



SoCal

GPS

Graduate Pathways to STEM

October 17th, 2020

SoCal GPS

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Welcome to the inaugural Southern California Graduate Pathways to STEM Conference (SoCal GPS)!

In light of all the obstacles that life has put in our way this 2020, a committee of dedicated graduate students from the University of Southern California's Viterbi School of Engineering have come together to bring you a memorable experience. The conference is aimed at promoting graduate school (M.S. and Ph.D.) to underrepresented minorities, first generation, and low income individuals in Southern California and its neighboring areas.

Our committee strongly believes in the power of accessibility to higher education.

Graduate school needs to be a viable and realistic goal for all communities. We understand that there are various factors to consider in determining the return of investment of such a decision. That's not only understandable, but it is part of what makes us successful in any STEM career trajectory.

Prepare yourself to be inspired by those trailblazers before you. Grad school is not only within grasp; it is a few resources short of success.

Emily Anne Vargas and Sebastian Ojeda

Conference Committee Chairs, SoCal GPS 2020
PhD Students, University of Southern California – Viterbi School of Engineering

COMMITTEE MEMBERS

Emily Anne Vargas Committee Chair USC, PhD Student	L. Sebastián Ojeda Committee Chair USC, PhD Student
Emily Millard Administration Chair USC, PhD Student	Alondra Sandoval Publicity Chair UC Irvine, B.S., 2020
Nripsuta (Ani) Saxena Speaker Chair USC, PhD Student	Héctor Pérez Chair Emeritus UC Berkeley, Ph.D., 2016
Diego Jácome, PE Programming Chair USC, MS Student	Maribel Jaquez Chair Emeritus UC Berkeley, Ph.D., 2019
	Bryon Tjanaka Webmaster USC, PhD Student

AGENDA

8 am – 8:10am PST

Opening Remarks

A welcome message by the Dean of USC Viterbi School of Engineering, and your 2020 conference chairs. Highlights of the importance of graduate study in engineering.

8:10 am – 8:50 am PST

Keynote Address

A few kind words by Dr. Douglas Orellana, ManTech's VP of Intelligent Systems Engineering. Prepare yourself to be inspired as we kick off the day's full lineup of events.

9 am – 9:50 am PST

Intro to Grad School

Learn about the basics. Why should you pursue a graduate degree? What are some of the things to consider as you get ready to embark on the application journey?

10 am – 11:20 am PST

Applying and Funding Grad School

Begin the application process. Learn how to apply and the various ways to receive funding for your degree. Everything from deadlines and requirements to how you can maximize the payment options for your graduate school investment.

11:30 am – 12:20 pm PST

PhD Programs: What to Expect

Commit to a PhD Program. Receive tips on applying, developing your research portfolio, approaching and selecting potential advisors. Learn about what faculty members are looking for in a student, and ways to set yourself up for success.

12:30 pm – 1:30 pm PST

Lunch Break and USC Virtual Tour

Explore USC. Join the conference's student planning committee for lunch, as we take a virtual tour of campus and answer any questions you may have about getting here. Network with your fellow participants!

1:30 pm – 2:50 pm PST (Rotating)

MS/PhD Career Panel

Let the career objective discussions begin. Participate in a rotating panel Q&A with industry leaders, as they share insight on how graduate school played a role in helping them reach their professional goal.

3 pm – 4:20 pm PST (Rotating)

MS/PhD Academic Panel

Continue onto the path to academia. Participate in a rotating panel Q&A with some of the greatest minds in STEM, as they highlight the benefits of foregoing industry in favor of research and labs.

4:30 pm – 4:20 pm PST (Rotating)

MS/PhD Grad Student Panel

Lessons learned from your peers. Participate in a rotating panel Q&A with current MS and PhD students, as they offer recommendations on the process and give you first-hand accounts on how to get the most out of your grad school experience.

5:50 pm – 6 pm PST

Closing Remarks

Walk away empowered. A few parting words from Dean Brandi Jones, Vice Dean for Viterbi's Diversity and Strategic Initiatives.

