

Accomplishments

OVERALL

PEOPLE

EDUCATION

RESEARCH

COMMUNICATIONS

GOVERNANCE

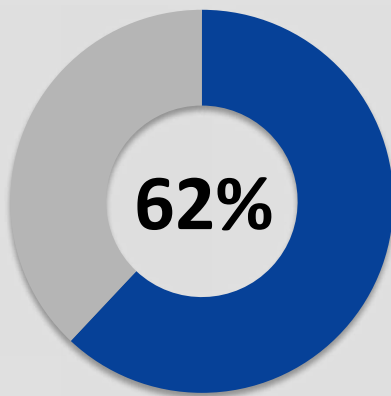


PennState
College of Engineering

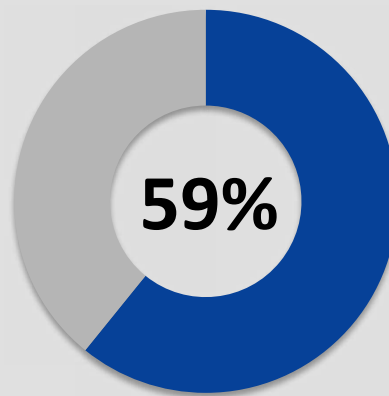
Strategy Implementation

Start Date: July 2014 | Years 1-3 of a 5-year plan

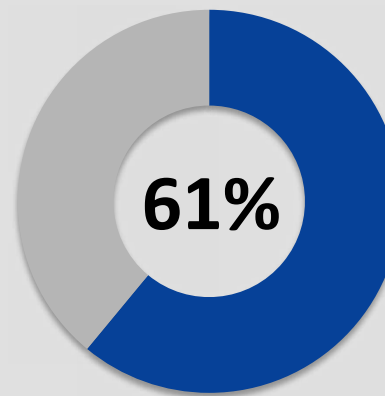
Governance



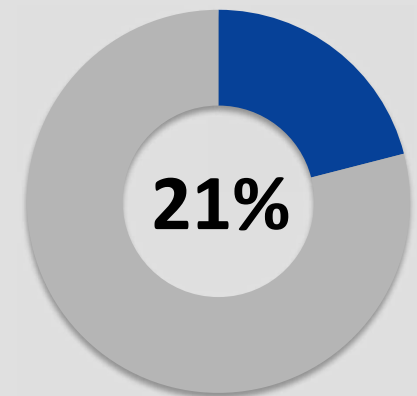
Research



Education

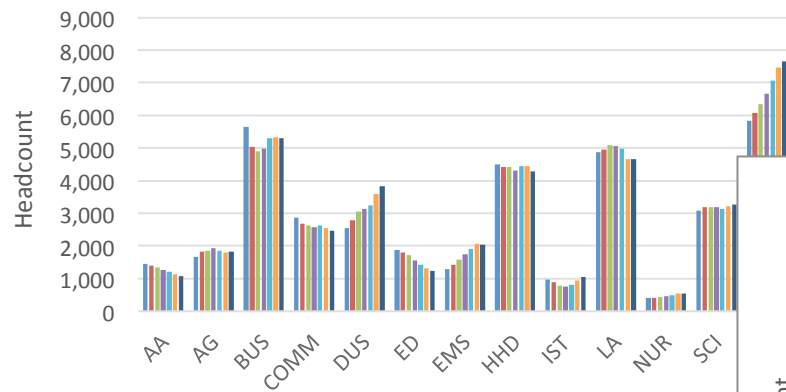


Service



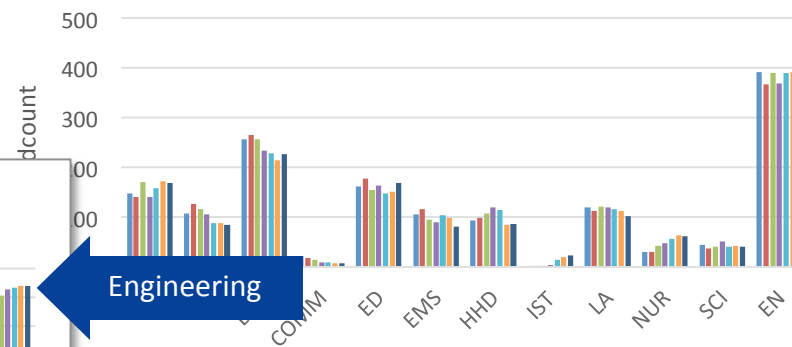
Across Penn State

7-Year Comparison: Fall UG Headcount



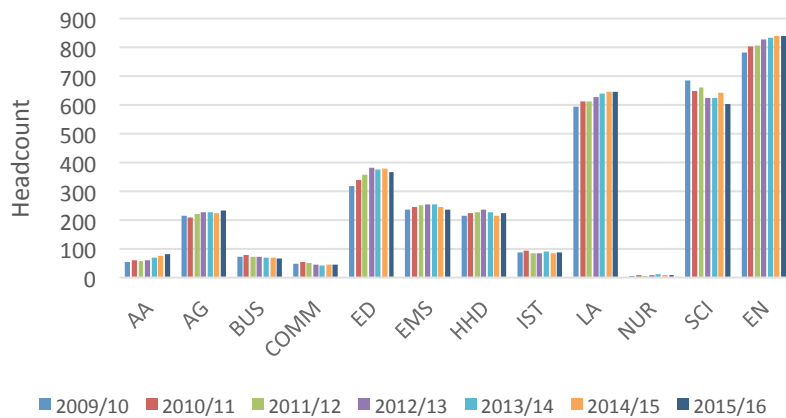
Engineering

7-Year Comparison: Fall Masters Headcount



Engineering

7-Year Comparison: Fall PhD Headcount

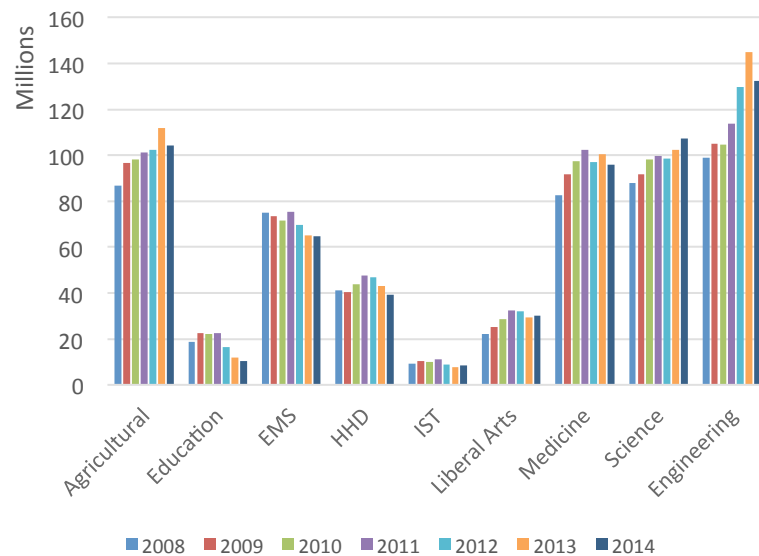


Engineering

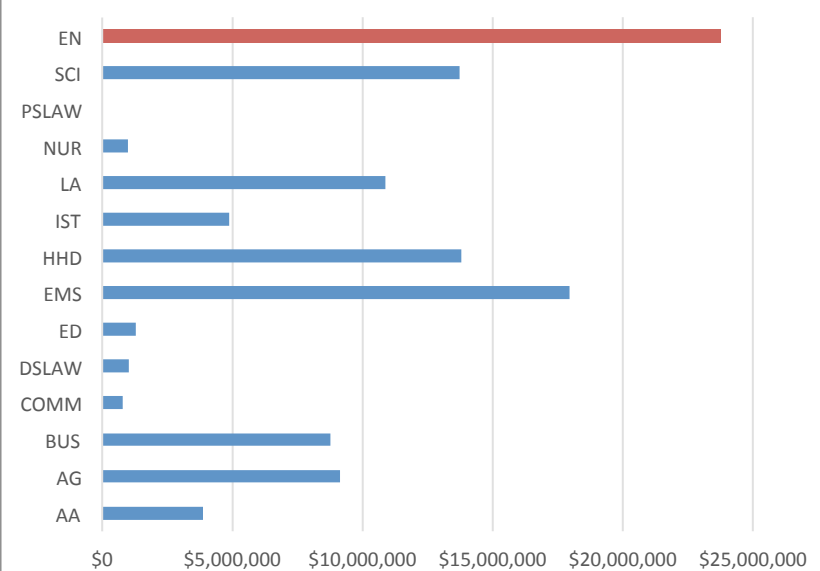


Across Penn State

Annual Research Expenditures



2014-15 Annual Gifts



People



Janis Terpenney

