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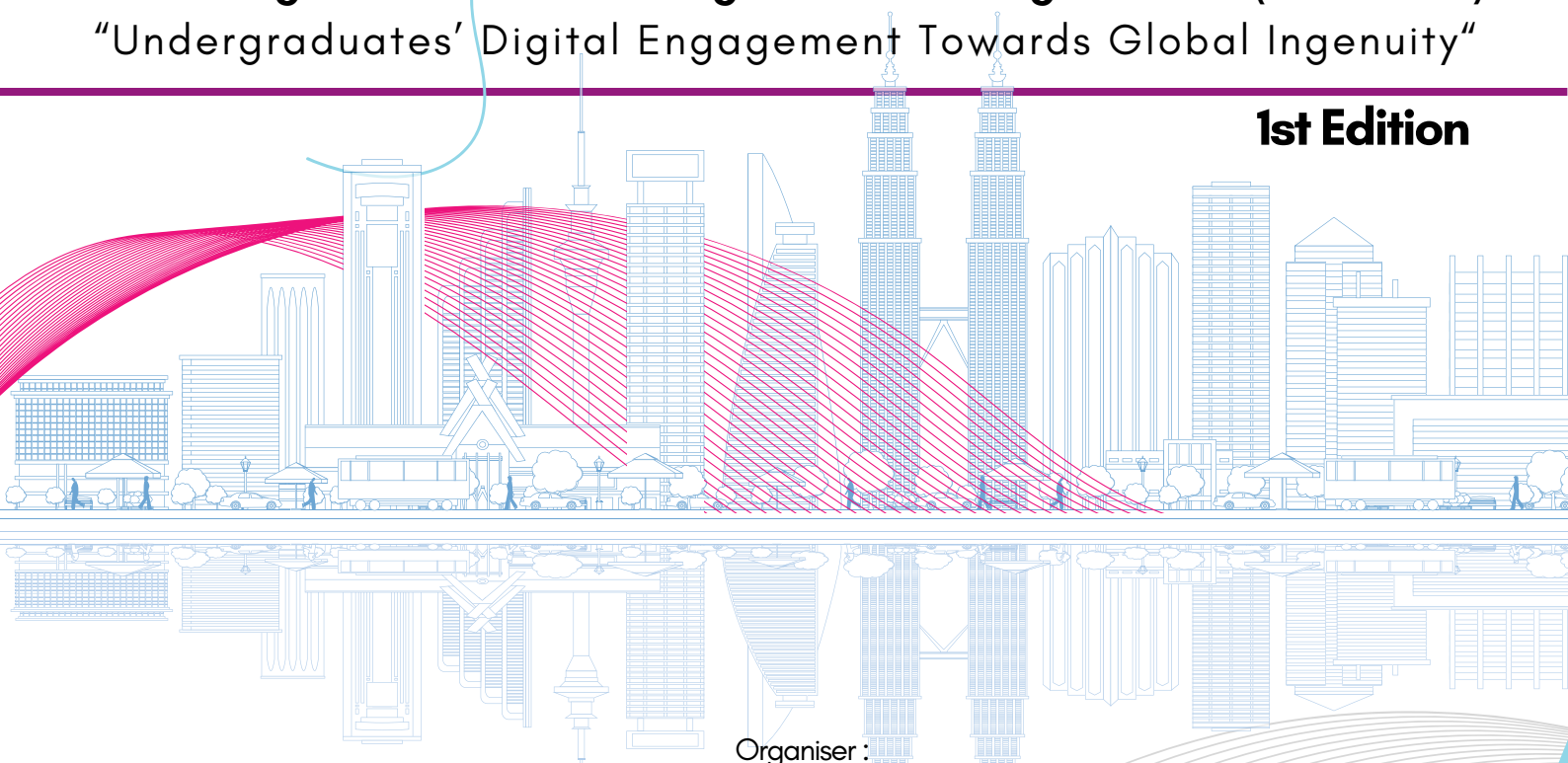
"Undergraduates' Digital Engagement Towards Global Ingenuity"

1st Edition



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Timber Retreat - Eco Friendly Hub for Students

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ABSTRACT
The student hub is the student heart of a campus and acts as a magnet where students gather to connect socially with each other, study alone, or in small groups. Students require an environment-exposed learning space to alleviate factors like stress. Having a pavilion for students is such a wonderful way for them to relax or chill out. Typically, a pavilion serves as an open, ornamental structure in a garden, park, or recreational area, providing either entertainment or shelter. During the construction of a pavilion, the use of sustainable materials creates a more environmentally friendly space, thereby enhancing environmental cleanliness. The ability to exist and develop without depleting natural resources for the future is known as sustainability. In the Brundtland Report, the United Nations defined sustainable development as development that meets present needs without compromising future generations' ability to meet their own needs. Research has been conducted on the analysis of timber as a sustainable material for construction. Sustainable forest management aims to produce timber by maintaining a balance between the forest's natural production and the amount of wood harvested, preventing any harm to the soil, water cycles, or future seed sources. Timber suggests using wood or wooden materials in the design, whereas fusion implies blending or combining different elements or styles.

