SOURAV GHOSH

Aerospace Engineer

Bengaluru, Karnataka, India | +91 7760837017 | sg.souravghosh2002@gmail.com
https://www.linkedin.com/in/sourav-ghosh-065a851a5/

EDUCATION:

2020 - 2024 | IIAEM - Jain (Deemed to be University)
Bachelor of Technology - Aerospace Engineering | CGPA - 8.82

RELEVANT EXPERIENCE

Team Avadhi

Co-founder | May 2022 - Present
- High Powered Rocketry Club at Jain (Deemed to be University)
- Team lead of Avionics & Guidance, Navigation, and Control for Sounding Rockets.
- Also contributing towards Propulsion and Mission Design.
- Design of Flight Computer for HPR, and Control system design for recovery systems.

Team Ardra

Integration and FSW Engineer | Aug 2022 - Present
- The team is participating in IN-SPACE National CANSAT Competition representing Jain (Deemed to be University)
- Responsible for Flight Software
- Responsible for Reaction wheel control
- Responsible for integration in the CANSAT

Deep Space Initiative

Space Transportation Systems STS-10 | February 2023 - Present
- A 12-month research program, collaborating with students from across the world.
- The project titled "Implementing state-of-the-art GNC subsystems for lunar and Martian Missions"
- Publication of research in the end of program, participation in conferences along the way.

SKILLS:

- C/C++/Python/MATLAB/Octave/Julia/Git
- Embedded Systems Design (Using Autodesk EAGLE)
- Propulsion Systems
- Space Mission Design
- Control Systems Design
- Multilingual (English/Hindi/Kannada/Bengali/Japanese/German)

RESEARCH INTERESTS

- Guidance, Navigation, and Control
- Astrodynamics
- Embedded Systems
- Robotic Systems

RELEVANT PROJECTS:

Flight Computer for High Powered Rocketry - Team Avadhi

Avionics - GNC Lead | 2022

- Design and development of a flight computer for Sounding Rockets.

Home Automation System - Personal Project

High School Project | 2016

- Created an Arduino-based Home automation system.

Library Database Management System - School Project

High School Project | 2020

- Created a library database management system based on MS-DOS C++.

Structural Investigation of an Agricultural UAV - Research Article

Published in IJSRET | 2021

- Analysis of an Agricultural UAV on various software.

Guidance and Control of Formation Flying Spacecraft for Interplanetary Missions

Work in Progress | 2022-23

- Analysis of GNC frameworks for Interplanetary Space Missions

Design and Development of Flight Computer for Multi-rotor UAVs

Work in Progress | 2022-23

- Project for Research and Entrepreneurship Course at Jain (Deemed to be University)
- Design of STM32F4 and ATMEGA2560 based Flight Computer from scratch.

IN-SPACE National CANSAT Competition 2022-2023

Work in Progress | 2022-23

- Responsible for CANSAT Integration, Electronics, Flight Software and Reaction wheel.

Implementing state-of-the-art GNC subsystems for lunar and Martian Missions

Ongoing | 2023

- Development of new GNC architectures and frameworks for interplanetary missions.

More projects - https://souravius1234.github.io

NOTABLE CERTIFICATIONS

- Rocket Propulsion - NPTEL
- Introduction to Launch Vehicle Analysis and Design - NPTEL
- Space Flight Mechanics - NPTEL
- Computational Science in Engineering - NPTEL
- Aerospace Materials - Coursera
- Kinematics: Describing Motion of Spacecraft - Coursera
- Kinetics: Studying Spacecraft Motion - Coursera
- Arm Cortex-M Processors Overview - Coursera
- Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion - Coursera
- AstroTech: The Science and Technology behind Astronomical Discovery - Coursera
- Introduction to Programming with MATLAB - Coursera
- Technical Support Fundamentals - Coursera
- Introduction to Experiments in Flight - IIT Kanpur Offline Training Feb-2023