

FOCUS CENTER RESEARCH PROGRAM: GOVERNMENT-INDUSTRY SUPPORT FOR UNIVERSITY RESEARCH

In 1997, the Department of Defense (DOD) and the U.S. semiconductor industries launched the Focus Center Research Program (FCRP) to jointly fund university research to advance semiconductor technology. By focusing on mid- to long-term research projects of greatest interest to DOD and industry, FCRP is a key to maintaining America's leadership in industries vital to U.S. prosperity and security.

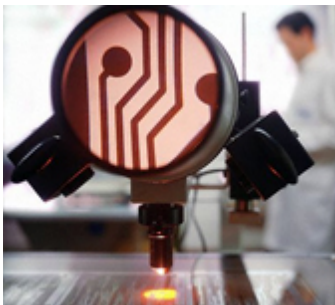
FCRP = A Public-Private Partnership

The FCRP is overseen by the Defense Advanced Research Projects Agency (DARPA) and administered by the Semiconductor Research Corporation (SRC). FCRP invests approximately **\$20 million in Defense Department annual funding coupled with a \$20 million industry match**. All funds go directly to the universities conducting the research.

FCRP funds select research projects at five multi-university centers involving 41 universities, more than 260 research professors and more than 500 graduate students. The centers are selected jointly by DOD and industry through a competitive, merit-based process. The industry match underscores the value of the program, as very few DOD basic research programs are fully matched by industry. An ever-growing number of Congressional champions and DOD officials uphold the FCRP as a "model" that should be replicated.

FCRP Benefits

Our armed forces rely on semiconductors for state-of-the-art communications, navigation, and weaponry. Maintaining our warfighters' technological advantage requires continued advances in semiconductor research. In the past ten years, the FCRP has



generated over 3,300 published papers, nearly 200 patent disclosures, and research results that have been incorporated into other DARPA programs. Graduate students performing FCRP research go on to be recognized leaders in science and engineering in government, industry and academia.

Beyond their military applications, technologies developed under FCRP hold tremendous potential for semiconductor-driven solutions to America's energy, health care, and education challenges.

Continuing FCRP's Success: Action Requested

Congress should again provide for \$20 million in total government funding to match the commitment of the semiconductor industry. This funding is critical to advancing semiconductor technology in particular and U.S. innovation and competitiveness more broadly.

FCRP research is underway in:

- Arizona
- California
- Florida
- Georgia
- Illinois
- Indiana
- Massachusetts
- Michigan
- Minnesota
- New Jersey
- New York
- North Carolina
- Oregon
- Pennsylvania
- Texas
- Virginia
- Washington
- Wisconsin

In the past ten years, FCRP has resulted in:

- 3,300 papers
- Nearly 200 patents

FOCUS CENTER RESEARCH PROGRAM – PARTICIPATING COLLEGES AND UNIVERSITIES

University Participants	Gigascale Silicon Research Center (GSRC)	Interconnections for Hyperintegration Center (IFC)	Focus Center on Materials, Structures, and Devices (MSD)	Center for Circuits and Systems Solutions (C2S2)	Functional Engineered Nano Architectonics (FENA)
Arizona State University	•	•	•	•	
California Institute of Technology		•	•	•	•
<i>Carnegie Mellon University</i>	•			*	•
Columbia University	•	•		•	•
Cornell University		•	•	•	
<i>Georgia Tech</i>	•	*		•	
Harvard University				•	
<i>MIT</i>	•	•	*	•	
New York University					•
North Carolina State University				•	•
Northwestern					•
Pennsylvania State University	•				
Portland State University					•
Princeton University	•	•			
Purdue University	•		•	•	
Rice University		•			
Rensselaer Polytechnic Institute		•			
Stanford University	•	•	•	•	•
SUNY – Albany		•	•		
SUNY – Stony Brook					•
Texas A&M				•	
<i>U.C. Berkeley</i>	*	•	•	•	
U.C. Davis		•			•
U.C. Irvine	•				
<i>UCLA</i>	•		•	•	*
U.C. Riverside		•			•
U.C. San Diego	•		•		
U.C. Santa Barbara	•		•	•	•
U.C. Santa Cruz		•			
University of Florida		•		•	
University of Illinois – Urbana Champaign	•		•	•	
University of Massachusetts			•		•
University of Michigan	•				
University of Minnesota	•				•
Univrsiy of Southern California					•
University of North Texas		•			
University of Texas – Austin	•		•	•	
University of Texas – Dallas			•		
University Of Virginia		•		•	
University of Washington	•				
University of Wisconsin					•

*Lead Focus Center 1/22/2009