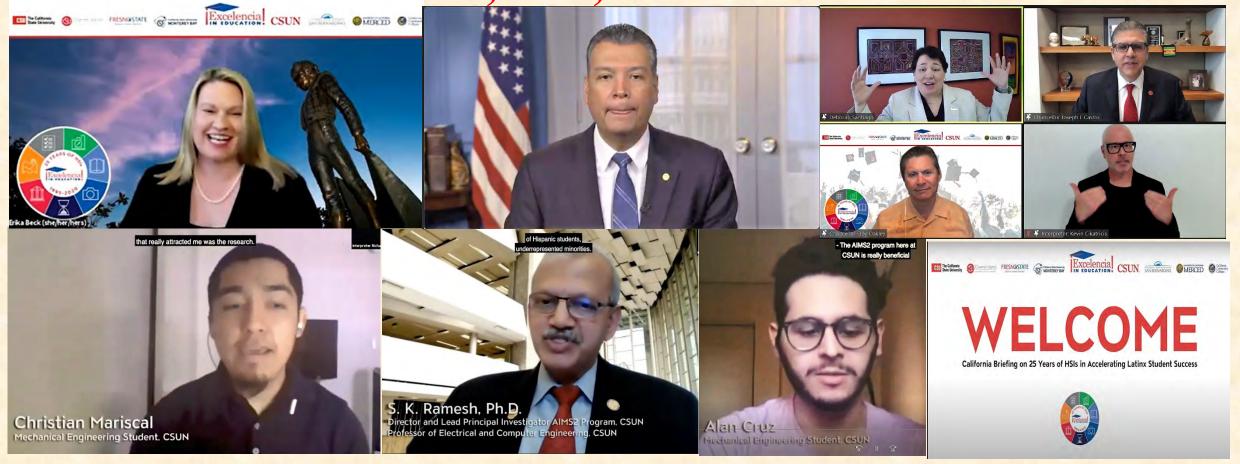


CSUN

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

## Welcome to AIMS<sup>2</sup>(HSI-STEM Grant)- Meeting # 94 March 11, 2021, 1 PM – 3:00 PM



03/11/2021 AIMS2 HSI-STEM Meeting # 94 1

Photos-Courtesy: Ramesh





- Welcome and Information Items Ramesh
- Meetings calendar for spring 2021
- Infographic for AIMS<sup>2</sup>
- AIMS<sup>2</sup> Excelencia Student Award Nominations Due March 12!
- California Briefing on HSI's Video excerpt from Feb 25





- ✓ January 14th, 2021
- ✓ February 11th, 2021
- ✓ March 11th, 2021
- April 8th, 2021
- May 13th, 2021

All meetings on Zoom online

Monthly meetings above are scheduled from 1 PM – 3 PM

- April 7-8, 2021 Annual Research Symposium
- Week of June 7th Tenth annual external advisory committee meeting





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#### Attract Inspire Mentor Support Students (AIMS2) Program

California State University Northridge

Total project participants across five project sites: CSU Northridge, College of the Canyons, Glendale Community College, Moorpark College, and Los Angeles Pierce College



#### **Key Program Components**











Pre-professional and Career-related Activities

**CSUN Mentee-Mentor Demographics** Gender Race Mentees Mentors Male Female Hispanic-Latino African American Not Provided Non-binary Not Provided White-Non Hispanic Multi-racial Other Asian American Hawaiian-Pacific Islander

#### Performance Measure Data for CSUN Project Participants

84%

259 out of 297

CSUN project participants who successfully completed gateway courses



71%

130 out of 134 CSUN project participants





#### 50 out of 50

Female CSUN project participants in good academic standing

111 out of 127

Female CSUN project participants who successfully

completed gateway courses



4 out of 6 3-year graduation rate from CSUN for the first two transfer cohorts of fe male project participants



#### Gains Reported on the Undergraduate Research Student Self-Assessment



94.9% strongly agreed or agreed that doing research confirmed their interest in their field of study (n=111).

75.2% reported great or good gains in confidence in their ability to do research (n=98).

74.4% reported great or good gains in understanding what everyday research work is like (n=87).

71.826 strongly agreed or agreed that their research experience has prepared them for graduate school (n=84).

strongly agreed or agreed that their research experience has



## Infographics Created by CEEE **CSULB**

#### AIMS2 HSI-STEM Meeting # 94

#### Attract Inspire Mentor Support Students (AIMS2) Program

California State University Northridge

Total project participants across five project sites: CSU Northridge, College of the Canyons, Glendale Community College, Moorpark College, and Los Angeles Pierce College

wnlent sees

#### **Key Program Components**





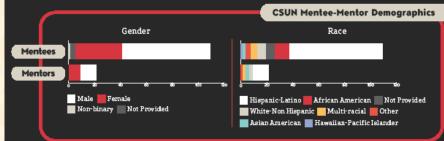






with Faculty

**CSU Northridge Participants** 



#### Performance Measure Data for CSUN Project Participants

259 out of 297

CSUN project participants who successfully completed gateway courses



111 out of 127

Female CSUN project participants who successfully completed gateway courses



130 out of 134 CSUN project participants in good academic standing

50 out of 50 Female CSUN project participants in good academic standing





10 out of 14

3-year graduation rate from CSUN for the first two transfer cohorts of project participants

4 out of 6 3-year graduation rate from CSUN for the first two transfer cohorts of fe male project participants



#### Gains Reported on the Undergraduate Research Student Self-Assessment



strongly agreed or agreed that doing research confirmed their interest in their field of study (n=111).

