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International Teaching Aid
Competition 2023

Reconnoitering Innovative Ideas in Postnormal Times

iTAC

2023

iTAC 2023
INTERNATIONAL TEACHING AID COMPETITION
E-PROCEEDINGS

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PREFACE

iTAC or International Teaching Aid Competition 2023 was a venue for academicians, researchers, industries, junior and young inventors to showcase their innovative ideas not only in the teaching and learning sphere but also in other numerous disciplines of study. This competition was organised by the Special Interest Group, Public Interest Centre of Excellence (SIG PICE) UiTM Kedah Branch, Malaysia. Its main aim was to promote the production of innovative ideas among academicians, students and also the public at large.

In accordance with the theme "Reconnoitering Innovative Ideas in Post-normal Times", the development of novel ideas from the perspectives of interdisciplinary innovations is more compelling today, especially in the post-covid 19 times. Post-pandemic initiatives are the most relevant in the current world to adapt to new ways of doing things and all these surely require networking and collaboration. Rising to the occasion, iTAC 2023 has managed to attract more than 267 participations for all categories. The staggering number of submissions has proven the relevance of this competition to the academic world and beyond in urging the culture of innovating ideas.

iTAC 2023 committee would like to thank all creative participants for showcasing their innovative ideas with us. As expected in any competition, there will be those who win and those who lose. Congratulations to all the award recipients (Diamond, Gold, Silver and Bronze) for their winning entries. Those who did not make the cut this year can always improve and join us again later.

It is hoped that iTAC 2023 has been a worthy platform for all participating innovators who have shown ingenious efforts in their products and ideas. This compilation of extended abstracts published as iTAC 2023 E-Proceedings contains insights into what current researchers, both experienced and novice, find important and relevant in the post-normal times.

Best regards,

iTAC 2023 Committee
Special Interest Group, Public Interest Centre of Excellence (SIG PICE)
UiTM Kedah Branch
Malaysia

THE LORONG: TRANSFORMING GESTURE AND STRUCTURE IN A SHAPESHIFTING STUDENT RECREATION ALLEY

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ABSTRACT

The LORONG is an innovative project that aims to transform the conventional concept of student recreation alleys. These spaces often lack creativity and fail to fully engage students, resulting in a need for a fresh and novel approach. The project addresses this gap by reimagining recreation alleys as dynamic environments that foster community and inspire creativity. The primary objective of The LORONG is to redefine the student recreation alley by incorporating elements of shapeshifting, gesture, and structure. This groundbreaking design concept allows the alley to adapt and transform to accommodate various leisure activities and moods. By integrating these innovative features, The LORONG enhances the overall experience for students, encouraging social interaction, artistic expression, and academic engagement. By revitalizing student recreation spaces, it creates a vibrant and inclusive environment that promotes student well-being and happiness. The dynamic atmosphere of The LORONG fosters social interaction, diversity, and cultural exchange, contributing to the overall sense of community within the campus. Additionally, the project provides opportunities for students to explore their artistic talents and engage in recreational activities, enriching their college experience.

Furthermore, The LORONG holds significant commercialization potential. Its unique design and transformative features make it an appealing concept for universities and educational institutions seeking to enhance their student recreational facilities. The LORONG represents a revolutionary approach to student recreation alleys. Its shapeshifting design, incorporating elements of gesture and structure, creates an immersive and adaptable space for students to socialize, relax, and engage in various activities. The project brings forth benefits to society by promoting student well-being, fostering community, and offering commercialization potential. The LORONG sets a new standard for student recreation spaces, inspiring creativity and providing a dynamic environment for students to thrive.

Keywords: Student recreation alley, shapeshifter, gesture, structure

INTRODUCTION

The LORONG is a design proposal for the recreation alleyway of the residential college of UMK City Campus, intended to revitalise and create a favourable space for students to engage in recreational activities within the campus housing. The project is located in an alley between the residential buildings. The primary objective of The LORONG is to provide a place for students to congregate, relax, and socialise, with the zig-zagging linear structure and graphics suggesting a variety of smaller spaces within the alley, thereby dividing the overall space into a series of more intimate spaces, or "urban rooms." The LORONG intends to function as an architectural emblem at the campus' core.

