John Mitchell
Industrial Liaison Officer

creating connections for our industry partners
People
~ 92,000 students
~ 16,000 graduate students

Programs
> 150 undergraduate majors
> 75 doctoral programs
$2+ billion total revenue
$350M state support (<20%)

Research
$350M total awards (research, gifts)
Looking to grow to $700M by 2020
19,076 fall 2015 enrollment

2,801 first-time freshmen fall 2015

3,076 degrees granted 2014–2015

30% of Barrett, the Honors College students are in the Fulton Schools
We are leading **critical national initiatives**

**QESST NSF-DOE Engineering Research Center** with partners MIT, Caltech, Georgia Tech and others

**CBBG NSF Engineering Research Center** with partners Georgia Tech, New Mexico State and UC Davis

**Partner on Rice University-led NEWT NSF Engineering Research Center** with Yale and UTEP

**Five NSF I/UCRCs** (Industry/University Cooperative Research Programs): PSERC, Connection One, SenSIP, WET, and Center for Embedded Systems

**Two NSF IGERTs** (Integrative Graduate Education and Research Traineeship)

**Six MURI awards** (Multidisciplinary University Research Initiatives); 11 total since FY2005

**$18 million from USAID** to establish the Partnership Center for Advanced Studies in Energy (PCASE) to improve power production in Pakistan

**HEEAP, Higher Engineering Education Alliance Program** (Intel, Siemens) $20M cash and more than $50M in-kind donations by academic, government and industry partners

**20 young investigator awards** from NSF CAREER, AFOSR YIP, DARPA YFA, and NIH Directors/Development over the past two years

Get our latest news: fullcircle.asu.edu
**Scholarships:** build brand awareness with students

**Capstones and eProjects:**
Teams of students working on industry challenges

**Co-ops:** students get credit for internship at your company; eases academic to work transition; offer workforce development, economic resources

**Research consortia:** graduate students and postdocs working on industry challenges in robust multi-university, multi-company environments; training of the country’s next generation technology and thought leaders

**student engagement**
laboratory access: many laboratories are made available for use by the public at competitive rates

research center membership

-sponsored research

IP licensing

industry research

sharedresources.asu.edu
20+ years experience professional development programs
2,000+ graduate students enrolled annually into 150 online courses across 13 degree programs
500+ professionals trained annually through online and via campus-based and custom non-credit programs

Flexible delivery: online, accelerated and blended formats

extended education
Corporate brand awareness for improved recruiting and student access

Can be as small as a sponsored lunch or as large as sponsoring a career night
Perfect Storm

student engagement  research  extended education  development

First Solar®
Member engagement

Sustainability and CdTe projects
new efficiency record

Four year commitment

Co-author papers

Donated 1000 modules

Solar Energy Engineering & Commercialization

Academic Advisory Board member

20+ alumni from the program

Dr. Vasileska
QESST Faculty

Dwarak Rav.
QESST Scholar
Key Components

Research  Industry  Education
Students  Engagement  Joint Proposals
Partner Universities  Faculty  Innovation
Workshops
Industry engagement pathways

Level of engagement, rights

Investment

- No IP implications
- Recharge Centers
- Non exclusive IP rights
- Center membership
- Sponsored Research
- Exclusivity
- Exclusivity or assignment
- IP licensing
Industry engagement pathways

Level of engagement, rights

- Sharedresources.asu.edu
- Centers.asu.edu
- Recharge Centers
- Center membership
- Sponsored Research
- Azte.com
- IP licensing

Investment
IAB meetings

Feedback
research
student presentations
(technical and style)
Thrust / testbed alignment
Open floor for students
career questions
SWOT analysis
Poster sessions
Tours
Project reviews

Individual projects are reviewed by one company per project typically once per month.
Research Agenda

Rank and provide feedback annually on all proposed projects (faculty and member)
Mentor program

One student – one IAB mentor
monthly meetings
Semi monthly webinars

Wide variety of center/industry related topics
industry, student, faculty topics
new breakthroughs
SLC updates
Social Media

Best practices workshops
Where are they now

Eva Pettinato
Aerospace Engineer at Orbital ATK
Phoenix, Arizona | Aviation & Aerospace
Current: Orbital ATK, Self-Employed
Previous: Arizona State University, Arizona Science Centre
Education: Arizona State University – AIA A Futuro Scholars
Send a message | Endorse

Guy Pickett
Process Engineer at Alta Devices
San Francisco Bay Area | Semiconductors
Previous: Arizona State University, Applied Materials, United States Marine Corps
Education: Arizona State University

Akhil Mehrotra
Process Engineer at Applied Materials
Sunnyvale, California | Semiconductors
Previous: University of Houston
Education: University of Houston

Tim Redlitz
Application Engineer at Applied Materials
Tempe, Arizona | Semiconductors
Previous: Applied Materials, Thin Film Engineering
Education: Arizona State University

