

Exhibit R-2a, RDT&E Project Justification						Date: February 2003		
Appropriation/Budget Activity RDT&E/Defense Wide BA 1				Project Name and Number Government/Industry Co-sponsorship of University Research PE 601111D8Z				
Cost (\$ in millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
GICUR/P111	9.195	8.903	0.000	0.000	0.000	0.000	0.000	0.000
A. Mission Description and Budget Item Justification:								
<p>A shared commitment between industry and Government continues created via the Government/Industry Co-sponsorship of University Research (GICUR) program. It capitalizes on university-based research, education and training in technologies of strategic importance to national defense and also to industry. It provides an emphasis on ground-breaking research with a long-term horizon, and education and training in selected research areas which are vital to advancement of technologies. The commitment is a jointly formed pool of funding and a shared management structure for sponsoring this sort of long-term basic research at universities. This will provide the military with leading-edge technologies as well as reducing vulnerabilities of industries involved, increase long-term technical growth in these areas, infuse new ideas and approaches, all of which are important for national security. Industry and government share responsibility for research focus area selection and overall direction. Mechanisms are established for personnel exchange and interactions to provide for continuing education of highly qualified researchers already working in leading edge and emerging S&T. One of the areas emphasizes basic concepts for DoD needs in high frequency applications such as radars, millimeter/ microwave communications and radiometry, with special attention to devices fabricated from compound semiconductors, such as gallium arsenide.</p> <p>Program ends in FY2003.</p>								
B. Accomplishments/Planned Program								
	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>				
GICUR/P111	9.195	8.903	0.000	0.000				
<u>(U) FY 2002 Accomplishments:</u>								
<p>(U) In cooperation with the Microelectronics Advanced Research Corporation (MARCO) the Semiconductor Electronics Microelectronics project funded four university research centers. The University of California at Berkley lead a team of 14 other universities performing research into "Design and Test" technologies for the Giga-scale semiconductor integrated circuits. Georgia Tech lead a team of six universities for research into "Interconnect" technologies to solve the impending materials, processes, and architecture challenges in connecting billions of devices. Two new Focus Research Centers had been initiated in FY2001. The "Materials, Structures and Devices" Center was led by MIT and involved 9 other major research universities and focused on sub- 10 –nanometer silicon-based FETS, silicon-based quantum effect devices, molecular and organic semiconductor electronics, nanotube electronics and modeling and simulation. The new "Circuits, Systems and Software" Centers was led by Carnegie Mellon University and involved 9 other major research universities. The Center's research focused on the analysis and synthesis of analog and analog/mixed signal circuits, explored novel system level technologies and sought software solutions and workarounds for the deep submicron CMOS process limitations. Under MARCO the electronics Industry provided at least three dollars for each dollar provided by DoD. GICUR program funding ends in FY 2003.</p>								
<u>(U) FY 2003 Plans:</u>								
<p>(U) Complete the Semiconductor Electronics Microelectronics technology projects funded at 2 university centers. Continue support for the 2 new research centers.</p>								