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Guide to Education

Where education and business meet in South Florida

GEARING UP FOR GROWTH

Training for a diversified economy

South Florida
**BUSINESS
JOURNAL**

Local universities develop courses in alternative energy

BY PAUL BRINKMANN

Alternative or clean energy is a relatively new and underdeveloped field for academic studies.

No college or university in South Florida currently offers specific programs in any field focused on renewable energy, but research is going on in several schools.

And two local universities – Florida Atlantic University and Florida International University – said they are developing new coursework in alternative electric energy generation.

FAU's Ocean Engineering Department is a leader in research and development of ocean energy. The university's SeaTech Campus in Dania Beach is designing a system of electric generating turbines to install in the Gulf Stream currents offshore.

The focus on research has benefited graduate students, in particular, who are sometimes used in the research. But, department Chairman Manhar Dhanak said new curriculum is being designed to give students a more direct path to learning about alternative energy.

"We are in the process of putting in courses that reflect clean energy, not just in ocean engineering," Dhanak said. "We already have a

'ALTERNATE AND green- energy topics are being reintroduced in many of our courses – how you can transfer energy and selling the energy.'

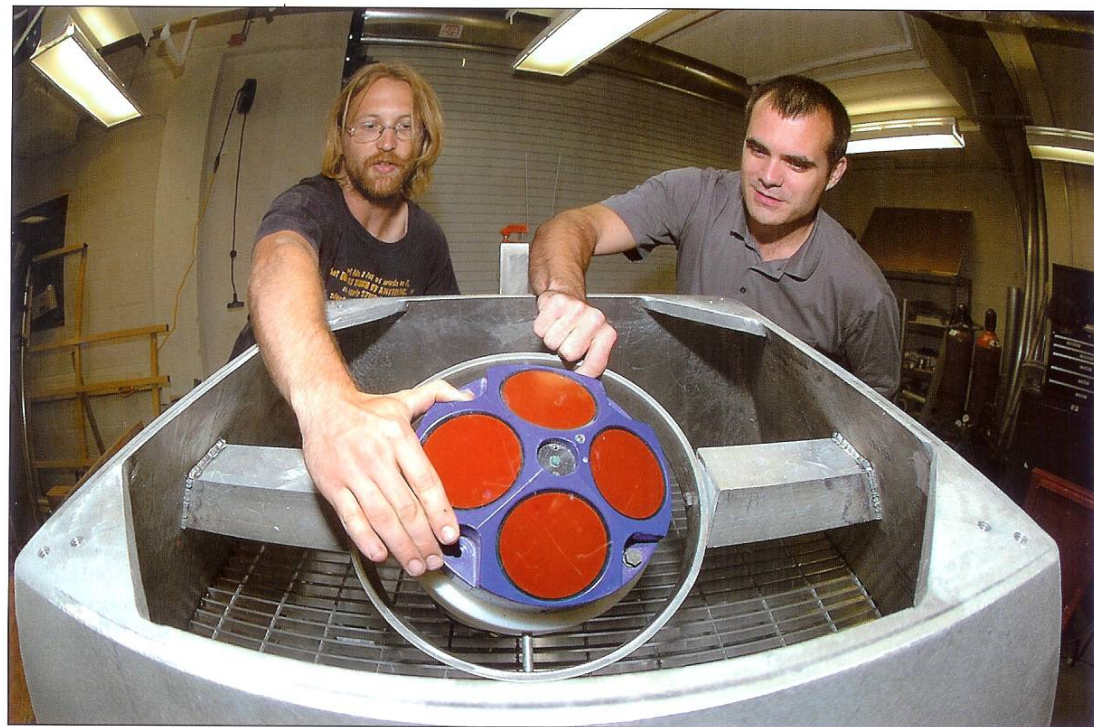
Osama Mohammed | Professor, Electrical and Computer Engineering Department, FIU

few courses related to wind energy. There is one that looks at efficient ways of harnessing wind, developing an efficient turbine."

Last year, two design projects focused on a design for ocean current turbines, Dhanak said.

RISING STUDENT DEMAND

FIU in Miami is also designing new coursework in alternative en-



MARK FREERKS

James Coen and Frederick Driscoll of FAU's Center of Excellence in Ocean Energy Technology in Dania Beach.

ergy in response to rising demand from new students, said Osama Mohammed, professor in the Electrical and Computer Engineering Department.

"We are in the process of actually adding these topics," he said. "It's included in the general coursework now, but not in the official description. We've been doing research."

Mohammed said research has been occurring into the use of fuel cells and infrared solar cells.

"Alternate and green energy topics are being reintroduced in many of our courses – how you can transfer energy and selling the energy," he said.

In Florida, Orlando has captured a lead in solar energy research. The University of Central Florida has the Florida Solar Energy Center (FSEC), which researches and develops solar energy technologies.

The Florida Legislature created the center in 1975 to serve as the state's energy research institute. Its main responsibilities are to conduct research, test and certify solar systems, and develop education programs.

At UCF, courses taught by the center's staff include mechanical and electrical systems for buildings in the civil and environmental en-

gineering program and Physics of Failure and Reliability of Microelectronic Package in the materials en-

gineering program.

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