*Department Head
IME*



Patrick Fox

*Department Head
CEE*



Peter Butler

*Associate Dean
of Education*



Theresa Mayer

*Associate Dean
of Research
and Innovation*



Tom Litzinger

*Assistant Dean of
Educational Innovation
and Accreditation*



People



People



People

Authorized 30 searches



27 new professors

(including co-hires with Huck, Rock, ICS, Science, Medicine, MRI)



20 new staff



Education



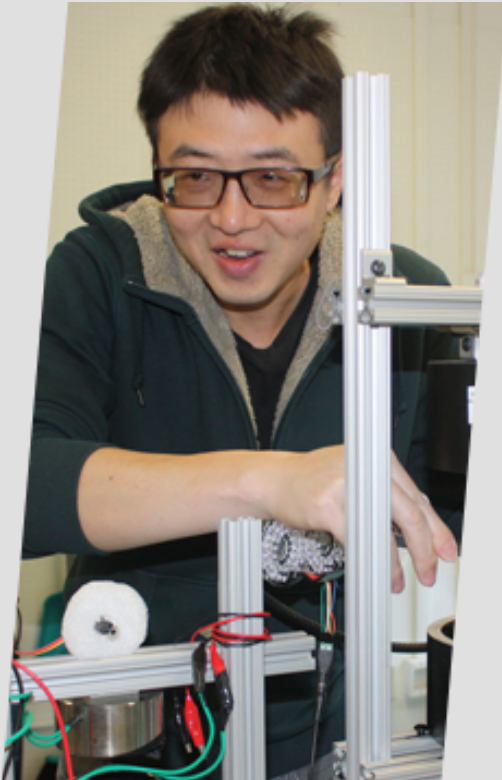
Populated with
99 students



10 MS and MEng degrees launched
6 more in process to approval and launch



Education



**PROJECT-BASED
LEARNING**

**EXPANSION OF
LEARNING FACTORY**

**REU AND BEU
PROGRAMS**



PennState
College of Engineering

Education

GRADUATE RECRUITMENT ATTENDEES

22

2014

124

2015

138

2016



Graduate Fellowships | UG Global Engagement | Grand Challenge Engineers

NEW OFFICE OF DIGITAL LEARNING (\$/year)