WORKSHOP SPEAKERS



DR. DOUGLAS ORELLANA

Keynote Speaker

Douglas Orellana is ManTech's Vice President of Intelligent Systems Engineering in the Innovation and Capability Office, focused on developing the next generation of solutions powered by computing and artificial intelligence.

He has held many roles within Systems Engineering during his career, most recently serving as Director of Engineering Solutions at SAIC. He was the corporate lead for digital engineering and charged with keeping SAIC in the forefront of industry's digital engineering transformation. Prior to SAIC, Dr. Orellana worked for Northrop Grumman Corporation for 12 years, holding numerous positions of increasing authority within the Systems Engineering organization that spanned the life cycle of various systems (unmanned vehicles, special defense, radars, sonars, instrumentation & controls) from concept development to verification and validation. He rose through the ranks and in his final role was a Systems Engineering Manager and lead architect for a Northrop Grumman's MQ-25 concept.

Dr. Orellana has been recognized for his academic excellence, professional work, and community involvement. In 2019, his paper on the Systems Engineering Ontology was awarded best forward-thinking paper at the Conference in Systems Engineering Research, and the Engineer's Council awarded him Outstanding Engineering Achievement Award for his research contributions to the Systems Engineering Book of Knowledge. In 2012, INCOSE awarded him the JHU APL Alexander Kossiakoff SE Research Award. In 2010, Great Minds in STEM named him HENAAC's Most Promising Engineer (Masters) and SHPE selected him in 2009 as Promising Engineer for Technical Achievement.

Dr. Orellana earned a Doctorate in Astronautical Engineering from the University of Southern California; his doctoral research focused on integrating human considerations into the system architecting process through the use of Model Based Systems Engineering and Ontologies. He earned a Master's degree in Systems Engineering and his Bachelor's degree in Electrical Engineering from Johns Hopkins University.



Dean Yannis Yortsos

Opening Remarks

Yannis C. Yortsos is the Dean of the USC Viterbi School of Engineering and the Zohrab Kaprielian Chair in Engineering, a position he has held since 2005. Prior to that he served from 2001 to 2005 as Associate Dean and then as Sr. Associate Dean for Academic Affairs. Yortsos served as chair of the Department of Chemical Engineering and in 1995 he was appointed to the Chester Dolley Professorship. He received a B.S. (Diploma) degree in Chemical Engineering from the National Technical University of Athens, Greece, and M.S. and Ph.D. degrees from the California Institute of Technology, all in Chemical Engineering. His research area is in fluid flow, transport, and reaction processes in porous media with specific application to the subsurface.



Dean Kelly Goulis

Intro to Grad School

Senior Associate Dean Kelly Goulis is responsible for providing leadership for the Office of Admission & Student Engagement. She has responsibility for engineering doctoral and master's students including recruitment, admission to master's programs and management of the PhD fellowship process. She is also responsible for academic services including student support, retention, engagement and professional development activities including Viterbi Career Connections & Professional Education Programs. She chairs the Graduate Support Student Working group for USC. Under her leadership, the Viterbi School of Engineering has opened international offices in China and India and has expanded international recruitment & collaborations with a number of leading institutions overseas.



Dr. Andrea Armani

PhD Programs: What to Expect

Prof. Andrea Armani is currently the Ray Irani Chair in Chemical Engineering and Materials Science and Professor of Chemical Engineering and Materials Science with courtesy appointments in Electrical Engineering, Mechanical Engineering, and Biomedical Engineering in the Viterbi School of Engineering as well as Chemistry in the Dornsife College at the University of Southern California. She also has an appointment in the Ellison Institute. She is the Director of the W. M. Keck Photonics Cleanroom as well as the soon to open John D. O'Brien Nanofabrication Laboratory, two core nanofabrication cleanrooms at USC. She spent her 2015 sabbatical at Northrop Grumman as a Northrop Faculty Fellow.

