

# e - Proceedings



## Proceeding for International Undergraduates Get Together 2024 (IUGeT 2024)

"Undergraduates' Digital Engagement Towards Global Ingenuity"



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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### Serenity Bench

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#### ABSTRACT

Furniture Design is paramount for ensuring the comfort and well-being of individuals, especially within university environments. This furniture focusses on eco-friendly features, comfortable seating arrangements, sustainable design features, technology integration, functionality of a university campus and biophilic design. Incorporating elements such as parametric, traditional, fractal patterns, natural material and variety of colors. Additionally, the furniture design is inspired from centralized and repetition design principles. Every area of furniture has different of functions such as grouping meet, working area, disabled person, and biophilic design, can be used for community. By thoughtfully design furniture design, can be used for community that came to site location and university students to use the bench furniture.

KEYWORDS: Biophilic design, eco-friendly, parameters, sustainable design

#### **DESIGN DESCRIPTION**

Introducing a Serenity Bench design concept tailored for the modern era: an eco-friendly outdoor space seamlessly blending the warmth of timber with the efficiency of solar power. Our innovative benches are focused on eco-friendly power, user friendly, sustainable design features, attract users to use the bench and design with the issue at surroundings. These Serenity Bench are focused on to show the eco-friendly power in furniture. To show the innovative in Serenity Bench, that uses the solar system technology to generate the electricity, used the non-toxic finishes, and used the materials have durable and long-lasting properties. In addition, the Serenity Bench is on user friendliness, which means that every people can use the bench for their own activities. Serenity Benches are offeres several functions. For example, in creating a friendly area, which is used for grouping, study as well as disabled person area, and green area. This space is inspired by an issue that comes from surroundings in which that site is located where there are many university students as well as outsiders who come for recreational purposes. Students can use the furniture to do the assignments or study in the area provided by the furniture. Besides, the furniture offers hidden storage for equipments, portable charger for users and lighting for users used at night. Furthermore, the furniture also focuses on sustainable design features. For example, the furniture is uses the sustainable materials, durability and longevity, energy efficiency and follows standards for certification. The design of this furniture is focused to attract the people to use the furniture. By playing with variety of colors on seating area, we can give the fresh attractions to users, can grow up the mood environments and can create balance and elemental harmony.



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Figure 3: Study area

Figure 4: Green area

#### **NOVELTY AND UNIQUENESS**

Our furniture design introduces a groundbreaking approach to public space by seamlessly integrating fusion materials, combining the traditional and modern elements, combining the ecofriendly and innovative technologies. From fusion of materials, integrating timber aesthetics, metal, and concrete to blend with natural warmth. By combining the eco-friendly and innovative technologies can cost the savings, give the health benefits, apply the biophilic design elements, and energy-efficient production processes. The combination of traditional and modern elements are fusion or study matter are applied in this furniture. In the form of traditional approach, we apply the coconut tree leaf and modern we apply the parametric design.



#### **BENEFITS TO MANKIND**

Our design revolutionises public spaces by addressing critical environmental concerns through sustainable practices, such as fusion of materials from timber, metal and concrete. By promoting the eco-friendly on this furniture. We apply ergonomics and anthropometric design to apply the user friendly on furniture. After that, we apply the sustainability on energy efficiency and resource efficiency which is from solar system and selection of materials. On the material selection we apply the UV resistance on finishes. Besides, we apply sustainable design features on furniture.

#### **COMMERCIAL POTENTIAL**

Considering market demand and size, our design taps into the growing demand for sustainable solutions in bench furniture are focused on wide range of users seeking eco-friendly environments. From innovative furniture the university site can grow up more on innovative bench furniture with apply the eco-friendly in furniture. After that, from the implementation of furniture we can grow up the demand for sustainable products in the market. Besides, from this project we can cost savings and efficiency on selection material, finishes and others.

#### CONCLUSION

Highlight the importance of design in public areas and academic settings, emphasizing how ecofriendly elements and sustainable design features a sense of community. This project provides a great benefit to target users and environments. This project can further develop the features of eco-friendly element on furniture design. In addition, this project can help to merge the traditional and modern elements of furniture design.

#### ACKNOWLEDGEMENT

We would like to express our sincere gratitude to all the people, groups, and institutions whose assistance was crucial to the creation and success of our furniture design. Their cooperation, knowledge, and support have been crucial to achieving our goals and building a place that improves community engagement and promotes a sustainable environment for everybody.

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Sekian, terima kasih.

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Saya yang menjalankan amanah,

Setuju.

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