75.2% reported great or good gains in confidence in their ability to do

reported great or good gains in understanding what everyday
research work is like (n=87).

strongly agreed or agreed that their research experience has prepared them for graduate school (n=84).

etrongly agreed or agreed that their research experience has prepared them for a job (n=102).

















COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

#### Attract Inspire Mentor Support Students (AIMS2) Program

California State University Northridge -

Total project participants across five project sites: CSU Northridge. College of the Canyons, Glendale Community College, Moorpark College, and Los Angeles Pierce College

**CSU Northridge Participants** Mentees matched volunteered

#### **Key Program Components**





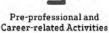
Peer Mentoring

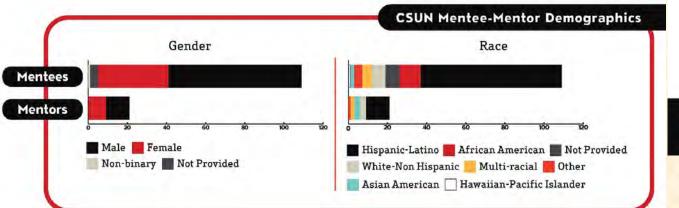






with Faculty





#### Performance Measure Data for CSUN Project Participants

#### 259 out of 297

CSUN project participants who successfully completed gateway courses

84%

#### 111 out of 127

Female CSUN project participants who successfully completed gateway courses

#### 130 out of 134

CSUN project participants in good academic standing 50 out of 50

Female CSUN project participants in good academic standing





#### 10 out of 14

3-year graduation rate from CSUN for the first two transfer cohorts of project participants

4 out of 6

3-year graduation rate from CSUN for the first two transfer cohorts of female project participants

#### Gains Reported on the Undergraduate Research Student Self-Assessment



94.9% strongly agreed or agreed that doing research confirmed their interest in their field of study (n=111).

75.2% reported great or good gains in confidence in their ability to do research (n=88).

74.4% reported great or good gains in understanding what everyday research work is like (n=87).

71.8% strongly agreed or agreed that their research experience has prepared them for graduate school (n=84).

87.2% strongly agreed or agreed that their research experience has prepared them for a job (n=102).

9 18111 Nordhoff St, Northridge, CA 91330-8295 (818) 677-4742

s ramesh@csun.edu www.ecs.csun.edu/aims2









- Welcome and Information Items Ramesh
- Meetings calendar for spring 2021
- Infographic for AIMS<sup>2</sup>
- AIMS<sup>2</sup> Excelencia Student Award Nominations Due March 12!
- California Briefing on HSI's Video excerpt from Feb 25





- AIMS<sup>2</sup> student recognition awards (Excelencia)
- Nominations from faculty and community college liaisons
- Deadline for nominations: Friday, March 12, 2021
- Review Committee (TBD in March)
  - Propose 3 member committee with 2 representatives from CSUN and 1 representative from a partner community college
  - Review nominations and make recommendations
  - Deadline for recommendations: April 8, 2021









#### AIMS<sup>2</sup> Student Recognition Award

	Overall GPA: (3.0 minimum)
lajor:	Standing:
ersonal at	tributes:
	(responsible, leadership, overcoming academic/personal challenges as demonstrated or reported during faculty mentor meetings; or their participation program activities for community college students).
rogram in	volvement:
	(consistently meeting program requirements for CSUN students; meaningful participation in program activities for community college students).
ampus inv	olvement:
ampus inv	volvement:
Campus inv	volvement:
ampus inv	
	(membership in any club, organization, research program, or professional organization).
	(membership in any club, organization, research program, or professional organization).
	(membership in any club, organization, research program, or professional organization).



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COMPUTER SCIENCE

03/11/2021



## Other Information Items

- Faculty Internship Program at Glendale Community College Chris
- Supporting 10 students from CSUN cohort to attend Thrive-Wise Micro Dev
   -Pulse Con conference on March 31<sup>st</sup> (<a href="https://devpulsecon.org">https://devpulsecon.org</a>)
- This is a one-day technical and cultural conference for women\* engineers, technologists, and technical leadership and their allies, organized by women engineers and technologists at Thrive-WiSE (formerly CodeChix.org). Ms. Rupa Dachere, the founder of CodeChix and now Thrive-Wise, is a member of the AIMS<sup>2</sup> External Advisory Committee.