WORKSHOP SPEAKERS

Kevin Henry

Applying and Funding Grad School

Assistant Director, Graduate Diversity Marketing and Recruitment at the University of Southern California's, Viterbi School of Engineering. He leads all of the diversity recruitment, marketing and conversion efforts for historically underrepresented groups interested in pursuing graduate degrees in engineering at USC Viterbi. He previously held the position of Assistant Director of USC Viterbi's Center for Engineering Diversity (CED) where he worked to help build a supportive, nurturing community aimed at the academic success of the CED students. He also helped advise the USC chapters of The National Society of Black Engineers (NSBE), The Society of Hispanic Professional Engineers (SHPE), and The Society of Women Engineers (SWE).



Andy Chen

Applying and Funding Grad School

Andy Chen is the Director of Doctoral Programs at the Viterbi Admission and Student Engagement office. He has worked at the University of Southern California since 2010. He had previously served as the Director of Student Affairs and the Business Manager at the Mork Family Department of Chemical Engineering and Materials Science. Andy has over 17 years of experience in higher education including working at the University of California, Irvine and Columbia University.



Asst. Dean Cami Lee

Applying and Funding Grad School

Cami Lee is the Assistant Dean of Graduate Admission at the Viterbi Admission and Engagement office. She has worked at the University of Southern California since 2011. Previously she was the Assistant Dean of Graduate and International Recruitment at the Viterbi Admission and Engagement office. After graduating from USC Annenberg in 2008, she worked in various marketing and communication roles prior to coming to USC.



Dean Brandi Jones

Closing Remarks

Dr. Jones is responsible for leading and directing equity, diversity, and inclusion initiatives for Viterbi School of Engineering. She works collaboratively with Viterbi colleagues on strategies to increase the diversity and enhance the experiences of students, faculty, and staff, ensure an inclusive culture, and promote retention through activities, programs, and events. She assists in the creation of a training curriculum for faculty and graduate students on topics that support inclusive excellence and cultural competency.



M.S. & PH.D. ACADEMIC PANEL

Dr. Scott Moura

Scott Moura is the Clare and Hsieh Wen Shen Endowed Distinguished Professor in Civil & Environmental Engineering and Director of the Energy, Controls, & Applications Lab at the University of California, Berkeley. He received the B.S. degree from the University of California, Berkeley, and the M.S. and Ph.D. degrees from the University of Michigan, Ann Arbor, all in mechanical engineering. From 2011 to 2013, he was a Post-Doctoral Fellow at the Cymer Center for Control Systems and Dynamics, University of California, San Diego. His research interests include control, optimization, and machine learning for batteries, electrified vehicles, and distributed energy resources.



Dr. Kira Barton

Kira Barton is an Associate Professor in the Mechanical Engineering Department at University of Michigan. She received her B.Sc. in Mechanical Engineering from University of Colorado at Boulder in 2001. She completed her M.Sc. and Ph.D. degrees in mechanical engineering at the University of Illinois at Urbana-Champaign in 2006 and 2010. She held a postdoctoral research position at the University of Illinois from Fall 2010 - Fall 2011, at which point she joined University of Michigan. Kira conducts research in modeling, sensing, and control for applications in advanced manufacturing and robotics, with a specialization in multi-agent and learning based control.



Nery Chapeton-Lamas

Nery Chapeton-Lamas is a Full-Time Tenured Faculty in the Department of Computer Science at MiraCosta College in Oceanside, California. His passion for teaching introductory programming courses (Java, C++) and advanced courses (Mobile Development, Computer Architecture) is the medium through which he applies his greatest passion: providing superior educational opportunities and support for a diverse population of learners. Especially in Computer Science, he is a strong advocate for student success through student equity. In addition to his teaching activities, he is the advisor for the CodeTech Computer Club and an annual workshop presenter for the Encuentros Leadership Conference and GirlTech Conference and Expo, which encourage latino boys and middle school girls, respectively, to pursue higher education and STEM careers.



