

NAGA ANIRUDH GANTI

GRADUATE MECHANICAL ENGINEER

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EDUCATION

Master of Engineering (Mechanical)

University of Melbourne, Australia

Feb 2018 - Dec 2019

Bachelor of Technology (Mechanical)

Manipal University, India

Aug 2013 - July 2017

SKILLS

CAD

- AutoCAD
- Creo
- Solid Edge
- SOLIDWORKS

CAE

- ABAQUS
- ANSYS
- MATLAB

Computer Skills

- C++
- LaTeX
- Microsoft Office

Miscellaneous

- Adobe Illustrator
- Adobe Lighthroom
- Multall

CERTIFICATION

Professional in Product Design and Analysis

CADD Centre Training Services Pvt Ltd.

Feb 2016

AFFILIATION

Engineers Australia

Graduate Member

EA ID: 8123355

PROFESSIONAL EXPERIENCE

Mechanical Engineer Intern

Doha, Qatar

WorleyParsons

May 2016 - Jun 2016

- Executed the Front End Engineering Design (FEED) for Recovering Waste Heat to optimise Fuel utilisation efficiency, reduce Greenhouse Emissions and increase power generation by 40MW.
- Developed data sheets for different types of equipment (Heat Exchangers, Storage tanks, etc.), prepared Material Requisitions and bid evaluations.
- Worked on basic plant design based on process flow using AutoCAD Plant 3D.

Manufacturing Engineer Intern

Visakhapatnam, India

Uniparts India Ltd.

May 2015 - Jun 2015

- Conducted time studies on the shop floor and used key performance indicators (KPI's) to identify and replace less efficient machinery thereby reducing cycle time.
- Created Manufacturing Bill of Materials (BOM's) for 3 new components and integrated it into the system using SAP PP.
- Carried out Non-Destructive testing of finished products to check for dimensions/tolerances and compliance with quality standards.

Mechanical/HVAC Design Intern

Doha, Qatar

DIPLOMAT GROUP WLL

May 2014 - Jun 2014

- Designed Ventilation and Air-Conditioning systems for two government projects.
- Equipment selection for Chillers, Air handlers and Ducts based on thermal load calculations.
- Created request for quotations (RFQ), evaluated supplier proposals and prepared purchase orders.

PROJECTS

Extreme Altitude Mountain Rescue Vehicle

University of Melbourne, Parkville

Feb 2019 - Nov 2019

Design of a conceptual vehicle for search and rescue missions at high altitudes.

- Designed and optimised blade configuration and rotor hub using MATLAB for operations in severe environmental conditions.
- Performed stress analysis on blades and flow analysis (CFD) on blade tip geometry for vorticity and tip mach number using SOLIDWORKS.
- Incorporated an innovative air-foil shaped tail boom to reduce anti-torque requirement of the helicopter.
- Optimised the cabin layout for maximal utilisation of space for equipment handling and passenger comfort.

Gear-Box Design

University of Melbourne, Parkville

Jun 2018 - Oct 2018

Design of Gear-Box for use in cranes employed for lifting heavy loads such as containers.

- Designed and 3D printed a model gearbox with an optimised gear train configuration.
- Performed weight optimisation for bull gears resulting in 10% overall weight reduction.
- Performed Analytical and Finite Element Analysis (FEA) for gears and shafts on ABAQUS/CAE to test for endurance.

Investigation of Hygrothermal Aging Condition on Tensile Strength of Nanoclay - GFRP Composites

Manipal Institute of Technology, Manipal

Mar 2017 - Jun 2017

Investigation of changes in material properties of composite materials on exposure to varied conditions.

- Identified differences in the matrix structure of samples containing different compositions of nanoclay.
- Performed destructive testing of samples and observed a 20-25% increase in strength with addition of nanoclay.
- Carried out tensile strength test for samples after hygrothermal aging which resulted in 20-30% reduction in strength.

PRESENTATIONS

Endeavor Exhibition

University of Melbourne, Australia

Oct 2019

Poster presentation of the project: Extreme Altitude Mountain Rescue Vehicle in a technical exhibition organised by the university.

Robotic Exoskeletons

Manipal University, India

Sep 2016

Presented on the advantages of inception of modern technologies in reducing human effort.

CONFERENCES ATTENDED

Australian Pacific Vertiflite Conference on Helicopter Technology

Feb 2019

EXTRA-CURRICULAR ACTIVITIES

Team Leader

Printing and Publicity Club

Jan 2016 - Mar 2016

Led a team of 8 organisers and 20 volunteers for organising a cultural event.

Event Organiser

Sports Club

Jan 2015 - Mar 2015

Organised a National Level Sports Competition. Scheduled sporting events and managed 10 volunteers.