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AND



CE ID







- Supplemental award (AIMS2 Future Teachers in STEM) status update
- Project implementation and timelines Susan Belgrad
- Project Assessment and Evaluation Nathan Durdella





- Supplemental award (AIMS2 Future Teachers in STEM) status update
- Project implementation and timelines Susan Belgrad
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- Project Activities and plans for spring 2021 CC Project Partners
- College of the Canyons Amy Foote
- Glendale CC Chris Herwerth, Shelby McIntyre, Marisela Canela, Freddy Saucedo
- Moorpark College Trevor Hess
- LA Pierce College Elizabeth Cheung
- CSUN (March Workshop What to expect in industry) Ramesh & Josefina



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# COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

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## Update from LA Pierce College

- Our AIMS-funded tutors continue to tutor online this semester.
- In addition to the continuous support Rebecca (CGCA) provides to students in Live chat and in our face to face Zoom lounge, we are planning a CSUN Day the first week in May. This event will include admissions and an overview on how to transfer from the CSUN Admissions and Outreach team, and highlight certain programs open to our students including AIMS2 and BUILD PODER. Then students will break out into various zoom links that are discipline specific, they can hear from advisors and faculty directly from CSUN. Our transfer center is in the early planning stages for this event and are open to ideas. Right now our transfer center is working with CSUN outreach and admissions to get the planning started. I (Beth) will connect Josefina with our transfer center director to see how the CECS & AIMS can be involved in the event.
- I'll be sending in one or two nominations for the AIMS2 student awards this week prior to the deadline.

03/11/2021 AIMS2 HSI-STEM Meeting # 94 20





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## What to expect in industry

- When: Monday, March 29th
- Time: 5:30 PM 6:30 PM
- Confirmed panelists:

Felix Rabinovich (CS – ATIMS)

Kerstern Malama (MSEM – NGC)

Lisa Bayne (ME – Rocketdyne)

Pending – ECE and CECM

- What types of projects does your company work on?
- What is a typical work day like?
- What makes someone successful in your company?
- What do you like best about your field/company?
- What advice would you give a person seeking work in your industry





## DISCUSSION ITEMS

- Logistics for 2021 Research Symposium Ramesh
- Faculty Reports\* Faculty Mentors
- Adjourn



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# The AIMS<sup>2</sup> Project - Attract, Inspire, Mentor, and Support Students 2020-21 Research Program- Faculty/Staff Team



































## Fall 2020 - Spring 2021 Research Program

- Open to the cohort, invited guests, and the public
- Dates
  - April 7 8, 2021
  - Split into two days (Approximately 2 hours per day)
- Poster session on Day 1 on Spatial Chat
- Oral Presentations on Day 2 on Zoom
- All student RA's and faculty research mentors should attend the entire symposium



## Time slots for event

All RA's and faculty mentors attend

## POSTER SESSION

- April 7 (Wednesday)
- 3:30 PM 5:30 PM
- On Spatial Chat
- Venue "opens" at 3 PM for presenters