Dr. Charles Liu

Charles Liu is a professor of Electrical and Computer Engineering at CSULA. Starting from 2019, he also serves as chair of the Department. His research interests include parallel architecture, embedded architectures, high performance computing for signal processing, and image processing, and message passing based parallel algorithms. He has extensive experiences in minority education and research in the discipline of computer engineering. He has collaboratively acquired over \$12,000,000 funding from NASA, NSF, and National Argonne Lab for research of the James Webb Space Telescope (JWST) distributed control, Unmanned Aerial Vehicle (UAV) design, space science and STEM education, and Advanced Driver's Assistance Systems (ADAS).



Dr. Herbert Winful

Herbert Winful is the Joseph E. and Anne P. Rowe Professor of Electrical Engineering, Arthur F. Thurnau Professor of Electrical Engineering and Computer Science, and Professor of Physics at the University of Michigan. He earned a BS in electrical engineering from MIT in 1975 and a PhD from the University of Southern California in 1981. After six years conducting research in fiber optics and nonlinear optics at GTE Laboratories, Waltham, MA, he joined the University of Michigan faculty in 1987. His many awards include the State of Michigan Teaching Excellence Award and the 2020 IEEE Photonics Society Quantum Electronics Award.



Dr. Mark McKelvin, Jr.

Mark McKelvin, Jr. is a Senior Project Leader in Digital Engineering at The Aerospace Corporation and a Lecturer in the System Architecting and Engineering graduate program at the University of Southern California, Viterbi School of Engineering. At The Aerospace Corporation, he serves as the technical authority and team lead for the digital engineering implementation of Enterprise System Engineering for the United States Space Force portfolio architect. He holds a Bachelor of Science in Electrical Engineering from Clark Atlanta University and a Ph.D. in Electrical Engineering and Computer Sciences from the University of California, Berkeley.



M.S. & PH.D. ACADEMIC PANEL

Lauro Ojeda

Lauro Ojeda is a research scientist in the Mech Eng Department at the University of Michigan. He studied Elec Eng at the Army Polytechnic School in Quito, Ecuador, and has over 20 years of experience in the fields of inertial sensing, sensor data fusion, estimation techniques, Kalman filtering, biomechanics, and gait analysis. His contributions in these fields have been widely adopted in research centers across the world, and have significant impact in biomechanical science, particularly in persistent monitoring and mobility studies. Among other contributions, he was first to demonstrate accurate gait tracking using inertial sensors, and identify and kinematically reconstruct loss of balance events as they occur in ordinary life. His current research interests range from biomechanics analysis in patients with vestibular loss, diabetes, and Parkinson disease to development of specialized sensors for space physics research.



Dr. Joaquin Camacho

Joaquin Camacho was born in East LA and raised in Baldwin Park. His education after high school began at Mt SAC Community College where he spent three years working on engineering prerequisites while working nights at UPS. He then transferred to UC San Diego to obtain a BS in Chemical Engineering to finish a seven year journey to the Bachelors. Joaquin discovered his passion for science and engineering research from undergraduate research opportunities and industry internships during his UCSD studies. This led to a pursuit of the academic career pathway in which he eventually became a tenure-track professor in Mechanical Engineering at San Diego State University. Before becoming a professor, Joaquin obtained an MS and PhD in Mechanical Engineering at USC and completed a postdoctoral fellowship at Stanford University.



Dr. Mario Medina

Mario Medina is an Assistant Professor in Mechanical Engineering at California State University - Los Angeles. His area of expertise is in fluid mechanics, thermodynamics, and combustion including spray physics, particulate and pollution mitigation, droplet formation and instabilities, aerosol sampling and transport, and optical diagnostics. Previously, Dr. Medina earned his doctoral degree in Mechanical Engineering from the University of Michigan.



Dr. David Estrada

David is a veteran of the US Navy where he was an Electronics Warfare Technician. He earned his Ph.D. from UIUC in Electrical Engineering in 2013. He is currently an Associate Professor in Materials Science and Engineering at Boise State University, where he also serves as the Associate Director for the Center for Advanced Energy Studies. He holds a joint appointment with the Idaho National Laboratory as the Advanced Manufacturing Deputy Director for Academic Research. David is the recipient of the NSF CAREER Award, the SHPE Innovator of the Year Award, and the National TRIO Achievers Award.



