California State University | INSTRUCTIONALLY RELATED ACTIVITIES CHANNEL ISLANDS

Proposal # _____

Instructionally Related Activities Report Form

SPONSOR: AJ BIESZCZAD

DEPARTMENT: COMPUTER SCIENCE

ACTIVITY TITLE: CI RAINBOW TRIP TO SANTA ROSA ISLAND AND THE CI SRI RESEARCH STATION

DATE (S) OF ACTIVITY:MAY 2-4, 2015

Please submit via email to the IRA Coordinator along with any supporting documentation at david.daniels@csuci.edu within 30 days after the activity. Thank you for your commitment to engaging our students!

A. ADDRESS THE FOLLOWING QUESTIONS:

(1) PROVIDE A DESCRIPTION OF THE ACTIVITY;
(2) HOW DID THE ACTIVITY RELATE TO A COURSE(S) AND/OR LEARNING OBJECTIVES?
(3) WHAT DO YOU SEE AS THE STRENGTHS OF THE ACTIVITY?
(4) WHAT WOULD YOU SAY ARE/WERE THE ACTIVITY'S WEAKNESSES?
(5) HOW WOULD YOU IMPROVE THIS ACTIVITY FOR NEXT TIME?
(6) WHAT DID YOU LEARN FROM THE PROCESS?
(7) WHAT ARE STUDENT RESPONSES TO THE ACTIVITY? ATTACH STUDENT EVALUATIONS OR ASSESSMENTS (IN ACCORDANCE WITH FERPA RESTRICTIONS YOU MUST REMOVE ALL PERSONALLY IDENTIFIABLE STUDENT INFORMATION) 8) GIVE A SUMMARY OF EXPENSES FOR THE ACTIVITY.

B. ATTENDEE LIST- SUPPORTING DOCUMENT:

In addition to the report form, *in a separate document,* attach to your email a list of attendees complete with each student major and grade level. This for IRA Committee reference only and will not be published on the IRA website. Include your name and the title of your IRA activity on the document.

C. IMAGES FROM ACTIVITY:

Finally, attach to your email up to 6 images demonstrating student participation (under 2 MB total) with captions/titles. Please attach these photos in .JPEG format directly to email. Thank you!

(1) PROVIDE A DESCRIPTION OF THE ACTIVITY:

THE CI RAINBOW RESEARCH PROJECT HAS BEEN ESTABLISHED TO EXPLORE WAYS OF COLLECTING DATA ON CHANNEL ISLANDS, ACCUMULATING THEM IN A CLOUD-BASED DATABASE, AND MAKING THEM AVAILABLE LOCALLY FOR STUDENTS AND RESEARCHERS AT THE SANTA ROSA RESEARCH STATION, AND GLOBALLY TO ANY INTERESTED RESEARCHERS, EDUCATORS, AND GENERAL PUBLIC.

THE PRELIMINARY RESEARCH IS BEING CONDUCTED IN THE UNIVERSITY PARK AND AT CI. SEVERAL SENSORY CLOUDS WILL COLLECT DATA SUCH AS TEMPERATURE, HUMIDITY, SOUND, VIDEO, ETC., AND TRANSMIT THEM TO A DATABASE LOCATED IN THE CI'S IT DATA CENTER. A USE OF SURVEILLANCE BY SELF-GUIDED DRONES IS ALSO EXPLORED (E.G., IN RESPONSE TO AN EVENT LIKE ANIMAL SPOTTING, OR SUSPICIOUSLY HIGH TEMPERATURE/LOW HUMIDITY THAT MAY INDICATE A FIRE).

THE PARTICIPANTS SPENT TIME LEARNING ABOUT THE ISLAND, BRAINSTORMING IDEAS ABOUT MONITORING THE ENVIRONMENT ON THE ISLAND, CONDUCTED RECONNAISSANCE MISSIONS TO SEVERAL LOCATIONS ON THE ISLAND, ASSEMBLED A NUMBER OF SENSORS, DEPLOYED THE SENSORS AROUND THE RESEARCH STATION AND VERIFIED THE SUFFICIENCY OF THE SUSTAINABLE SOLAR-BASED POWER SUPPLIES.

(2) HOW DID THE ACTIVITY RELATE TO A COURSE(S) AND/OR LEARNING OBJECTIVES?

THIS ACTIVITY RELATES TO MANY TECHNOLOGY, ENVIRONMENTAL, AND BIOLOGICAL COURSES. IT WAS A VERY INTERDISCIPLINARY UNDERTAKING.