\$100k

Faculty

\$729k

Departments

\$1.7m

College



PennState
College of Engineering

Research

Optimal and Secure
Cyberenvironments



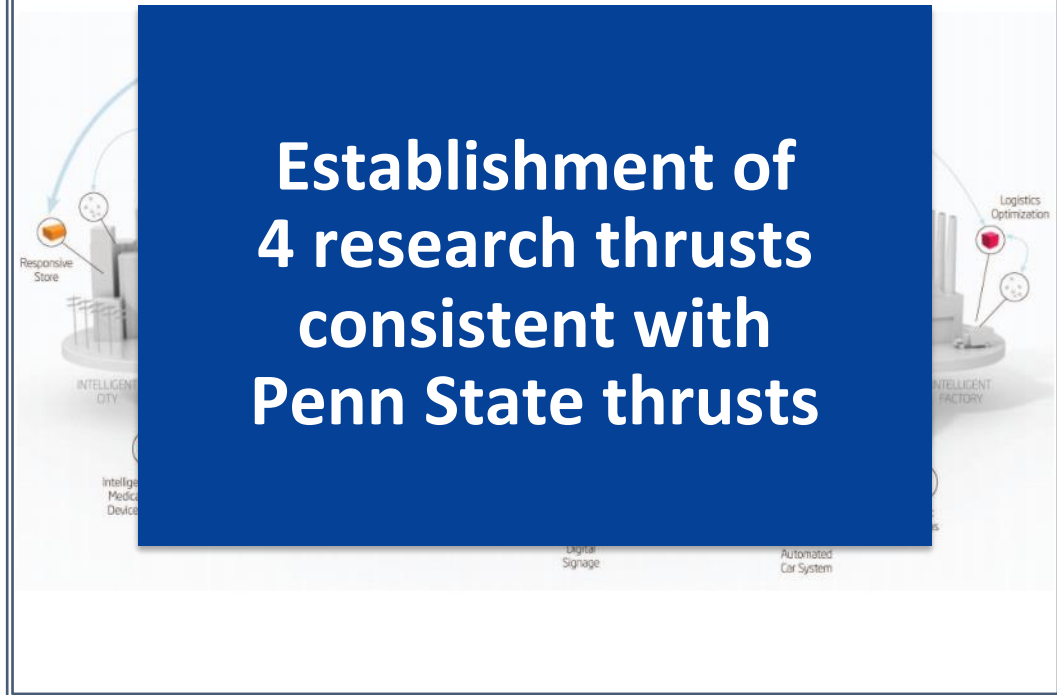
Advanced Manufacturing
for Electronic, Biomedical
and Mechanical Sciences

Resilient
Infrastructure Systems

Sustainable Water-
Energy-Food Nexus

Secure network

**Establishment of
4 research thrusts
consistent with
Penn State thrusts**



Research

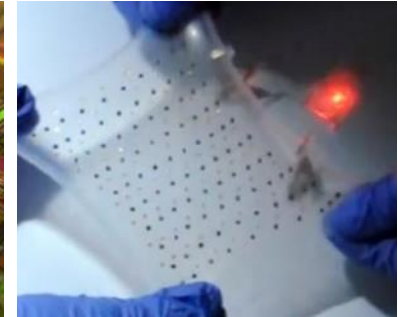
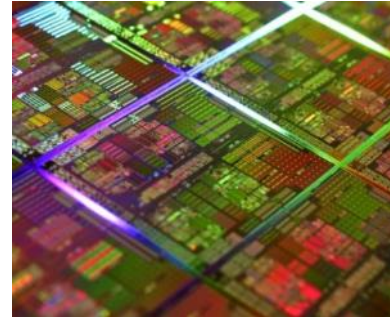
Optimal and Secure
Cyberenvironments

