

# Mary Masterson, Civil Engineering

Year in School: Senior

Hometown: St. Louis, MO

Faculty Mentor: Dr. Glenn Washer, Civil & Environmental Engineering

Funding Source: College of Engineering Undergraduate Research Option

## **Health monitoring of civil structures**

Glenn Washer & Mary Masterson

The project will develop health monitoring technologies for civil structures. Specifically, precision tiltmeters will be used to monitor the long term behavior of the columns. A wireless data acquisition system will be integrated with a tiltmeter during the course of the project. The system will be installed and monitored over a period of several weeks to evaluate diurnal temperature effects and uncorrelated noise sources. The results of the data acquisition will be compared with previous literature, and a procedure for installing the wireless devices will be developed.