The general outlook and appearance of the design are inspired by the design's conceptual idea, which is the shapeshifting of gesture and structure. The design approach for this concept is to generally create a landmark and iconic structure that could best represent the University. It is a representation, symbolically, of the journey of a student as well as a navigating medium through which the community is bridged to the University.

The term 'Gesture' is the series of motions (walking, gazing around) that a person performs when perceiving an architectural environment; these movements are caused by the place and include emotional repercussions. It refers to the direct effect of a piece of architecture on the subject, the relationship between architecture and the human body. Due to the fact that all humans have virtually identical sensory-motor systems, we can all connect to this action.

DESIGN DEVELOPMENT

By virtue of its shape and proximity to the adjacent hostel blocks and pedestrian student access points on each side of the alley, The LORONG has a variety of functions, including casual lounging and sitting, mini-stages for busking, and food kiosks, as well as a study area. The design is meant to let students and those in charge of programming activities understand the project and find various alley uses. The gesture and structural shapeshifting design is intended to function as a component of social infrastructure. The project brings together students from

different backgrounds so they can enjoy all the activities in the alley together. The project, which consists of a continuous linear space created from a series of bigger, basic steel tubes, physically unites visitors with a single gesture while simultaneously projecting a number of dynamic situations. The LORONG produced a continuous volume that complies with the alley's precise clearances. The concept was developed by discussing the site's issues, opportunities, and constraints that will lead to the many architectural alternatives while considering the alley's potential as a focal point and key attraction for the residential college on the UMK City Campus. The concept was then improvised by utilising drawings and 3D modelling to capture virtual images of the planned recreation alley's precise location. The design was ultimately finalised and named the LORONG.

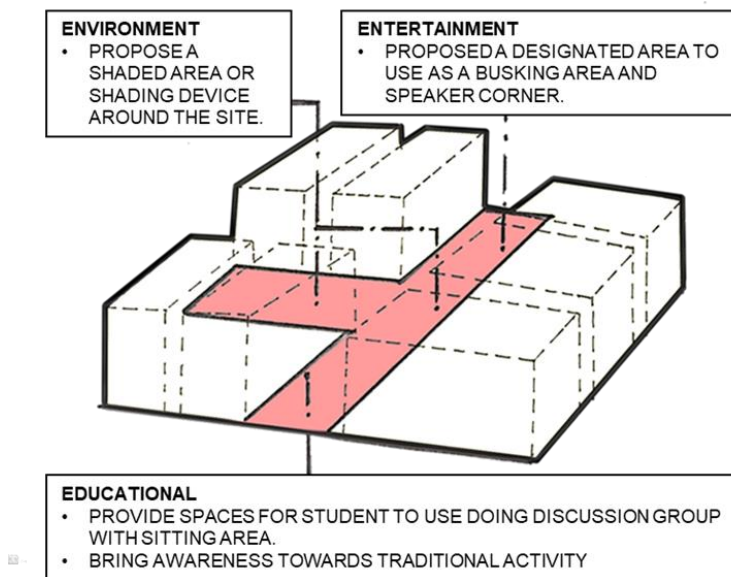


Figure 1. The conceptual idea of The LORONG is developed based on the issues that have been identified at the site.

BACKGROUND OF INNOVATION

The LORONG has a ripple effect because it has a single, continuous design element that starts the expected use of space by the user. The continuous steel tube flowing horizontally and vertically, twisting, and crossing its way along the length of the alley, transforms the linear space into several smaller spaces/rooms that may be used for sitting, relaxing, playing, and as a little stage for busking. The design elevates the area with its brilliant use of colour and minimum intervention method, lending legitimacy to the users by giving the possibility for appropriation or interpretation. Each movement's primary concept, shown by an expressionistic movement whose values change depending on the manner in which they are expressed, is represented by the movement's expressive form. The dynamic of the building's architectural form signifies the dazzling movement, simulating dynamic movement via movement's stability in design. Since these lines and curved surfaces offer a continual change in architectural space,

which involves numerous components, such as position, direction, and size, The LORONG gives the feeling of movement by putting together materials, lines, basic shapes, and levels in a way that makes you think of movement.

