



UNIVERSITI
MALAYSIA
KELANTAN



CRI 2021
CARNIVAL OF RESEARCH AND INNOVATION
VIRTUAL INTERNATIONAL EDITION

e-PROCEEDING

CARNIVAL OF
RESEARCH & INNOVATION
(CRI 2021)
VIRTUAL INTERNATIONAL EDITION

In conjunction with



INTELLIGENT 2021
POLITEKNIK KOTA BHARU

I N T E R N A T I O N A L
VIRTUAL INNOVATION CHALLENGE
(INTELLIGENT2021)

&



CREATIVE INNOVATION CARNIVAL
(CIC) 2021

20 – 21 SEPTEMBER 2021
UNIVERSITI MALAYSIA KELANTAN, MALAYSIA

CHIEF EDITOR: NUR HAFEZAH HUSSEIN

**THE LEMBAH SIREH-KB CITY WEB APP:
PROTOTYPE FOR SITE ANALYSIS IN FINAL YEAR ARCHITECTURE STUDIO TEACHING**

Najah Md Alwi

Universiti Malaysia Kelantan, Bachok, Malaysia
najah.ma@umk.edu.my

Mhd Hafiz Karami Mhd Zain, Muhammad Mujibur Rahman Bin Ahmad Safuan, Liew Ho Yen, Ariff Asyraf Bin Ab Rahman, Muhammad Azeem Bin Mohd Rizal, Nurul Fatihah Binti Said, Nur 'Izzatul Zaharah Binti Mohd Rosli

Universiti Malaysia Kelantan, Bachok, Malaysia
hafiz.k@umk.edu.my, mujibur.q18b0016@siswa.umk.edu.my, lhen.q18a0012@siswa.umk.edu.my,
ariff.q18b0049@siswa.umk.edu.my, azeem.q17a0040@siswa.umk.edu.my, fatihah.q18a0042@siswa.umk.edu.my,
izzatul.q17a0054@siswa.umk.edu.my

Highlights: What you will find in this exercise is detailed research data on Kota Bharu historical places, land use, transport hub, demographics and climate at your fingertips via a smartphone application. This project hopes to pave new ways into integrating technology and web application use into the traditional studio-based learning for architectural design.

Keywords: *Urban Analysis, City Web App, Mapping, Citizen Science*

Introduction

The wide use of mobile and web applications, along with the increasing popularity of citizen science in aiding scientific discoveries of cities and joining collaboration for placemaking initiatives is just the beginning of the fourth industrial revolution. To remain relevant, a revised version of a traditional architectural design process explores onto a different platform for sharing knowledge and meaningful data with local authorities and the public. This project will serve as a prototype to test the concept and semantics of this teaching innovation for studio-based learning.

Content

This project aims to contribute to a deeper understanding of the specified site (Lembah Sireh) before the next stage of the building design proposal. Knowing the limits of its geographic surroundings near the Kelantan River and its socio-economic relationship with Kota Bharu City is key to the course learning outcome. This exercise also plays a role in providing soft and hard skills for the students to adapt to the real world.

Innovation context

While every project in an architectural studio usually starts with a site visit to measure, observe and analyse a proposed site for a given task, much of these site studies also include a small radius of contextual research about its surrounding nature, people and its existing structures. Before the students arrive onsite, they are usually already in groups divided under specific themes of site investigations that aim to collect vast information in two levels of complexity: the macro and micro context. The macro study focuses on the role of the proposed site and how the location fits into the city. This study generally includes a trip to several local planning district authorities to inquire about maps and developmental plans for future city growth. The micro-study is where the students make a comprehensive study about the urban form overall, its history, human activity, demographics, and movement pattern in the agreed radius of the site. For the final year students, their range of urban data covers approximately 5km within the radius of the proposed site. In the case of the current students, their proposed site is Lembah Sireh.

Importance and significance

In the final product, the analysed information on how the city works, its opportunities and weaknesses are presented on a web application (also designed to be accessible on a mobile phone app) to guide and inform its targeted users. Not only does the data provide valuable architectural information about the city's historical and newest upcoming developments, but it also provides mapping for these cultural and gastronomic sites for which the city is known.

Marketability or profitability

This prototype web application has a high potential for both monetary and collaborative profit when paired and supported together either with relevant local authorities or local businesses. We aim for the innovation to continue for other studio projects as well to encourage more participation between different parties of stakeholders.

References

- Gehl, J. & Savarri B. (2013). How to Study Public Life. Washington: Island Press Cullen, Gordon. 1961.
Gehl, J. (2010). Cities for People. Washington: Island Press
Holl, Steven. Questions of Perception: Phenomenology of Architecture, eds Steven Holl, Juhani Pallasmaa, Alberto Perez- Gomez, A+I