## **ORAL PRESENTATIONS**

- April 8 (Thursday)
- On Zoom

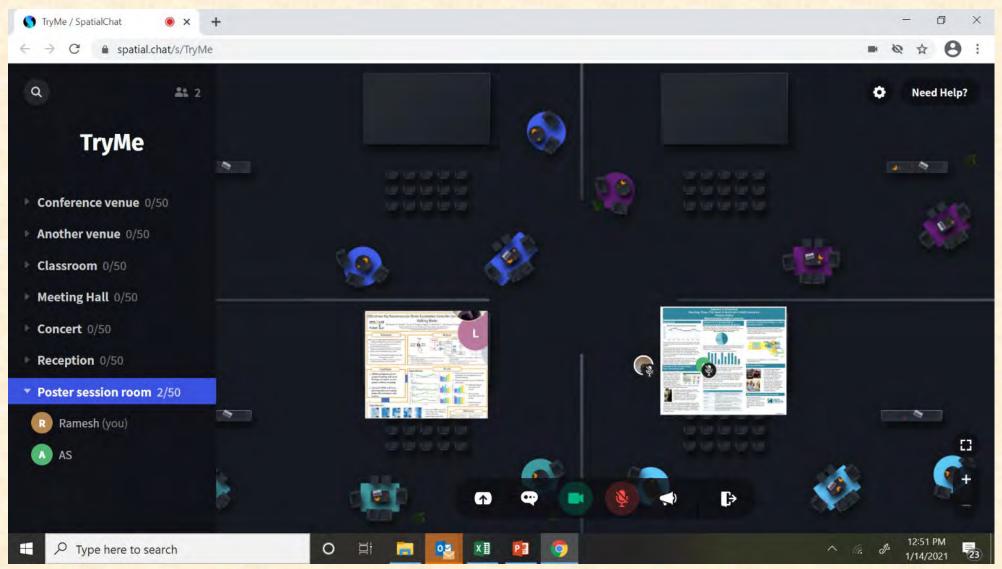
Session A: 3:30 PM – 4:30 PM

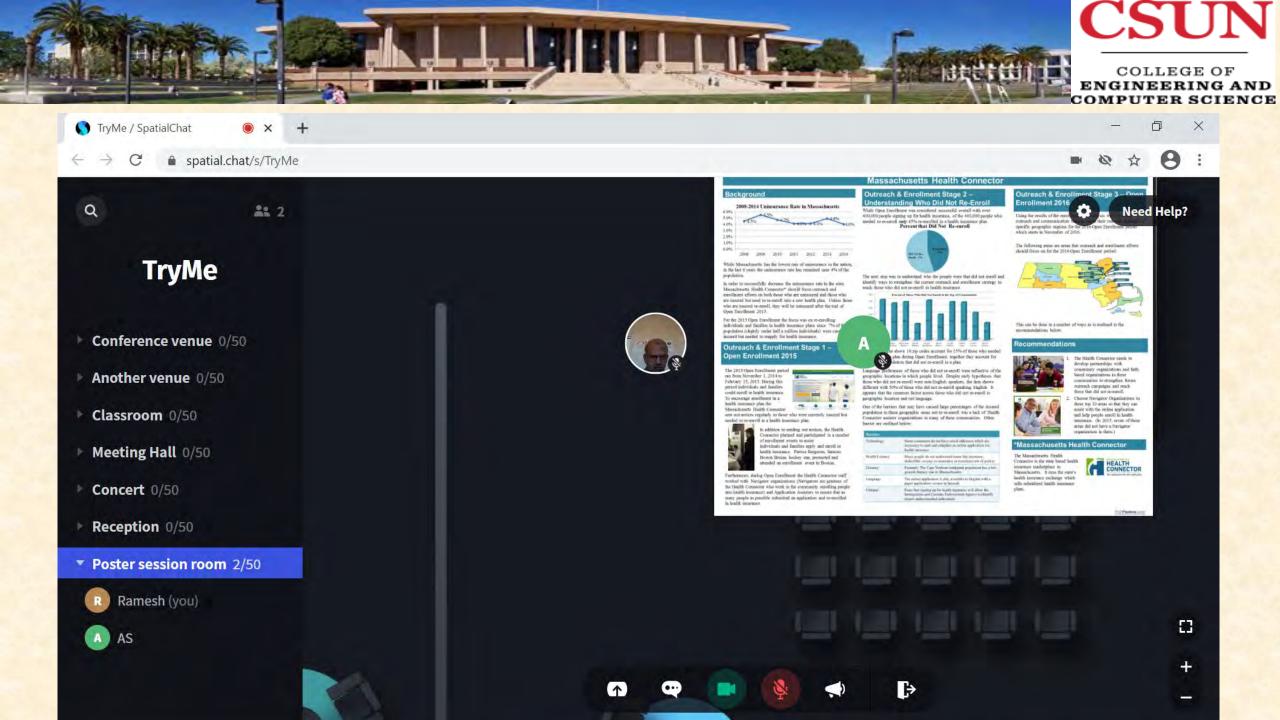
Session B: 5:00 PM - 6:15 PM





COLLEGE OF ENGINEERING AND COMPUTER SCIENCE







## Oral Presentation Schedule – April 8

Zoom room opens at 3:15 PM Pacific on April 8 so guests can check in.

#### **Session A**

3:30 PM – Welcome and Introductions of Special Guests - Prof. Ramesh, Director AIMS<sup>2</sup> program

3:35 PM — Overview of 2020-21 Virtual Research Program — Prof. Ramesh

**3:45 PM** - "Corrosion and corrosion protection of Aluminum alloys for Automotive Applications" – Students: Christopher Villalpando, Beatriz Acuna, Emily Rossiter.

Faculty Mentors: Prof. Behzad Bavarian and Prof. Lisa Reiner

4:00 PM - "Analysis of Ground Motions and its Application to Earthquake Early-Warning Systems"

Students: Alex Leong, Jessica Perez, Luke Barrella

Faculty Mentor: Prof. Tzong-Ying (Kay) Hao



## Oral Presentation Schedule – April 8

#### **Session A (continued)**

4:15 PM – "Modeling and Simulation of Electric Vehicles-Solar Energy-Battery systems"

Names of students: John Dizon, Lucia Castillo, Farouk Mostafa

Faculty Mentor: Prof. Bruno Osorno

4:30 PM - Session A concludes.

Zoom room opens at 4:45 PM for Session B for Guests to check in.

**Session B** 

5:00 PM - "Generative Design of Cam Plate Optimization for Metal Additive Manufacturing."

