Abstract and Video Instructions

2021 GS-LSAMP/NNJ-B2B Virtual STEM Research Conference

You must complete the form and upload your abstract, poster and video files to **symposium.foragerone.com/gslsamp21/submission** no later than **February 28, 2021**. You will need the information listed below to complete the form:

1. **Your LSAMP/B2B school at the time of this research**
2. **Field of research: Architecture, Biology, Chemistry, Computer Science, Earth/Environmental Science, Engineering, Mathematics, Physics**
3. **Faculty mentor's name and university affiliation (If Rutgers, specify which campus)**
4. **Name and affiliation of everyone else who worked on the project (If Rutgers, specify which campus)**
5. **Poster Title**
6. **Abstract Text:** Summary of your research study (**1,200 characters or less, excluding spaces**): Answer the following questions with 1 sentence each:
   - *What was the topic and why are you studying it?*
   - *What was the research question, specifically, and how did you look at it (methodology used)?*
   - *What were the findings/results? (2-3 sentences)*
   - *What conclusions can be drawn and what are the implications for future research?*

   Make sure that words are appropriately capitalized and that abbreviations are defined, if not commonly used. Formatting such as bold and italics will not be retained once uploaded.
7. **Poster File** must be PDF
8. **Video File**: Present your poster in a video between 2 and 5 minutes in length. You can do this in Zoom by having a meeting by yourself (or with your other presenters) and sharing your poster on your screen. Record the meeting locally (onto your computer) and upload this video file.

Examples:

1. Engineering - **Developing a Test Platform for a Full Scale Vertical Axis Wind Turbine**

   In this study, a five foot vertical axis wind turbine and generator were constructed from a kit. A novel base was designed, built and tested that allows for the full scale turbine to be attached to the roof rack of an automobile so that overall efficiency at various simulated wind speeds could be ascertained. An instrumentation panel was constructed for use with the test platform, allowing for the measurement of voltage, current, power, RPM and wind speed. A torque apparatus was also designed to isolate the efficiency of the electrical generator. From the overall and generator efficiencies, the power coefficient of the wind turbine blades can be inferred. The full scale wind turbine, base and instrument panel were tested on an automobile roof rack at speeds of 5, 10 and 15 mph. The turbine and test platform enables future research studies of custom blade aerodynamic design and generator design improvements.

2. Biology - **Reproductive potential of *Bellamya chinensis* in the Presence of Predators**

   The presence of predators influences freshwater organisms, making a predation respond more likely. These responses typically occur in juveniles, which decrease the ability of a predator to utilize its prey. In this experiment, the vivparid snail *Bellamya chinensis* was collected from Barbour's pond in Paterson, NJ, placed in individual plastic cylinders and put into one of four control and four experimental tanks (4 snail-cylinders per tank). When the predatory Bluegill (*Lepomis macrochirus*) was present, the brood release of adult *Bellamya* was not significantly affected. While very few young juveniles were released, large numbers ready to be birthed were held *in utero*. According to previous experiments, the presence of a predator had significant effect on the delivery time of the snails, causing them to deliver before their due date. A similar experiment suggests that snails due date is unpredictable in the presence of a predator.