M.S. & PH.D. CAREER PANEL

Dr. Héctor Pérez

Dr. Hector Perez received the B.S. from the California State University-Northridge and the M.S.E. from the University of Michigan-Ann Arbor, in Mechanical Engineering, and the Ph.D. in Systems Engineering at the University of California-Berkeley. His work includes battery modeling, estimation, control, and experiments. He is currently the Manager of Battery Systems and Controls at Romeo Power Technology. Dr. Perez has received various awards for his work and contributions to the community. He has participated in various leadership, outreach/mentoring activities at the local, regional, and national level including co-founding the Bay Area GPS and advising the founding committee of the SoCal GPS.



Dr. Jessica Preciado

Dr. Preciado is the Director of Product Development and Principal Scientist at Myoscience, a medical device company that uses cold to treat peripheral nerves in order to provide long-lasting pain relief. She is the co-inventor on multiple patents and has authored several publications on topics such as cryoneurolysis and isochoric freezing. Jessica holds a Ph.D. in Mechanical Engineering (with an emphasis in Biothermodynamics) from the University of California, Berkeley, where she also completed her B.S. and M.S. in Mechanical Engineering. She was an active member of HES (Hispanic Engineers & Scientists) and Lagses (Latino Association of Graduate Students in Engineering and Science) at UC Berkeley.



Dr. Maribel Jaquez

Dr. Maribel Jaquez received the B.S. degree from the University of California (UC), Irvine in Mechanical Engineering and Materials Science & Engineering. She received the M.S. and Ph.D. degrees from UC Berkeley both in Mechanical Engineering. Dr. Jaquez is currently a Principal Engineer in the Microelectronics Department at the Northrop Grumman Corporation. Her work focuses on the synthesis and characterization of semiconductor materials. Maribel Jaquez has been involved in numerous outreach and mentoring events, including co-founding the first Bay Area Graduate Pathways to STEM (GPS) conference in 2015 and advising the committee for the first SoCal GPS conference in 2020.



Andre Candido

Andre obtained his Bachelor of Science in Electrical Engineering from the State University of New York at New Paltz and his Master of Science in Astronautical Engineering from the University of Southern California. He now works as a Systems Engineering Manager at Northrop Grumman where he does mission engineering, applied research, and business development. He decided to become a part of the 2019-2020 SHPE South Bay Los Angeles Professional Chapter Executive Board to give back to the community and help develop the next generation of Hispanic engineers.



Dr. Julio Navarro

Julio Navarro is a Senior Technical Fellow in Boeing Research and Technology. He provides technical leadership of critical radio frequency and microwave technologies for Boeing's advanced aerospace development organizations. Dr. Navarro is Boeing's executive sponsor for the Society of Hispanic Professional Engineers and the Senior Technical Fellow liaison for Great Minds in STEM. Dr. Navarro has received national recognition as the 2015 Scientist of the Year from the Black Engineer of the Year organization, SHPE's President Award of 2014, GMIS's Hispanic in Technology Award of 2011, SHPE's STAR Award of 2008 and HENAAC's Most Promising Engineer of 2001. Dr. Navarro has BS and MS in electrical engineering, and a doctorate for electromagnetics, solid-state electronics and communications from Texas A&M University.



Dr. Meredith Sellers

Dr. Meredith Sellers is a Senior Managing Engineer in the Materials and Corrosion Engineering Practice at Exponent, an engineering and scientific consulting firm. She assists clients evaluate and investigate failures associated with material properties, processing, and performance. Dr. Sellers has significant experience assisting clients in the oil and natural gas and aerospace industries engaged in domestic and global legal disputes. She holds a B.S. and Ph.D. in Chemical Engineering from Cornell University and the University of Illinois at Urbana-Champaign, respectively. Dr. Sellers is a long-standing member of the Society of Women Engineers (SWE) and the Association for Women in Science (AWIS).



