

*Welcome to AIMS²(HSI-STEM Grant)
Meeting # 32*

**CSUN
SHINE**



*JD 1568
2 PM - 4PM
Jan 29, 2015*



Future AIMS² scholars Congratulations to..

Dr. Richard Cortes and Mirna

Dr. Eric Lara and family



Welcome
Nathaniel Ymanol Cortes

Welcome Ms. Lara



Engineers Week Honorees from the AIMS² grant

***Congratulations Dr. Gloria Melara
Distinguished Educator Award 2015
Engineers Week Banquet – Feb 28, 2015***



***Congratulations Dr. Anwar Alroomi
Outstanding Merit Achievement Award 2015
Engineers Week Banquet – Feb 28, 2015***





Meeting Calendar for Spring 15

- ✓ *January 29th, 2015*
- *February 19th, 2015*
- *March 19th, 2015*
- *April 16th, 2015*
- *May 21st, 2015*
- *June 18th, 2015***

***All meetings above are scheduled from 2 PM – 4 PM in JD 1568.**

**** External Advisory Committee Annual Meeting – Year 4**



AGENDA

- **Information Items**
 - Annual Performance Report – Ramesh
 - AIMS Social - Tesha
- Project Assessment and Evaluation Update – Nathan
- Academic Progress of Cohorts
 - Glendale Community College – Jan Swinton, Scott Rubke and Richard Cortes
 - College of the Canyons – David Martinez and Eric Lara
 - CSUN – Bob Ryan, and Tesha
- Presentation on proposed project involving CCC's, CSUN, and NASA – Nhut Ho (*Time certain 3 PM*)
- Project Activities
 - Ongoing Research Projects/Group Meetings – Reports by CSUN Faculty Mentors
 - ME – Vidya Nandikolla
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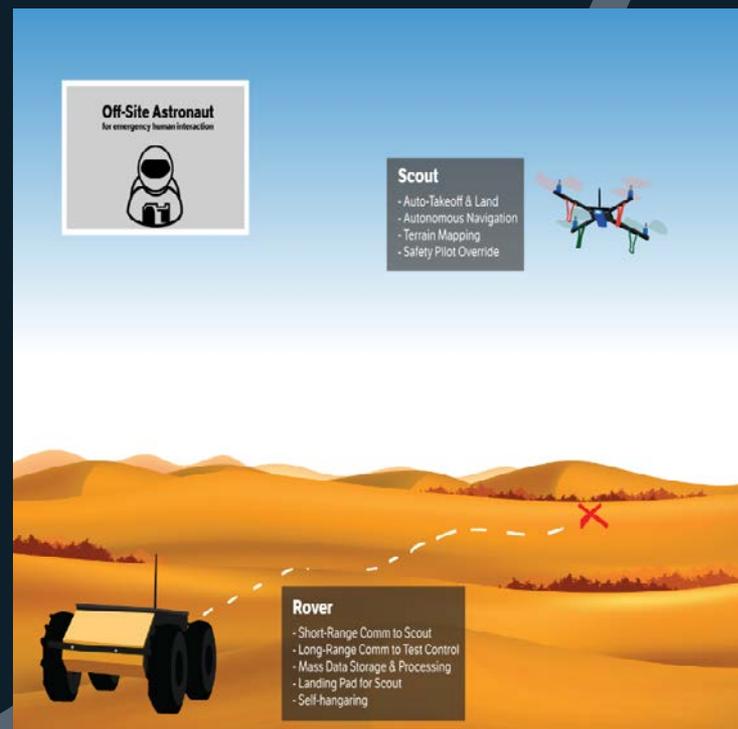


SERL
SYSTEMS ENGINEERING
RESEARCH LABORATORY

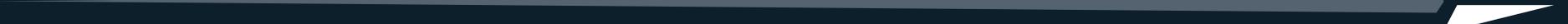


Invitation to Team with CSUN CECS to Participate in NASA Challenge

Dr. Nhut Ho, Jeremy Friedman



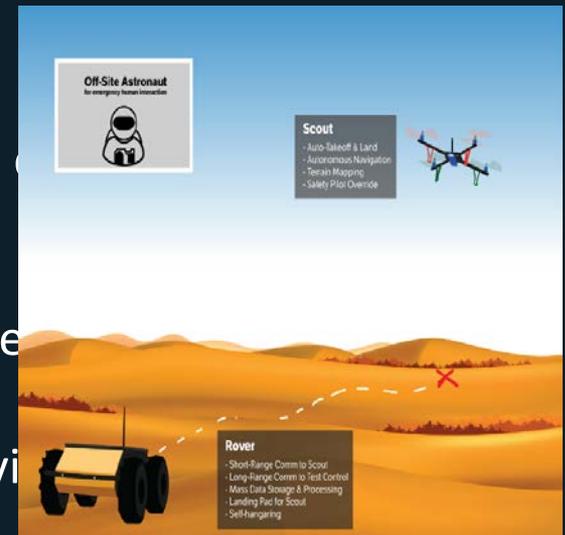
Challenge Requirements



- Aimed at providing STEM outreach for minority students
 - Increase completion rates of undergraduate degrees in underrepresented groups of students
 - Disseminate 'best practices' to STEM programs
 - Available to students nationally and integrate with local organizations
- 3-4 year curriculum culminating in senior design-type project
 - Designed to complement and supplement a standard 4 year bachelor's program in engineering/other STEM majors (in FY16, FY17, FY18)
 - Develop and implement processes to capture the impact of the activities

