

E³S Annual Retreat, September 20-21, 2018, Berkeley

Center Management

Michael H. Bartl

Executive Director

Center for Energy Efficient Electronics Science



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Berkeley
UNIVERSITY OF CALIFORNIA

**Massachusetts
Institute of
Technology**

STANFORD
UNIVERSITY

THE UNIVERSITY OF
TEXAS AT EL PASO

FLORIDA
INTERNATIONAL
UNIVERSITY

CALIFORNIA COMMUNITY COLLEGES
CHANCELLOR'S OFFICE

Center for Energy Efficient
Electronics Science



Administrative Team



Eli Yablonovitch
Center Director



Jeffrey Bokor
Deputy Director



Michael Bartl
Executive Director



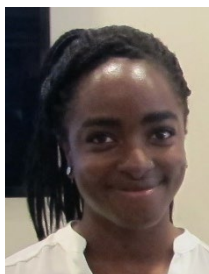
Kedrick Perry
Director of Diversity



Lea Marlor
Assoc. Director of Education



Aine Minihaue
Program Coordinator



Ashley Kermah
Program Assistant



Kimberly Fountain
Program Assistant



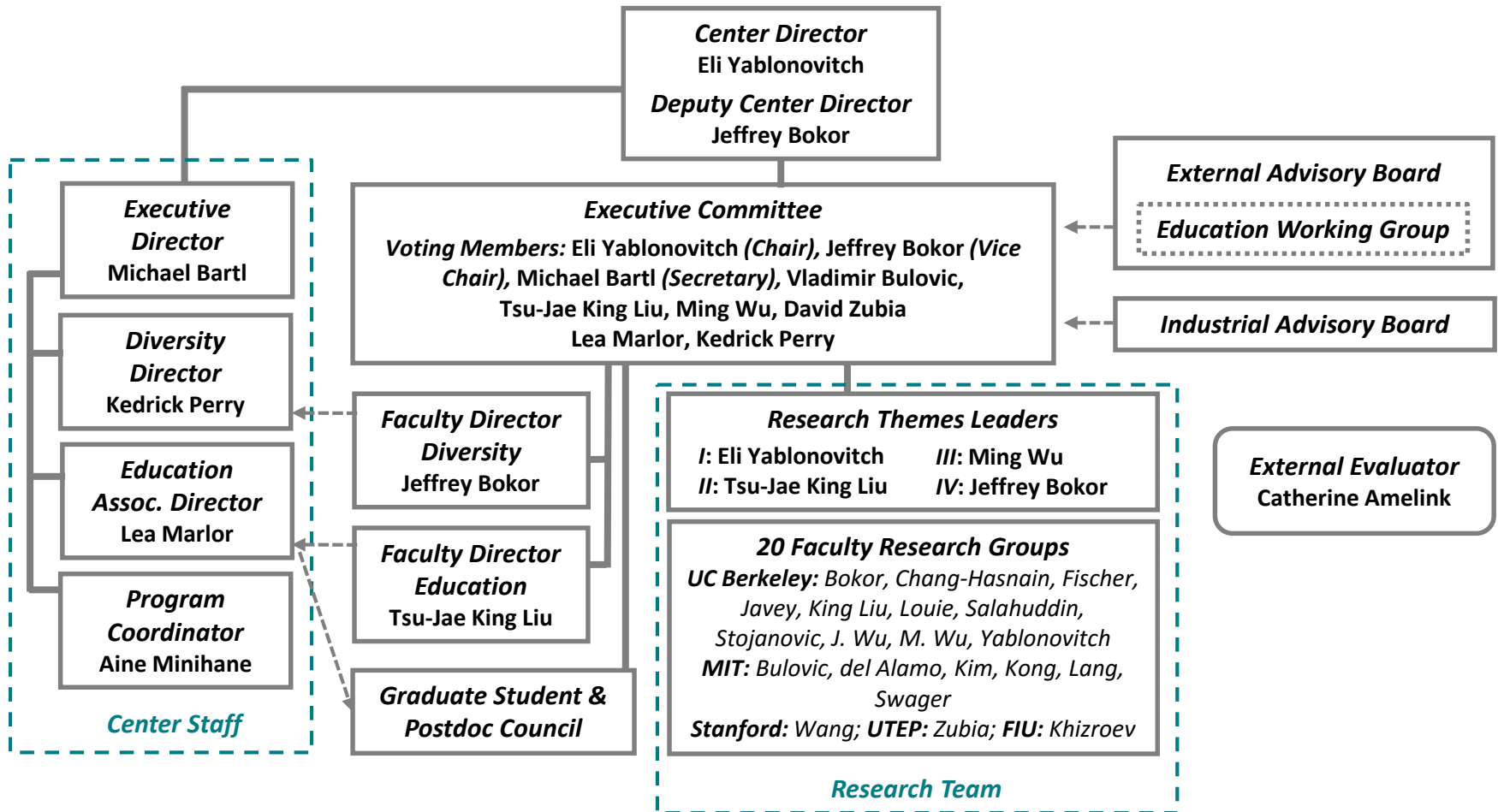
Charlotte Jones
Admin. Assistant



Catherine Amelink
External Evaluator



E³S Organizational Chart



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Page 3



Annual Survey on Center Leadership Students/Postdocs and Faculty

	Students/PDs	Faculty
Inclusiveness	4.5	4.8
Teamwork/Collaboration	4.3	4.8
Open and timely communications	4.5	4.8
Agility/Decision Making	4.4	4.8
Focus on Performance	4.2	4.7

Sample size

24

18

Likert Scale: 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree



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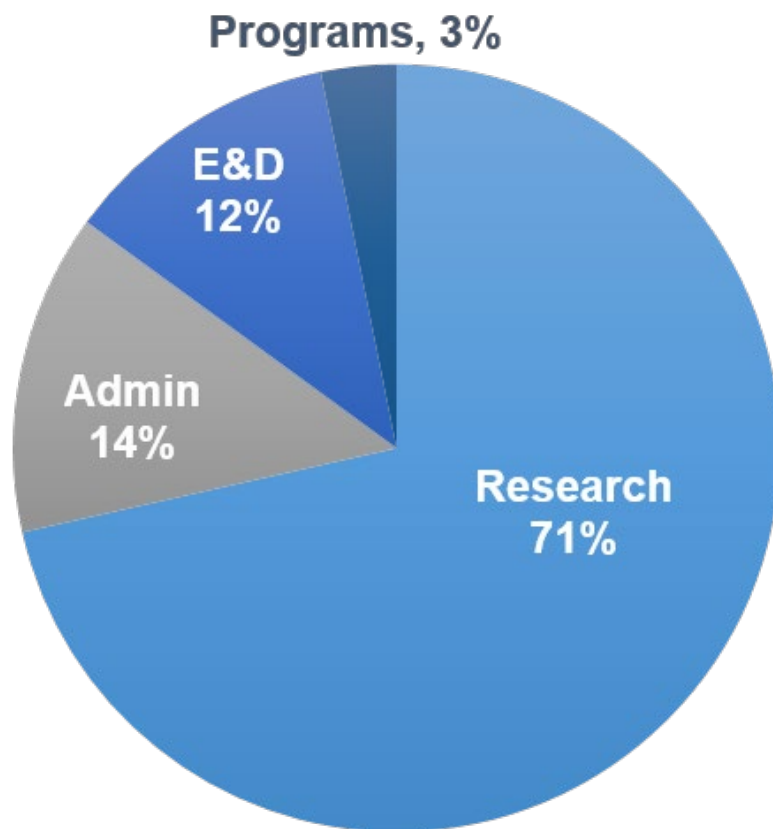
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Page 4

