


**Members:**  
 Mark Ballard, AECOM  
 Ken Bell, Bechtel  
 Paul Burkart, GeoConcepts  
 Martina Driscoll, Wiss Janey Elstner  
 Stephen Houff\*, Forrester Construction  
 Scott Greenhaus, Structural  
 Peggy Johnson, Penn State University  
 Jim Kinkead, Clark Construction  
 Marco Legaluppi\*, Whitney Bailey Cox & Magnani  
 Mike Lenkin, Miller & Long  
 Dave Little, Gutschick Little & Weber  
 Tony Mawry, Wallace Montgomery  
 Christine Merdon, Architect of Capitol  
 Dave Meyers, Whiting-Turner  
 David Mongan, (Retired)  
 Bob Rauch, Rauch, Inc.  
 Fahim Sadek, NIST  
 Gregory Slater\*, MD State Highway Admin  
 Eric Tievy, Consigli Construction  
 \*Newly elected

Spring 2017  
<http://cee.umd.edu/bov>



## Mission Statement

The mission of the Department is threefold:

- Provide a high quality, challenging education that encompasses breadth and depth and prepare graduates to be proficient in both analysis and synthesis aspects of civil engineering design
- Maintain a strong research program that is recognized for excellence in major areas of civil and environmental engineering
- Provide service to the University, the civil engineering profession, and the community at large



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## Quick Statistics

(Fall 2017)

Enrollments:	Undergraduate			Graduate (FT+PT; MS+PhD)*		
	2015-16	2016-17	Fall 2017	Fall 2015	Fall 2016	Fall 2017
	426	454	410	183	175	181

Degrees:	BS		MS/MEng		PhD	
	2015-16	2016-17	2015-16	2016-17	2015-16	2016-17
	137	127	29/43	33/42	22	19

Faculty:

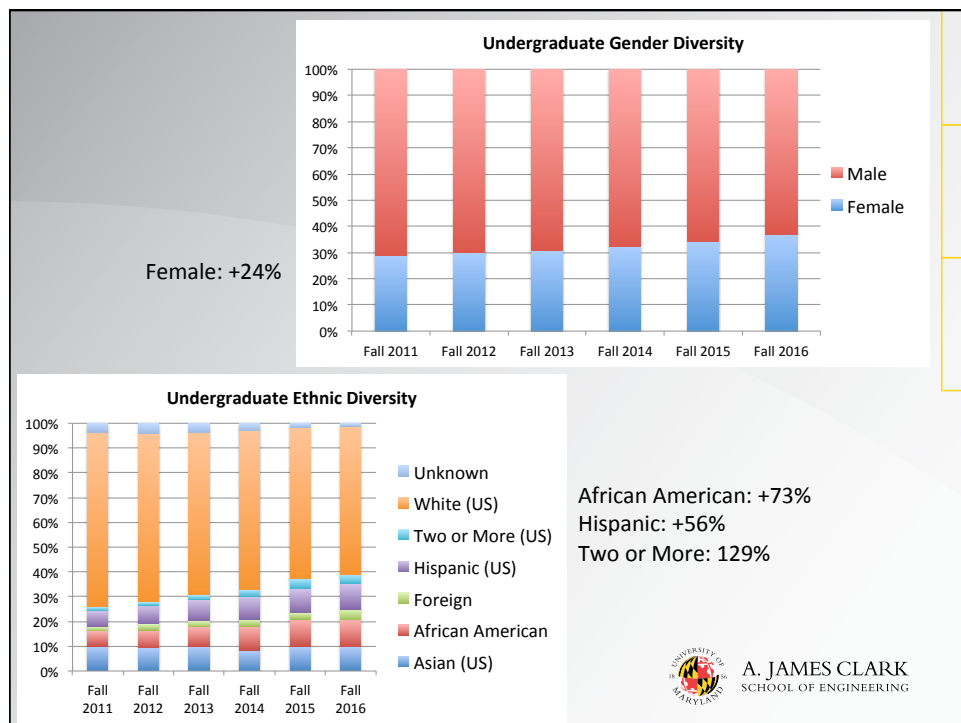
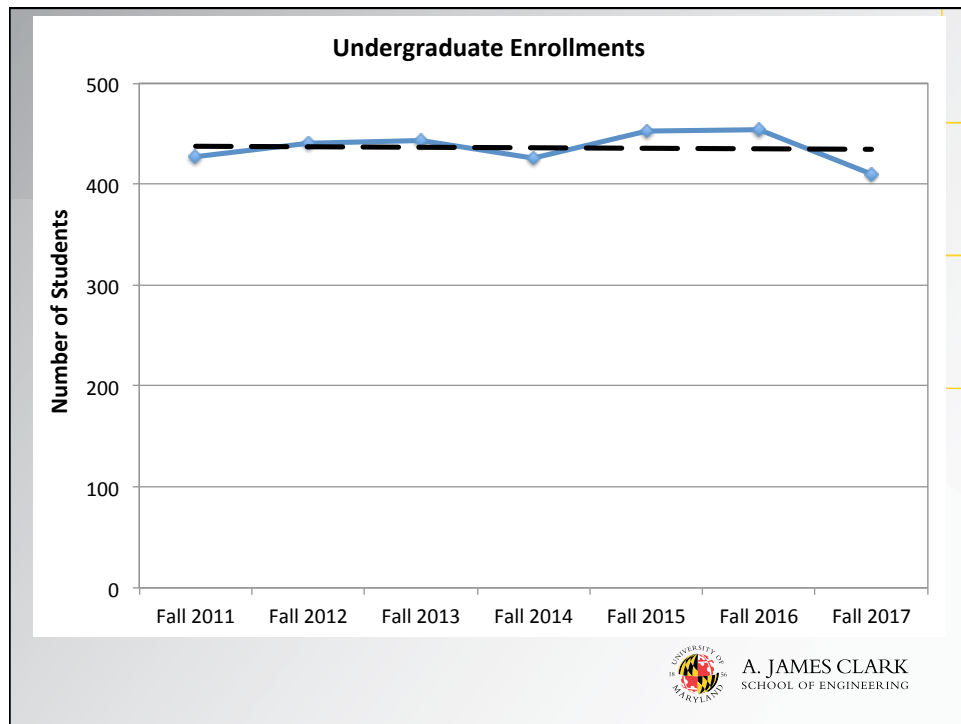
\*Does not include MEng