Students: Christian Mariscal, Abraham Meiszner, Andrew Langwald, Jason Kim

Faculty Mentor: Prof. Bingbing Li



## Oral Presentation Schedule – April 8

#### **Session B (continued)**

**5:15 PM** – "Towards the Sentiment Analysis of Tweets"

Students: Joshua Alvarado, Nuelbella Sandoval, Fernando Vargas

**5:30 PM** – "Building On the Proteus Programming Language"

Students: Eileen Quiroz, Frank Serdenia, Simran Gill

Faculty Mentor: Prof. Kyle Dewey

**5:45 PM** – "Two-dimensional Biomagnetic Model of Cardiac Tissue"

Students: Ashley Kuhnley, Suzanne Fisher, Jessica Frederich, and Robert Salone

Faculty Mentor: Prof. John Valdovinos

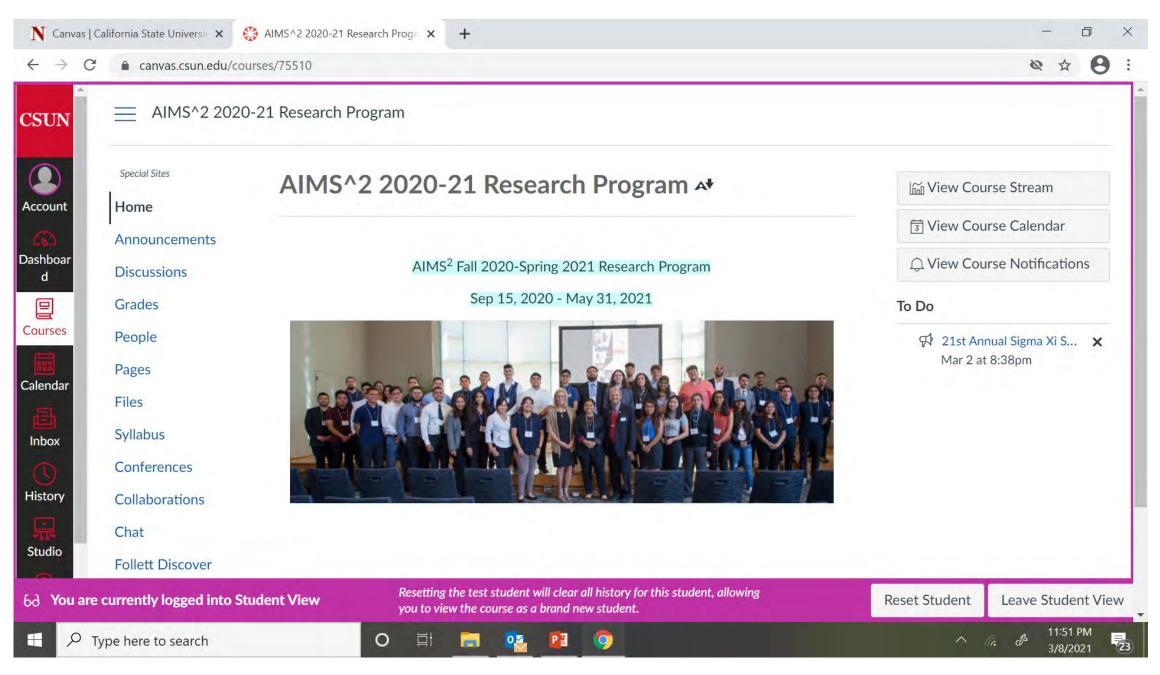
6:00 PM - Survey of Sixth Annual Research Symposium - Ms. Josefina Gudino

