

e - Proceedings



Proceeding for International Undergraduates Get Together 2024 (IUGeT 2024)

"Undergraduates' Digital Engagement Towards Global Ingenuity"



Department of Built Environment Studies and Technology, College of Built Environment, UiTM Perak Branch

Co-organiser:

INSPIRED 2024. Office of Research, Industrial Linkages, Community & Alumni (PJIMA), UiTM Perak Branch

Bauchemic (Malaysia) Sdn Bhd

Universitas Sebelas Maret

Universitas Tridinanti (UNANTI)

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Green Dome

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ABSTRACT

Green Dome is a pavilion dome made of mainly timber and glasses which are perfect for relaxing, leisure and sightseeing. It has seating areas for a group of people especially students for them to have discussion, works or hanging out. It can be used for small events such as socialising, exhibition and such. UiTM students and staffs are our target customer but it is also open for public purchase. It's tranquility is what the attraction of this Green Dome is. There is a bench located in the centre of Green Dome where the occupants can access to full view inside the dome where it is adorned with pole that has hanging plants. There are some gardens inside the dome where plants and trees are planted. The Green Dome is prepared with wall fans and lighting to ensure the convenience of the users.

KEYWORDS: Greenhouse dome, garden, leisure, garden

DESIGN DESCRIPTION

Green Dome is a dome shaped pavilion with plants inside imitating a greenhouse. The dome shape allows structural stability and optimal sunlight penetration from various angles as it is constructed with sturdy frame made of timber with panels of tempered glasses used which provides maximum sunlight exposure. A spacious entrance on two sides allowing easy access to the greenhouse while being excellent for ventilation. Inside, built stepped benches are arranged to optimize space utilization as well as number of seatings. It provides comfortable leisure spots for users. Green Dome is also equipped with rain harvesting system as it encourages sustainability. A drainage system is built on the columns of the Green Dome connecting from the roof to the pool where the water it is stored, the water will be used to water the plants inside. Other than that, it also has solar panels to generate electricity from renewable resources for the fans and lamps that are inside the Green Dome.

NOVELTY AND UNIQUENESS

Green Dome Pavillion's dome shape sets it apart from traditional greenhouse designs and creates an aestheticaly pleasing and visually striking structure that piques interest. In addition to improving the greenhouse's appearance, its unique design provides optimal solar exposure from various angles and improved structural stability. Unlike conventional greenhouses, which are solely meant to grow plants, this one skillfully blends seating areas into its construction to create a versatile area for relaxing, interacting, and introspection. This blend of horticultural and recreational elements creates an environment that is appealing to both casual visitors and plant enthusiasts. The addition of seating places transforms the greenhouse from a quiet place to growing plants into a hub for the community where people congregate, interact, and exchange stories. The greenhouse gives its guests a sense of community organising social gatherings, educational workshops, and quiet spaces for contemplation and meditation.







Figure 1: Green Dome

BENEFITS TO MANKIND

The presence of floras and natural elements inside the Green Dome Pavillion provides a calming and tranquil environment which contributing to therapeutic effects on those who are inside. This will help to reduce stress and relaxation which is great for those who suffer from anxiety, depression or any other mental illnesses. Furthermore, the abundance of natural sunlight, greeneries and fresh air provides physical health and well-being in general. It is a greatspot for exercise and relaxation which contribute greatly for the improve of cardiovascular health and overall fitness levels. Not to mention the benefit of vitamin D synthesis. Moreover, the Green Dome also serve as educational hub for learning ecology, sustainability and gardening practices. It also promotes environmental conservation by practicing sustainable practices such as rain harvesting and solar powered electricity as it a testing of technologies and techniques specialized in minimizing environmental impact. Last but not least, recreation-wise, its unique design makes it a great venue for art exhibition, gatherings and leisure activities.

COMMERCIAL POTENTIAL

The Green Dome has great commercial potentials across various sectors. Due to its size, it has host small events at one time such as exhibitions, workshops, classes and even small vendor booths. Its unique architecture and abundance of seatings makes it an ideal place for people to come and spend time there. Given its greenhouse concept with garden and plants inside, such business as selling plants can also be planned and it can become a small nursery for plants. Besides setting up events and business, it also has significant potentials in academic based tour. Schools or any academic institution could rent the pavillion for a tour and observation for botanical and agriculture studies for deeper understanding of the study.

CONCLUSION

In summary, by combining sustainability, beauty, and utility, the Green Dome creates a captivating space where people can engage with nature and have inspiring, calm moments. It also offers a novel and unique combination of practical adaptability, architectural elegance, and immersive experience, which makes it an incredible place for both nature enthusiasts and design enthusiasts. It also raises the standard of living for people by providing spaces for social interaction, education, recreation, and relaxation.



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Saya yang menjalankan amanah,

Setuju.

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