tamil

Native or Bilingual

Telugu

Native or Bilingual

INTERESTS

Badminton, Travelling, Trading, Cooking and Swimming