6:05 PM - Concluding remarks - Prof. S. K. Ramesh

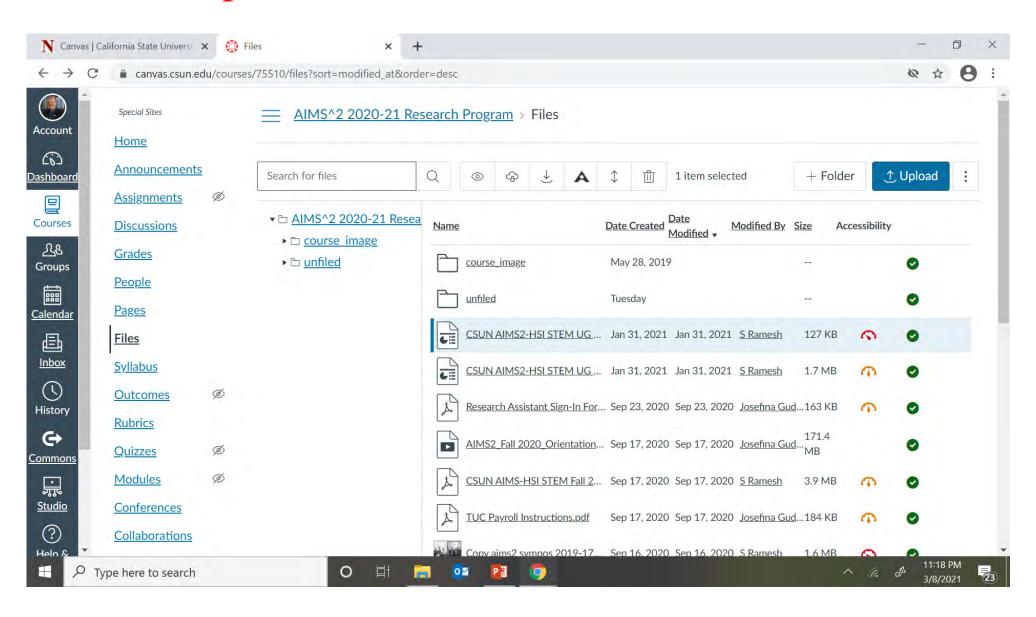


## Format for Oral Presentations

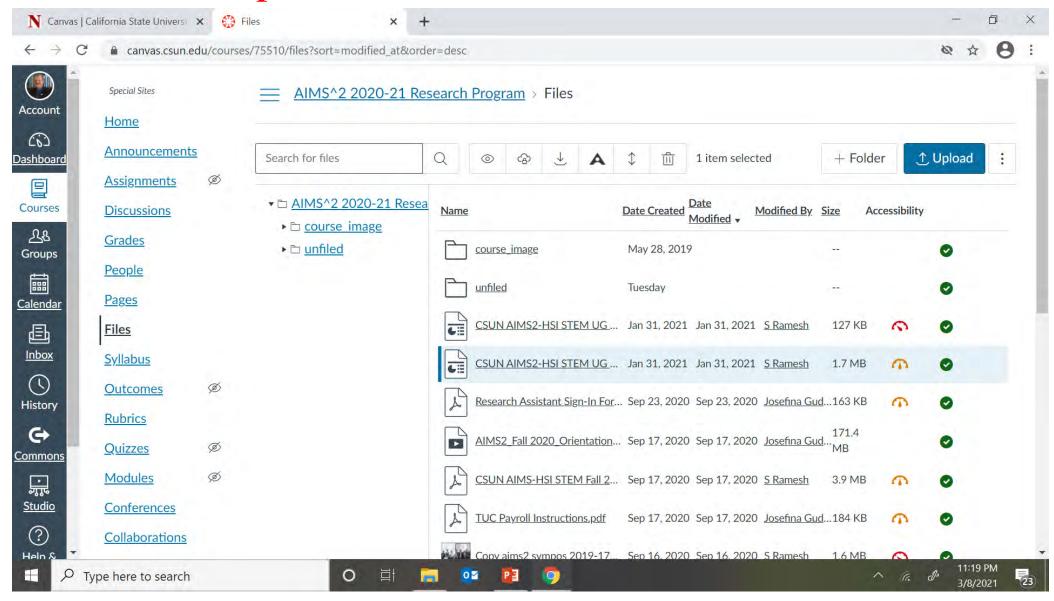
- Introduction by Faculty Mentor 2 minutes
- Presentation by students 10 minutes
- Moderated Q & A 3 minutes
  - Questions posted on chat/Moderated by Faculty Mentor



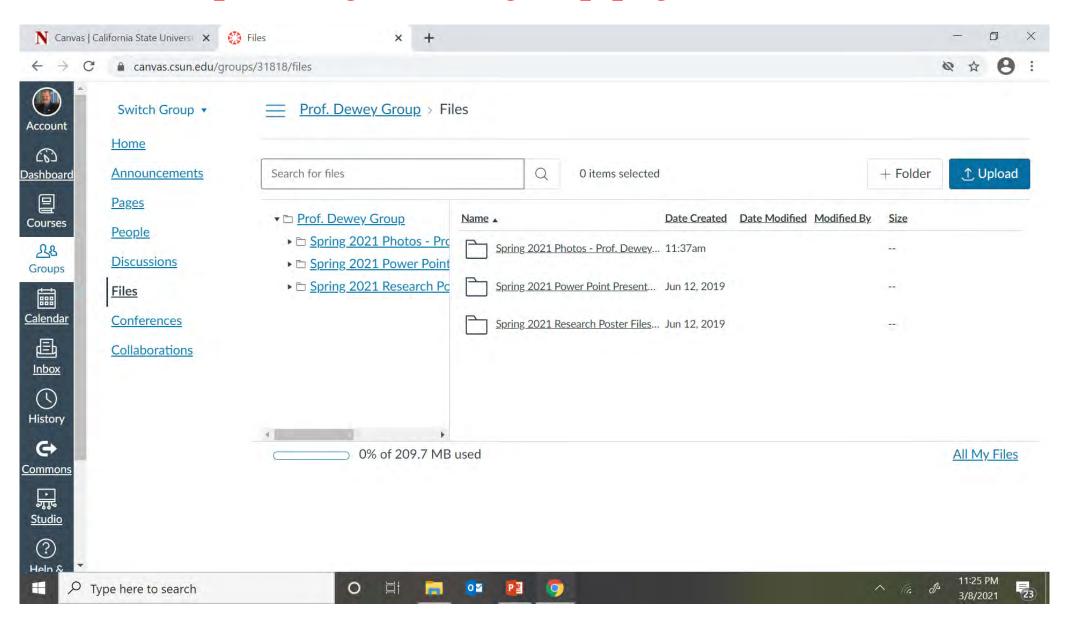
## Template for Research Poster



## Template for Oral Presentations



## Uploading files to group pages (3 of 5)



#### **FACULTY MENTOR**

Dr. Tzong-Ying Hao

#### RESEARCH **ASSISTANTS**

Musfigur Ali Elizabeth Esquive Alexander Rivera

Geotechnical and Earthquake Engineering Research: Active Earth Pressure on Retaining Walls & Soil-Structure Interactions on Building Structures

