

Rec 10/3/14

2<sub>1</sub>

### MTSU Clean Energy Initiative Project Funding Request

There are five (5) sections of the request to complete before submitting. See <http://www.mtsu.edu/~sga/cleanenergy.shtml> for funding guidelines. Save completed form and email to [cee@mtsu.edu](mailto:cee@mtsu.edu) or mail to MTSU Box 57.

1. General Information	
Name of Person Submitting Request Christa Gates (MTSU Makers)	
Department/Office Computer Science	Phone # (Office) 904-8321
MTSU Box # 48	Phone # (Cell) (615) 410-1410
E-mail <a href="mailto:cjg2p@mtmail.mtsu.edu">cjg2p@mtmail.mtsu.edu</a>	Submittal Date 10-3-14

2. Project Categories (Select One)	
Select the category that best describes the project.	
<input type="checkbox"/> Energy Conservation/Efficiency	<input type="checkbox"/> Sustainable Design
<input type="checkbox"/> Alternative Fuels	<input checked="" type="checkbox"/> Other Energy efficiency monitoring
<input type="checkbox"/> Renewable Energy	

3. Project Information	
a. Please provide a brief descriptive title for the project.	
b. The project cost estimate is the expected cost of the project to be considered by the committee for approval, which may differ from the total project cost in the case of matching funding opportunities. <b>Any funding request is a 'not-to-exceed' amount. Any proposed expenditure above the requested amount will require a resubmission.</b>	
c. List the source of project cost estimates.	
d. Provide a brief explanation in response to question regarding previous funding.	
3a. Project Title Building Heating/AC Energy Efficiency Study	
3b. Project Cost Estimate \$1500	
3c. Source of Estimate <a href="http://www.adafruit.com">http://www.adafruit.com</a> and other similar electronics sites.	
3d. If previous funding from this source was awarded, explain how this request differs? N/A	

**4. Project Description**

(Completed in as much detail as possible.)

- a. The scope of the work to be accomplished is a detailed description of project activities.
- b. The benefit statement describes the advantages of the project as relates to the selected project category.
- c. The location of the project includes the name of the building, department, and/or specific location of where the project will be conducted on campus.
- d. List any departments you anticipate to be involved. Were any departments consulted in preparation of this request? Who? A listing may be attached to this form when submitted.
- e. Provide specific information on anticipated student involvement or benefit.
- f. Provide information for anticipated future operating and/or maintenance requirements occurring as a result of the proposed project.
- g. Provide any additional comments or information that may be pertinent to approval of the project funding request.

**4a. Scope: Work to be accomplished**

Temperature/humidity sensors will be placed throughout KOM and other older structures on campus, including in the center of classrooms, next to windows, and outside the building.

**4b. Scope: Benefit Statement**

Based off the readings taken from the temperature sensors, it will be determined how much energy from the building is leaking outside, and what steps should be taken to improve the building's energy efficiency (ie, sealing windows, installing double-paned windows, better AC regulation, etc).

<b>4. Project Description (continued)</b>
<p>4c. Location of Project (Building, etc.) KOM, KUC, WPS</p>
<p>4d. Participants and Roles MTSU Makers will assemble the sensors, distribute them throughout the buildings, and record and interpret the data from the sensors. This can be done in real time using a webserver to accumulate and graph the data.</p>
<p>4e. Student participation and/or student benefit Participating students will learn how to assemble and use a project that will benefit the university and build tools for data analysis.</p>
<p>4f. Future Operating and/or Maintenance Requirements Parts may need to be replaced should they become damaged. If this project is successful, more units for monitoring may be built.</p>
<p>4g. Additional Comments or Information Pertinent to the Proposed Project The sensors themselves will not lead to more energy-efficient buildings; that will depend on what is done with the data collected by the sensors and action taken based on that data.</p>

## 5. Project Performance Information

Provide information if applicable.

- a. Provide information on estimated annual energy savings stated in units such as kW, kWh, Btu, gallons, etc.
- b. Provide information on estimated annual energy cost savings in monetary terms.
- c. Provide information on any annual operating or other cost savings in monetary terms. Be specific.
- d. Provide information about any matching or supplementary funding opportunities that are available. Identify all sources and explain.

5a. Estimated Annual Energy Savings (Estimated in kW, kWh, Btu, etc.)

N/A - see 4g

5b. Annual Energy COST Savings (\$)

N/A - see 4g

5c. Annual Operating or Other Cost Savings. Specify. (\$)

N/A - see 4g

5d. Matching or Supplementary Funding (Identify and Explain)

N/A