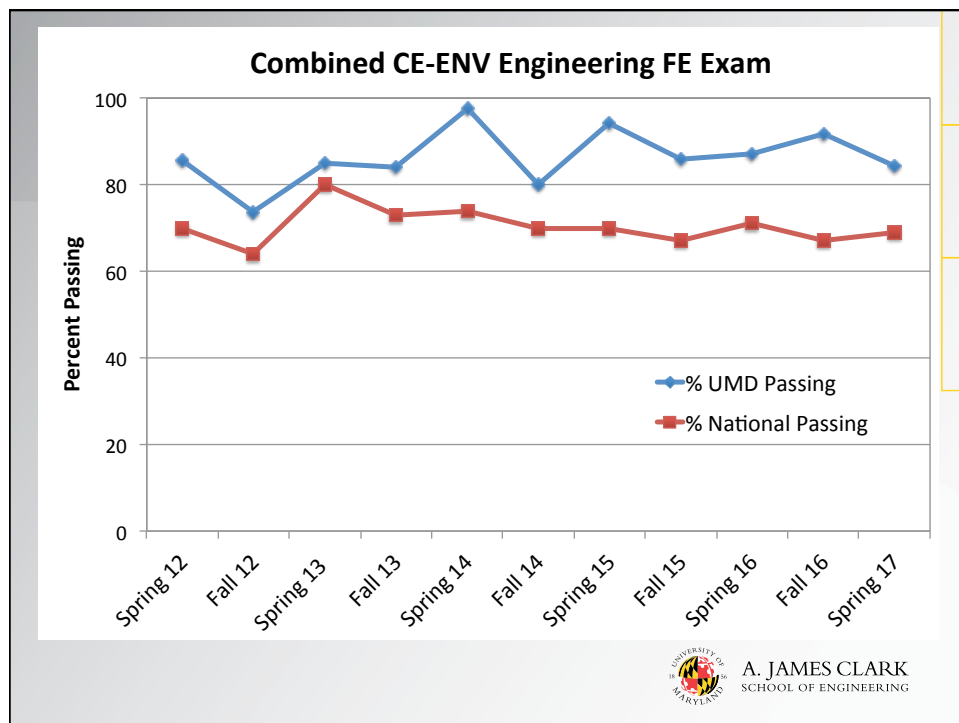
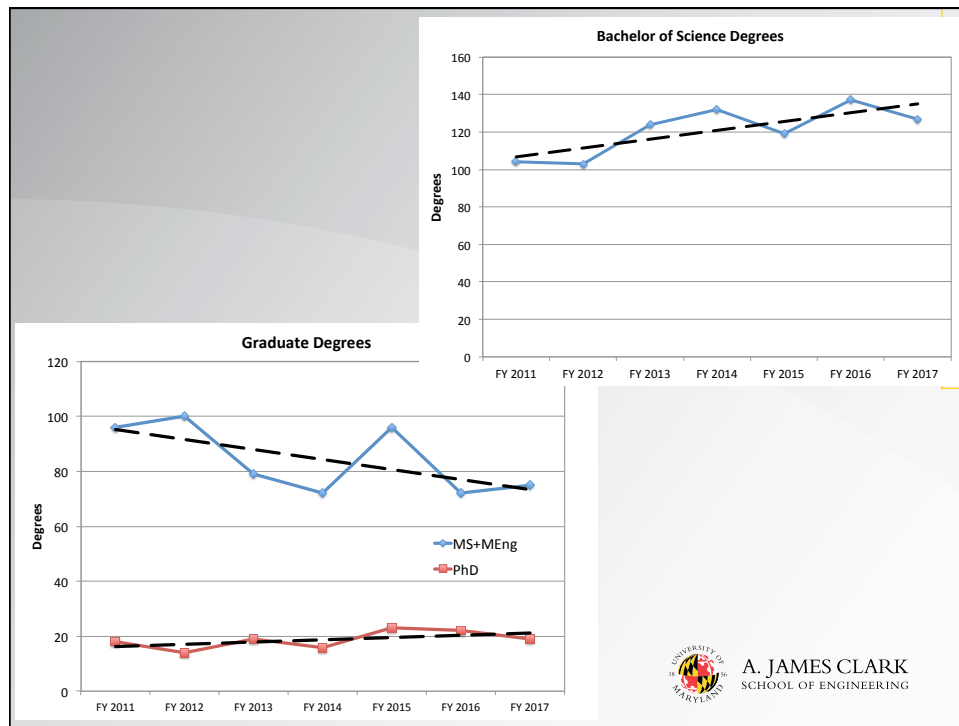
- Tenure/Tenure Track: 27.5 (includes 1 on sabbatical)
- Full-time Lecturers: 2
- Part-time Lecturers: 11 (average per semester)
- Current search for 1 new Assistant Professor



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## Quick Statistics

(Spring 2017)

### Annual research expenditures

- 8<sup>th</sup> among CEE programs (ASEE 2015)