PARTICIPANTS LEARNED:

- WHAT IS CI RAINBOW AND WHAT SENSORY NETWORKS
- WHY THE NETWORK MATTERS TO THEIR RESPECTIVE DISCIPLINE - HOW THEY CAN USE THE NETWORK TO THEIR ADVANTAGE

AFTER THE TRIP, THE PARTICIPANTS ARE ABLE TO:

- APPLY THE KNOWLEDGE TO THEIR FIELDS BY DESIGNING INNOVATIVE ENVIRONMENTAL APPLICATIONS

- DESIGN, IMPLEMENT, AND DEPLOY THE APPLICATIONS ON THE CI RAINBOW EXPERIMENTAL NETWORK
- USE THE BACK-END DATA ACCESS AND ANALYSIS (E.G., DATA MINING) CAPABILITIES OF THE CI RAINBOW INFR
- EXPERIMENT WITH THEIR APPLICATIONS IN THE UNIVERSITY PARK
- BE READY TO DEPLOY THEIR APPLICATIONS ON THE ISLAND WHEN THE SRI-LOCATED NETWORK IS READY

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(3) WHAT DO YOU SEE AS THE STRENGTHS OF THE ACTIVITY?

INTERACTIONS WITH THE STATION AND PARK SERVICES PERSONNEL, INTERACTIONS WITH STUDENTS FROM ENVIRONMENTAL STUDIES AND BIOLOGY, HANDS ON COLLABORATIVE TEAMWORK, LOCATION ALLOWING DEEP UNDERSTANDING OF THE CHALLENGES FOR AUTOMATED SURVEILLANCE OF THE ISLAND.

(4) WHAT WOULD YOU SAY ARE/WERE THE ACTIVITY'S WEAKNESSES?

IN SPITE OF EXTREME ENTHUSIASM FROM STUDENT PARTICIPANTS, THERE WAS INSUFFICIENT INTEREST FROM THE FACULTY WHO COULD SUPERVISE MANY FUTURE COLLABORATIVE RESEARCH PROJECTS.

(5) HOW WOULD YOU IMPROVE THIS ACTIVITY FOR NEXT TIME?

THE TRIP WAS A TREMENDOUS SUCCESS WITH STUDENTS ASKING FOR ANOTHER ONE!
I WOULD DO EXACTLY SAME, BUT WISER. FOR EXAMPLE, I KNOW THAT ONLY PLASTIC BOXES CAN BE TAKEN TO THE ISLAND, AND THE STUDENT WILL NOT BE HUNGRY EVEN WITH THE HALF OF THE FOOD THAT I PROVIDED.
I WOULD ALSO ASK FOR SOME FUNDING FOR A HELPER, AS IT WAS A VERY SUBSTANTIAL COMMITMENT OF MY TIME AS PREPARED ALL LOGISTICS AND HANDS ON LABS THAT BORDERED SEVERAL DISCIPLINES. THE STUDENTS EVEN HAD TO SOLDER!

(6) WHAT DID YOU LEARN FROM THE PROCESS?

AS STATED IN (5).

(7) WHAT ARE STUDENT RESPONSES TO THE ACTIVITY? ATTACH STUDENT EVALUATIONS OR ASSESSMENTS (IN ACCORDANCE WITH FERPA RESTRICTIONS YOU MUST REMOVE ALL PERSONALLY IDENTIFIABLE STUDENT INFORMATION)

VERY HAPPY. SEE YOUTUBE VIDEO: HTTPS://YOUTU.BE/KZYW7GQBKJ0

8) GIVE A SUMMARY OF EXPENSES FOR THE ACTIVITY.

I SPENT ALL ALLOCATED FUNDS AS INTENDED. THE COMPUTER SCIENCE PROGRAM PROVIDED SEVERAL HUNDRED DOLLARS TO COVER THE DEFICIT.

B. ON SEPARATE DOCUMENT, PLEASE ATTACH ATTENDEE LIST (PERSONALLY IDENTIFIABLE INFO REMOVED)

C. PLEASE INCLUDE UP TO 6 IMAGES AS ATTACHMENTS TO YOUR EMAIL SUBMISSION
SEE YOUTUBE VIDEO: HTTPS://YOUTU.BE/KZYW7GQBKJ0


RESTROOMS
CHECK IN
Ventura Harbor Patrol
Attention Boaters