

Welcome to AIMS²(HSI-STEM Grant) Meeting # 80



1 PM – 3 PM

Dec 05, 2019

JD 1568



AGENDA

- **Welcome and Information Items – Ramesh**
 - Meetings calendar for spring 2020
 - MPR's on hold until further notice
 - Year 3 APR Timelines
- **Supplemental award (AIMS2 Future Teachers in STEM) status update**
 - Project implementation and timelines – Susan and Nathan
- **Project Assessment and Evaluation – Nathan Durdella and Team**
 - Review of Year 3 APR



AGENDA

- Meeting with Mentor Collective Team – November 22nd





Meetings Calendar for Spring 2020

Room: JD 1568

✓ **Jan 14th, 2020*

✓ *Feb 20th, 2020*

✓ *Mar 19th, 2020*

✓ *Apr 16th, 2020*

✓ *May 12th, 2020*

*January meeting is scheduled from 3 PM – 5 PM

All other meetings above from 1 PM -3 PM

✓ *May 12th, 2020 meeting* – Recognition of graduating students

✓ *Week of June 8, 2020*– External Advisory Committee Meeting
(TBA)



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WHO: Graduates of the AIMS² Program

WHAT: Return to CSUN for your Teaching Credential

WHY: We have ten scholarships (\$8,000 each); We are responding to a need to prepare more *E in STEM* teachers!

WHEN: Start January 2020, complete in 2 or 3 semesters

- We seek AIMS² graduates with a bachelor's degree who understand the power of mentoring, coaching and teaching students in elementary, middle and high schools.
- We offer a two-or three-semester pathway to acquiring the California Math/Science or Multiple Subject Credential and will provide scholarship funding to AIMS² candidates for the first-two semesters.
- Our credential programs, including student teaching placements, prepare you for teaching grade levels K-5 and/or 6-12.

Contact Dr. Susan Belgrad susan.belgrad@csun.edu for more information about applying to the program and the \$8,000 scholarship:

Apply to this link for K-5 Multiple Subject <https://www.csun.edu/eisner-education/credential-office/preliminary-multiple-subject-program-application>

Apply to this link for Single Subject Math/Science <https://www.csun.edu/eisner-education/credential-office/preliminary-single-subject-program-application>

Engineering graduates entering this program will also:

- Enjoy guided tours of the NASA Jet Propulsion Laboratory, the Discovery Cube Los Angeles (DCLA), and the LA Clean Tech Incubator (LACI)
- Serve as robotics club engineers with mentor teachers who lead robotics clubs throughout the Los Angeles area
- Participate in the Annual CSUN Rally in the Valley and STEAM Exposition in May

Visit the [CSU Northridge AIMS²](#) site today!

AIMS² Director: S.K. Ramesh (818) 677-7283

CSUN AIMS-FT²STEM Faculty - Susan Belgrad (818) 677-4901

Nathan Durdella (818) 677-5720

CSUN Department Chairs - Julie Gainsburg, Secondary Education (818) 677-2580

Mira Pak, Elementary Education (818) 677-2621

<http://www.ecs.csun.edu/aims2/wp-content/uploads/2019/11/AIMS2FT-STEM-LETTER.pdf>



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- Project Activities and plans for Spring 2020 – Updates from CC Project Partners
 - College of the Canyons – Amy Foote
 - Glendale Community College – Chris Herwerth, Marisela Canela, Freddy Saucedo
 - Moorpark College – Trevor Hess
 - LA Pierce College – Elizabeth Cheung



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DISCUSSION ITEM

- 2019 Annual Research Symposium
- Overview of surveys and feedback from participants – Josefina Gudino





AIMS² Fall 2019 Symposium



CSUN. COLLEGE OF
ENGINEERING AND
COMPUTER SCIENCE

AIMS² FALL 2019 STUDENT RESEARCH SYMPOSIUM
PRESENTATIONS AND POSTERS
September 11, 2019 - 3:00 - 8:00 p.m. - University Student Union, Grand Salon