FY13	FY14	FY15	FY16
\$22.4M	\$24.3M	\$22.4M	<b>\$24.8M</b>

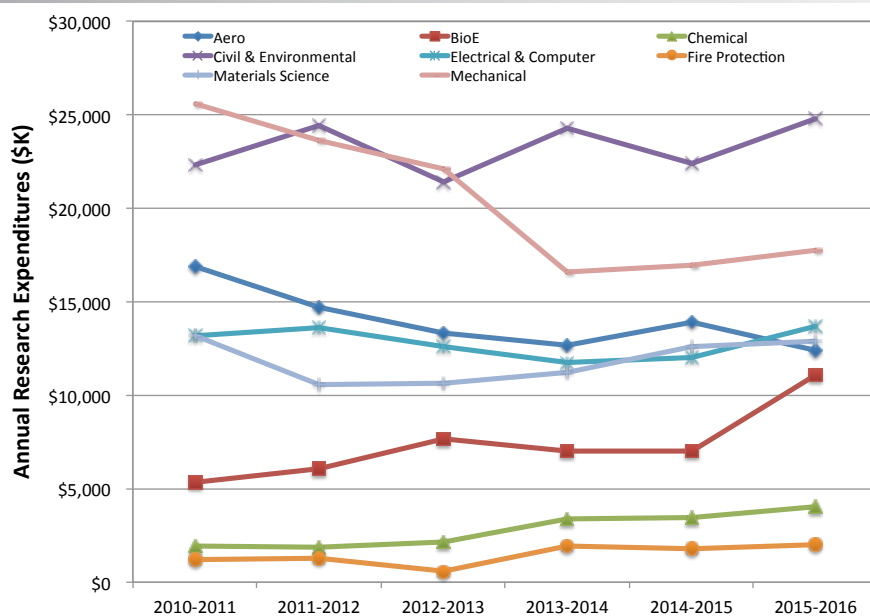
### Top 20 public university CEE program

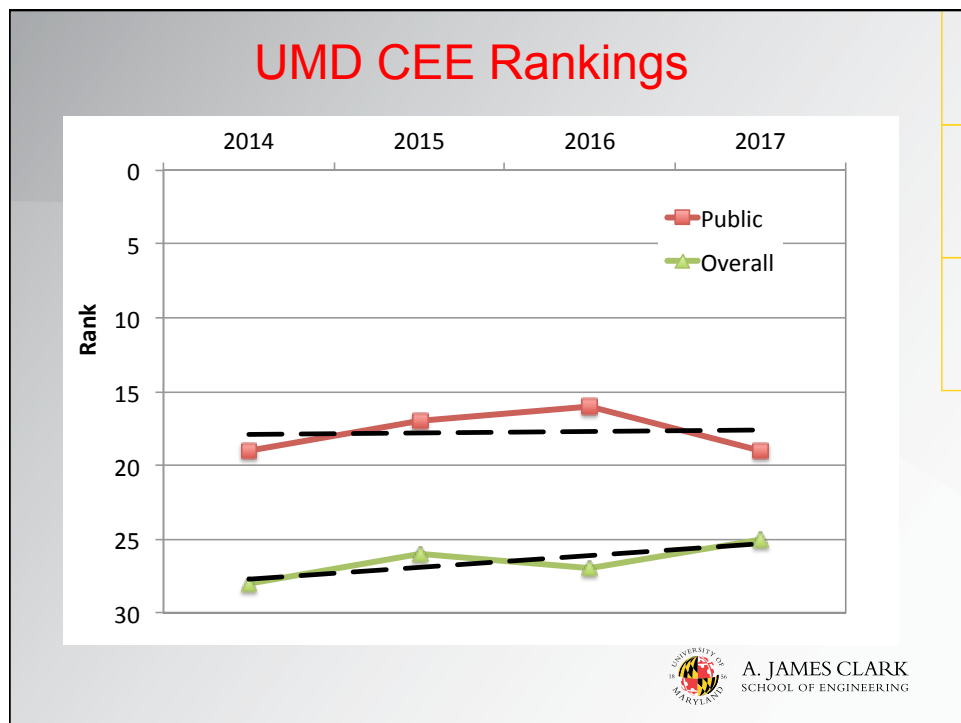
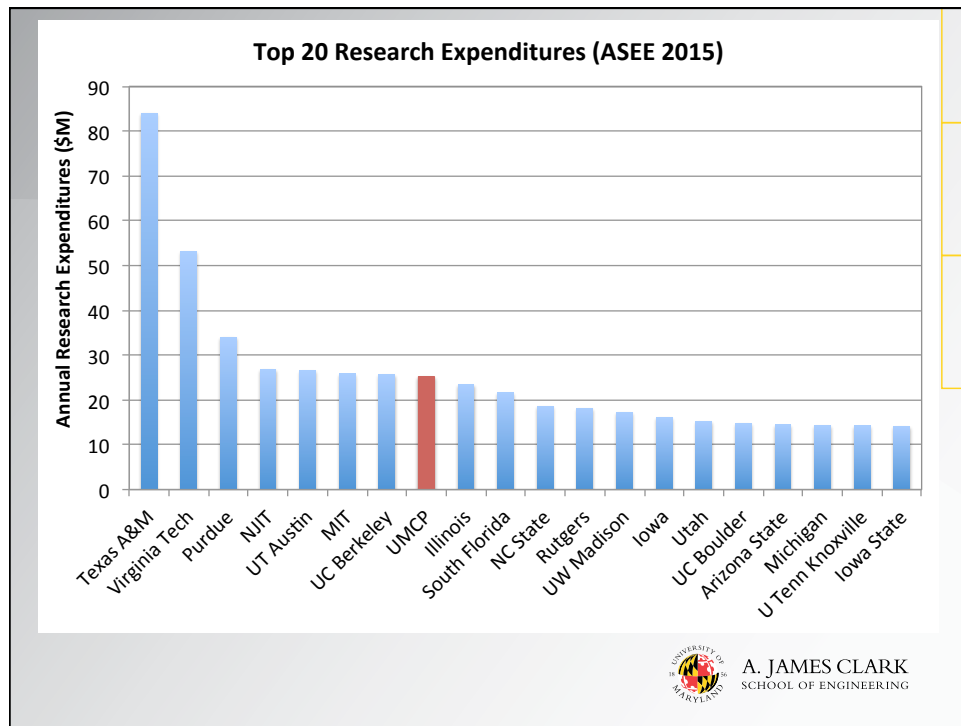
- 2017: 25<sup>th</sup> overall, 19<sup>th</sup> among publics
- 2016: 27<sup>th</sup> overall, 18<sup>th</sup> among publics
- 2015: 26<sup>th</sup> overall, 17<sup>th</sup> among publics
- 2014: 28<sup>th</sup> overall, 19<sup>th</sup> among publics