Advanced Manufacturing
for Electronic, Biomedical
and Mechanical Sciences

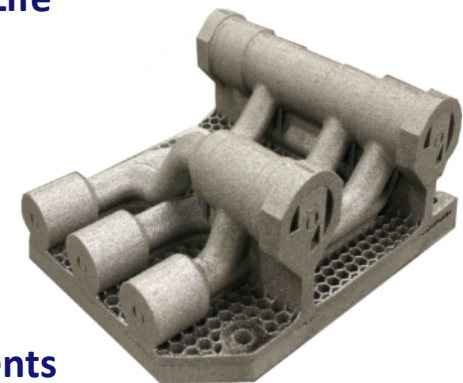
Resilient
Infrastructure Systems

Sustainable Water-
Energy-Food Nexus

**Integrated
Electronic
Optical
Energy
Functions**



Printing Life



Freeform Components



Research

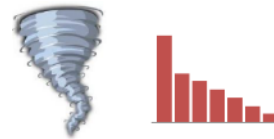
Optimal and Secure
Cyberenvironments

Advanced Manufacturing
for Electronic, Biomedical
and Mechanical Sciences

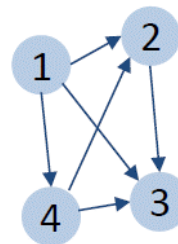
**Resilient
Infrastructure Systems**

Sustainable Water-
Energy-Food Nexus

Hazard &
Original System

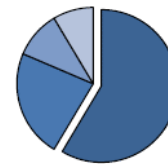


disruption

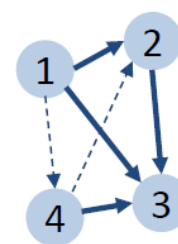


strong
interdependence

Building
Resilience

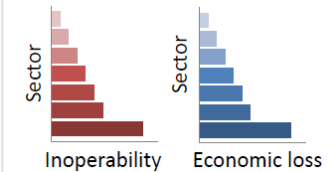


resource
allocation

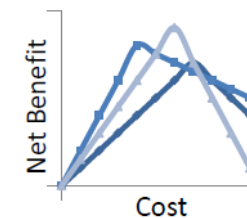


controlling
interdependence

Evaluating
Resilience



Outcomes



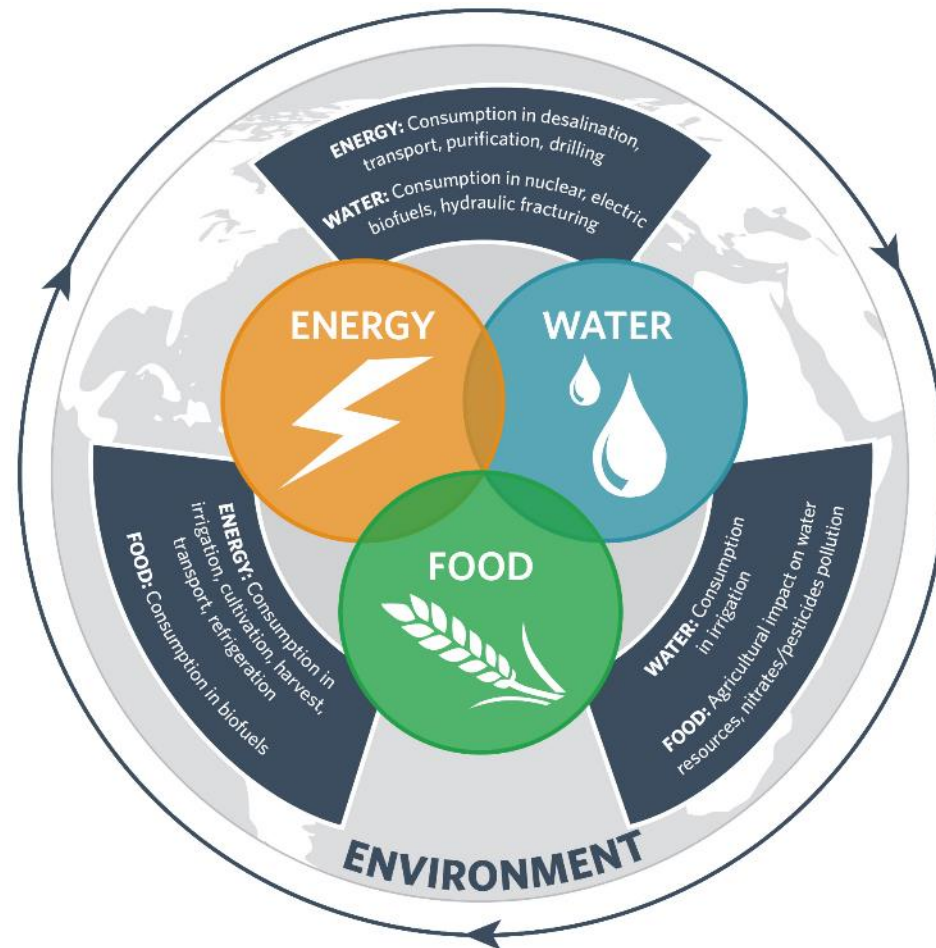
Research

Optimal and Secure
Cyberenvironments

Advanced Manufacturing
for Electronic, Biomedical
and Mechanical Sciences

Resilient
Infrastructure Systems

Sustainable Water-
Energy-Food Nexus



Research

Graduate fellowship
funding and investment
from Grad School

Research equipment funds
from college resources

Engagement in Penn State
research thrusts

Investment in CoE seed
funding and ENGIN grants



ACCOMPLISHMENTS

CHALLENGES

PLANS

OVERALL

PEOPLE

EDUCATION

RESEARCH

COMMUNICATIONS

GOVERNANCE

Communications

ENGINEERS: Get your 1-year master's degree
New Programs. New Perspective.



ENGINEERS: Get your 1-year master's degree
New Programs. New Perspective.



