



Cawangan Kedah  
Kampus Sungai Petani

Faculty of Administrative  
Science and Policy Studies

# i-SPIKE 2021

*Leading An Artificial Innovation In Knowledge, Education And Design*

## **i-SPIKE 2021 INTERNATIONAL EXHIBITION & SYMPOSIUM E-PROCEEDINGS**

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## AUGMENTED REALITY DESIGN: THE STUDY OF PROPERTY DEVELOPMENT MARKETING TOOLS

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### ABSTRACT

My research focuses on the yet unknown subject of growing reality (AR) usage in immobilization. Previously, printing ads are used to help businesses sell the goods or services they deliver to their clients. In the home market, the brochures have had a huge effect on the degree of buyer satisfaction in the housing offered. Some developer using a scale model is a required architectural design to reflect the design outcomes as a physical model by architects. Making a scale model requires components that cost some money and not practical nowadays. Augmented reality (AR), state-of-the-art technology for superimposing knowledge onto the physical world, has recently begun to influence our everyday lives. Applications from AR are becoming mature and flexible. Augmented Reality (AR) is a technology that integrates 3-dimensional simulated objects into real-time real-time settings. Creation of this technology based on User Centered Design at each stage of the design process, usability goals, user characteristics, environment, activities, and workflow of a product, service, or process are given considerable consideration. It aims to provide a clearer visual understanding of the structure of the house displayed in 3-dimensional form. In addition, it will raise the demand of buyers of houses sold and reduce the expense of producing miniature models. Its runs on the Android smartphone platform and uses the Vuforia SDK to view augmented objects in 3-dimensional format. Systemic protocols are used to clarify the process of the two studies aimed at developing a system project that can be implemented, modified or adjusted to better fit the requirements of any particular research project in this area.

**Keywords:** *Augmented Realit, Real Estate, Marketing tools, Architectural design, Smart phone, User Centered Design*

### INTRODUCTION

Augmented Reality (AR) as a direct or indirect real-time view of a physical real-world environment that has been enhanced / increased by adding to it virtual computer generated information. Augmented reality offers a visual of the real world where elements are superimposed on computer-generated images, such as graphics, sounds, videos, or digital content. From the first AR head-mounted display developed in the 1960s by Ivan Sutherland at Harvard (Sutherland, 1968) to the enhanced HD4 AR and Mobile Augmented Reality System (MARS) developed by Golparvar et al. (Bae et al., 2012 ), augmented reality technologies have been used in various disciplines and arenas, e.g. engineering, entertainment, aerospace, medicine, military and automotive ind. AR is both interactive and tracked in 3D as well as integrating actual and virtual objects. 3D Modelling will continue to play a key role in virtual regulatory environmental activities. It is because the intersection of technologies and human are between models.

## Research Question

1. What is the most efficient approach to promote a real estate property using marketing kits?
2. How important a marketing kits for property development may aid in the sale to potential buyers?
3. What are the advantages of using augmented reality application in marketing strategies through user-centered design?

## Research Objective

1. To identify an effective way to market a real estate property using augmented reality in their marketing kit
2. To analyze Augmented Reality Application for property development which helps them in selling the current and future properties to prospective clients.
3. To develop an augmented reality-based navigation system based on user centered design by bridging the gap between imagination and reality, augmented reality helps companies increase brand awareness, create a loyal consumer base, and engage with their audience.

## Research Problems

1. To build a marketing property miniature, developers require more trained workers, and the model itself might produce surplus tonnes
2. Some housebuilders are assuming suburban marketing imagery. Furthermore, most real estate investors avoid creating new ideas.
3. Lack of knowledge some marketing personnel are still using traditional way to promote they property to potential client.

## METHODOLOGY

User-centered design (UCD) is a set of procedures that puts users at the centre of product development and design. When a researcher creates digital goods, it considers the needs, goals, and feedback of the users. User requirements and desires become a top concern, and every design decision is assessed in terms of whether it adds value to the user. Image 1.0 shows that how the process of design thinking

### Ideate phase

According to A. Gerstenfeld's remark from 1976 , innovation also refers to the process of developing new goods and methods, as well as the culmination of all previously produced inventions. According to Thom , 1980, he devised a straightforward scheme. He separates the product development process into three stages: concept generation, concept acceptance, and concept realisation. Individual sub-phases and/or subtasks are grouped into these primary stages. Table 1.0 summarises Thom's approach.

**Table 1.** Summarises Thom’s approach

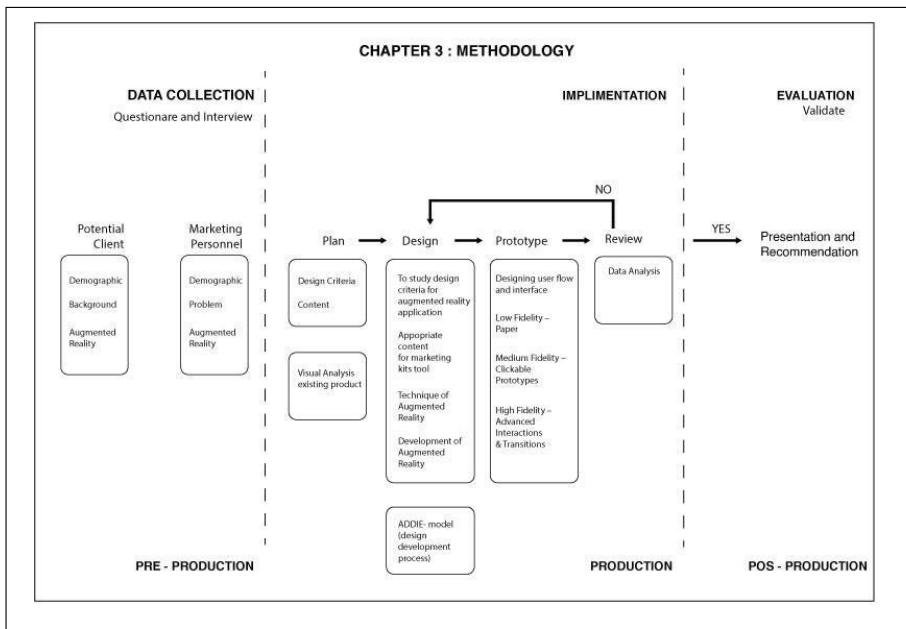
Stages of the innovation process		
Main Stage		
1. Idea Generation	2. Idea Acceptance	3. Idea Realisation

### Prototype phase

Prototyping is a crucial step in the development of interactive systems (Rogers, Sharp, & Preece, 2011). In interface design, prototypes serve a variety of functions. They're utilised to communicate with designers as well as users, developers, and managers, for example. Prototypes are also used to broaden the design area, create ideas, and conduct feasibility tests.

### Test phase

With continuous iterations and user omnipresence - and the time and expense that entails - Frohlic and Sarvas, 2011 defend the User-Centred Design method, even if they realise that this practise weakens the urgency of the technology and innovation market. Support statement by ISO 9241-210 This method improves efficacy, human well-being, accessibility, and sustainability while also taking into account the many implications that interactive systems might have on health, safety, and user performance.



**Figure 1.** Methodology workflow

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