

Design Competition: Indoor Greenery System and the Built Environment

2021 Project Criteria

BACKGROUND

Various efforts have been made to reduce building energy consumption while maintaining a comfortable indoor environment. Greenery infrastructure enhancements have been recognized as one of the climate change adaptation measures. Limited studies have been conducted on indoor greenery systems such as indoor living walls on energy use and thermal comfort although people spend about 90% of their time indoors.

CHALLENGE

How to effectively integrate greenery systems (for example living walls) with our indoor environment in buildings? What are the creative ways that you can think of based on cutting-edge technologies? How to reach optimum resource efficiency? How do indoor greenery systems affect interior space, occupants, and sustainability?

IMPORTANT DATES

- Registration open: Feb 16, 2021 (To be confirmed)
- Submission deadline: April 16, 2021
- Competition result announcement: April 30, 2021

ELIGIBILITY

- Any registered students at the University of Wyoming in Spring 2021.
- You may register as an individual or up to (3) students may work as a team. If a team is awarded, each student participating as a team will have the prizes as described.
- Each participant (individual or team) needs to register on the UW competition website and submit their competition materials before the submission deadline.

SUBMISSION ELEMENTS

1. Design Statement Requirements
 - Page Limit: 3 (including one page for cover page)
 - Font: Times News Roman, 12pt
 - The statement should include a description and illustration of the design idea, cutting-edge technologies applied in your design, the innovation of the design idea, and the potential impacts of the design concept on interior space, occupants, and sustainability.
2. PowerPoint Presentation Requirements
 - Slide Limit: 15 slides
 - The presentation should reflect the key points in the design statement.
3. Video Requirements
 - Time Limit: 5-minute

- Introduction of the participants and present your design idea.

All submitted work must be original work. Each submission will be reviewed by judges from industry and academia on the novelty, practicality, and the level of integration between greenery systems and the indoor environment of the design ideas. Students should consider how the integration of indoor greenery systems affects occupants, interior space, and resource demands (energy and water).

JUDGING

- Submissions are judged on competition criteria and a professional appearance by the competition judging committee.
- Final winners are selected from the judges' recommendations and criteria scores.
- Participating students will receive a notification stating the status of their project submittal(s) on April 30, 2021.
- **IF THERE IS NO QUALIFYING WINNER:** In the event judges are unable to identify a winning project for a prize allotment, that prize will be saved or used by the UW College of Engineering and Applied Science Department of Civil and Architectural Engineering to enhance educational needs or materials.

AWARDS

- First Place: 2TB portable hard drive and one of your favorite books up to \$25
- Second Place: 1TB portable hard drive
- Third Place: Texas Instruments TI-36X calculator or one of your favorite books up to \$25.

Top winners of the design competition may have the opportunity to be mentored by Civil and Architectural Engineering faculty and participate in selected parts of the research project on building integrated indoor greenery systems sponsored by the National Science Foundation as an undergraduate researcher (1-2 openings) for Fall 2021.

QUESTIONS

Submit all questions in writing to competition coordinator Liping Wang at lwang12@uwyo.edu.