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## Clark School Research Expenditures





## Developments Since Last Spring (and Ongoing)

“Building Together” Investment  
Accreditation  
Laboratory Renovation  
Design Studio  
Communications  
Technical Communication Program  
Center for Disaster Resilience  
Maryland Transportation Institute  
Student Achievements



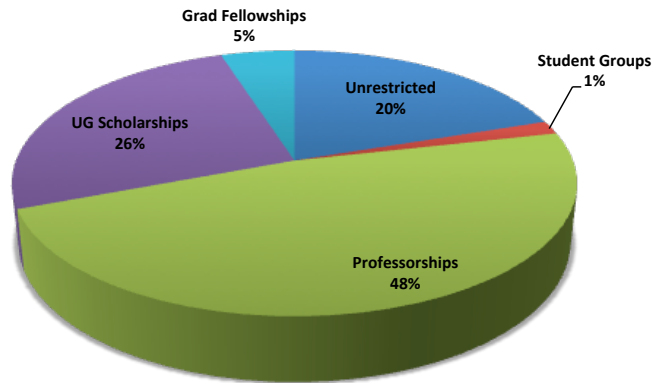
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## CEE Foundation Funds

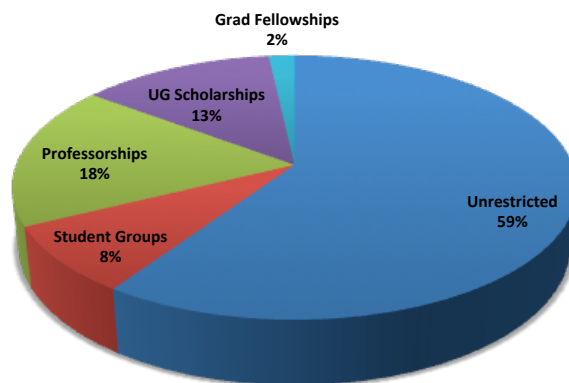
**FY18 Foundation Balances**  
Total = \$14.8M



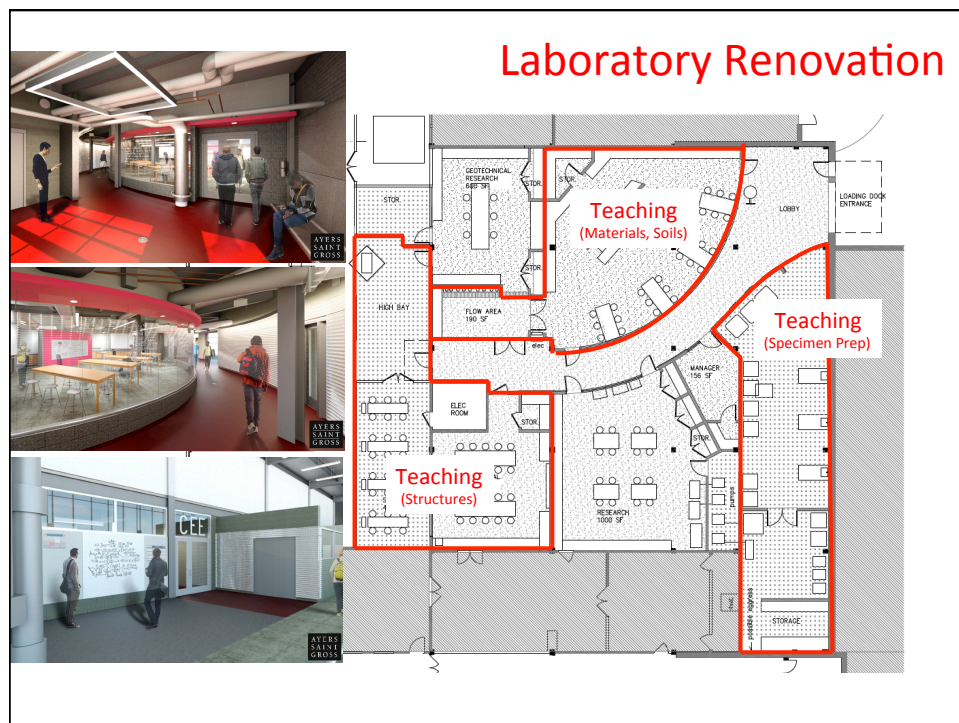
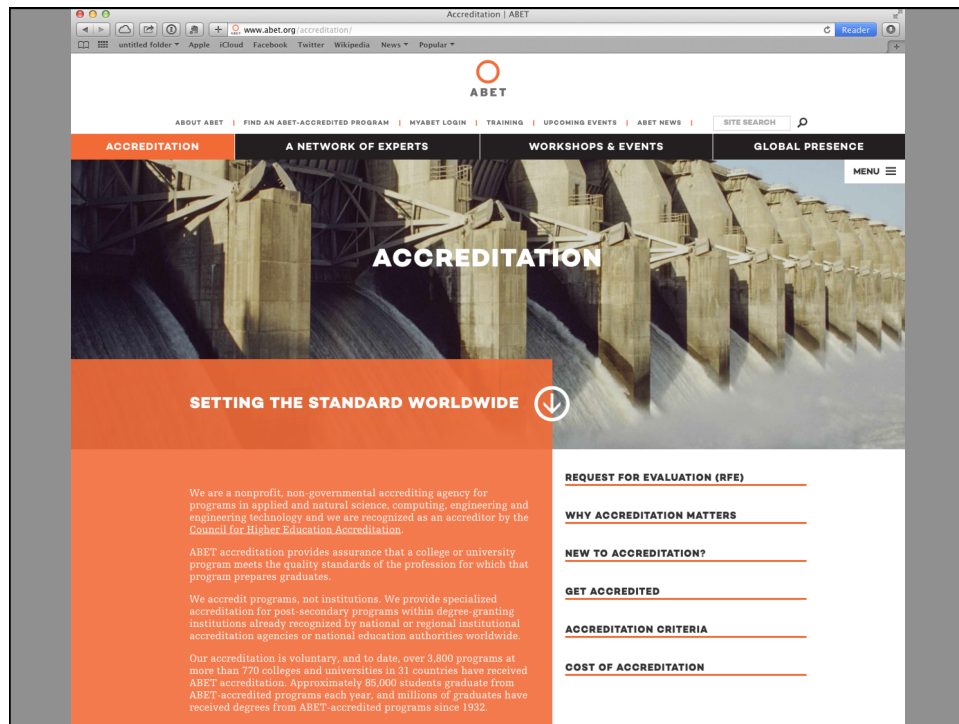
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## CEE Foundation Funds

