

ASME Diversity Action Grant (DAG) REPORT

GENERAL INFO | STEM Diversity & Discovery

3/12/15

Chapter: Drexel University

Chair: Ross Morris

Coordinator: Michael Sinisi

Address:

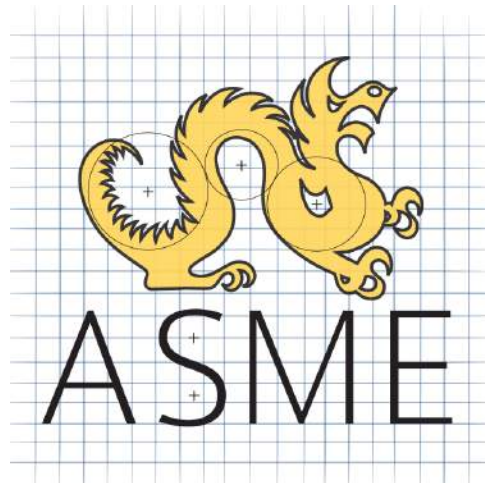
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Advisor: Dr. Antonios Kontsos

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DAG PROJECT SUMMARY

Funding: \$2800

Budget: \$3800¹

Partners:

RISE @ Drexel
Drexel College of Engineering

Student Organizations:

Engineers Without Borders (EWB)
National Society of Black Engineers (SWE)
Theme Park Engineering Design (TPED)
Material Advantage (MA)
Pi Tau Sigma (PTS)

Attendance:

Total: 40 [Minorities: 28 | Women: 12]

ASME Region 1 Representative:

Meredith Campbell



@drexeluniversity

¹ See attached budget.

EVENT | STEM Diversity & Discovery

Objective

Drexel ASME aimed to introduce students from underserved communities and minority populations to engineering in its many forms. This project targets local community colleges as well as technical high schools in the area and engages them via passive and active learning techniques.

Description

This project took the form of a mid-day event, which included guest speakers, laboratory tours, and a Q/A student panel.

The speakers discussed engineering's impact on their career and personal development. The lab tours included exposure to Microscopy and Spectroscopy as well as the Drexel Wireless Systems Laboratory. The culmination of these experiences enhanced the students' perception of the engineering profession².

Evaluation

The success of the event could be measured by student reactions, interactions, and post-event feedback. During the event, students were actively engaged in the content presented by the guest speakers as well as the lab tour guides. Numerous questions indicated the sincere interest of these students to learn more about how engineering suits their intellectual pursuits and career aspirations. In addition, one of the professors from the schools attending provided feedback that his students were buzzing with excitement after the event.

Observations

Other Drexel student organizations supplemented this experience by reinforcing the principles of different engineering disciplines. Some of these groups were able to organize demonstrations to facilitate the student's learning of the many facets of engineering. For example, the National Society of Black Engineers (NSBE) brought an Air Products employee to demo the use of liquid NO₂. Additionally, Engineers Without Borders (EWB) educated students about water filtration efforts abroad by conducting a hands-on activity to build a simple water filter. In contrast, the Theme Park Engineering Designers (TPED) showcased their submission to the Walt Disney Imaginations competition.



² See the attached advertising media.



BUDGET

Funding

Source	Amount	Comments
ASME National (DAG)	\$2,800.00	Event allocation

Total	\$2,800.00
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Expenses

Expense Name	Amount	Comments
Bossone Atrium Reservation	\$109.75	Includes tables & utility crew
Audio Visual Help	\$300.00	Microphones & projector
Lunch	\$897.00	Italian buffet & linens
Giveaways/Promos	\$648.48	Shirts (\$437.60), Cups (\$180.00), Shipping (\$92.64), Discount (-\$61.76)
Giveaways/Promos	\$152.99	Stress bulbs
Printing	\$162.00	Drexel copy center, handouts (32lb paper)
Printing	\$36.00	Student org posters (large-format)
Shipping (T-shirts)	\$150.00	Rush delivery

Total	\$2,456.22
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S.T.E.M. DIVERSITY & DISCOVERY DAY

Thursday, March 12th | 12:30-2:30pm @ Bossone 3rd Floor Atrium
3140 Market Street | Philadelphia, PA



Lab Tours & Demos

Students will have the opportunity to participate in a number of laboratory tours in which they will see and hear first-hand about cutting-edge research activity occurring across a variety of engineering disciplines.

Research Presentations

Students will have the chance to view an array of faculty and student research posters as well as participate in demonstrations on groundbreaking research that is currently going on at Drexel University. Students will get a glimpse into the types of projects a STEM career can bring them.



Engineering Fun Facts

This will be a presentation highlighting major accomplishments in science, technology, and engineering. Students will have the opportunity to win prizes exercising what they learn!

Q&A Panel

This panel will consist of five engineering students from various diverse backgrounds. This will offer a way for students attending the event to relate to the experiences of current Drexel engineering students, and enable them to ask questions that they might not have had the opportunity to ask in other settings.

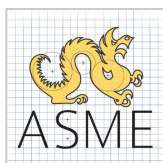
A light lunch will be provided.