M.S. & PH.D. CAREER PANEL

Roberto Ortiz-Soto

Roberto graduated from the University of Southern California with a Bachelor of Science in mechanical engineering. In 2016 he enrolled in the Fung Institute's Master of Engineering program at the University of California at Berkeley as an Intel-UC Berkeley GEM Scholar. He graduated with a Master of Engineering in mechanical engineering degree, focused on product design. After graduating, he joined AutoX Inc and most recently JD.com as a senior mechanical engineer developing autonomous vehicles. During his career he has worked in the aerospace, laser, clean energy, and manufacturing equipment fields.



Maria di Bonaventura

Maria Di Bonaventura is a process engineer at BP in Houston, TX for the Production and Operations – Projects sector. Part of Maria's job is to provide process design solutions for Trinidad projects that are safe, reliable and align with low carbon initiatives.



Dr. Maria Mouchess

Dr. Maria Mouchess is a first generation Latina Scientist at 23andMe Therapeutics in South San Francisco where her goal is to identify novel treatments for autoimmune diseases. She is originally from South Gate and Downey, and is the daughter of Peruvian immigrants. She received her BS in Molecular, Cell and Developmental Biology and her PhD in Molecular and Cell Biology. She is passionate about increasing diversity in the STEM fields.



Roberto Ruiz

Roberto Ruiz is a Senior Process Engineer for Eli Lilly overseeing the insulin manufacturing process. He joined Lilly after getting his M.S. in Chemical Engineering from Ohio University where he focused on assessing the effects of ethylene glycol on CO2 corrosion for carbon steel pipelines used in the oil and gas industry. He decided to go to grad school after having a positive experience at University of Florida where he obtained my B.S. in Chemical Engineering, and was also able to obtain 3 internships in the chemical and automotive industry.



M.S. & PH.D. GRADUATE STUDENT PANEL

Nina Maxey

Nina Maxey is a Ph.D. student in Biomedical Engineering at the University of Southern California. Her research focuses on engineering micro-scale mimics of native healthy and diseased human tissues that provide meaningful physiological outputs and are scalable for downstream applications, such as drug screening. She focuses primarily on cardiac and skeletal muscle. Previously, she worked as a Senior Quality Engineer for Baxter International Inc. where her experiences have spanned the course of a product's lifecycle. Excited to improve the transfer between R&D and manufacturing. She received her B.S. in Bioengineering and Biomedical Engineering from the University of Pittsburgh in 2015.

Miguel Cuen

Miguel Cuen is a M.S. student in Computer Science at the Ira. A Fulton School of Engineering at Arizona State University. He is currently serving as the Region 2 Student Representative of the Society of Hispanic Professional Engineers (SHPE). He recently completed an internship with Accenture where he was in Cyber Security designing a dashboard to display infrastructure vulnerabilities. He wrote several Python scripts to isolate assets as well as identify age of vulnerabilities. A few of Miguel's skills include: Java, C, C++, C#, Objective-C, MATLAB, HTML, Linux/Unix, VIPLE, Spring, Git, Agile, Scrum, Databases, Distributed Systems, SQL Developer, Postman, Rally, Spring Boot, Unity .

Kylie Trettner

Kylie Trettner is a 3rd year Chemical Engineering Ph.D. student at USC, co-advised by Drs. Andrea Armani and Jerry Lee. She is investigating novel biological materials with a focus on developing a novel magnetic hydrogel that can be dynamically tuned to better mimic the viscoelastic changes present in human pancreatic cancer tumors. She completed her undergraduate degree in Chemical Engineering at the Rochester Institute of Technology. She is the first person in my family to pursue a Ph.D. and is the only engineer. Outside of her PhD, she loves running, cycling, surfing, and reading. Kylie serves as the USC Women in Science and Engineering (WISE) Graduate Ambassador for VGSA.