13 Websites

Branding

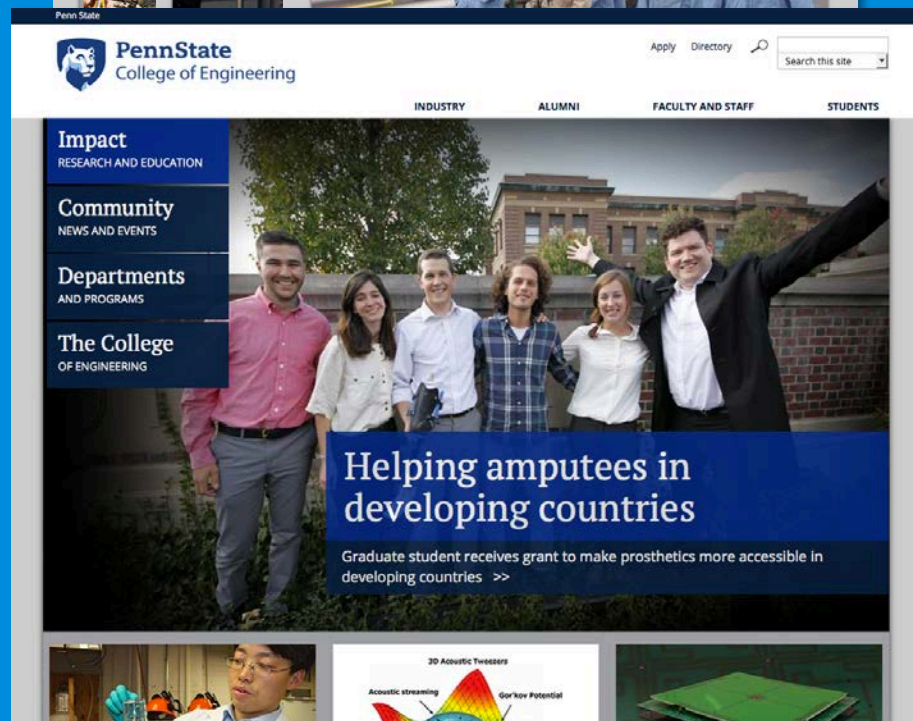
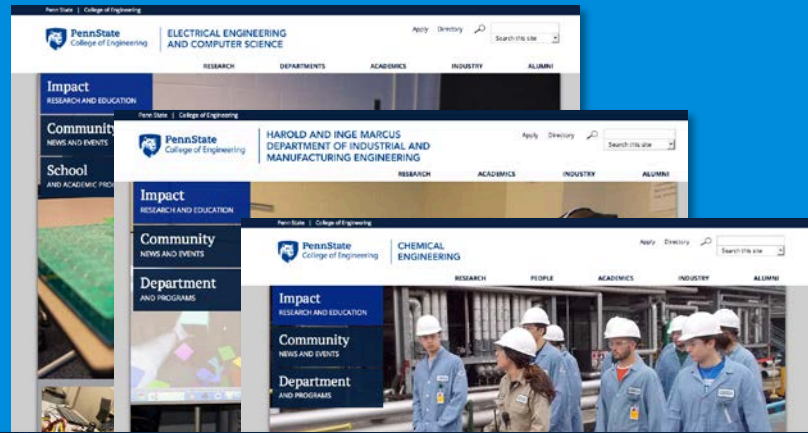
Brochures

E-Newsletters

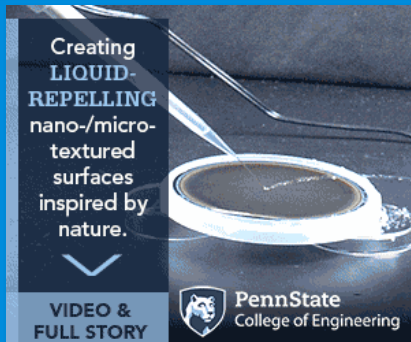
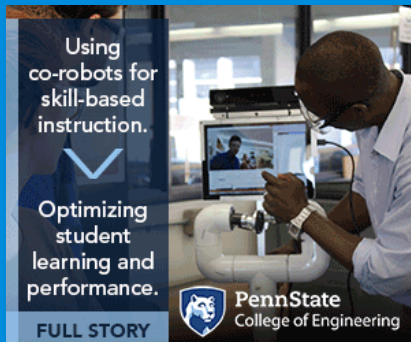
E-Magazine



PennState
College of Engineering



Communications



Ad Campaigns

Presentations

50+ Videos



PennState
College of Engineering

Governance



School of Electrical Engineering
and Computer Science



5-year budgets and
comprehensive review
of all units



Office of associate dean
for research and innovation



Governance



Center for Engineering
Inclusion and Outreach



Metrics-based
assessments and decisions



Committee structure to
support decision-making
and transparency



PennState
College of Engineering

Governance

College-wide Climate Survey launched in February

Penn State
PennState
College of Engineering
Apply Directory
Search this site

INDUSTRY
ALUMNI
FACULTY AND STAFF
STUDENTS

Home > ENGAGE

Brittany Banik
Graduate Student in Bioengineering

Runkun Jiang
Ph.D. Candidate in Electrical Engineering

Arion Harris
Chemical Engineering Student

Now is your time to ENGAGE!

Take the Survey

In the College of Engineering, we seek to create an environment characterized by openness, fairness, and equal access for all students, staff, and faculty. A welcoming and inclusive campus climate is grounded in mutual respect, nurtured by dialogue, evidenced by a pattern of civil interaction, and is one of the foundations of our educational model. Creating and maintaining a community environment that respects individual needs, abilities, and potential is critically important to the success of our College.

As part of the College's strategic plan, we have launched an initiative called ENGAGE: Enhancing the Learning & Working Environment at Penn State Engineering. ENGAGE will begin with an online survey to understand the perceptions and experiences of the learning and working environment from students, staff, and faculty. The College will take actions to enhance our learning and working environment based on the findings of the survey. More information about the survey is available in the FAQs.

