

# Vibhusha Saragadam

Houston, TX

-Email me on Indeed: <http://www.indeed.com/r/Vibhusha-Saragadam/754d207db618b9eb>

Willing to relocate: Anywhere

## Work Experience

---

### Scientist/Engineer

Space Applications Centre, Indian Space Research Organization (ISRO) - Ahmedabad, Gujarat  
January 2018 to August 2021

### Project Management

Hyper spectral imaging satellite Indian Nano satellites (INS)  
April 2014 to August 2021

Microsatellite-1 and 2 series and Oceansat-3 series

Received team excellence award for world record 104 satellites launch of ISRO Feb 2017

- Delivered two INS power supplies in 3 months.

- Executed and managed the complete developmental flow of electronics hardware from requirements, interface definition, design, testing, qualification and integration for 8 payload projects.
- Co-ordinated with multidisciplinary engineers related to thermal design, layout design, fabrication, process, reliability, EMI and other environmental testing.
- Reviewed MIL, ISRO, NASA, ESA standards extensively during the development process and ensured compliance.
- Prioritized tasks, deadlines and efficiency in time constraint projects.
- Documented and reviewed Preliminary Design, Comprehensive Design Review documents, Request for Proposals.

Interns and Projects

### Summer Intern

ISRO Satellite Centre - Bengaluru, Karnataka  
July 2012 to May 2021

- Study of software development for onboard computer using object oriented methodology

### Undergraduate Project

IIST, Trivandrum - India  
May 2013 to January 2021

- Software Implementation and Hardware Design of Fractal Image Compression

Development of high efficiency space grade Hybrid Micro Circuit  
January 2016 to January 2019

- Designed and Collaborated with Indian industry to develop indigenous high efficiency DC-DC HMC using planar magnetics.
- Published paper in 9th IEEE PES Asia Pacific Power and Energy Conference as a first author Sep 2017

## **Scientist/Engineer C**

October 2013 to December 2017

### Design Experience

- Designed low voltage, high efficiency payload power supplies in 8 electro-optical satellites of ISRO. Worked on isolated low voltage DC-DC topologies, analog protection circuits, input EMI and output low noise filters.
- Experienced in circuit design, PCB routing, magnetics design, component selection and characterization of ICs and passive components.
- Worked on developing dynamic loading DC-DC converter for Cooler Drive Electronics of IR detectors.
- Evaluated hardware for more than 20 critical electrical parameters. Investigated failures and anomalies during circuit and package level bench and environmental testing.
- Simulated and analysed circuit performance for several operating conditions.
- Developed 17 different multiple output power electronics with power ranging from 3 to 100W.
- Performed EEE parts derating, FMECA analyses.
- Experienced with electronic and test equipment, designing harness, test plans and debugging of circuit failures.
- Reviewed and participated in human rating certification of crew modules for human space flight.

## Education

---

### **Bachelor's degree in Avionics**

Indian Institute of Space Science and Technology (IIST) - Houston, TX

## Skills

---

- Project management
- Organizational skills
- Fabrication
- Debugging
- Microsoft Office
- PCB
- MATLAB
- Low voltage
- Computer operation
- Python
- Gujarati

## Links

---

<https://www.linkedin.com/in/vibhusha-saragadam/>