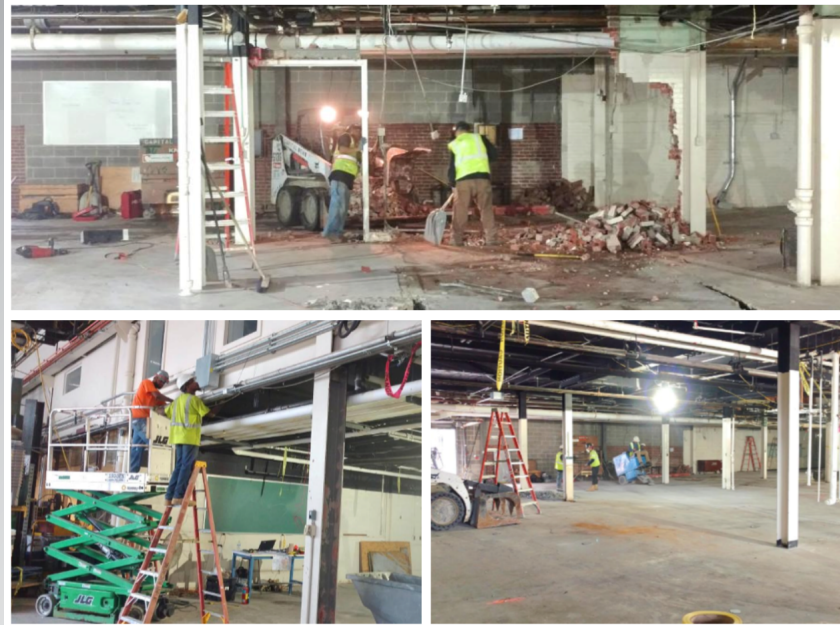
**FY18 Foundation Expendables**  
Total = \$2.9M



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## Current Status



## Fundraising



GIFTS OF \$1,500,000 AND UP  
The Whiting-Turner Contracting Company

GIFTS OF 100,000 -- \$1,500,000  
TBD

GIFTS OF \$50,000 — \$99,999  
Maryland Asphalt Association  
Scott Greenhaus '82, '86

GIFTS OF \$25,000 — \$49,999  
Gutschick, Little and Weber  
Joe Makar '78  
KCI Technologies Inc.  
Maryland Chapter - American Concrete Institute  
Wallace Montgomery  
Whitman, Requardt and Associates  
Whitney Bailey Cox & Magnani

GIFTS OF \$10,000 — \$24,999  
Anonymous  
Global Resource Recyclers  
Forrester Construction  
GeoConcepts  
Mercado Consultants, Inc.  
VIKA  
Wiss Janney & Elstner

## Computer Design Studio

Annual Usage by Upper Level UG Classes:

- ENCE 360 Analysis of Civil Engineering Systems (120 students)
- ENCE 423 Project Planning, Estimating, and Scheduling (130 students)
- ENCE 426 Construction Documentation and BIM Applications (60 students)
- ENCE 466 Design of Civil Engineering Systems (125 students)
- ENCE 470 Highway Engineering (30 students)