Amr Elashai
Dean of the College of Engineering

College of Engineering 2016 Climate Survey: Protecting Your Anonymity

FAQs

University Resources

Incentives for Participants

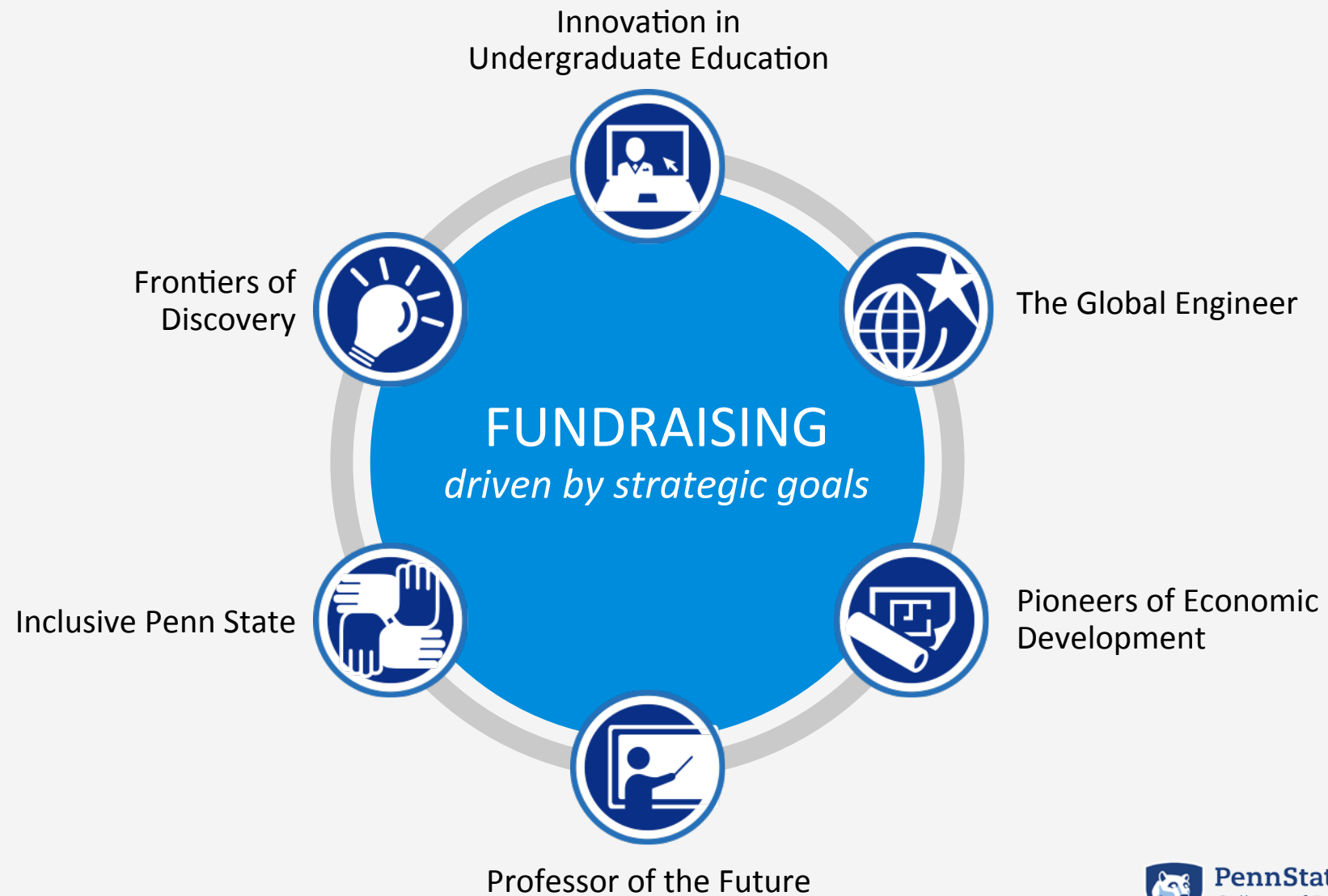


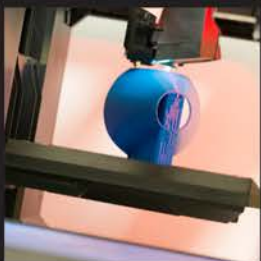
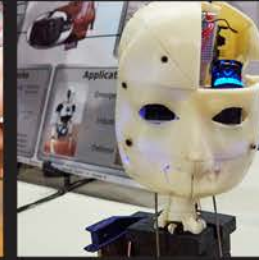
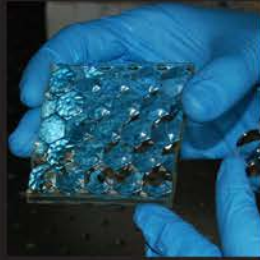
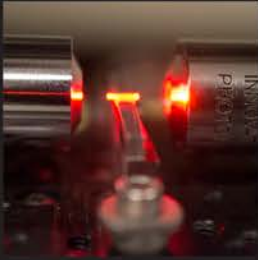
Enhancing the Learning & Working Environment at Penn State Engineering