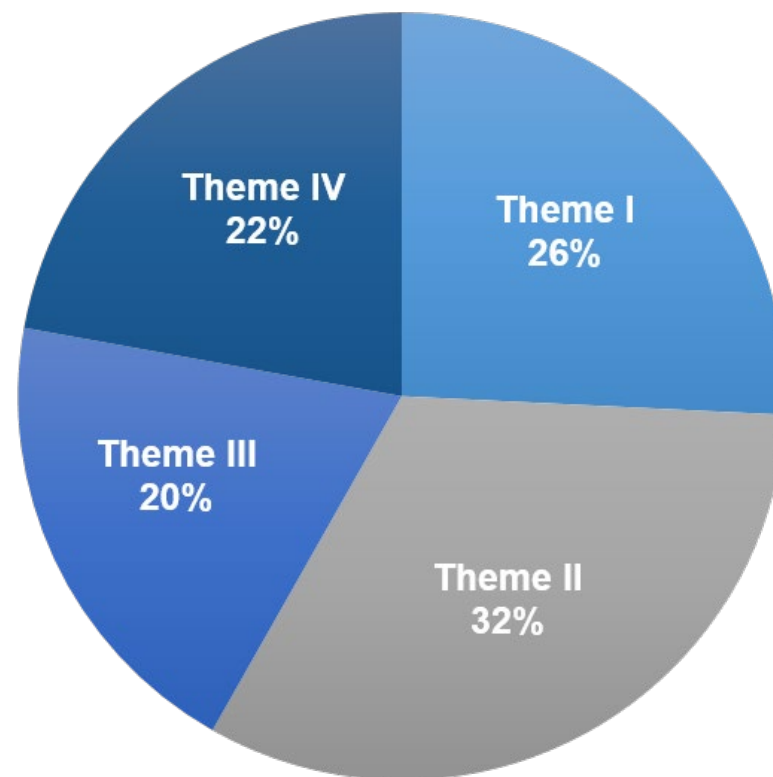


Center for Energy Efficient
Electronics Science

Center Budget for Period 9 (3/2018—2/2019)



Total Budget: \$5.36M



Research: \$3.81M



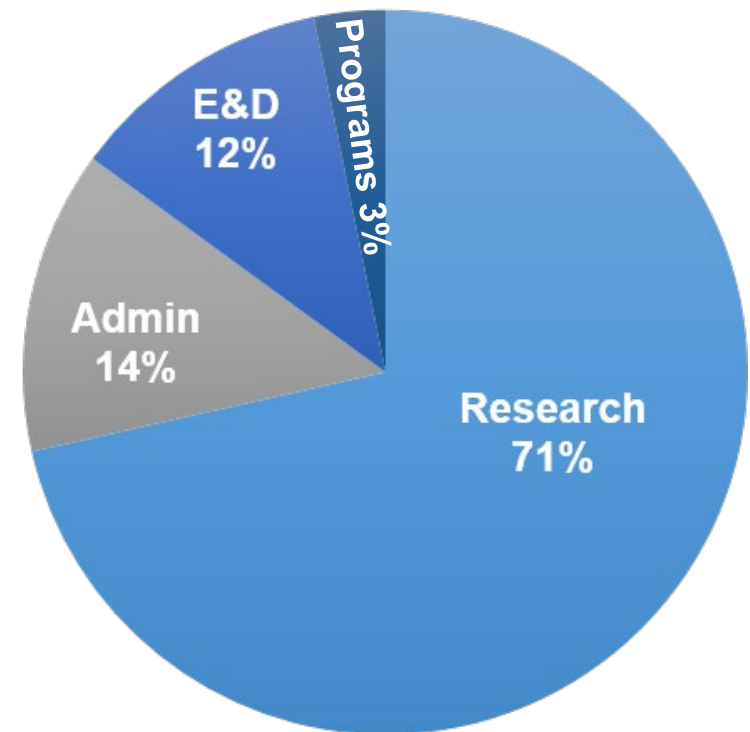
Continued Funding for Multi-Institutional Programs

➤ Graduate Student & Postdoc Rotation Program

- ❑ 2 participants this year: Edgar Acosta and Aldo Vidana (UTEP)
- ❑ Plan to keep running also next period

➤ Inter-Institutional Postdoc Program

- ❑ One inter-institutional postdoc per Theme (additional hire)
- ❑ Funded by Center reserve funds
- ❑ Must stay in at least two different E³S institutions
- ❑ Publications should have PIs from at least two E³S institutions