### Summer 2017:

Replaced 40 student workstations  
Upgraded instructor console

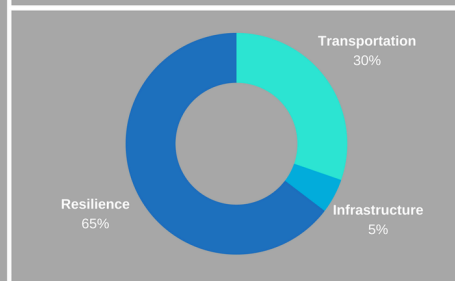
Funding from Differential Tuition

- CEE Department \$35K
- College of Engineering \$43.2
- Total Cost \$78.2

## CEE TERPS INFORM

Media Hits January–September

### TOPIC AREAS



Rolling Stone

New York Times

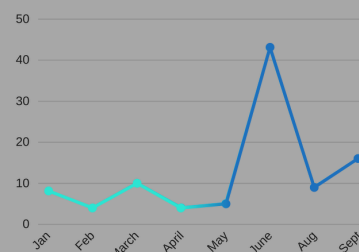
The Guardian

CBS This Morning

NPR

TOP  
OUTLETS

### HITS BY MONTH





<http://www.rollingstone.com/politics/news/what-happens-when-a-superstorm-hits-dc-w504341>

**Rolling Stone**

News Video Music Politics TV Movies Video Games RS Country RS Hip-Hop More

**TRENDING**

Foo Fighters' Dave Grohl Is Guest Host Jimmy Kimmel...

Beyond Stranger Things: 10 Things We Learned From...

How Cardi B Became the Breakout Star of 2017

## What Happens When a Superstorm Hits D.C.?

A major hurricane could paralyze the government and jeopardize national security. Why is the capital so unprepared?

By Justin Resio  
September 1

When the big storm hits D.C., the resulting disaster may not kill as many as Katrina, or flood as much physical real estate as Harvey, but the toll it takes on American institutions will be unfathomable. The storm will paralyze many of the agencies that operate and defend the nation, raising the specter of national-security threats. Imagine, says Gerald Galloway, a disaster and national-security expert at the University of Maryland who served 38 years in the military, "the world waking up some morning to see an aerial photograph of Washington, D.C., with everything from the Lincoln Memorial to the grounds of the Capitol under-water – that certainly does not speak well for the United States' preparedness."

On Aug 1, a expert 1 Kathryn MSNBC and CNN. I knew it was going to be devastating," says Resio, but even he was surprised by the astounding 52 inches of rain recorded near Houston. Eleven days later, Hurricane Irma notched nearly unprecedented 185-miles-per-hour winds and then careened into Florida, ripping apart homes in the Keys and flooding downtown sections of Miami and Jacksonville, which

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FALL 2017 | THE A. JAMES CLARK SCHOOL OF ENGINEERING

**CIVILREMARKS**  
CIVIL AND ENVIRONMENTAL ENGINEERING AT MARYLAND

**Better Together**  
Cross-cutting capstone equips graduates for professional careers



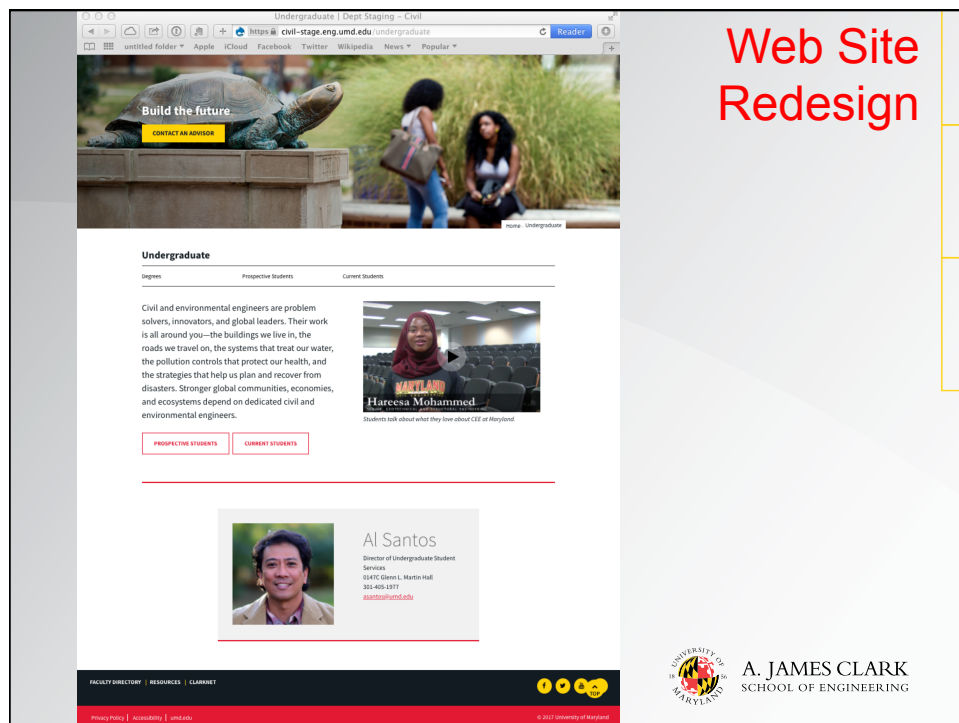
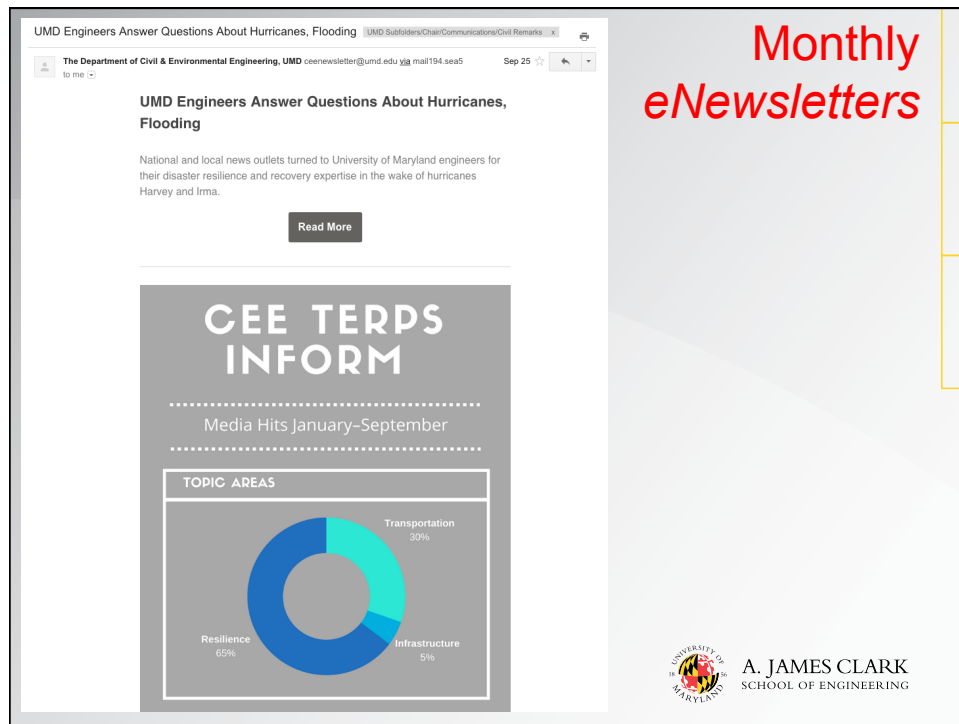


