



FACULTY MENTOR

Schurgers, Curt

PROJECT TITLE

Engineers for Exploration

PROJECT DESCRIPTION

Engineers for Exploration, or E4E, (<http://e4e.ucsd.edu>) is a one of kind program promoting multidisciplinary and collaborative research projects with the broad goals of protecting the environment, studying wildlife, uncovering mysteries related to cultural heritage, and providing hands-on learning experiences for undergraduate students. We team student engineers with scientists from a wide range of disciplines to create innovative technologies that are deployed around the world. Our projects have seen us collaborate with scientists at San Diego Zoo Global, the Atlantic World Marine Archeology Research Institute, Scripps Institution of Oceanography, Ithaca college Archaeology, the California Wolf Center, and National Geographic. Our goal is to develop prototype systems that are then jointly deployed in the field, providing the engineers with the real constraints of practically deployable systems and the domain scientists with the new technological tools they critically need. Last year, students worked on projects including drone based ecological classification and machine learning, 3D mapping for archaeological sites using SLAM, wildlife radio telemetry tracking, aerial lidar scanning, and embedded systems design of a smart surfboard fin and a reef sensor.

INTERNS NEEDED

Up to 5 BS students

PREREQUISITES

We place a high value on prior experience, specifically related to system building and advanced software development. This could be, for example, working with robotics, embedded software (e.g. Arduino, Raspberry Pi), electronics, machining, machine learning, SLAM algorithms, virtual reality systems, etc... In your application, include all relevant experience and describe in detail with you did (include a paragraph with this information; < 150 .. 200 words).