Period 8 and 9 Budgets: ~\$5.4M



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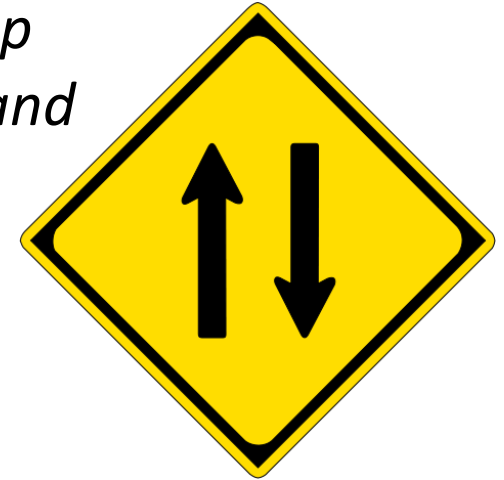
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Page 6

Knowledge Transfer at E³S: A Two-Way Street

The goal of the Center for E³S, is to both develop novel, highly efficient electronic technologies, and engage stakeholders of various science and engineering disciplines and at different educational levels to participate in these new opportunities.



At E³S knowledge transfer happens at two levels:

- 1) Knowledge transfer within the Center's main partners as a cross-fertilization of ideas and projects.
- 2) Knowledge transfer throughout the technology and education ecosystem in which the Center participates.



Main Areas of Knowledge Transfer at E³S

Publications

**Industry
Interactions**

Conferences

**Students and
Postdocs**



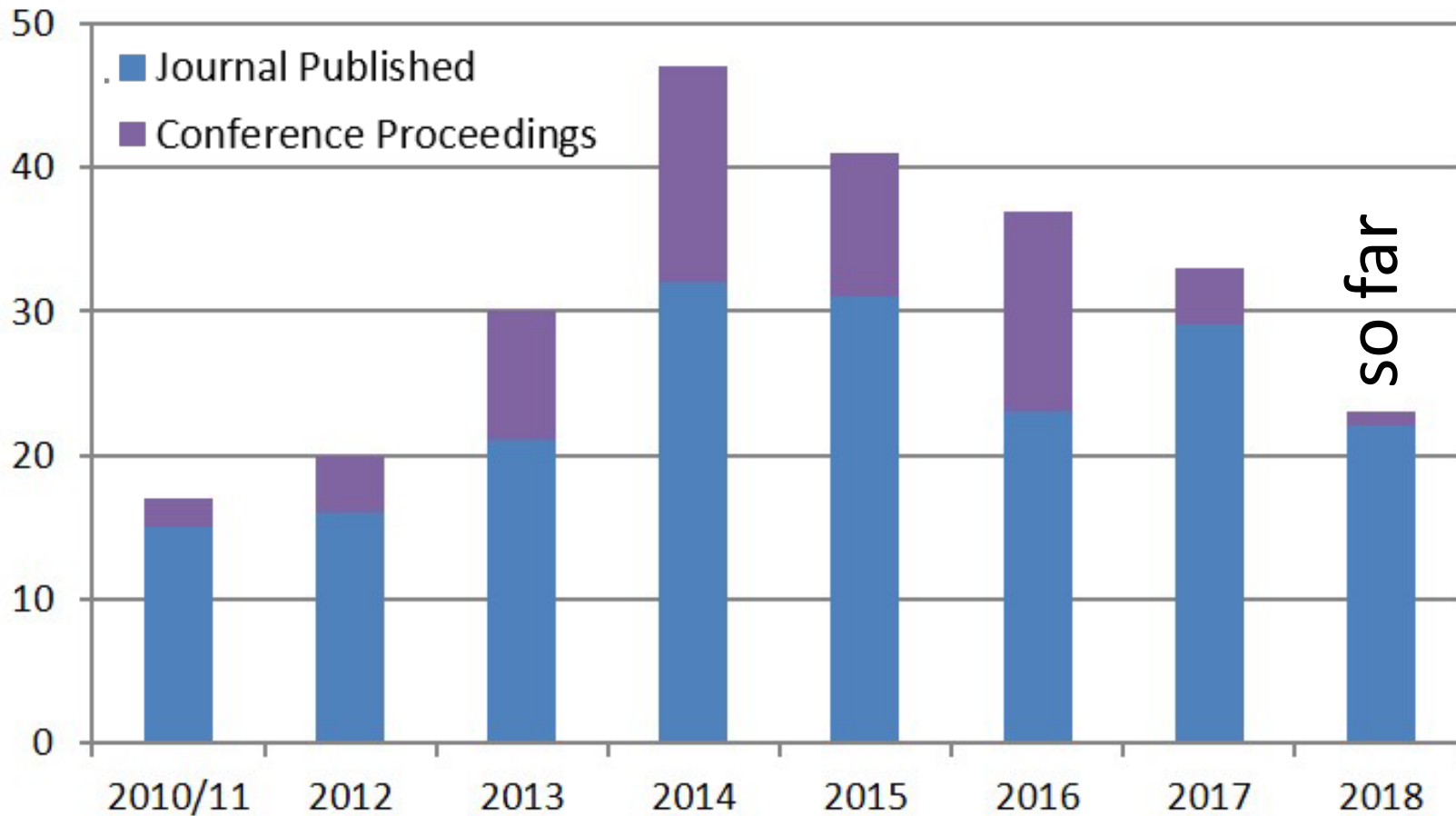
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2018 E³S Annual Retreat