RSVP



RISE@Drexel



RSVP: <http://tinyurl.com/kqkyjma>
Questions? Email asme@drexel.edu

Schedule of Events

12:30-12:40pm **Welcome Message**

[Dr. Antonios Kontsos](#)

*P.C. Chou Endowed Assistant Professor
Mechanical Engineering & Mechanics, Drexel*

[Michael Sinisi](#)

*Undergraduate Student (Senior)
Drexel ASME Executive Board Member*

12:40-1:10pm **Guest Speakers & Lunch**

[Dr. Pramod Abichandani](#)

*Assistant Teaching Professor & Senior Researcher
College of Engineering, Drexel*

[Dr. Adam Fontecchio](#)

*Associate Dean of Academic Affairs & Professor
Electrical & Computer Engineering, Drexel*

1:10-1:55pm **Science & Engineering Laboratory Tours**

[Drexel Wireless Systems Laboratory](#)

*Electrical & Computer Engineering
(Professor Kapil Dandekar)*

[Centralized Research Facilities: Microscopy & Spectroscopy](#)

(Dr. Dmitri Barbash, XPS & XRD Manager)

2:00-2:25pm **STEM Careers Q&A Panel**

Moderator:

[Ms. Marisol Rodriguez-Mergenthal](#) MBA, LSAMP Director

Panelists:

[Jose Uzcategui](#) MEM, Undergrad (Senior)

[Claudia Gutierrez](#) BME, Undergrad (Senior)

[Veronika Legkobitova](#) MEM, Undergrad (Junior)

[Gabriel Carryon](#) ECE, Graduate (PhD)

2:25pm **Closing Remarks**

[Dr. Antonios Kontsos](#)

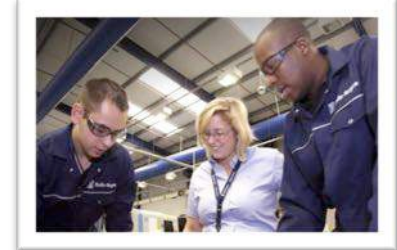
*P.C. Chou Endowed Assistant Professor
Mechanical Engineering & Mechanics, Drexel*

[Michael Sinisi](#)

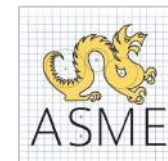
*Undergraduate Student (Senior)
Drexel ASME Executive Board Member*

S.T.E.M. DIVERSITY & DISCOVERY DAY

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3140 Market Street | Philadelphia, PA



RISE@Drexel



Speaker: Dr. Pramod Abichandani

Pramod Abichandani is an academic and a technology entrepreneur. He holds a Ph.D. degree in Electrical and Computer Engineering. A typical day in his life ranges from playing with robots and developing statistical models, to at times teaching 1000+ young engineering students about the fundamentals of engineering. When he is not spending time working with kids and young adults on STEM/STEAM projects, he loves playing with his super-smart, super-cute cat named Watson.



Speaker: Dr. Adam Fontecchio

Dr. Adam Fontecchio is a Professor in the Electrical and Computer Engineering Department at Drexel University and is Associate Dean for Academic Affairs for the College of Engineering. He is also Co-Director of the ExCiTe Center, and currently serves as Vice-Chair of the IEEE Philadelphia Section. His research focuses on the area of nanophotonics. He has served as PI or Co-PI on more than \$15M in sponsored research funding, and authored more than 80 peer-reviewed papers. He was named the 2015 Delaware Valley Engineer of the Year, and recipient of the NASA New Investigator Award, the Drexel Graduate Student Association Outstanding Mentor Award, the Drexel University ECE Outstanding Research Achievement Award and the International Liquid Crystal Society Multimedia Prize.



Q&A Panel Participants

Student Panelists

Claudia Gutierrez: Senior, Biomedical Engineering (BS/MS)

Claudia is a senior in the 5 year BS/MS program in biomedical engineering. She has completed internships at a medical device company, abroad in Switzerland, and at a venture capital firm. She has held multiple leadership roles, and was the former president Drexel's Society of Women Engineers and the Drexel Salsa Dance Club. In the Fall of 2015, she will be following her dream of becoming a doctor and will start medical school at Mayo Medical. In her free time she's usually out getting coffee with friends or out salsa dancing in the city.

Veronika Legkobitova: Junior, Mechanical Engineering (BS/MS)

Veronika, a native of Ukraine, is a mechanical engineering student with a desired focus in the field of biomechanics. Her first co-op was with the Naval Surface Warfare Center assisting the design of Vertical Launching Systems and her second was in the transportation sector at STV Inc., an engineering consulting firm. In her pre-junior year, Veronika studied abroad in Bochum, Germany. She is currently the vice president of Pi Tau Sigma (honors society) and is on the executive board of ASME.

Jose Uzcategui: Senior, Mechanical Engineering (BS/MS)

Jose is an international student hailing from Caracas, Venezuela. He arrived to Philadelphia in 2010 to pursue his Bachelor's degree in Mechanical Engineering from Drexel University, now graduating in June 2015. President of Pi Tau Sigma Drexel Xi, MEM Honors Society at Drexel. Enrolled in 5 year, 3 co-op program. Worked at the Philadelphia Housing Authority, MaGrann Associates in New Jersey, and Vetra E&P in Bogota, Colombia.

Gabriel Carryon: Doctoral Candidate, Electrical Candidate (PhD)

Gabe is originally from Chicago and attended Howard University, in Washington DC, where he majored in Physics. He received an M.S. in electrical engineering from Drexel University in 2011 and is currently pursuing a PhD in Electrical Engineering in the Laboratory for Biological Systems Analysis at Drexel. His research focuses on developing mathematical models of the sensorimotor neural circuits that control swimming in fish. In addition he is interested the application of robotics to engineering education, music, and photography.

Panel Moderator

Marisol Rodriguez-Mergenthal, MBA

Drexel University Louis Stokes Alliance for Minority Participation and Bridge to the Doctorate Fellowship Programs

Marisol has been at Drexel since 2006, in that time she has continuously supported the academic, social and professional success of historically underrepresented populations in STEM fields. She currently serves as the Director of Drexel's Louis Stokes Alliance for Minority Participation (LSAMP) program and as the Site Manager for the Bridge to the Doctorate Graduate Fellowship Program, which are both funded by the National Science Foundation (NSF). Marisol originally hails from Colombia but was raised in Queens, NY.