Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

The applicant has impressive record with exceptional academic performance, strong research experience, external recognition of his work. It should be commented that he and his undergraduate teammates had designed a nanosatellite that has won 1st place in AFRL's Nanosatellite Program and will launch in 2015. His design and research experience prepared him well for high-quality research.
The applicant has worked on various research projects that covers different disciplinary areas. His experience will bring broader and practical perspective in tackling challenging problems.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The proposed research has potential to impact the traditional software and hardware design.
The applicant works well in a collaborative setting and take an active role in service opportunities.

Summary Comments

The applicant has strong academic, research and design background with an impressive record. He has great potential to conduct innovative and quality research.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

Outstanding academic preparation and contributions. The applicant took advantage of two JPL summer internships during which presentations were made at symposia, Co-Op with Hitachi, and REU fpr hybrid-electric vehicles. Has served as instructor, head programmer for FIRST robotics, won a national competition with satellite, and participated in Aerospace Enterprise.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The applicant has proposed a novel research project with probable far-reaching effect, and has clearly demonstrated leadership and cooperation.

Summary Comments

Letters of recommendation are outstanding. This applicant appears to be well-rounded and well-prepared.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

The applicant proposed to research on software-defined hardware where hardware artifacts can be chosen to fit the software requirements. The applicant has an outstanding academic record and strong research background (an NSF REU, NASA Jet Propellor Lab, and designing a nano satellite). The proposed research provides a different point of view of the problem in embed system engineering. The references offer strong evidence of the applicant's potential success.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The applicant has demonstrated leadership potential in his participation in the nano satellite project. This is demonstrated by his team's recognition of winning the national competition in 2011 and his presentations to the Air Force Research Lab. The applicant has presented research impacts for all the research projects he has participated and has been involved in outreach and recruitment activities in engineering.

Summary Comments

The applicant's research record and strong recommendations offer strong evidence of the applicant's potential success.