Cal Poly Engineering Students Present Spacecraft Designs To Lockheed Martin

Students Gain Real-world Exposure to Spacecraft Design Process

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SUNNYVALE, Calif., May 15, 2013 /PRNewswire/ -- Aerospace engineering students at California Polytechnic State University (Cal Poly), San Luis Obispo, have completed a design review with Lockheed Martin (NYSE: LMT) Space Systems Company for geostationary satellites and service vehicles.

The review, which was conducted at Lockheed Martin'sSunnyvale, Calif., facility, concluded a year-long project for the students in the Spacecraft Design class taught by Professor David Esposto. The project provided the students with a real-world experience in which they followed standard commercial and government contract procedures, including a "customer" design review.

The aerospace engineering students received a request for proposal (RFP) at the start of the academic year. They performed research, calculations and simulations to design an architecture and the spacecraft to meet the RFP requirements. The 19 students then presented their designs to a group of 30 experienced Lockheed Martin engineers, who acted as an independent review panel for this project as part of the Corporation's engagement activities with Cal Poly.

"Exposure to real-world work practices through project-based learning fosters students' creative and critical thinking skills, both of which are imperative to the type of work we do," said Tory Bruno, president of Strategic & Missile Defense Systems, Lockheed Martin Space Systems Company. Bruno is the executive responsible for the Corporation's relationship with Cal Poly. Lockheed Martin focuses on supporting diverse and sustainable science, technology, engineering and math activities that reach students and educators from elementary school through college.

Student Ryan Rader said that the design review gave him insight to things "that you cannot look up in a textbook," including increased knowledge of technical issues associated with spacecraft design.

"The students demonstrated a love for the aerospace industry, a command of their discipline, and an inquisitive nature to learn and innovate," said Julie Sattler, vice president and general manager, Lockheed Martin Space Systems Company. "Their design solutions were unconstrained, providing new perspectives and innovative ideas," noted Sattler, who served on the design review panel.

Student Leila Tebyani's favorite part of the design presentation was "the number of people who came to the presentation, the quality of feedback and the burst of inspiration from Julie Sattler." In addition to evaluating the spacecraft designs, Sattler provided the students with insights on career path options.

Lockheed Martin Space Systems Company designs, develops, tests, manufactures and operates a full spectrum of advanced-technology systems for national security, civil and commercial customers. Chief products include human space flight systems; a full range of remote sensing, navigation, meteorological and communications satellites and instruments; space observatories and interplanetary spacecraft; laser radar; ballistic missiles; missile defense systems; and nanotechnology research and development.

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company that employs about 118,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2012 were $47.2 billion.

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