CENTER FOR INFORMATION TECHNOLOGY RESEARCH IN THE INTEREST OF SOCIETY

CITRIS

4
UC CAMPUSES
MULTIDISCIPLINARY
RESEARCH

WORKING FOR CALIFORNIANS TO CREATE CLEAN ENERGY, EQUITABLE HEALTH CARE, PLENTIFUL WATER, CLEANER AIR, AND LIVABLE EFFICIENT CITIES

$95-$115
MILLION
RESEARCH
INCOME

EACH YEAR
LEVERAGED FROM $4.8M FUNDS
FROM UCOP

800+
CALIFORNIA
TELEHEALTH
CARE FACILITIES

—MANY IN UNDERSERVED AND RURAL REGIONS—SOON TO BE REACHED BY THE CALIFORNIA TELEHEALTH NETWORK, A STATEWIDE TESTBED FOR NEW SERVICES AND TECHNOLOGY THAT CAN BE DELIVERED OVER THE NETWORK

$60+
MILLION
NANOFABRICATION
LABORATORY

FOR PROTOTYPING NEXT-
GENERATION DEVICES
WITH A COMPLETE SET
OF MICRO- AND NANO-
FABRICATION TOOLS

Title-24
ENERGY
REGULATIONS

MAY REQUIRE CITRIS'S
UPGRADABLE SETBACK
THERMOSTATS
IN RESIDENCES

51
START-UP
COMPANIES

FORMED
BY THE ECOSYSTEM
OF CITRIS/MARVELL
NANOFABRICATION
LABORATORY

CITRIS, one of the Governor Gray Davis Institutes for Science and Innovation, was established in 2001 with investment from the State and from a number of generous private and corporate sponsors. The institute is a collaboration among the University of California campuses at Berkeley, Davis (including its Medical Center campus in Sacramento), Merced and Santa Cruz.

CITRIS is a multi-disciplinary institute with engineers working with researchers from a wide range of disciplines, including medicine, public health, law, art, economics and social science.

An important component of CITRIS's success has been the close working relationships it has with major state and federal bodies, including the California Energy Commission, the U.S. Department of State and the Federal Communications Commission. CITRIS also has major collaborations with researchers in other parts of the world, including Denmark, France and Germany.

CITRIS research is focused on **4** major initiatives that promise to bring significant benefits to California, to the U.S. and to the world.

1 **Delivering Quality Health Care Everywhere for Californians**

There are significant differences in health resources and outcomes across different regions and population groups in California. The mission of this initiative is to improve access and reduce disparities in health care across California, by creating a statewide, trusted "medical grade" network that will enable providers in more remote parts of the state to access the providers and resources found in the major population centers. The California Telehealth Network (CTN), developed by researchers at UC Davis, is the core platform to link some 863 hospitals, clinics and public health providers across the state. The CITRIS program is supporting the development of cutting-edge new applications and services that will expand CTN's capacity and improve its performance over time.
http://health.citris-uc.org

2 Intelligent Infrastructure: Water, Transportation, Cities

California faces a serious, multi-faceted water crisis: overdrafting of aquifers, early snowmelt causing floods, and the potential catastrophic failure of the Sacramento-San Joaquin River Delta levees, which would result in the poisoning of Southern California's water supply with salt from the San Francisco Bay. This initiative, the first of a series that relate to the sustainability and adaptability of California's urban communities, will create a state-wide information 'infrastructure' that will enable the better management of the state's limited water resources and save California money by averting the need for new water storage facilities.

http://infrastructure.citris-uc.org

3 i4Energy: IT, Sensors, and Controls for Stable and Sustainable Energy

CITRIS's research in energy supports the development of technologies that will enable the potential of the Smart Grid to be realized. California and the country need cleaner industries, more efficient buildings and transportation, more renewable energy, and a smarter grid to integrate the demand-side of the U.S. energy equation. CITRIS has teamed up with the Lawrence Berkeley National Laboratory and the California Institute for Energy and Environment to create i4Energy, which focuses on three key areas: (1) integrated sensors—prototyped in the $60M+ Marvell Nanofabrication Lab—to communicate vast amounts of real-time information; (2) data management to gather, process, and direct information; and (3) advanced controls to act on the information, increasing the productivity and sustainability of energy systems.

http://energy.citris-uc.org

4 Data and Democracy

The CITRIS Data and Democracy Initiative (DDI) develops tools to support dynamic relationships between digital media and democratic practices, such as the use of innovative mobile, Internet and social media applications, to facilitate online deliberation, participatory decisionmaking, and rapid mobilization. DDI seeks to enhance individual and collective awareness, understanding, and engagement for people of diverse backgrounds on critical social, political, and economic issues.

http://democracy.citris-uc.org