Chloe Fabien
Nanomaterials and Vacuum Engineered Materials
Greater Seattle Area | Nanotechnology
Previous: Georgia Institute of Technology
Education: Georgia Institute of Technology

Priyaranga Koswatta
Research Assistant
Tempe, Arizona | Semiconductors
Current: Arizona State University
Previous: Applied Materials, Sri Lanka Institute of Information Technology, Purdue University
Education: Arizona State University

Junli Li
DER Consultant at ICF International
Washington, D.C. | Oil & Gas
Current: ICF International, Mid-Atlantic Industrial Assessment Center
Previous: Environmental Defense Fund, Center for Energy and Environmental Policy, University of Delaware, Foundation for Renewable Energy and Environment
Education: University of Delaware

Matthew Erdman
Graduate Technical Intern at Sandia National Laboratories
Rio Rancho, New Mexico | Semiconductors
Current: Sandia National Laboratories, University of New Mexico
Previous: Arizona State University, 310 Solar LLC
Education: The University of New Mexico

Sergio Castellanos
Energy Fellow at Berkeley Energy & Climate Institute
San Francisco Bay Area | Renewables & Environment
Current: Berkeley Energy & Climate Institute – ITESM
Previous: Massachusetts Institute of Technology (MIT), St. Enegia (SENER) – Mexican Secretariat of Energy Advocates & Engineers, Inc
Education: Massachusetts Institute of Technology

Nicole Kotulak
NRC Postdoctoral Associate at Naval Research Laboratory
Washington, D.C | Defense
Current: Naval Research Laboratory
Previous: University of Maryland
Education: University of Maryland

Stephanie Scott
Mechanical Design Engineer at Apple
San Francisco Bay Area | Mechanical or Industrial Engineering
Previous: MIT, PARC, CARES Project (Community Assessment Resources for Energy Sustainability)
Education: MIT

Vivek Sharma
PTD Thin Film Module Engineer at Intel Corporation
Hillsboro, Oregon | Semiconductors
Previous: Solar Power Lab, Arizona State University, TNU (Tamil Nadu University)
Education: Arizona State University

Prateek Garg
Electrical Engineer specializing in Solid State Devices
Hillsboro, Oregon | Electronics/Photonics, Manufacturing
Current: Intel Corporation
Previous: Arizona State University, Qualcomm, Jawaharlal Nehru Centre for Advanced Scientific Research
Education: Arizona State University

Ben Wender
STAR Fellow at US EPA
Tempe, Arizona | Higher Education
Current: US EPA
Previous: Arizona State University
Education: University of Arizona

Shelby Vorndran
Intern at Edmund Optics
Tucson, Arizona | Photonics
Current: Photon Engineering, LLC, The University of Arizona, College of Optical Sciences
Previous: Edmund Optics, University of California, Los Angeles, DelPaul University
Education: University of Arizona

Hal Emmer
Senior Process Engineer at Maxim Integrated
Greater Los Angeles Area | Electrical/Electronic Manufacturing
Current: Maxim Integrated
Previous: IBM, Texas Instruments
Education: California Institute of Technology

Carrie Culp
Engineer II Expansion Planning at MISO
Greater New Orleans Area | Utilities
Current: MISO
Previous: Arizona State University, GE PC, Midwest ISO
Education: Arizona State University
Where are they now in industry

Solar
AltA Devices
First Solar
Gehrlicher Solar
Global Solar Energy
OCI Solar Power
DEPCOM Power
Modern Electron
SunPower
Sunpreme
Solexel
1366 Technology
SolarWorld
Sinton Instruments
Trina Solar
Solar City

Optics
Luminit
Photon Engineering
Edmond Optics
Laser Components
Agril

Materials
Applied Materials
Air Liquide
Heraeus
DuPont

Governmental agency
Sandia
Naval Research Labs

Utility
MISO Energy
SRP

Consulting
Synapse
ICF International

Other
L3 Communications
Omnivision
Orbital ATK
Apple

Semiconductor
Intel
ON Semiconductor
Maxim Integrated
Poster sessions

Soft skills development
NSF and DoE Support

Site visit
Sustainability plan
Associated projects
Member referrals

National Science Foundation Director Dr. France Córdova
Industry Calendar

Activities

- Industry Advisory Board Meeting
- Annual site visit
- Annual 1:1 meetings with individual members
- IAB ranks faculty project proposals
- Mentor program
- Vidyo series 1st and 3rd Monday of each month
- PVSC Conference – student, industry luncheon
- Perfect Pitch

Throughout the year
National Perfect Pitch Winner
Perfect Pitch Winner to Rock star

Radio interview

Headline news

Letter from the mayor

Buenos Dias Canarias
Este orotavense de 28 años ganó un importante concurso científico en Estados Unidos con una investigación sobre energía solar que permitirá reducir los gastos de producción de los paneles en el 30%.
Questions?

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