Planetary Mapping with Human-Autonomy Teaming

- Inspired by NASA Armstrong's [Autonomy](#) and Ames' [Human Automation Teaming Programs](#)
- Students design a Human-Autonomy Team of a [scout](#), [rover](#), and [operator](#)
 - Task: planetary mapping
 - Rover is capable of [traversing](#) exoplanet-like landscape, [charging](#) UAV
 - Scout is a UAV capable of [flight](#) and [image capturing](#)
 - Autonomous cooperation between Rover and Scout (Autonomous team)
 - Operator (e.g., astronaut) sets [goals](#) and agents
 - Interface and communication methods (w/ [operator](#))
 - Student teams must do outreach activities
 - High commitments from NASA Armstrong and Ames
 - Host competition at Armstrong airspace
 - Provide technical support (e.g., videos/interviews) with NASA scientists)



CSUN Implementation



- A CECS multidisciplinary senior design project (ME, EE, CS, CE, MSEM, Psychology, Art, Geography) will be offered and dedicated to participate in this challenge
- Incorporate Mentorship and best practices
 - “Cohort Experience” and “genuine” mentorship
 - Tap into existing mentorship programs at CSUN (University 100, ME 101, EOP)
 - Work with Dr. Efrat's Title V grant team: existing mentors and mentees
 - Provides social web, impetus for staying in school
- Collaboration and outreach
 - Community colleges, and students from Northridge and Granada Hills High Schools
 - IFFF’s EPICS Program (Dr. Ramesh) and organizations

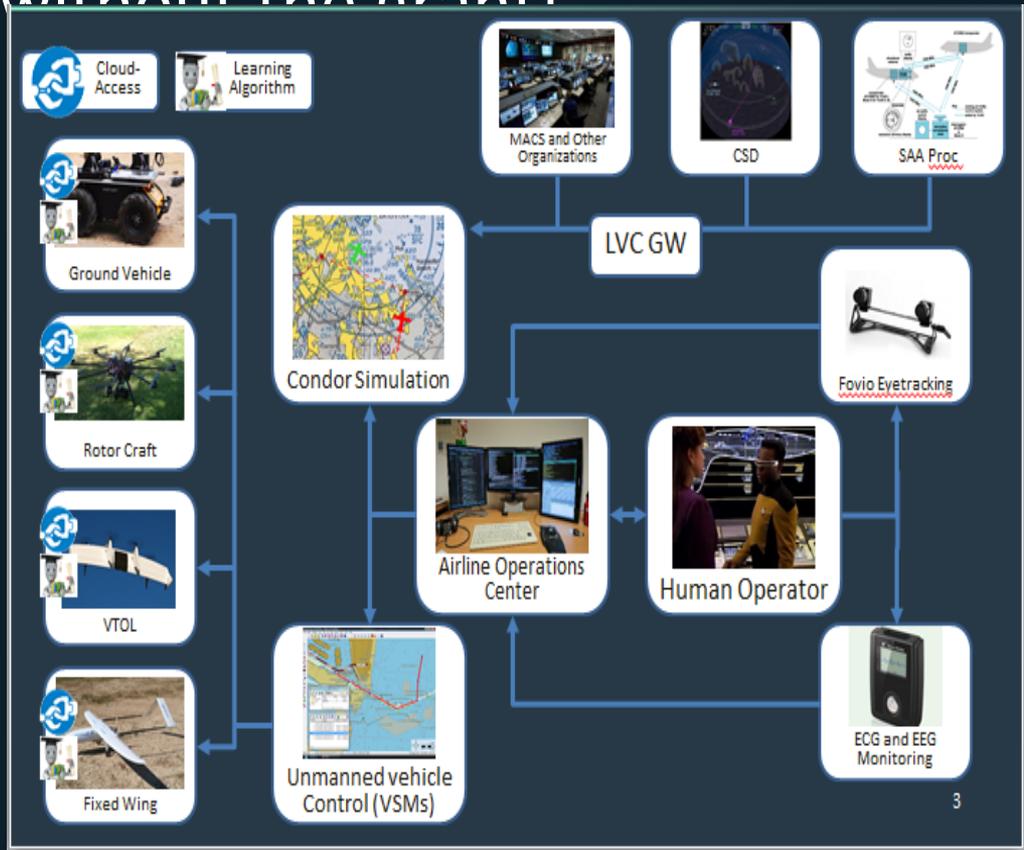
Invitations to AIMS CoC and Glendale CC



- Work with CSUN CECS **Multi-Disciplinary Senior Design**
 - CSUN students provide requirements to CoC or Glendale students to **build prototypes** (hardware or software) or do analysis and make presentations at CSUN
 - CSUN students spend time at CoC or Glendale, or vice versa
 - Joint outreach activities to local K-12 schools and communities
 - Span multiple semesters
- Incorporate projects into CoC/Glendale's courses that are **transferable to CSUN**
- **Mentorship** for CoC/Glendale students by CSUN

Backup Plan: Integrate Simulated and Live Unmanned system Research Platform (ISLURP)

With AFOSR equipment funding, we'll build the system without the grant!





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