

# Madhumitha Ramesh

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## SUMMARY

Passionate aerospace graduate actively seeking full-time opportunities in fast paced industry with good experience of technical and management skills. Enthusiastic, confident and a very good team player seeking to learn from the best professionals.

## EDUCATION

**Master in Engineering, Aerospace Engineering**, University of Cincinnati, Cincinnati, OH.

**GPA - 3.2/4**

**Coursework:** Quality Control, NDT, FEA, Safety engineering & Product liability, Project Management

**Bachelor of Technology, Aerospace Engineering**, SRM University, Chennai, India.

**GPA- 3.1/4**

**Coursework:** Aerodynamics, Flight dynamics, TQM & Reliability, Mechanics of solids

**May 2014**

## TECHNICAL SKILLS

ANSYS, MS Project MATLAB, AUTOCAD, CATIA, Python, C programming, MS Office, Solidworks, Abaqus

## WORK EXPERIENCE

**Intern - Powercap Energy Conversions Pvt Ltd, Chennai, India**

**June 2014 – June 2015**

- Accountable for developing cost-effective solutions with necessary quality checks.
- Implemented new product development by applying principles like Test marketing and commercialization.

**Intern - Defence Avionics and Research Establishment (DARE), Bangalore, India**

**December 2012**

- Contributed to the project 'Flight law design, control systems, design reviews'.
- Attained basic knowledge of working of aircraft panel and flight control systems.

## PROJECT EXPERIENCE

**Impact Analysis of a rigid body on rotating 3D blade**, Finite Element Methods

**March 2016-April 2016**

- Studied FEA using ABAQUS for analyzing the impact of rigid body on elastic metal surface.
- Transient stress analysis of impact on 3D wing resembling a bird hit in low rpm turbine blades.

**Collaborative UAV Lift for Air Transport of Rescue Pod during Emergency Evacuations/Disaster Management**,  
Systems Engineering

**January 2016- April 2016**

- Constructed System, Design, Customer requirements with resource allocation sheet, TPMs and traceability.
- Analyzed various operational and functional levels and created Decision evaluation matrix.

**Experimental Investigation of Burn rate of Different Solid Propellants, Thrust Measuring Setup**

Undergraduate Thesis Project – SRM University, Chennai, India

**August 2013 – April 2014**

- Compared different combinations of solid propellants to estimate the burn rate at various conditions.
- Successful design of a Solid Rocket Motor from scratch.

**Investigation of a Defected Product and Analysis**, Safety Engineering& product Liability

**March 2016**

- Analyzed defected products, studied the safety rules, liabilities etc to execute a report.
- Comparison of various products to provide acceptable levels of safety.

## PROFESSIONAL AFFILIATION

- Teaching Assistant, Department of Physics, University of Cincinnati
- International exchange student for an NGO 'Aiesec', Egypt

**Spring 2016-(Present)**

**Summer 2011**