KEYWORDS: Student hub, eco-friendly, sustainable, timber, fusion, pavilion

DESIGN DESCRIPTION
The shape of the main base of the student's pavilion draws inspiration from the sea snail, Lassachatina, found in Africa. The construction of this pavilion involved only one floor. The pavilion structure does not feature any brick walls. The interior is an open space. The building's envelope begins at ground level and features a stairway that allows people to climb to a maximum height of around three meters. The rooftop staircase, on the other hand, serves as a public service facility. This type of design could have several purposes, like efficient use of space and aesthetic appeal. Once the stairs are complete, a skylight dome provides natural lighting for the indoor plants within the pavilion. This building doesn't use electrical air conditioners because its empty walls allow natural air from plants and wind to circulate. This approach contributes to creating a sustainable and eco-friendly environment for students. The pavilion's centre features an outdoor pond landscape. The goal is to reduce the influence of intensification processes on biodiversity and ecosystem services. Landscape elements define space, screen unwanted views, and gradually reveal desirable views. Moreover, an eco-hub serves as a dedicated space for teaching, learning, and nature connection, with a focus on sustainability. Eco hubs aim to create spaces within schools that foster a connection with nature, all while embodying a powerful sustainable ethos. They also provide students with a wealth of learning opportunities, calm teaching and social interaction areas, and even intervention spaces. Fusion design allows for the elegant integration of modern technology into traditional or culturally significant spaces and products, using a blend

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of timber elements. For instance, the bench's end features a stainless-steel module that serves as a new USB power charger for students on university or corporate campuses.

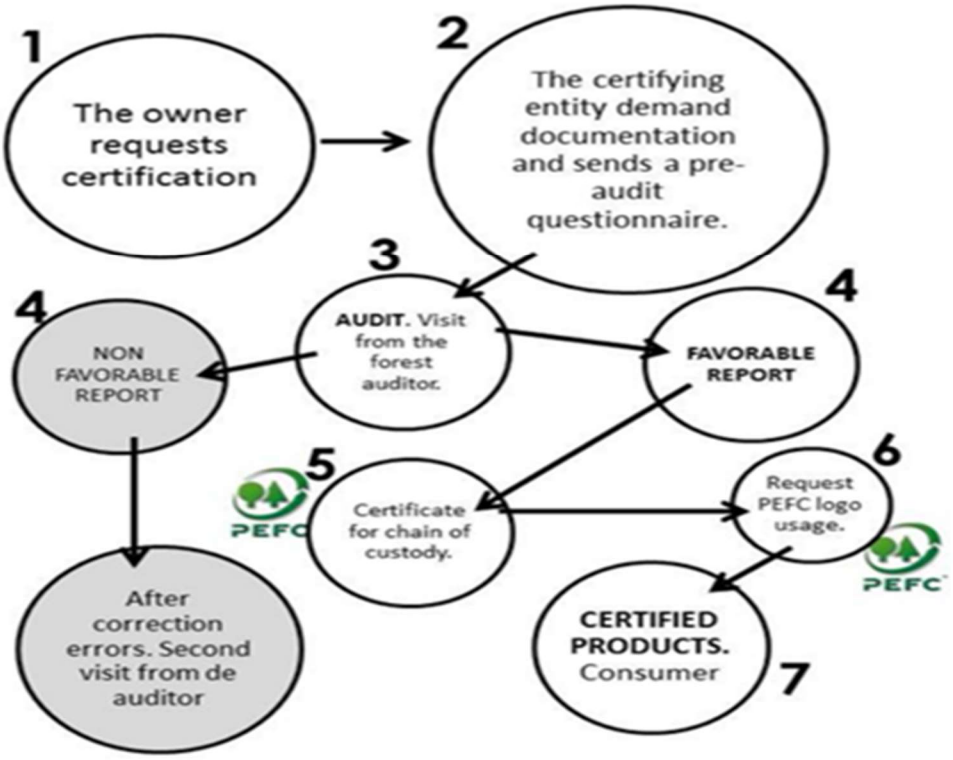

Figure 1: Process for obtaining sustainability certification

NOVELTY AND UNIQUENESS

The shape of this pavilion exemplifies its uniqueness. Moreover, as time moves on in the modern day, technology has made everything easier to accomplish. Thus, a few areas have been set up so that students can freely utilise the internet for educational purposes. Among the benefits, students can enjoy the natural surroundings of the pavilion while utilising the available technology. Additionally, there are some recommendations for enhancements, like enhancing the student's safety features and providing vending machines to ensure the student's comfort.

BENEFIT TO MANKIND

Designed with the environment in mind, a pavilion or eco centre for students can benefit from the following sustainable materials: Using sustainable and eco-friendly materials such as reclaimed wood, recycled metal, or low-impact composites can reduce the carbon footprint of the construction process and promote responsible resource use. Conversely, education and awareness play a crucial role. Utilizing the pavilion or eco hub as an educational tool to raise awareness about environmental issues and promote sustainable living practices among students and the wider community can have a long-term impact beyond the building itself.

COMMERCIAL POTENTIAL

A pavilion or eco-friendly centre for students is in high demand in universities and schools. It has a large market size, considering the increase in the number of universities and schools in this country. Additionally, it adheres to the safety standards established for a hub or building.

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CONCLUSION

The conclusion is that the design choices prioritize the convenience of users, particularly students, while ensuring comfort and safety. Optimizing a design holds significant importance. We may also suggest more intriguing designs for the future.

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Thank you to the program's organizers for giving us the opportunity to improve our knowledge about eco-friendly hubs for students. Thank you to the colleagues who contributed a lot of energy and ideas to this project and made it a success. I hope we can work together again in the future.

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