FLORIDA TECH
FLORIDA'S STEM UNIVERSITY

FOLLIARD ALUMNI CENTER

A Zero Energy Building (ZEB)

A Zero Energy Building (ZEB) is a highly energy-efficient building that produces its own annual energy needs through use of renewable sources of energy.

Florida Department of Agriculture & Consumer Services (FDACS), Office of Energy, sponsored the implementation of renewable and energy-efficiency technologies.

FOLLIARD ALUMNI CENTER FEATURES

Energy-Efficient Building Envelope

- CMU block wall with 1.5" rigid board insulation (R-8.25)
- Thermoplastic polyolefin (TPO) roofing system (R-30)
- White roof color
- Shading overhangs
- Low-E double-glazing windows

Energy-Efficient HVAC System

- Energy-efficient heat pump units (SEER 17-17.5 and HSPF 9.6)
- Programmable control
- CO_2 and humidity sensors

Control and Automation

- Building automation system (BAS)
- Weather station
- Energy metering

Energy-Efficient Lighting

- Efficient LED lights with individual control
- Dimmable lights
- Occupancy sensors
- Photo sensors
- Dynamic window shading

Other Green Features

- Eco-friendly landscaping, including native species and hardscape, minimizing water usage

PROJECT IMPACTS

Student Participation

- Exceptionally diverse group of students supporting the project

Project Website and Public Education

- Website provides public access to the building's energy data as well as educational content for the general audience
- Web-based course, Building Energy Sustainability Training (BEST)

Tours and Events

- Host site visits for students and visitors, providing them with an opportunity to tour the building while learning about building energy efficiency and zero-energy buildings

Research

- Apply digital engineering principles to create and validate a comprehensive building energy simulation model
- Develop machine-learning models to predict building performance
- Disseminate research results through project website and technical publication

LEARN MORE

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Folliard Alumni Center: Zero-Energy Building at Florida Tech

KEY SUSTAINABILITY FEATURES

Building Automation System

In the "Brain Room," faculty and students can monitor building energy consumption in real time, including each individual space, fixture and component of the building.

Energy-Efficient Building Envelope

Through features such as a white roof, eco-friendly wall insulation, shading overhangs and Low-E windows, the building prioritizes thermal insulation to minimize energy consumption.

High-Tech, LED Lighting System

LED fixtures with automatic occupancy and daylight sensors can be independently controlled and zoned to maximize efficiency and avoid wasted energy.

Solar Panel Array and Battery Storage System

With a goal to achieve a zero-energy objective, the building harnesses solar energy to generate electricity and stores the excess in a battery storage system.

Environmental Sustainability

Xeriscaped landscaping with native species and water consumption monitoring aims to reduce water usage. EV charging stations deployed to reduce carbon footprint.