PennState
College of Engineering

Governance





Challenges

COMPARISONS

RESOLVED

CONTINUING

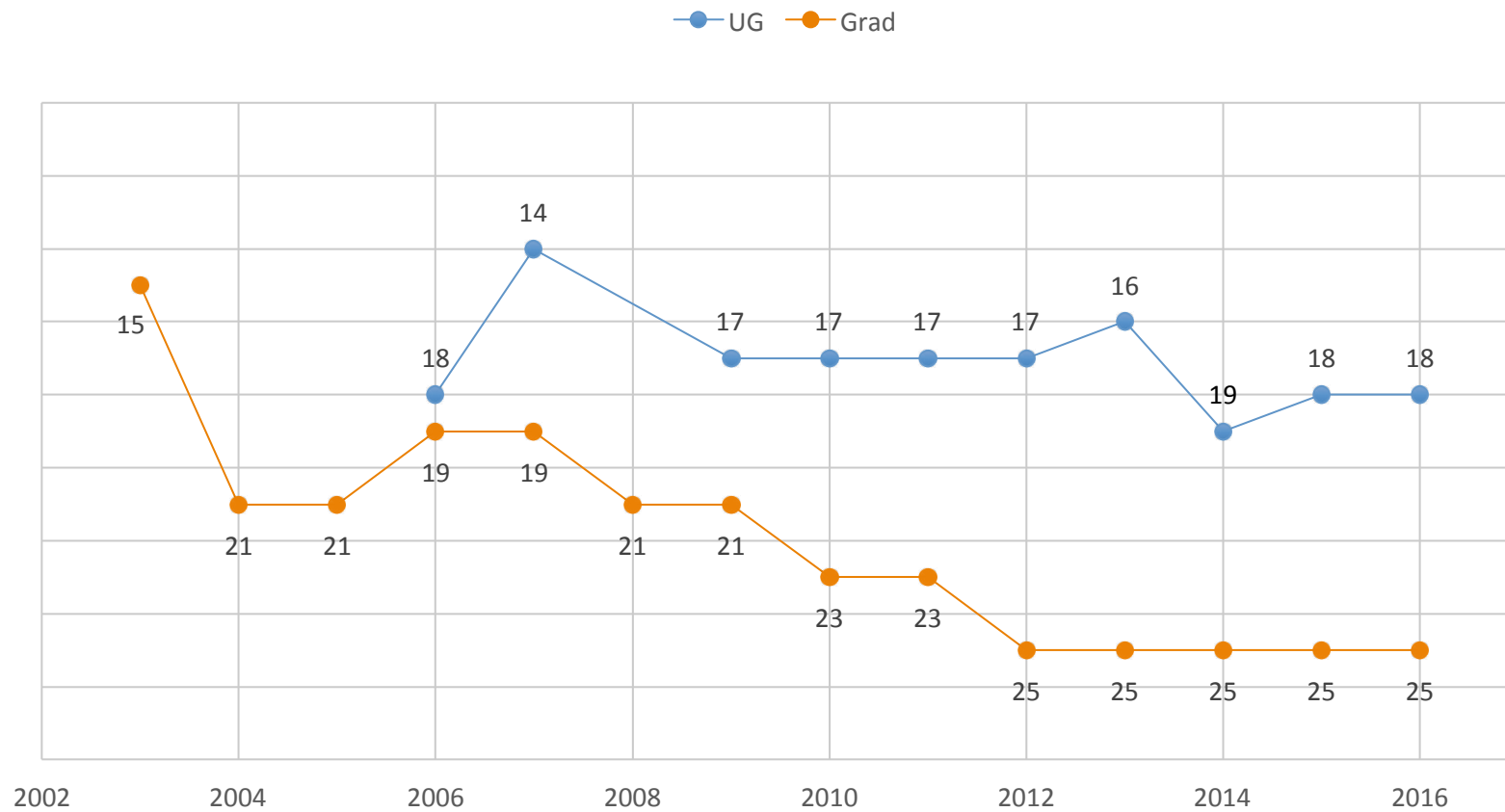
MAJOR CHALLENGES



PennState
College of Engineering

Rankings

College of Engineering USNWR Rankings



Rankings

Ranking Year	2015	2016	2017
Overall Rank	25	25	27
Overall Score	56	56	51
Peer Assessment Score (5.0=highest)	3.7	3.7	3.7
Recruiter Assessment Score (5.0=highest)	3.8	3.8	3.8
Average Quantitative GRE Score	163	163	164
Acceptance Rate (%)	21.9	30	24
Ph.D. Students/Faculty Ratio	3.1	3.4	3.3
Faculty Membership in NAE (%)	1.4	1.6	1.8
Research Expenditures (M)	190	162	101
Research Expenditures/Faculty (k)	538	460	331
Ph.D. Degrees Awarded (AY)	183	157	228
Total Graduate Enrollment	1719	1652	1840



Resolved: IT Breach

HACKED BY AN OVERSEAS IP ADDRESS FOR OVER 1.5 YEARS, WITH WIDESPREAD AND DEEP PENETRATION INTO ENGINEERING NETWORK AND HUNDREDS OF IP ADDRESSES