ADVANTAGES OF INNOVATION

The idea of developing and reviving the students' campus accommodation recreation alley is based on multiple opportunities, such as the alley's main goal, which is to promote daytime and nighttime activities. Consequently, it can serve as the focal point and primary attraction of the residential college. The LORONG's design offers various advantages, including:

1. It serves as one of the local site context monuments.
2. It serves as a prominent landmark on the UMK City Campus.
3. It offers recreational environments such as casual lounging and sitting, mini-stages for busking, food kiosks, as well as a study area.
4. It gives a better setting for students to participate in alley activities.

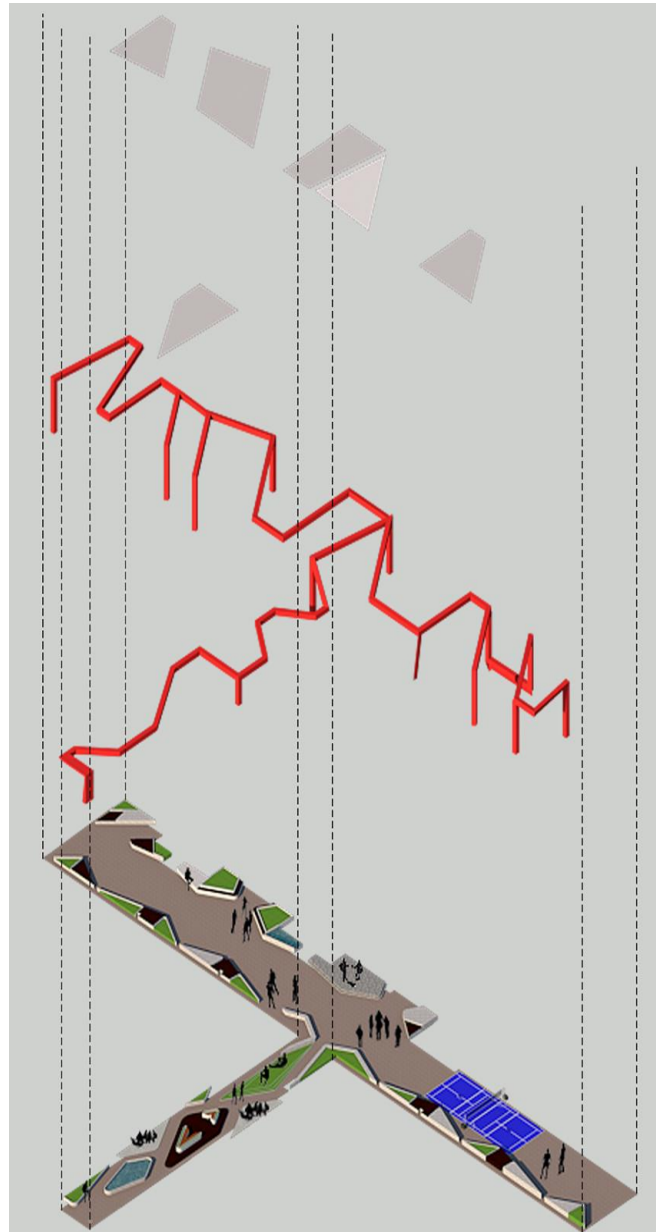


Figure 2. The exploded axonometry of the Lorong

COMMERCIAL VALUES

The LORONG is a landmark and distinctive structure that best represents UMK. It is both a symbolic depiction of a student's path and a medium through which the community is connected to the University. As a result, this design can be commercialised as a UMK signature that can promote and introduce UMK by providing appropriate and unique recreational spaces to students. This design may be registered for Copyright or even as an Intellectual Property