**Anjanette Riley,**  
Communications Coordinator, Editor

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UNIVERSITY OF MARYLAND / FEARLESS IDEAS







**DEPARTMENT OF  
CIVIL & ENVIRONMENTAL  
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**Kirlin Distinguished Lecture**

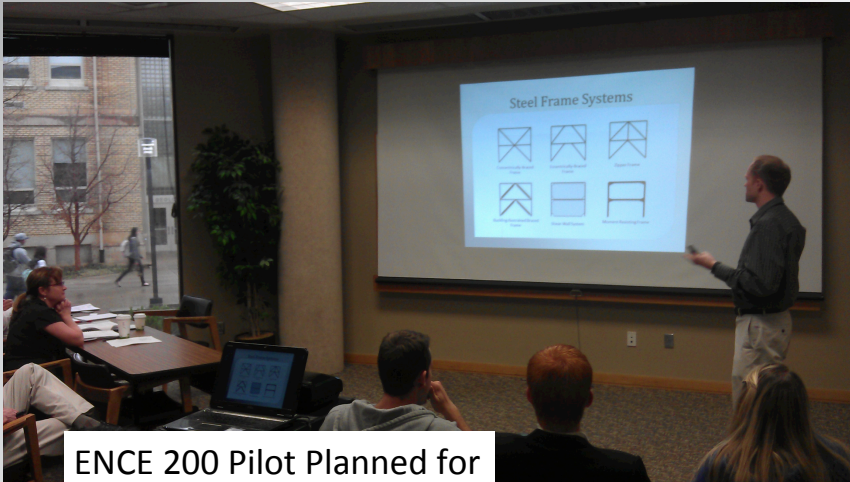
**Jeff Kayce '03**  
Thursday, October 19, 2017  
Kim Engineering Building

**6:00 pm: Lecture, Zupnik Hall**  
**7:00 pm: Reception, Rotunda**  
Networking with industry  
partners and students  
(Business casual)




As SVP – Managing Director at Bozzuto Development Company, Jeff is responsible for expanding joint venture opportunities throughout the Mid-Atlantic region. He oversees a team while managing the development process for multifamily and mixed-use projects, from entitlements through construction and lease-up. Jeff is currently overseeing predevelopment of the College Park Southern Gateway, a \$140 million mixed-use project in partnership with the University of Maryland; Academy Yard Phase II, a Department of Housing and Urban Development (HUD)-financed second phase in Odenton, MD; and Odenton Town Center, a transit-oriented development at the Odenton MARC station with the Maryland Department of Transportation. Prior work includes Flats170 at Academy Yard, a 369-unit HUD-financed redevelopment of a former manufacturing site; the Fitzgerald at UB Midtown, recipient of the 2011 Urban Land Institute National Award for Excellence; and Arbors at Arundel Preserve, a suburban community of 496 residences in Hanover, MD.

## Technical Communications



**ENCE 200 Pilot Planned for  
Spring 18 Semester**



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Department of Civil and Environmental Engineering  
**CENTER FOR DISASTER RESILIENCE**

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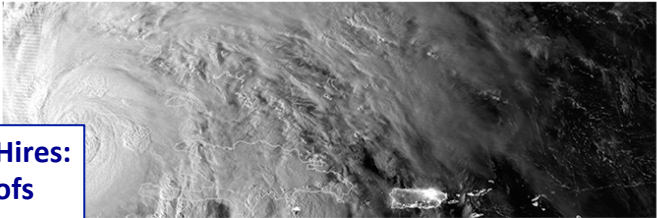


Photo of Hurricane Sandy over Jamaica. Courtesy of NASA's Earth Observatory, 10/25/12.

**New/Anticipated Hires:**

- 2-3 Assistant Profs
- 0.5 Full Prof/Director

Recent CDR News


- **Engineering News-Record Honors Galloway**  
—Jan. 5, 2016  
Center for Disaster Resilience Associate Gerry Galloway was recently named the recipient of *Engineering News-Record's* 2015 Mid-Atlantic Legacy Award
- **Galloway Elected to National Academy of Construction**  
—Nov. 5, 2015  
Center for Disaster Resilience Associate Gerry Galloway was elected to the 2015 class of the National Academy of Construction.
- **CDR Weighs in on South Carolina Flooding**—Oct. 19, 2015

**Hurricane Preparedness**  
[Download the FEMA app](#) for tips on how to prepare for a hurricane—plus, you can sign up to receive weather alerts for up to five locations.

