## Institute/Center Data

### Directory Information

<table>
<thead>
<tr>
<th>I/C Name:</th>
<th>HEMISPHERIC CENTER FOR ENVIRONMENTAL TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I/C Code:</td>
<td>80.0370</td>
</tr>
<tr>
<td>University:</td>
<td>FIU</td>
</tr>
<tr>
<td>I/C Type:</td>
<td>II</td>
</tr>
<tr>
<td>I/C Director:</td>
<td>M.A. Ebadian, Ph.D. Director</td>
</tr>
<tr>
<td>Discipline(s) (2-Digit CIPs):</td>
<td>14</td>
</tr>
<tr>
<td>I/C Address:</td>
<td>FIU Center for Engineering and Applied Sciences</td>
</tr>
<tr>
<td></td>
<td>10555 West Flagler Street, CEAS 2100</td>
</tr>
<tr>
<td></td>
<td>Miami, FL, 33165</td>
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<tr>
<td>I/C Telephone:</td>
<td>305 348-3585</td>
</tr>
<tr>
<td>I/C E-Mail Address:</td>
<td><a href="mailto:ebadian@eng.fiu.edu">ebadian@eng.fiu.edu</a></td>
</tr>
<tr>
<td>I/C SUNCOM:</td>
<td>441-3585</td>
</tr>
<tr>
<td>I/C Web Site Address:</td>
<td><a href="http://www.hcet.fiu.edu">www.hcet.fiu.edu</a></td>
</tr>
<tr>
<td>I/C FAX:</td>
<td>305 348-4176</td>
</tr>
<tr>
<td>Affiliated Universities:</td>
<td>(AFFILIATES)</td>
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### Mission and Areas of Focus

**Mission Statement:**

HCET’s mission is to develop and market technologies for solving environmental and telecommunication problems, and to foster sustainable growth in the United States, the Caribbean, and Latin America. To achieve this end, HCET will perform research and development, gather and disseminate market and technology data, facilitate technology transfer, and form partnerships with industries and governments throughout the Western Hemisphere.

### Key Terms:

- (Areas of Focus)
  - environmental remediation
  - information technology
  - technology assessment and development
  - training
  - environmental engineering
  - industry and government partnerships
HEMISPHERIC CENTER FOR ENVIRONMENTAL TECHNOLOGY

EXECUTIVE SUMMARY

1. Activities - Prior Year

a. Scholarly Activities.
   1. **Attendees.** The following table lists the conferences and forums that HCET faculty have attended for the purposes of sharing research or gathering information for enhancing their research or support activities.

<table>
<thead>
<tr>
<th>Date</th>
<th>Conference</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>2/27/99</td>
<td>WM'99 Conference</td>
<td>Tucson, AZ</td>
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<tr>
<td>3/1/99</td>
<td>1999 DOD Mentor Protégé Program Conference</td>
<td>Arlington VA</td>
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<td>3/14/99</td>
<td>'99 National Env. And Standards Integration Conference</td>
<td>Las Vegas, NV</td>
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<td>5/9/99</td>
<td>Int. Conference On Incineration &amp; Thermal Treatment Partnership</td>
<td>Knoxville, TN</td>
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<tr>
<td>5/19/99</td>
<td>D&amp;D 2000 Conference</td>
<td>Knoxville, TN</td>
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<tr>
<td>6/7/99</td>
<td>Environmental Restoration End User Conference</td>
<td>Charleston, SC</td>
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<tr>
<td>6/7/99</td>
<td>Subsurface Remediation-Improving long term Monitoring &amp; Remedial system performance</td>
<td>St. Louis, MO</td>
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<tr>
<td>6/11/99</td>
<td>IDS Conference</td>
<td>Knoxville, TN</td>
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<tr>
<td>6/21/99</td>
<td>AeroMat '99 Conference</td>
<td>Dayton, OH</td>
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<tr>
<td>6/26/99</td>
<td>ANS Executive Conference: Nuclear Power Plant Decommissioning and Spent Fuel Management</td>
<td>Traverse, MI</td>
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<tr>
<td>7/13/99</td>
<td>DOE Agency Conference</td>
<td>Washington, DC</td>
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<tr>
<td>7/27/99</td>
<td>IV Hemispheric Energy Ministers Conference</td>
<td>New Orleans, LA</td>
</tr>
<tr>
<td>8/14/99</td>
<td>'99 Nat'l Heat Transfer Conference</td>
<td>Albuquerque, NM</td>
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<tr>
<td>9/8/99</td>
<td>Proposer's Conference</td>
<td>Charleston, SC</td>
</tr>
<tr>
<td>9/13/99</td>
<td>ANS Conference</td>
<td>Knoxville, TN</td>
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<tr>
<td>9/26/99</td>
<td>Life Cycles of Energetic Materials Conference</td>
<td>Orlando, FL</td>
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<tr>
<td>10/5/99</td>
<td>NASA Conference</td>
<td>Cape Canaveral, FL</td>
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<tr>
<td>10/11/99</td>
<td>Industry Partnerships to Deploy Environmental Technology Conference</td>
<td>Morgantown, WV</td>
</tr>
<tr>
<td>10/25/99</td>
<td>TIE Conference</td>
<td>Las Vegas, NV</td>
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<tr>
<td>11/2/99</td>
<td>AICHE'99 Conference</td>
<td>Dallas, TX</td>
</tr>
</tbody>
</table>
2. Organized. HCET has organized a number of conferences and symposia in order to facilitate transfer of knowledge and technical data between organizations. In fact, this year, HCET established an entire performance group within its organization specializing in training and conferences. During the 1999-2000 fiscal year, HCET organized one major conference and is coordinating activities for two others, which will be held in the coming fiscal year:

1. International Decommissioning Symposium 2000. This conference, held June 12-16, 2000, brought together experts from around the globe to discuss the latest and most effective innovations and progress related to decommissioning U.S. and international nuclear facilities; treating and disposing radioactive, chemical, and low-level and transuranic waste; and decontaminating metal and concrete were realized. Conference highlights included:
   a. More than 900 individuals registered
   b. Twenty-one countries represented
   c. More than 100 papers and presentations given
   d. Indoor exhibit area of 100 vendors including 14 DOE sites and programs
   e. Nine outdoor live technology demonstrations

underused industrial and commercial properties where expansion or redevelopment is complicated by a real or perceived contamination. This conference will discuss federal, state, and local economic incentives available for Brownfields sites and will focus on the technical expertise and public involvement necessary for successful redevelopment.

3. **Americas Nuclear Energy Symposium.** The Americas Nuclear Energy Symposium (Energía Nuclear de Las Americas) will provide a forum for a hemispheric discussion and exchange focusing on the status and future of nuclear energy in the Americas. Elements of this discussion include the potential market for business opportunities in the nuclear sector, nuclear plants operation and maintenance, nuclear technology research and development, and the near-term potential and requirements for building new nuclear power plants, with special focus on financing issues. The conference is scheduled to take place December 11-13, 2000, in Miami, Florida.

b. Published Research

1. **Journal Publications.** Following is a list of papers submitted or published during the 1999-2000 fiscal year:


2. **Proceedings Papers.** Following is a list of papers presented or published during the 1999-2000 fiscal year:


3. Books and Book Chapters. In the last year, HCET has been working on the publication of the following book, which is expected to be published in our next report:


c. External Funding. As mentioned earlier in the report, HCET has concentrated its marketing efforts on diversifying its funding base. Our dependence on DOE has the potential to cripple us, should funding from this quarter be eliminated. In order to remedy this situation, HCET strives to seek research funding from a variety of sources. HCET’s targeted, intensive marketing campaign has
brought five new client organizations to the fold. These new funding sources are listed below.

1. Monterey Consultants, Inc.
2. Department of Housing and Urban Development (HUD)
3. CDM Federal Services, Inc.
4. International Logistics Group, Inc.
5. Miami-Dade Empowerment Trust Inc.

d. Public Recognition. HCET’s media exposure benefits not only the unit, but also the department and university. Following is a list of media publications showcasing the accomplishment and capabilities of the Center. A copy of these clippings appears in the Appendix.

- “HCET provides expertise and support for Opa-Locka redevelopment project,” FIU NOW, November 1999.
- FIU announced as part of the Nunn-Perry Award-winning team during the Mentor-Protégé Conference luncheon on March 17, 2000 in Washington, DC.
- “Certificate of Appreciation” announced at the IDS 2000 luncheon, June 14, 2000. Award given in commemoration of the innovative subcontract between FIU and Bechtel Jacobs to support D&D at the DOE Oak Ridge Reservation.
- “FIU scores top rating as a research school,” The Miami Herald, August 8, 2000.

e. Integration of Faculty. HCET draws upon the resources the University has to offer in order to deliver a successful product to its clients. FIU faculty is extremely important to Center activities.
HCET has, in the past and present, supported the research activities of 19 faculty, listed below:

- Nii Attoh-Okine, Civil Engineering
- Yiding Cao, Mechanical Engineering
- Yi Deng, Computer Sciences
- Irma Fernandez, STAC
- Jennifer Fu, GIS Lab/Library
- Eduardo Gamarra, LACC
- Rudy Ibarra, Engineering Information Center
- Ahmad Irtashid, Civil Engineering
- W. Kinzy Jones, College of Engineering Dean’s Office
- Cesar Levy, Mechanical Engineering
- James Moore, Mechanical Engineering
- Norman Munroe, Mechanical Engineering
- Gustavo Roig, College of Engineering Dean’s Office
- Richard Schoephoester, Biomedical Center
- Sabri Tosunoglu, Mechanical Engineering
- Dean Whitman, Geology
- Tachung Yi, Mechanical Engineering
- Steve Zanakis, Decision Sciences
- Fang Zhao, Civil Engineering

2. Activities - Coming Year

As part of its ongoing efforts to achieve and ensure Carnegie Doctoral/Research University – Extensive status for FIU, and to serve the needs of the University and carry out our mission, HCET will endeavor to realize the following goals in the coming year:

A. Publish 15 refereed journal publications, 15 meeting and conference papers, and one book/book chapter;

B. Develop and expand its Information Technology and Training focus area with the objective of hosting/organizing three additional conferences and workshops;

C. Continue to work with outside faculty, universities, public schools and community organizations in an effort to expand awareness and recovery of Brownfields sites in South Florida;

D. Increase the number of students employed by the center (see Appendix for a list of students currently employed) to perform hands-on tasks in environmentally-related projects, and increase the funding level overall to $15,000,000; and

E. Continue to involve FIU faculty in the Center’s R&D activities.