Page 8

Center Publications



11/1/2018

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Page 9

Center Publications

2018 (*so far*)

Total: 23

Multi-PI papers: 8

Multi-Institutional papers: 4

Cumulative:

Papers: 248



E³S Data Management Plan: *Publications*

The smallest common denominator across all major publishers is that authors are allowed to post their **submitted manuscript** on their/institutional websites.

E3S staff has started to work with Center investigators in preparing and posting submitted manuscript versions, including *a cover page with explanation/disclaimer, required publisher information, and link to request published version of manuscript.*



Main Areas of Knowledge Transfer at E³S

Publications

**Industry
Interactions**

Conferences

**Students and
Postdocs**



11/1/2018

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Page 12



5th Berkeley Symposium on Energy Efficient Electronic Systems & Steep Transistors Workshop



October 19-20, 2017
Banatao Auditorium, Sutardja Dai Hall
University of California, Berkeley

2018 EES Annual Retreat



11/1/2018

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Page 13



Center for Energy Efficient
Electronics Science

5th Berkeley Symposium on Energy Efficient Electronics

*Combined with Steep Transistor Workshop
Partnership with IEEE S3S Conference*

➤ 134 Attendees from 8 different countries

- ❑ 77 outside attendees
- ❑ 21 industry attendees

➤ 60 Presentations

- ❑ 27 oral presentations
- ❑ 33 poster presentations
- ❑ E3S: 6 talks; 16 posters



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Page 14

2018 NSF STC DIRECTORS MEETING

August 21-22, 2018



Engaging Diverse Audiences: Broadening Participation Through Science Communication



11/1/2018

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Page 15



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Electronics Science

2018 STC Directors Meeting

125 Attendees

- 5 NSF program directors
- Leadership of all 12 current STCs

Selected speakers:

- Nsikan Akpan (PBS NewsHour)
- Peter Aldhous (BuzzFeed News)
- Seth Shostak (Director for SETI Center Research)
- Caleb Cheung (Chabot Space and Science Center)
- Jennifer Frazier (San Francisco Exploratorium)
- Carol Lynn Alpert (Boston Museum of Science)

Student/postdoc workshops and training

- \$30k travel grant from NSF

Private tour of Exploratorium



Upcoming Events

- EAB Meeting: October 17, 2018
- NSF Site Visit: January 15-16, 2019 (at Berkeley)
- 6th Berkeley Symposium on Energy Efficient Electronics
October 2019



