Project Description: **Professor Derickson** **EE Dept. ddericks@calpoly.edu 805-756-7584**	Staffing Requirements	Time Frame	Funding
Optical Vector Network Analysis (OVNA): In this project we are using a single –chip wavelength tunable laser system to measure the loss, group delay, and impulse response of various samples. Example samples are carbon composite structures or biological samples.	Presently 2 masters students and 2 senior project students. I am seeking other interested students	Fall 2006 to Spring 2008	Yes
First Generation tunable OVNA laser construction and signal processing and calibration:	Andrew Dekalai (Master's)	2006-2007	Yes
Second Generation tunable OVNA laser construction – Heterodyne sensitivity and speed improvements	Ben Maher (Master's)	2006-2007	Yes
First Generation System Hardware Construction	Sam McGinn (Senior Project)	Fall 06-Winter 07	Yes
First Generation Device Under Test Interface	Eli Stiny (Senior Project)	Fall 06 Winter 07	Yes
SECOND GENERATION ELECTRICAL/OPTOMECHANICAL INTERFACE (IN CONJUNCTION WITH M.E. ENGINEERING senior design)	We need **two** EEs on the project	Winter-Spring 2007	Yes
Biological Sample Applications of OVNA (with Biomedical Engineering)	1 Senior Project Student needed	Wint-Sprg 2007	Yes
Second Generation System Hardware Construction	2 Senior Project students needed	Wint-Sprg 2007	Yes
Signal Integrity Research: Signal integrity is a blend of microwave engineering concepts and high speed digital design. I have proposals pending in this area that may be funded in Winter of 2007.	2 Senior Project students anticipated	Winter 2007 to Fall 2007	Proposal Pending
BRING YOUR OWN IDEA: I am interested in the RF/Microwaves/Photonics/Communications area both at the component and the system level. If you have an interest in this area and want to work with me on a senior project, let's talk about your interests.	Open project	On Going	No
Optical Radar Project: I am interested in using single chip tunable lasers to provide a compact, inexpensive, optical radar system. I am also interested in exploring applications of this source.	Open project	2007	Proposal Pending
Photonics Lab Upgrade Projects:	Open project	2007	Yes
Add SFP transceivers to replace old HP transceivers	Open project	2007	Yes
Add tunable filters to Erbium Doped Fiber Amplifier Experiment	Open project	2007	Yes
Microwaves Lab Updgrade:	Open project	2007	Yes
Anritsu Network Analyzers TDR upgrade	Open	2007	Yes
Nanotechnology: I went to a seminar this summer and would like to start some work in this area.	Open		No