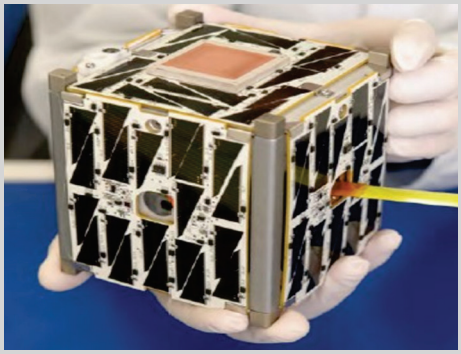
EPSCoR FUNDING IMPACT IN ALABAMA

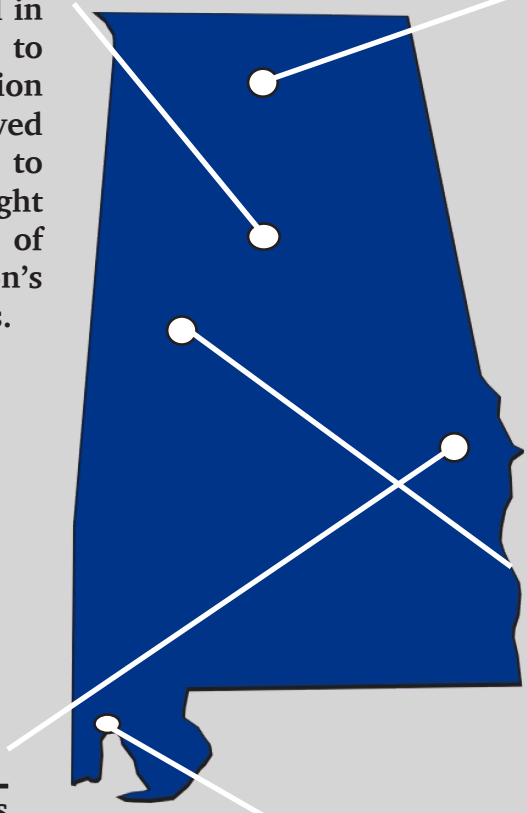
Health

- UAB researchers are involved in NSF EPSCoR funded studies to better understand the initiation of brain seizures for improved epilepsy treatment and to control brain cells using light to grow our understanding of Alzheimer's disease, Parkinson's disease and anxiety disorders.



Space

- NASA EPSCoR researchers at Auburn are investigating ways to refine the CubeSat (the 10 cm cube/satellite transmitter shown above) by improving signal strength and bandwidth for unmanned exploration in deep space.



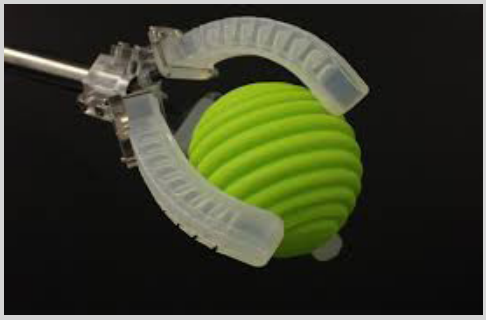
42
GRSP funded students FY19

$14M
in new EPSCoR awards FY19

Alabama State University
joins ALEPSCoR 2018

Plasma Science

- A group of AAMU and UAH researchers are investigating new plasma technologies for water purification, food treatment, enhanced plant growth and medical equipment disinfection.



Engineering

- UA NSF EPSCoR researchers are developing soft material exoskeletons and sensors for rehabilitation robots (shown above), which could lead to enhancing life and reducing rehabilitation cost for individuals who suffer from paralysis, stroke, and spinal cord injuries.

Energy

- DOE EPSCoR researchers at USA are investigating ionic liquid separation techniques to decrease power requirements and energy usage in the chemical industry.

Workforce Development

The state-funded Alabama EPSCoR Graduate Research Scholars Program (GRSP) supports graduate students pursuing both MS and PhD degrees doing EPSCoR related research. As of December 2019 more than 300 students have been recipients of 549 awards. This has led to the achievement of 187 PhDs and 65 Masters degrees since its inception in 2006.

COMMERCIALIZATION & NEW INTERACTIVE MAP

Team with Department of Commerce

- Find where cutting edge research is being performed
- Locate potential enterprise zones

Researchers

- Find potential collaborators
- Locate research being conducted at Alabama institutions

Alabama Legislature

- Locate research being conducted in a Congressional District
- Pinpoint research priorities

Business/ Business Leaders

- Find recent graduates in specialized areas
- Testing / prototyping facilities
- Find consultants

Students

- Find professors/ mentors with desired expertise/ research focus

Outreach

On April 3-4, 2019, the Annual Science and Technology Open House (STOH) was hosted by the NSF CPU2AL (Connecting Plasma Universe to Alabama) Track 1 program and Alabama EPSCoR. It included over 100 posters from graduate and undergraduate students. Over 200 students (K-12) were introduced to research activities and participated in hands-on demonstrations at the Gulf Coast Exploreum Science Center.

Commercialization

Alabama EPSCoR researchers have a record of taking research to commercial production. Alabama EPSCoR is working closely with the Department of Commerce to showcase research in the state by the Interactive Map, available on alepscor.org, and collaborating with members of the Economic Development Association of Alabama.

Alabama EPSCoR Award History FY2009-FY2019

Agency	Type of Award	QTY	Awards
NSF	Infrastructure (Tracks 1, 2, 3 and 4)	23	52M
	Co-funding (EPSCoR and Directorate)	178	84.5M
DOE	Early Career	3	2.25M
	other	2	745K
	Implementation Grant	3	4.9M
	State Lab Partnership	3	1.55M
NASA	Cooperative Agreement Notice (CAN)	7	2.5M
	Research Infrastructure Development (RID)	6	1.3M
	EPSCoR International Space Station (ISS)	1	300K
	NASA Rapid Response Research (R3)	4	400K
USDA	Strengthening	35	15.4M
		265	$ 166M