

Bethany Davis awarded first place for poster

Bethany Davis, a mechanical engineering student, has been awarded first place in the poster division of the New Mexico AMP Student Research Conference. Her winning entry is based on research done during the summer through the Summer Community College Opportunity for Research Experience (SCCORE), which she is continuing now as an Undergraduate Research Assistant. Bethany works under Dr. Ou Ma of the Mechanical and Aerospace Engineering Department in his research on unmanned aerial vehicles (UAVs). Doctoral candidate, Khaled Hatamleh, is her mentor - a patient, knowledgeable and marvelous one, according to Bethany.

Her poster and oral presentation were among over 40 presented during the annual conference and judged by faculty members. Entitled **Development of an Inertial Measurement Unit for Performing System Identification**, her abstract and poster describe her work on the team in developing a five-degrees-of-freedom measurement unit (5-DOF-IMU) for UAV system identification. Specifically, she worked on calibration of accelerometers. Data collected through a process involving an accelerometer calibration platform was then interpreted by a Matlab program to calculate scale and bias factors along the accelerator's axes.

Bethany transferred from the Alamogordo campus this summer, and is now commuting daily as she pursues a degree in mechanical engineering with a minor in aerospace. "The research team is wonderful. I came with no background in this work, and they have helped me learn a tremendous amount. We pool our resources, team members help each other with their individual strengths. Not just in the research work itself, but also in course work," Bethany said of her continued experience with Ma's group of 16 undergraduate, master's and doctoral students. She and another member of the team have been working on a Web site which will provide information and updates on all the projects going on in the group; they hope to have it available for viewing within the next week or two.