PROGRAM

3:15 - 4 p.m. Poster Viewing

4:00 p.m. Welcome
Dr. S. K. Ramesh, Project Director

4:10 p.m. SESSION 1 [4:10 PM - 6:00 PM]
Dr. Behzad Bavarian, Prof. Lisa Reiner,
Manufacturing Systems Engineering and Management
Corrosion Inhibition Using Bio Friendly Packaging Materials
Students: Kathleen Molina, Kimberly Ortiz, Ismael Pablo, and Sherlyn Villasis

4:20 p.m. Dr. Kyle Dewey, Computer Science
Automated Testing for Introductory Computer Science Assignments
Students: Mario Garcia, Kavya Manohat, Victor Pineda, and Alexis Siguenza

4:35 p.m. Dr. Jimmy Gandhi, Manufacturing Systems Engineering and Management
Educated Future
Student: Tony Shahjahanian

4:45 p.m. Dr. Kyle Dewey, Computer Science
Validating Machine Learning
Student: Meyer Millman

4:55 p.m. Dr. Jimmy Gandhi, Manufacturing Systems Engineering and Management
Wireless Keyboard Powered by Piezoelectric Effect
Students: Demi Avilla, Waheeda Akberzie, Kamran Mapar, and Evelyn Mendieta

5:10 p.m. Dr. Bingbing Li, Manufacturing Systems Engineering and Management
Reverse Engineering and Topology Optimization of Cam Support Plate for Harley Davidson Milwaukee 8 Engine in Metal Additive Manufacturing
Students: Christian Mariscal and Kerstem Malama

5:25 p.m. Dr. Anwar Alrooomi, Civil Engineering and Construction Management
A Mobile Construction Management Risk Assessment Model
Students: Marc Chanko and Yasaman Forouzesh

5:35 p.m. Dr. Ruteng Jia, Electrical and Computer Engineering
A Particle Swarm Optimization Approach for Route Planning
Students: Jozsef Feher, Jose Flores, and Simran Gill



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Presentation of Research Projects

5:50 p.m. Dr. Behzad Bavarian, Prof. Lisa Reiner,
Manufacturing Systems Engineering and Management
High Strength Aluminum Alloys in Aerospace and Automotive Applications
Students: Armando Briseno, Emilio Aguilar, Christopher Villalpando, and Anthony De Leon

6 - 6:10 p.m. Refreshment Break

6:10 p.m. SESSION 2 [6:10 PM - 8:00 PM]
Dr. Tzong-Ying (Kay) Hao, Civil Engineering and Construction Management
Earthquake Engineering Research: 3D Modeling & Simulation of Passive Water Dampers
Students: Jennifer De Avila, Azmain Hossain, Gerardo Reyes, and Andy Sanchez

6:20 p.m. Prof. Bruno Osorno, Electrical and Computer Engineering
Energy Storage and Environmental Impact of Electric Vehicles
Students: Chelsea Mendez and Gerardo Sanchez

6:35 p.m. Dr. Anwar Alrooomi, Civil Engineering and Construction Management
Virtual Labs - Learning Engineering Mechanics & Dynamics with Virtual Hands-on Experiments
Students: Alexis Sierra and Caroline Padilla-Ramirez

6:45 p.m. Dr. Bingbing Li, Manufacturing Systems Engineering and Management
Fluid Simulation and Micro-polishing of Internal Channels in Cam Support Plate for Harley Davidson Milwaukee 8 Engine in Metal Additive Manufacturing
Students: Osmar Estrada, Abraham Meisner, Angela Calderon, and Andrew Langwald

6:55 p.m. Prof. Bruno Osorno, Electrical and Computer Engineering
Electric Transportation and PWM (Pulse with modulation) Speed Drives
Students: Froilan Campos and Samuel Ochoa