Main Areas of Knowledge Transfer at E³S

Publications

**Industry
Interactions**

Conferences

**Students and
Postdocs**



11/1/2018

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2018 E³S Annual Retreat

Page 18



Students and Postdocs

“Make them the best possible ambassadors for our Center”

➤ Education and Diversity Team

- ❑ Prepare students for their future careers
- ❑ Leadership Certificate

➤ Student & Postdoc Council

- ❑ Annual retreat activities
- ❑ Select seminar speakers

➤ E³S Blog Site

➤ E³S e-Book

- ❑ Senior high-school level
- ❑ Hosted on nanoHub.org



11/1/2018

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2018 E3S Annual Retreat

Page 19

Knowledge Transfer

Publications

Cumulative

Published: 248

2018 (so far)

Published: 23

Multi-Institutional: 4

Industry Interactions

Applied Materials, HPE,
IBM, Intel, Lam Research

“Spin-off” applications

Conferences



Students and Postdocs

Transfer to Industry:

- 4 students, 3 postdoc

Transfer to Academia:

- 7 students, 2 postdocs



11/1/2018

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Page 20



11/1/2018

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Page 21



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E³S – At a Glance

Research & Education Partners

UC Berkeley

MIT

Stanford

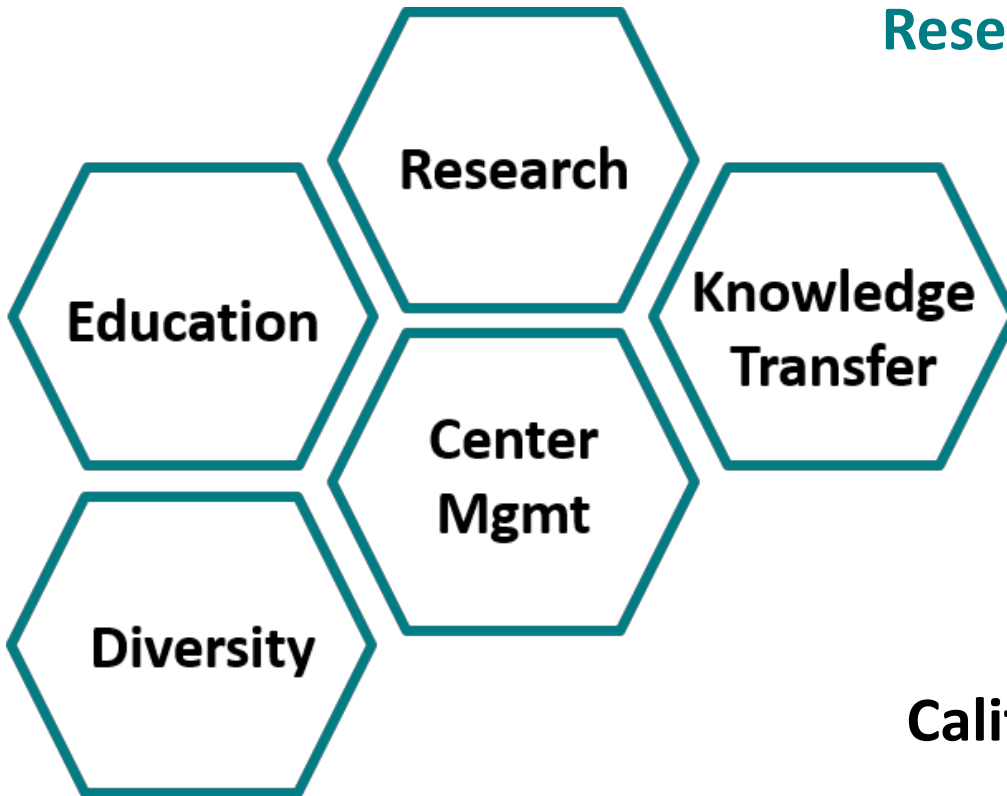
UT El Paso

Florida International U

California Community Colleges

Industry Partners

Applied Materials, HP Enterprise, IBM, Intel, Lam Research



11/1/2018

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2018 E3S Annual Retreat

Page 22