<http://www.cdr.umd.edu>

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GIVING  
EMPLOYMENT  
PHOTO GALLERIES  
CONFERENCE ROOMS

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**Bensi, Michelle**  


Assistant Professor  
Center for Disaster Resilience  
1143 Glenn L. Martin Hall, College Park, MD 20742  
Email: [mbensi@umd.edu](mailto:mbensi@umd.edu)  
Phone: 301-405-7768

**Research Interests**

- Probabilistic assessment of natural and man-made hazards
- Probabilistic risk assessment and risk-informed applications
- Risk assessment of infrastructure systems
- Structural reliability and systems modeling
- Decision support for applications involving civil infrastructure systems
- Application of machine learning to civil engineering problems
- Bayesian networks and other applications of Bayesian methods

[MAKE A GIFT](#)  



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## Torero, Jose



Director, Center for Disaster Resilience  
3104G J.M. Patterson Building  
**Email:** [jltorero@umd.edu](mailto:jltorero@umd.edu)  
**Phone:** 301-405-3992

### Research Interests


Fire dynamics, flame spread, smouldering, combustion in microgravity, smoke detection, protection and suppression systems

### Professional Memberships:

Royal Society of Edinburgh (UK), the Royal Academy of Engineering (UK), the Australian Academy of Technology and Engineering (Australia), the Queensland Academy of Arts and Sciences (Australia), the Society of Fire Protection Engineers (USA), the Building Research Establishment (UK), the Institution of Civil Engineers (UK)

**Areas of Expertise:** Disaster Resilience


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**Maryland Transportation Institute**  
*A Proposal to Establish a Leading Interdisciplinary Transportation Research and Education Institute*

## Overview, Opportunities and Challenges


Transportation@Maryland (T@M) is a leading multidisciplinary transportation research and education program in the nation, providing solutions to congestion, traffic safety, urban planning, economics, public policy, travel behavior, social and environmental impact issues in the transportation system.

**Confirmed Participation for T@M - from 10 UMD colleges -**

ARCH	BUS	JOUR
ARHU	CMNS	SPH
BSOS	iSchool	SPP

**T@M is a Core Area of Research and Scholarship Excellence at UMD**

<b>2<sup>nd</sup></b> in journal publications <b>5<sup>th</sup></b> in research funding, more than <b>\$20M/year</b> <b>8<sup>th</sup></b> in overall publications	<b>Largest</b> Transportation Big Data Center in the U.S., serving federal governments, all 50 states and D.C., by collecting, fusing and analyzing 8 billion data records each day.	<b>Consortium Lead</b> of the FAA Center of Excellence	<b>University Lead</b> of the US DOE Smart Mobility Initiative.
	<b>Only</b> US DOT National University Transportation Center for economic competitiveness.	<b>Leading</b> centers on Smart Growth, Cyber Security, GIS, Logistics, Sustainability, Human Computer Interaction, Transportation and Health at UMD and UMB.	


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Maryland Transportation Institute

**Current Annual Research Expenditure: \$20 Million; Goal: \$30 Million**

### Global Leadership in Transportation



**Transportation Big Data and Data Analytics**



**Infrastructure Sciences and Policy Innovation**



**Smart Cities and Communities**



**Connected and Automated Vehicles**



**Next Generation Freight and Supply Chain Logistics**



**Future Mobility Systems**

Leverage existing and new federal funding programs at DOT, DOE, NSF, DHS, NIH, NIST, and DOD

Collaboration with state agencies across the nation on signature programs

Strengthen existing and develop new corporate partnerships

### Broader Economic and Community Benefits

- ▶ \$1B+ in total economic benefits annually in MD
- ▶ Keeps people and goods moving, and reduces transportation cost for households and businesses
- ▶ Develops and deploy technologies toward ZERO traffic fatalities

- ▶ Research products save \$260M each year on infrastructure costs for MD government.
- ▶ Reduce energy use and GHG emissions in Maryland via smart, shared, and sustainable mobility technology implementation.

**MTI Core Faculty**



2016 Strategic Plan
Flagship 2020
Greater College Park

**Official Roll-Out at 2018 TRB Meetings in DC**



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## Steel Bridge Competition













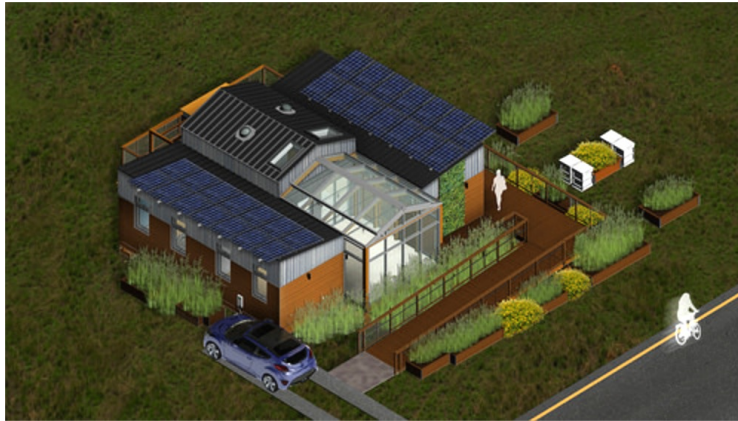
**2/7 Regionally**  
**17/40 Nationally**



## **2017 Solar Decathlon**

**Denver, CO**

Resilient Adaptive Climate Technology (reACT)



**1<sup>st</sup> in US**

**2<sup>nd</sup> Internationally**