Project Description: Retaining walls are common structures used to retain earth materials while maintaining a grade change between the front and rear of the wall. The Aaron Palacios-Romero retaining walls are designed to resist earth pressures acting on the rear face of the wall that are caused by the weight of the soil and seismic loads. Generalized Limit Equilibrium (GLE) method is used to analyze the seismic active earth pressures for various earthquake ground accelerations. In seismic design of building structures, the fundamental period of vibration is one of the governing factors from which other design parameters are derived. The fundamental periods of the yibration of building structures are investigated with soil-structure interaction models imposing boundary conditions necessary to impart the earthquake motion.

#### Photo taken at the CSUN Earthquake Garden



14 AIMS<sup>2</sup> Student Research Symposium 2019



#### RESEARCH **ASSISTANTS**

Chelsea Mendez Gerardo Sanchez

#### Energy Storage and Environmental Impact of Electric Vehicles

Project Description: Electric vehicle technology targets the "zero emission" goal. The poster shows different technologies utilized in powering these vehicles. In addition, the poster presents different battery and alternative green fuel technologies and their environmental impact. It also includes the simulation of a lithium-ion battery using Simulink. This poster represents the research of the students mentioned above for the summer of 2019.



20 AIMS<sup>2</sup> Student Research Symposium 2019





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re, mentor, support students

student

research

Sept. 11, 2019

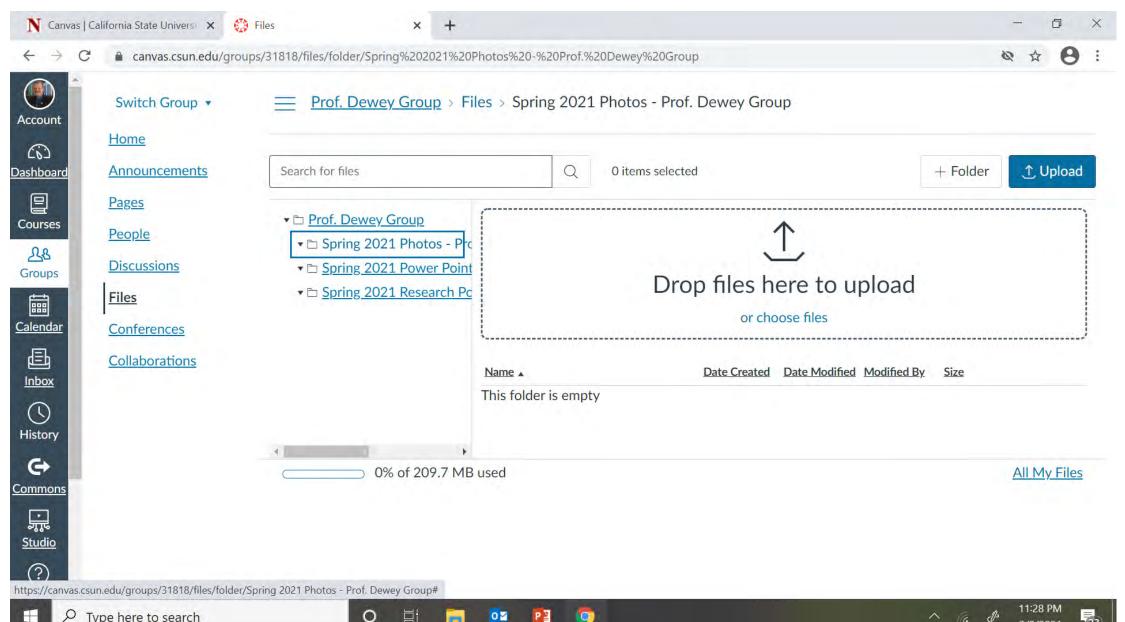
**USU Grand Salon** 

3 p.m.

symposium

•AIMS2 2020-21 Research Symposium Orientation

## Photos: Needed by March 16<sup>th</sup>!!





- Introductions & Information Items
- Review event schedule
- Format for posters and presentations
- Important Deadlines
  - Photos (Upload to Canvas site by March 16)
  - Deadlines for submission of poster and oral presentation files to Canvas site (Upload by March 31)
- Other topics





## **DISCUSSION ITEMS**

- Logistics for 2021 Research Symposium Ramesh
- Faculty Reports\* Faculty Mentors
- Adjourn





## Cohort Roster (1 of 5)

Aram Khachatourians		
Armando	Briseno	F-2
Ashley	Frisch	F-4
Cristina	Rubalcava	T-4
Garabed	Simitian	F-3
Henry	Reed	F-2
Jason	Marroquin	F-4
Fatima	Serrato	F-3
Kathleen	Molina	F-3
Lesly	Custodio	T-4
Levi	Velasquez	F-2
Adrian	Santamaria	T-5
Daniela	Sanchez	T-5
Heather	Reyes	T-5
Matthew	Awad	T-5
Matthew	Culajay	T-5