7:10 p.m. Dr. Ruteng Jia, Electrical and Computer Engineering
An Evolutionary Approach to DoS Defense
Students: Elvis Chino-Islas, Christopher Cuellar, and Giovanni Martinez

7:25 p.m. Dr. Jimmy Gandhi, Manufacturing Systems Engineering and Management
HydroSol - A Solar Powered, Portable Charging HydroFlask Cap
Students: Jacob Delson and Kareem Asal

7:35 p.m. Dr. Tzong-Ying (Kay) Hao, Civil Engineering and Construction Management
Geotechnical and Earthquake Engineering Research: Active Earth Pressure On Retaining Walls & Soil-Structure Interactions on Building Structures
Students: Elizabeth Esquivel, Aaron Palacios-Romero, Musfiqur Ali, and Alexander Rivera

7:50 - 8 p.m. Surveys and Symposium Closing Remarks



Symposium Survey

CSUN|AIMS² COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Student Research Symposium
Fall 2019

**PRESENTATIONS & POSTERS
SESSION 1**

	5 Excellent	4 Very Good	3 Good	2 Fair	1 Needs Improvement	
Corrosion Inhibition Using Bio Friendly Packaging Materials Kathleen Medina, Kimberly Ortiz, Israel Pablo, and Sherlyn Vilas	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Automated Testing for Introductory Computer Science Assignments Mario Garcia, Kaye Meneses, Victor Pinela, and Alex Siqueira	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Educated Future Terry Shahjahanian	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Validating Machine Learning Meyer Milman	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Wireless Keyboard Powered by Piezoelectric Effect Dimitris, Weheeda Albarazi, Karim Meyer, and Evelyn Mendez	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Reverse Engineering and Topology Optimization of Cam Support Pile for Harley Davidson Milwaukee 8 Engine in Metal Additive Manufacturing Chadler Meloni and Karim Meyer	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
A Mobile Construction Management Risk Assessment Model Marc Charlo and Yassam Farouk	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
A Particle Swarm Optimization Approach for Route Planning Josef Fehrer, Jose Flores, and Simon Gil	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
High Strength Aluminum Alloys in Aerospace and Automotive Applications Amendo Branno, Enio Aguiar, Christopher Villegas, and Anthony De Leon	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL

What did you enjoy most during the Session today? Any suggestions for improvement?

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**PRESENTATIONS & POSTERS
SESSION 2**

	5 Excellent	4 Very Good	3 Good	2 Fair	1 Needs Improvement	
Earthquake Engineering Research: 3D Modeling & Simulation of Passive Water Dampers Jennifer De Rosa, Amro Hassan, Gerardo Reyes, and Andy Sanchez	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Energy Storage and Environmental Impact of Electric Vehicles Chelise Mendez and Gerardo Sanchez	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Virtual Labs - Learning Engineering Mechanics & Dynamics with Virtual Hands-on Experiments Alexa Sierra and Caroline Padilla-Ramirez	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Fluid Simulation and Micro-polishing of Internal Channels in Cam Support Pile for Harley Davidson Milwaukee 8 Engine Omar Estrada, Abraham Melani, Angela Callarion, and Andrew Langwell	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Electric Transportation and PWM (Pulse with Modulation) Speed Drives Frederic Campos and Samuel Ochoa	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
An Evolutionary Approach to DoS Defense Elio Chino-Isla, Christopher Cueder, and Giovanni Martinez	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
HydroBot - A Solar Powered, Portable Charging HydroFlask Cap Jacob Dehon and Karim Asai	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL
Geotechnical and Earthquake Engineering Research: Active Earth Pressure On Retaining Walls & Soil-Structure Interactions on Building Structures Josef Fehrer, Jose Flores, and Simon Gil	☐	☐	☐	☐	☐	☐
Comments:	Clarity	Methodology	Interpretation of Results	Responses to questions		TOTAL

What did you enjoy most during the Session today? Any suggestions for improvement?