FBI Notification:
November 2014

Remediation Day:
May 15, 2015

*(improvements
ongoing)*



20

Compromised
Workstations



50

Compromised
Servers



40,000

Person-hours expended
*(analysis, planning and
remediation)*



\$10M

Total cost to Penn State
*(personnel hours, new
hardware, software, services)*



PennState
College of Engineering

Continuing

Management of non-tenure track careers

Achieving balanced budget

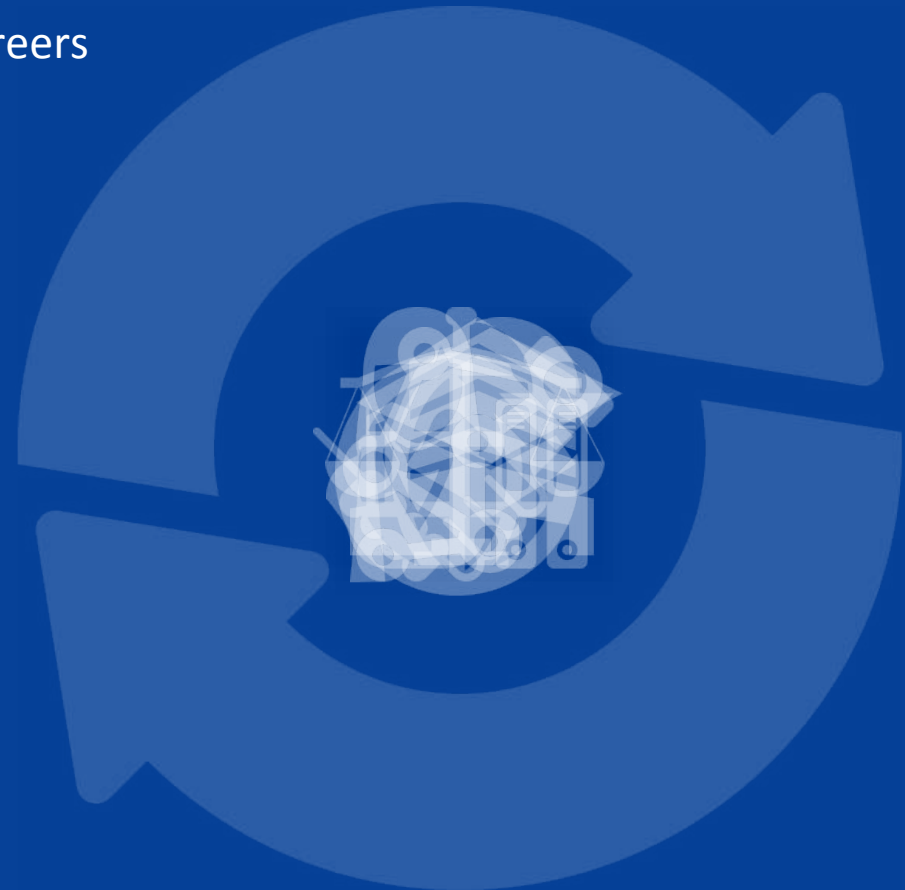
Modernizing IT team

Increasing fundraising income

Improving infrastructure

Expanding grad program

Increasing UG global experience



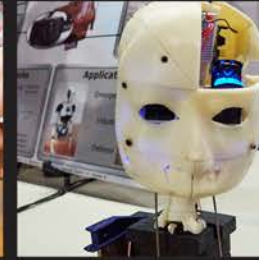
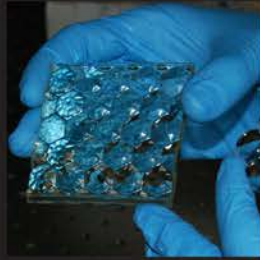
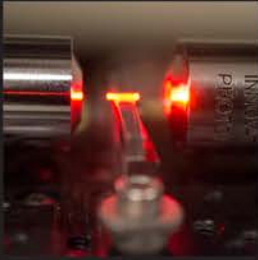
Major Challenges

Having control of UG enrollment to match capacity to provide exceptional education

Convincing the PSU upper administration to significantly increase our permanent budget allocation

Retaining top faculty and academic leadership in an environment of limited resources





Plans for 2016-17



PennState
College of Engineering



Expansion



Infrastructure



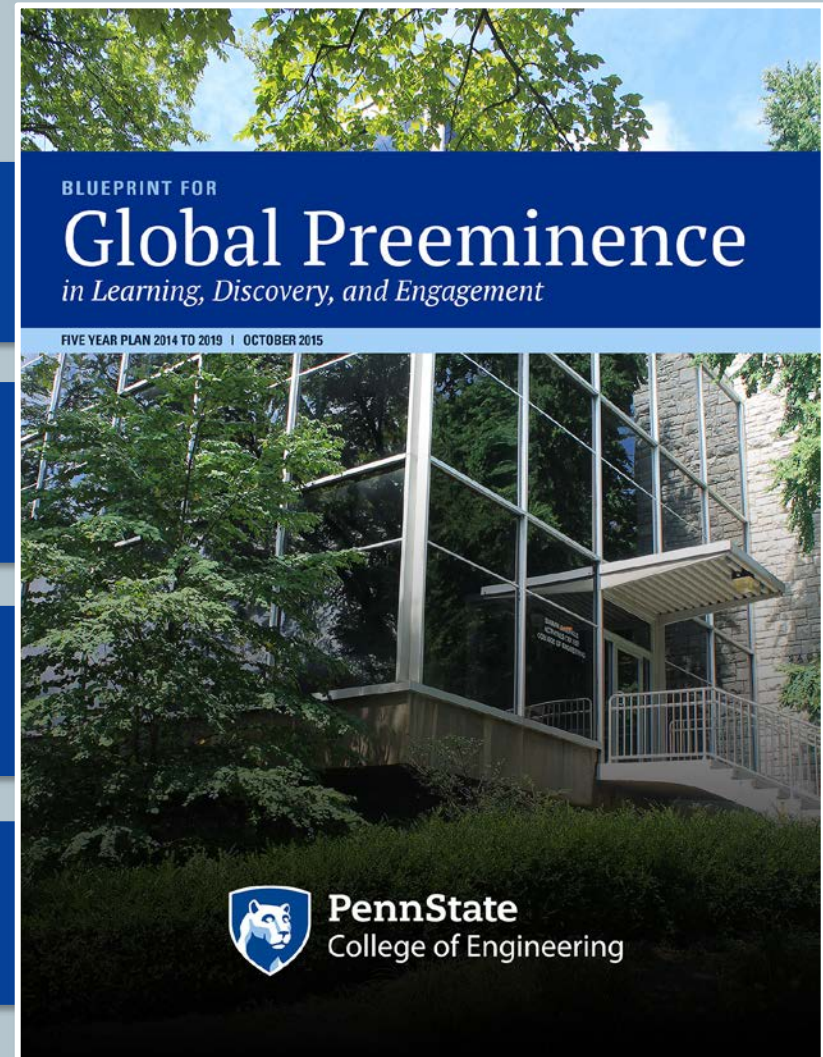
Faculty/Staff



Entrance to Major



Project-based Learning



PennState
College of Engineering

Expansion

Establish ambitious
fundraising goals

Expand corporate
engagement

Improve diversity profile
and inclusion

Strengthen Existing and
create new MS/MEng