Behzad Bavarian		
Anthony	De Leon	T-4
Christopher	Villalpando	T-3
Daniel	Olvera	T-3
Emilio	Aguilar	T-4
Meroujan	Bagdadian	T-5
Jasmin	Ortiz	T-5
Stefany	Fuentes Melgar	T-5
Verania	Ceja Franco	F-2
Steve	Gonzalez	T-5

03/11/2021 AIMS2 HSI-STEM Meeting # 94 42





## Cohort Roster (2 of 5)

John Valdovinos		
Alan	Cruz	F-2
Armando	Herrera	F-2
Bryan	Lam	F-3
Alyssa	Tompkins-Webb	T-5
Francisco	Ramos	T-4
Jozsef	Feher	T-5
Kyle	Rietta	T-3
Nuelbella	Sandoval	F-3
Jessica	Frederich	T-5
Rojelio	Bejar	T-4
Luis	Ochoa	T-5
Maria	Zinkewich	T-5
Robert	Salone	T-5

	Kyle Dewey	
Briana	Pimentel	F-3
Diego	Barreto	T-3
Eileen	Quiroz	F-2
Emmanuel	Galindo Cisneros	F-3
Fernando	Vargas	F-3
Isaiah	Martinez	F-3
Jennifer	Glover	T-4
Josue	Vega	T-3
Kavya	Manohar	F-2
Miguel	Hernandez	F-4
Mimi	Schirm	T-4
Rocio	Zavala	F-2
Samantha	Ramirez	F-4
Samuel	Ochoa	F-1
Victor	Pineda	T-3
Hanna	Zelaya	F-1





## Cohort Roster (3 of 5)

Bingbing Li		
Abraham	Meiszner	T-4
Andy	Sanchez	F-3
Anthony	Vasquez	F-3
Christian	Mariscal	F-1
Eswin	Amaya	F-3
Andrew	Ramirez	T-5
Deion	Shallenberger	T-5
Jason	Kim	F-3
Gerardo	Baron Diaz	T-5
Randy	Herrera	T-5
Tomothy	Tran	T-5
Megan	Ngo	F-3
Noe	Diaz	T-4

Bruno Osorno		
Beatriz	Acuna	F-1
Albert	Rivas	T-5
Erica	Garcia	F-4
Fernando	Landeros	F-3
Cesar	Villa	T-5
Damien	Lopez	T-5
Hector	Mata	T-4
Faizan	Hussain	T-5
Jessirae	Bufford	T-5
John	Dizon	T-4
Jose	Cervantes	F-3
Joshua	Salas	F-4
Yolanda	Camarena	T-5
Samuel	Garza	T-3





## Cohort Roster (4 of 5)

Ruting Jia		
Areesha	Hussain	F-4
Frank Joseph	Serdenia	T-4
George	Lopez	F-4
Jairo	Zelaya	T-4
Jake	Lyon	T-3
Joshua	Alvarado	F-4
Kaylee	Pham	T-4
Lousia	Manoael	T-4
Meyer	Millman	F-3
Miles	Rodas	F-4
Pedro	Moran	F-4
Simran	Gill	T-4
Tiffany-Ziba	Haghighi	F-3
Kelvin	Martinez	T-5

Кау Нао		
Ezekiel	Castelo	T-5
Aaron	Palacios-Romero	T-3
Ariana	Oliva	T-5
Andrew	Langwald	F-2
Gerardo	Reyes	F-3
Peter	Messiha	F-3
Richard	Gomez	F-3
Alexander	Rivera	T-4
Elizabeth	Esquivel	T-4
Jennifer	De Avila	T-4
Kathleen	Lee	T-4
Richard	Rivas	T-4
Tracy	Albers	T-4





## Cohort Roster (5 of 5)

Ali Amini		
Alireza	Bahmanabadi	T-2
Mehdi	Miri	T-5
Ashley	Kuhnley	T-4
Sabrina	Motto	T-5
Elvis	Chino-Islas	F-3
Gloria	Santamaria	T-4
Kimberly	Ortiz	F-3
Lavar	Watkins II	F-4
Javier	Valle	T-5
Mario	Giron	T-5
Suzanne	Fisher	T-5

Anwar Alroomi		
Alexis	Sierra	F-2
Leonard	Fitzpatrick	T-5
Oscar	Lopez Bahena	T-5
Debbie	Altamirano	T-4
Emmanuel	Ayala	T-3
Evelyn	Villalobos	T-4
Iris	Guerrero Morales	F-4
Jonathan	Salcedo-Manriquez	T-4
Juan	Espericueta	F-3
Luis	Flores	F-4
Mauricio	Rodriguez	T-3
Omar	Ponce	T-3
Teny	Shahjahanian	F-2
Marleny	Lopez	T-5





## **DISCUSSION ITEMS**

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