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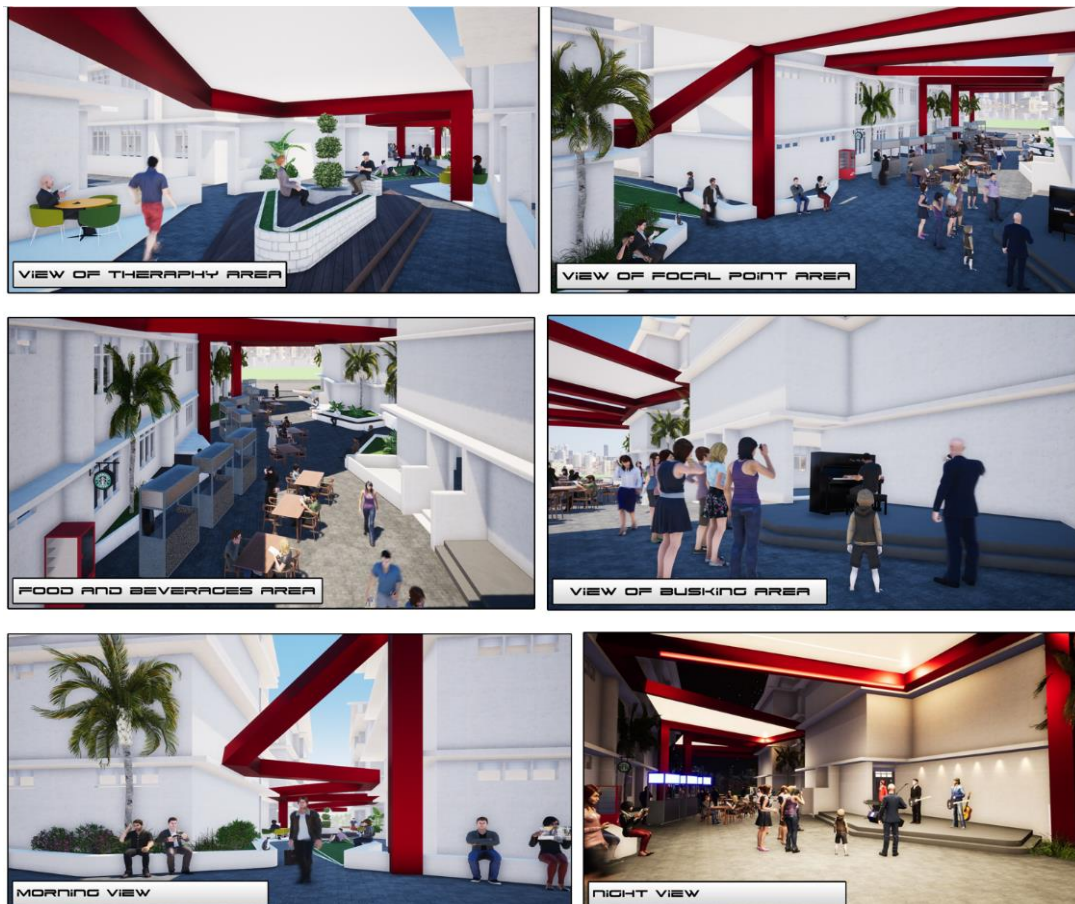


Figure 3. Views from different angles of the Lorong

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REFERENCES

- Karanouh, A., & Kerber, E. (2015). Innovations in dynamic architecture. *Journal of Facade Design and Engineering*, 3(2), 185-221.
- Taylor, M. (2018). *Shapeshifting: Interior architecture and dynamic design*. In *The Interior Architecture Theory Reader* (pp. 53-58). Routledge.

- Naidoo, C. P. (2018). *Shapeshifting in contemporary Japanese residential architecture in Japan: Tadao Ando, Kengo Kuma, SANAA*.
- Hebbert, M. (2018). The campus and the city: a design revolution explained. *Journal of Urban Design*, 23(6), 883-897.
- Staeger-Wilson, K., Barnett, C., Mahoney, S., & Sampson, D. H. (2012). Planning for an inclusive campus recreation facility and program. *Recreational Sports Journal*, 36(1), 37-44.
- Gao, L., Liu, Z., Liu, R., & Wang, J. (2020). Design of university campus recreation opportunity spectrum based on environmental psychology. *Revista Argentina de Clínica Psicológica*, 29(2), 40.
- Gregg, C., Strikwerda-Brown, J., & Stone, G. (2002). Physical activity levels, sporting, recreational and cultural preferences of students and staff at a regional university campus. *ACHPER Australia Healthy Lifestyles Journal*, 49(3-4), 39-43.



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