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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 or mail to MTSU Box 57.

1. General Information	
Name of Person Submitting Request Dr. Saeed Foroudastan; Elijah Little	
Department/Office Room 1026 Bldg SCI	Phone # (Office) (615)494-8786
MTSU Box # 0083	Phone # (Cell) (615)417-2761
E-mail Saeed.Foroudastan@mtsu.edu	Submittal Date September 4, 2019

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 type="checkbox"/> Other
<input checked="" type="checkbox"/> Renewable Energy	

3. Project Information
<p>a. Please provide a brief descriptive title for the project.</p> <p>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. Any funding request is a 'not-to-exceed' amount. Any proposed expenditure above the requested amount will require a resubmission.</p> <p>c. List the source of project cost estimates.</p> <p>d. Provide a brief explanation in response to question regarding previous funding.</p>
3a. Project Title Experimental Vehicles Solar Boat Project
3b. Project Cost Estimate \$5000.00
3c. Source of Estimate Cost estimate based off previous years purchase sheets.
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

Solar Splash is an international competition held among universities that tests each universities' ability to create and engineer a fully solar powered boat. MTSU is a proud participant of this event.

The work needed to be completed is the purchase of new solar cells and arrays along with a new electric motor in order to be mounted on this year's solar boat.

4b. Scope: Benefit Statement

MTSU's yearly participation at Solar Splash gives students the opportunity to learn hands-on the various engineering practices that go into making a experimental vehicle. Also, student membership is not limited to engineering students. Students from all across campus are encouraged to take part to learn something outside their field or to learn valuable team and collaboration skills. Additional funding will also aid students in creating the best boat in order to optimize competition chances.

4. Project Description (continued)
<p data-bbox="272 247 850 281">4c. Location of Project (Building, etc.)</p> <p data-bbox="272 327 1338 394">The design and fabrication of the Solar Boat will take place on campus in VET 170D.</p> <p data-bbox="272 436 1182 470">The Solar Splash competition takes place in Springfield, OH.</p>
<p data-bbox="272 495 672 529">4d. Participants and Roles</p> <p data-bbox="272 571 1312 638">Saeed Foroudastan: Faculty Advisor to EVP (Experimental Vehicles Program) Organization</p> <p data-bbox="272 680 841 714">Elijah Little: President of EVP Organization</p> <p data-bbox="272 747 1286 781">Members: Help in design and fabrication of hull and also attend competition.</p>
<p data-bbox="272 835 1006 869">4e. Student participation and/or student benefit</p> <p data-bbox="272 919 1360 1138">Any student (no matter their major) is welcome and encouraged to become a part of EVP to learn and grow as students and as individuals. Members learn new skills in engineering and in leadership with hands-on work that will be useful throughout their professional careers. Students are also exposed to many internship or career opportunities as many large companies attend these competitions.</p>
<p data-bbox="272 1188 1117 1222">4f. Future Operating and/or Maintenance Requirements</p> <p data-bbox="272 1276 328 1310">N/A</p>
<p data-bbox="272 1512 1299 1579">4g. Additional Comments or Information Pertinent to the Proposed Project</p> <p data-bbox="272 1629 1354 1730">The Solar Boat is shown at other various events which exposes high schoolers and other college students to what hands-on engineering can do.</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.)

Energy savings involve a decrease in fuel consumption of the average 2-stroke boat engine. 2-Stroke boat engines are also one of the top air and water polluters, so the implementation of solar power will lower fuel costs and air and water pollution.

5b. Annual Energy COST Savings (\$)

See 5a.

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

The average boater uses close to \$16,000.00 worth of fuel annually. With the implementation of a fully electric, solar-powered boat, we can bring the annual fuel cost to relatively \$00.00.

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

N/A

Linda Hardymon

From: Saeed Foroudastan
Sent: Thursday, September 05, 2019 11:22 AM
To: Center for Energy Efficiency
Subject: Clean Energy Funding Request
Attachments: CleanEnergyProjectFundingRequest_EVP Fall 2019.pdf

Hello:

I am the faculty advisor for the Experimental Vehicle Program Solar Boat Project. We are submitting the attached Clean Energy Project Funding Request for funding. I would like to thanks the Committee On behalf of me and my students for considering our proposal.

Thanks

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