Colorado Space Grant Consortium

Student Positions

Space Grant is seeking students from all backgrounds & majors with an interest in gaining real-world, hands-on experiences. All levels of experience, first-year to graduate level, should apply.

Summer 2020 Positions

1. GLEE
GLEE is a unique mission that involves global collaboration to perform science on the lunar surface. This fall semester students will further the work done from this past summer. Students will work with the diverse team and staff here at COSGC along with students from Cornell University to make this ambitious mission a reality.

GLEE will use palm-sized packages called LunaSats. A LunaSat weighs ~5 grams, is ~0.17 x 4 x 4 cm in size and is flexible. They are Arduino based and have an extensive sensor suite (accelerometer, temperature, magnetometer, gyroscope, pressure, humidity, and GPS) as well as communication and power systems. GLEE will fly 500 LunaSats in a 3U CubeSat to the lunar surface and is scalable if launch conditions allow.

GLEE currently has a team with multiple backgrounds and involves students from engineering, science, space policy/law, business, marketing, media, education, and international relations. While there are some conceptual designs, ideas for marketing and international connections much of this semester will be spent finalizing and developing these aspects carried over from the summer. These details include but are not limited to: creating international connections, developing app, vlog and distribution media, general marketing, iterating on designs for the spacecraft (communication, power, structures etc.), designing missions to be done on the lunar surface with the LunaSats, developing software and electrical power systems, proposal writing, presentations, space policy/law and international law research, creation of briefings for NASA, companies and foreign governments, expansion on budgets and funding models, designing a new iteration of the LunaSats.

Current Position Openings:

- GLEE Electrical Engineer
**Job Title:** GLEE Electrical Engineer  
**Position #:** G01

| **Project:** | GLEE | **Available Positions:** | 2 |

**Description:** Students working with the GLEE LunaSat subsystem will design and prototype LunaSats for use in this mission. Students will be specifically working on RF and antenna design and also designing a PCB to meet the mission requirements.

Majors: Electrical Engineering  
Grade Level: Junior, Senior

### Minimum Requirements
- Experience with board layout (Altium/EAGLE/Ultiboard/MentorGraphics)  
  - a) Specifically, dealing with cross-talk, EMI pick-up noise, etc.
- Interested in RF and antenna design

### Desired Skills
- Experience in schematic level design (and simulation, LTSpice/ORCAD/MultiSim/MentorGraphics/<insert your favorite simulation package here>)
- Prior experience in dealing with LNAs, and low noise/low voltage circuits
- Signal processing to extract information at low SNRs.
- RF and antenna design experience

**Time Commitment:** 20 hours/week at $15/hour for 15 weeks over the summer
That concludes Summer 2020 postings. Please keep an eye out for updates as the semester progresses.