Evaluations

- Interesting information
- Diversity of topics
- Ability to ask questions and interact with presenters
- Nice opportunity for students to show their work
- Good presentation skills
- Well researched topics; looking forward to real-world application
- Great product design

- Stay within time limit
- Long sessions
- Fast paced
- Hard to follow (unfamiliar with the field/small fonts)
- Include a laser pointer
- Practice
 - Mock presentations
 - Stage
 - Room layout
 - More practice
 - Technical difficulties



ACTION ITEMS

- Individual Student Progress*/Group Reports (fall 2019) – Review of templates and timelines
- Adjourn



AIMS² – Bridging the Gap

Student Success Record

Current Semester: _____

Name: _____ Student ID#: _____

Major: _____

Academic Progress:

Total number of units completed toward the degree: _____

Number of units currently enrolled in: _____ Passing? _____ (C or better? Or?)

Number of units planned for next semester: _____

Number of units left until graduation: _____ Anticipated graduation date: _____

Notes: _____

Program Participation:

Weekly group meeting participation: _____

1:1 Meeting with Faculty Mentor: _____

Research: _____

Tutoring: _____

Advising: _____

Mentoring: _____

Peer Mentoring: _____

Plans for Next Semester:

Faculty Mentor printed name

Faculty Mentor Signature

Date

*AIMS² (HSI-STEM Grant)
2019-20 Mid-Year Progress Update*

1. Please report on the meetings with students in your assigned group. Provide specifics on each individual student, their progress, and challenges if any.

2. Please report on the status of your respective research projects. Provide specifics on the students involved (names), outcomes to date, and plans for fall 2019. For your reference the list of all your projects can be found online at http://www.ecs.csun.edu/aims2/research_internships.html



Cohort Meetings (1 of 5)

Ali Amini

Freddy	Nunez	F-1
Miguel	Guerrero	F-2
Luis	Rivera	F-2
Sopuruchukwu	Udeh	F-2
Elvis	Chino-Islas	F-3
Omar	Lopez	F-3
Kimberly	Ortiz	F-3
Lavar	Watkins II	F-4
Kiran	Joshi	T-2
Cristian	Mendoza	T-2
Francisco	Oropeza	T-2
Marian	Giron	T-3
Giovanni	Martinez	T-3
Ashley	Kuhnnley	T-4
Gloria	Santamaria	T-4

Anwar Alroomi

Alexis	Sierra	F-2
Teny	Shahjahanian	F-2
Juan	Espericueta	F-3
Abel	Ofocho	F-3
Luis	Flores	F-4
Iris	Guerrero Morales	F-4
Alireza	Bahmanabadi	T-2
Cristian	Gutierrez	T-2
Emmanuel	Ayala	T-3
Omar	Ponce	T-3
Mauricio	Rodriguez	T-3
Debbie	Altamirano	T-4
Evelyn	Villalobos	T-4
Ronaldo	Preciado	T-4
Jonathan	Salcedo-Manriquez	T-4



Cohort Meetings (2 of 5)

Aram Khachatourians

Armando	Briseno	F-2
Henry	Reed	F-2
Levi	Velasquez	F-2
Kathleen	Molina	F-3
Carolina	Siliezar	F-3
Garabed	Simitian	F-3
Joshua	Zuniga	F-4
Jason	Marroquin	F-4
Ashley	Frisch	F-4
Eduardo	Caceres	T-1
Marcelo-Rodel	Carlos	T-2
Kareem	Asal	T-4
Cristina	Rubalcava	T-4
Lesly	Custodio	T-4

