General Faculty Meeting

FAMU-FSU
College of Engineering

J. Murray Gibson
Dean

September 23rd 2016
Thanks
DILBERT

WE'RE REPLACING OUR OUTFITTED SYSTEM OF ANNUAL PERFORMANCE REVIEWS.

THE NEW SYSTEM IS CALLED GAMIFICATION. IT'S A HOT NEW TREND.

EMPLOYEES CAN WIN BADGES, RIBBONS, AND AWARDS FOR COMPLETING TASKS.

CAN WE OPT FOR THE CASH VALUE OF THOSE BADGES, RIBBONS, AND AWARDS?

THEY DON'T HAVE ANY CASH VALUE. OH, LIKE GARBAGE?

NO, NOT LIKE GARBAGE!

EXCEPT IN THE NARROW SENSE OF HAVING NO FUNCTIONAL, ECONOMIC, OR EMOTIONAL VALUE.

GARbage IS SOMETHING YOU THROW AWAY. HAND ME AN AWARD AND WATCH CAREFULLY.
Welcome New Faculty
Faculty Successes...

Jim Zheng (ECE) elected Fellow of the National Academy of Inventors

Theo Siegrist (CBE) wins over $1.23M in NSF instrumentation grants

Sastry Pamidi (ECE) brought in >$1M external funding

Sam Taira (ME) and Zhibin Yu (IME) win Young Investigator Award

John Sobanjo (CEE) elected a Fellow of the American Society of Civil Engineers

Kimberly Hunter (CBE) selected to attend National Academy of Engineering’s Frontiers in Education symposium

Magnetic field breaks world record of 40 Tesla!

Seungyong Hahn (ME)
Peter Cheetham (ECE grad student) wins best paper award at international Applied Superconductivity Conference

Civil engineering students win design competition at international solid-waste management conference

Bently Higgs, Jordin Findling and Hykel Mellaouia

Charmane Caldwell developed ECI summer bridge program demonstrating improved student outcomes

Award winning undergraduate researcher Jason Madinya with Prof. Ramakrishnan (CBE)

College selected for undergraduate fellowship program supporting 8 students per year
Shout out to:
Don Hollett
Jeremy Philips
Mandi Smith
Gary Eggebraaten
Nashwan Al-Humiari
Bryan Polk
For working in the wee small hours of the morning to get classrooms ready.

Richard Criser rebuilt the Unit Operations Lab in Chemical Engineering just in time for classes.

Dr. Shonda Bernadin (ECE) organized a 2016 summer camp at FAMU DRS.

$212K gift to FSU for PhD fellowship in HPMI.
Changing the equation.....

Intel Allocates $300 Million for Workplace Diversity

The New York Times

Google seeks 1000 underrepresented engineers

NSF launches long-awaited diversity initiative

By Jeffrey Mervis | Feb, 24, 2015, 3:45 PM
HBCUs lead in producing diverse STEM graduates

The Social Mobility Index (SMI) ranks FAMU the No. 3 institution in the nation for facilitating economic opportunity for underserved students.

(Harvard University placed 438th on the SMI rankings list.)

55% of black HBCU graduates said they felt prepared for life after college compared to 29% of black graduates from other institutions.

Huffington Post

FAMU helps FSU

Cohorts are key to this success
Top engineering schools must have vibrant research programs . . .

. . . so that students can access state-of-the-art tools and techniques in industry

FAMU-FSU is one of only 15 ABET accredited schools of engineering amongst HBCUs
Engineering education in Florida

<table>
<thead>
<tr>
<th>University</th>
<th>National Grad Ranking</th>
<th>#Faculty</th>
<th>Annual research funding</th>
</tr>
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<tbody>
<tr>
<td>UF</td>
<td>#43</td>
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<td>$68M</td>
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<tr>
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<td>$196M</td>
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<tr>
<td>U Illinois Urbana Champ.</td>
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<td>429</td>
<td>$222M</td>
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FAMU-FSU College of Engineering in 5 -10 Years

- A top fifty engineering school, helping the rankings of its partner institutions
- Recognized as the best engineering school in the nation for the education of African American engineers and leading in diversity more broadly
- Major research programs and centers addressing some of the key interdisciplinary “Grand Challenges for Engineering” identified by the National Academy
  - Built on areas such as:
    - Healthy Aging;
    - Materials for Energy;
    - Energy Infrastructure and Delivery;
    - “Grey and Green” Infrastructure;
    - Aerospace and Transportation;

The Center for Advanced Power Systems nets five-year $35M Office of Naval Research award to develop all-electric ship
Legislative Budget Request 2017-2018

- Five new faculty lines $625K
  - Healthy aging, aerospace, robotics, biomedical, energy sustainability

