# Florida International University

## The University and Its International Mission

Florida International University (FIU) is one of America's fastest-growing universities. Since opening in 1972, FIU has achieved benchmarks of excellence that have taken other universities more than a century to reach. FIU is a top-rated research university offering a diverse selection of undergraduate, graduate, and professional programs. Through its 16 colleges and schools, FIU offers baccalaureate, master's, and doctoral degree programs in more than 280 majors. FIU has a strong faculty known for their outstanding teaching and cutting-edge research, students from throughout the United States and 110 foreign countries, and alumni who have risen to prominence in every field and are a testament to the University's academic excellence. FIU currently has more than 31,000 students, 1,300 faculty, and 80,000 alumni, making it the largest public university in South Florida.

As a U.S. academic institution, FIU has distinguished itself by achieving several notable benchmarks in only 29 years of operation. FIU is ranked by the Carnegie Foundation as a Doctoral/Research University-Extensive institution — a distinction shared by only 100 public universities in the United States. FIU graduates the largest number of Hispanic undergraduates and master's students of any U.S. institution and ranks third in the nation in graduating minorities as a whole.

FIU's mission statement includes a commitment to promote international understanding and education. Numerous centers and interdisciplinary institutes at the University conduct research and activities with an international scope. FIU's location in Miami makes Latin America and the Caribbean its natural focus. FIU's Latin American and Caribbean Center houses centers specializing in the Summit of the Americas process, Cuban research, Florida-Mexico issues, and Colombian studies. Another sister organization is the Center for International Business Education and Research (CIBER). CIBER's programs incorporate teaching, research, and outreach initiatives designed to help the academic, business, and governmental communities operate effectively in the international business environment.

These centers constitute a great resource for the Hemispheric Center for Environmental Technology (HCET) at FIU, providing it with more than 200 affiliated faculty whose expertise spans a diverse range of disciplines, including economics, political science, history, sociology, anthropology, public and educational administration, criminal justice, business, engineering, geology, and environmental studies.

## The Hemispheric Center for Environmental Technology at FIU

HCET's international environmental objectives provide a base for launching activities, goals, and potential partnerships that can be instrumental in developing and transferring technology and expertise to foster sustainable development throughout the Americas. HCET's corporate offices, research laboratories, and technology evaluation facilities are co-located at the 250,000-square-foot FIU Center for Engineering and Applied Sciences at its 38-acre site in Miami.

The Center's staff of nearly 200 includes professionals in multiple engineering disciplines, environmental management, chemistry, biology, health physics, information technology, domestic and international business, and conference planning. Its laboratories include cutting-edge combustion, analytical, waste processes, robotics, sensors, laser Doppler anemometry, fluid dynamics, solidification, radiological, and supercomputing facilities. HCET is the first and only

U.S. university organization to be certified for implementing international technology standards under ISO 14001. Time and again, the Center and its teaming partners have been honored for outstanding achievements in applied research and development, most recently with an Energy 100 Award from the Department of Energy (DOE) and several Nunn-Perry Awards from the Department of Defense.

The DOE and FIU created HCET in 1995 to research, develop, and demonstrate innovative, cost-effective technologies to solve crucial environmental problems in collaboration with industries and governments throughout the Americas. Responding to DOE's highest priorities, the Center has conducted over 100 major environmental science and technology research and development investigations since 1995. Its support activities span the DOE Environmental Management Office of Science and Technology programs and focus areas. The Center is the only organization outside DOE selected to participate in the planning and implementation of all seven Large-Scale Demonstration and Deployment Projects of the Office of Technology Deactivation and Decommissioning Focus Area.

The DOE's challenges include promoting the benefits of new technological solutions to end-users and involving them in evaluating the solutions and their impact on schedules and budgets. HCET has experience in recruiting a broad spectrum of public and private sector organizations to work toward common environmental goals. The Center will continue to bridge the historical gap between those with new ideas and those with experience using older methods to achieve environmental cleanup.

HCET currently works with DOE in Latin America to form strategic partnerships to implement U.S.-developed environmental technologies in the region. To accomplish its mission of the diffusion of U.S. environmental technologies, FIU has established strong working relationships with international government agencies, academia, and the private sector, including a recently signed agreement with Universidad Metropolitana de Caracas to support — together with the World Federation of Scientists, the Lawrence Livermore National Laboratory, the University of San Francisco, Stanford University, and the Technion in Israel — the creation of an environmental program at UNIMET to expose the Venezuelan government, private sector, and academia to new developments in environmental technology. HCET hosted the signing ceremony for the Technology Implementing Agreement Between the Republic of Argentina and the United States for Cooperation on Radioactive and Mixed Waste Management and organized and hosted the Americas' Nuclear Energy Symposium, held on December 11 to 13, 2000, for the DOE.

Energy research and development projects at HCET include photocatalytic conversion of natural gas to methanol, fuel cells, combustion of coal-biomass mixtures for nitrogen oxide emissions reduction, turbomachinery and advanced engines, low-emissions combustors, pipeline safety and reliability, geophysical imaging techniques, sensors, and modeling of natural gas reservoirs. From its founding research in solid waste and nuclear facility decontamination and dismantlement technology, HCET has maintained a robust and expanding basic and applied environmental research capability that includes a full suite of environmental science, engineering, and management services — including radioactive and hazardous waste treatment and processing; decontamination of surface and underground storage tanks; computer modeling, simulation, and visualization; sensors; instrumentation; and robotics.

**Contact:** M. A. Ebadian, Ph. D., Director, Hemispheric Center for Environmental Technology, (305) 348-3585, ebadian@hcet.fiu.edu