Indhira María Hasbún

Indhira María Hasbún is a Ph.D. candidate in Engineering Education at Florida International University. Her research analyzes how institutional structures and culture influence the agency of undergraduate Latinx engineering students at Hispanic-Serving Institutions. Indhira holds a bachelor's degree in Civil Engineering and a master's degree in Environmental Engineering and worked in the mining and hazardous waste industries before returning for a Ph.D. Indhira has a passion for equity, social justice, and critical work at the intersections of race, gender, and social class. She believes in the liberatory potential of engineering education and hopes to become a university professor.

Juan Bahena

Juan Bahena is a current Mechanical Engineer at Raytheon Intelligence and Space. He works on GPS Navigational Solutions for different fighter jets and platforms. In addition to his work, Juan is also involved with Raytheon's Employee Resource Group HOLA (Hispanic Organization for Leadership and Advancement) as a Director of Operations. Externally, Juan is the Vice-President of South Bay Los Angeles professional chapter. Juan received his Mechanical Engineering degree from Arizona State University, and is currently pursuing his Master's degree in Aerospace Engineering at UCLA.

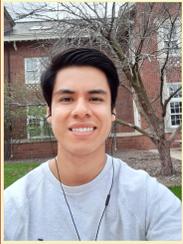
Alejandro Venegas

Alejandro Venegas is a Systems Engineer at Raytheon Technologies and a M.S. student at UCLA in Electrical Engineering. He graduated from UC Davis with a Bachelor's degree in Electrical Engineering, which led him to start his career at Raytheon in El Segundo as a Sub-System engineer where I tested and troubleshot antennas and microwave products for the radar production team. Now I work as a Systems Engineer on the algorithm and development radar team. I am also a graduate student at UCLA completing my Master's degree in Electrical Engineering, focusing on Machine Learning and Computer Vision.

M.S. & PH.D. GRADUATE STUDENT PANEL

Colin Navarro

Colin Navarro is a PhD student in Mechanical Science and Engineering at the University of Illinois - Urbana Champaign. His research interests lie at the intersection of control theory, dynamical systems, and optimization with applications to legged robots. More specifically, his focus is on the control of a highly dynamic bi-lateral teleoperated humanoid robot for disaster response applications. Colin worked as an engineer at Ford Motor Company for 5 five years, focusing on simulation and optimization of hybrid/electric powertrains. He grew up near Chicago and graduated valedictorian from Dwight D. Eisenhower High School in 2011 and proceeded to graduate summa cum laude from the Illinois Institute of Technology in 2015.



Sophia Plata

Sophia is a PhD Candidate in Environmental Engineering at the University of Southern California whose research focuses on alternative water treatment, namely desalination and wastewater reuse. She aspires to continue her research in water treatment as a faculty member at a predominantly undergraduate serving institution. Sophia is committed to advancing underrepresented communities in STEM and has held regional and national leadership positions in the Society of Hispanic Professional Engineers (SHPE). Currently, she is an advisor for the National Graduate Assembly (NGA) that aims to increase the socio-technical influence of Hispanics with advanced STEM degrees.



Jose Cobena-Reyes

Jose Cobena-Reyes is currently a PhD candidate in chemical engineering at the University of Southern California (USC). He is originally from Guayaquil, Ecuador where he completed his undergraduate degree in chemical engineering. He left his home-town in 2013 to pursue a master's degree in chemical engineering and eventually his PhD. His research focuses on computational materials at the nanoscale: Static properties of water inside nanotubes using mathematical models. In addition, he is pursuing a masters in computer science at USC with an expected graduation date of Spring 2021 for both programs. His hobbies include skating and watching soccer.



Maritza Sanchez

Maritza is a PhD candidate in Materials Science and Engineering at the University of California, San Diego. She holds her M.S. degree from UCSD in Materials Science and her B.S. degree from California State University, Los Angeles in Mechanical Engineering. Her PhD research focuses on the synthesis of ceramic materials with specific morphologies for enhanced material properties. She enjoys weekend hikes, eating thai food, baking, and latin dancing.



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VITERBI SCHOOL OF ENGINEERING**