- Start-up funds for new faculty $3,000K

- Support for (undergraduate) student success $1,225K
  - Retention, transfer into major, time to graduation, recruiting, internships

- Strengthen graduate programs $750K
  - Fellowships, recruiting, undergraduate research

- Market equity adjustments $1,000K

Dean’s startup commitment for:
- 10 new hires over 3 years,
- Associate Dean for Research and one+ additional research support position;
- Help to achieve equity in salaries for faculty and staff;
- Discretionary money for retention and recruiting efforts;
- Commitment to remove barriers to “oneness”
Strategic approach to growth

- **Focus on “oneness”** embracing the best of the aspirations of both institutions but engendering teamwork in the college
- **Engage stakeholders in strategic planning** to identify a handful of engineering challenges
- **Energize recruiting, focus on retention**
- **Reprogram Building C** and identify other infrastructure needs
- **Hire key faculty** who can bring and retain centers in these areas
  - **Build on the strengths** of what we have
- **Strengthen and innovate education**
  - Provide robust preparation and support for talented students without strong academic foundation
- **Secure resources** from state, federal, corporate and philanthropic sources
Volunteers appreciated for steering committees
Research Leadership Brainstorming

- What are the leading directions in research that will fuel the growth in funding and reputation of the College, building on existing strengths and opportunities in FSU, FAMU and the region? How will our research foci mesh with our need for strong and innovative education?

- White papers will be solicited, and organized by subject areas. The white papers must be submitted by at least one COE faculty member, but multiple PIs including faculty and partners from outside the College are strongly encouraged. The white papers are limited to one double-sided page, although they could include appendices if required. Each white paper should answer:
  - What is it?...Summarize the research thrust in which you are proposing to build up expertise and facilities so that we can be a national leader, and explain why the research is important and exciting.
  - What will it take?...What faculty hiring and facilities would be required for us to be leaders? What do we currently have on which we are building? Where will resources be available to fund the research?
  - Educational impact?...Will this strengthen our educational offerings, or provide new program opportunities in areas of interest to students and employers?
  - Why us?...This is perhaps the hardest question – analyze why it makes sense for us to do this by examining competing efforts in Florida and nationally. Where do we have a competitive advantage?

- The purpose of the white papers is partly to enable triaging by subject to facilitate effective brainstorming. We intend that proponents for each white paper will have an opportunity to make a presentation in an open forum. These will begin the third week of October and be held every week until the end of the year. By early Spring we expect to have condensed the white papers into a smaller number of better developed ideas that will be openly discussed during the Spring semester.

White papers due October 15th
Open strategic planning sessions

- Every Friday at 1:00 p.m. in A317 beginning 9/30
- Watch web page for topics (remote participation possible)
- First session (9/30) is on the “One College” Theme

  - How do we create and sustain a level and stimulating playing field within the college for faculty, staff and students from our two universities? How can we reduce administrative barriers to our success, and develop systems, tools and spaces that support our needs? How do we describe and communicate our unique identity?

- Steering committee:
  - Jonathan Clark (FSU Faculty)
  - Donald McKenzie (FAMU Student)
  - Garit Poire (FSU Student)
  - Chase Pedersen (FAMU Staff)
  - Mark Weatherspoon (FAMU Faculty)
  - Janine Welch (FSU Staff)
Urgent challenges

- Fairness in compensation and opportunities for faculty and staff between FAMU and FSU
- Turning around negative trends in FAMU recruiting and retention at the undergraduate and graduate level as soon as possible
- Sending the message that we are truly “one college”
Faculty equity

- I am committed to rewarding faculty and staff equally for the same work, whether at FAMU or FSU
- FSU has made it a priority to provide market adjustments to faculty
- Equity adjustments were last made at FAMU in 2014
- The issue is primarily one of resources – we can and will make modest adjustments with our current fixed joint budget
- If passed, the LBR will give us the tools to do this right, influenced by the outcome of our annual performance evaluation
Enrollment trends

PhD Enrollments

Pre-engineering Enrollments

Total Undergraduate Enrollment

- 26% Female vs national average of 21%
- 20% Black vs national average of 4.3%
- 20% Hispanic vs national average of 4.7%
Recruiting and retention focus

- Active recruiting
  - e.g. cultivate school guidance counselors
- Expand activities to engage pre-engineers
- Increase yield of admitted students
  - Faculty involvement, e.g. visits, calls
- Increase # of FAMU PhD students
Branding

www.eng.famu.fsu.edu
Lunch with the Dean

Join me for lunch any Friday from 11:30 a.m. to 12:45 p.m. at the Renegade Grill next door.