Behzad Bavarian

Ritchie	Zelaya	F-1
Verania	Ceja Franco	F-2
Benigno	Pedroza	F-3
Fatima	Serrato	F-3
Jayshawna	Jones	T-1
Jovani	Iraheta	T-2
Ismael	Pablo	T-2
John	Morgan	T-2
Cristobal	Barajas	T-3
Marcello	San Agustin	T-3
Christopher	Villalpando	T-3
Daniel	Olvera	T-3
Emilio	Aguilar	T-4
Hugo	Garcia	T-4
Anthony	De Leon	T-4
Christian	Mariscal	F-1



Cohort Meetings (3 of 5)

Bingbing Li

Christian	Mariscal	F-1
Andres	Gutierrez	F-2
Evelyn	Mendieta	F-2
Eswin	Amaya	F-3
Jason	Kim	F-3
Megan	Ngo	F-3
Andy	Sanchez	F-3
Anthony	Vasquez	F-3
Sergio	Amaro	T-2
Chase	Gould	T-2
Christopher	Cuellar	T-3
Maria	Martinez	T-3
Noe	Diaz	T-4
Abraham	Meiszner	T-4

Bruno Osorno

Beatriz	Acuna	F-1
Jose	Cervantes	F-3
Fernando	Landeros	F-3
Caesar	Albizures	F-4
Erica	Garcia	F-4
Joshua	Salas	F-4
Froilan	Campos	T-1
Jose	Torres	T-2
Samuel	Garza	T-3
Ashley	Mendoza	T-3
John	Dizon	T-4
Hector	Mata	T-4



Cohort Meetings (4 of 5)

John Valdovinos

Luis	Landeros	F-1
Anthony	Rangel	F-2
Alan	Cruz	F-2
Armando	Herrera	F-2
Rhani	Kahn	F-3
Bryan	Lam	F-3
Nuelbella	Sandoval	F-3
Shashi	Wong	F-3
Sean	Keegan	T-2
Christina	Seeholzer	T-2
Osmar	Estrada	T-3
Kyle	Rietta	T-3
Delmi	Martinez	T-4
Francisco	Ramos	T-4
Rogelio	Bejar	T-4

Kyle Dewey

Samuel	Ochoa	F-1
Eileen	Quiroz	F-2
Kavya	Manohar	F-2
Rocio	Zavala	F-2
Emmanuel	Galindo Cisneros	F-3
Isaiah	Martinez	F-3
Briana	Pimental	F-3
Fernando	Vargas	F-3
Samantha	Ramirez	F-4
Miguel	Hernandez	F-4
Angelica	Estrada	T-2
Josue	Vega	T-3
Diego	Barreto	T-3
Victor	Pineda	T-3
Alexis	Siguenza	T-3
Jennifer	Glover	T-4
Mimi	Schirm	T-4



Cohort Meetings (5 of 5)

Ruting Jia

Tiffany-Ziba	Haghighi	F-3
Meyer	Millman	F-3
Sebastian	Miranda	F-4
Areesha	Hussain	F-4
Miles	Rodas	F-4
Pedro	Moran	F-4
George	Lopez	F-4
Joshua	Alvarado	F-4
Jake	Lyon	T-3
Frank Joseph	Serdenia	T-4
Kaylee	Pham	T-4
Lousia	Manoael	T-4
Simran	Gill	T-4
Vicky	Ramirez Jauregui	T-4
Jairo	Zelaya	T-4

Kay Hao

Andrew	Langwald	F-2
Gerardo	Reyes	F-3
Richard	Gomez	F-3
Peter	Messiha	F-3
Wendy	Rodriguez	F-3
Jessica	Opinion	T-1
Jeffrey	Portillo	T-2
Roobina	Deravanesian	T-2
Aaron	Palacios-Romero	T-3
Alexander	Rivera	T-4
Elizabeth	Esquivel	T-4
Jennifer	De Avila	T-4
Tracy	Albers	T-4
Richard	Rivas	T-4
Kathleen	Lee	T-4



ACTION ITEMS

- Individual Student Progress*/Group Reports (fall 2019) – Review of templates and timelines
- Adjourn