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Editors: Lizawati Abdullah, Nor Suzila Lop, Nor Nazihah Chuweni, Suriani Ngah Abdul Wahab,
Hasnan Hashim

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WELCOME SPEECH FROM THE CHAIRMAN

RISM 17th International Surveying Conference for Undergraduates (ISCU 2025)

بسم الله الرحمن الرحيم السلام

عليكم ورحمة الله وبركاته

Greetings to all,

It is with great pleasure that I welcome you to the 17th RISM International Surveying Conference for Undergraduates (ISCU 2025), themed “*Embracing Construction Revolution 4.0: Transforming Malaysia’s Built Environment.*” On behalf of the Royal Institution of Surveyors Malaysia (RISM), I also wish to express our sincere appreciation to Universiti Teknologi MARA (UiTM), Perak Campus, for graciously hosting this significant event.

As we navigate the era of the Fourth Industrial Revolution (IR4.0)—or in our context, Construction Revolution 4.0 (CR4.0)—we are witnessing transformative advancements across the global construction sector. Technologies such as Building Information Modelling (BIM), the Internet of Things (IoT), artificial intelligence (AI), robotics, big data analytics, and cloud computing are redefining the way we build, manage, and interact with our built environment. For Malaysia, embracing CR4.0 is a strategic imperative to achieve our socio-economic and environmental goals.

This conference serves as a vital platform to unite surveying undergraduates from various disciplines, fostering critical dialogue on industry challenges, enhancing professional networking, and preparing a new generation of talent for the rapidly evolving construction landscape. It is also an opportunity for employers to engage with and inspire our future professionals.

I would like to extend my heartfelt thanks to all industry speakers, paper presenters, judges, and participants for their time, contributions, and support in making ISCU 2025 a success. I also commend the organising committee for curating a meaningful and dynamic conference experience.

May the knowledge gained, connections formed, and ideas exchanged during this event inspire all participants to lead and innovate in their future endeavours.

Wishing everyone a productive and memorable conference.

Prof. Ts Sr Dr. Adi Irfan Bin Che Ani'

Chairman, Universities' Partnering Committee

RISM Session 2024/2025

May 2025

WELCOME SPEECH FROM CO-CHAIRMAN

RISM 17th International Surveying Conference for Undergraduates (ISCU 2025)

Bismillahirrahmanirrahim.

السلام عليكم ورحمة الله وبركاته and greetings to all.

It is my great pleasure to welcome everyone to the 17th International Surveyor Conference for Undergraduates (ISCU 2025), proudly hosted by Universiti Teknologi MARA (UiTM) Perak Branch in collaboration with the Royal Institution of Surveyors Malaysia (RISM). This event is a meaningful platform for students in the built environment to share ideas, showcase innovations, and build professional networks. We are honoured by your presence and enthusiastic participation, with 135 accepted papers and 78 poster presentations this year.

UiTM Perak, home to the College of Built Environment, has long been a hub for academic excellence in architecture, planning, and surveying. Our commitment remains strong in nurturing competent graduates who meet industry demands and contribute to nation-building.

While you're here, we invite you to experience the heritage and culture of Perak Tengah from the architectural richness of Rumah Kutai to the historical towns of Pasir Salak, Bota, and Kampung Gajah.

To all presenters and winners, congratulations on your achievements. Let your work today be a catalyst for future success and academic growth. We hope this conference will inspire you to explore new ideas, foster collaboration, and make lasting memories.

My deepest thanks to the Royal Institution of Surveyors Malaysia (RISM) and the organising committee for making this event a success.

We hope your experience here will be rewarding and unforgettable.

Thank you. Selamat datang dan selamat berjaya.

Associates Professor Dr. Nur Hisham Ibrahim, *PMP*

Co-Chairman, Universities' Partnering Committee

RISM Session 2024/2025

May 2025

WELCOME SPEECH FROM THE PROJECT DIRECTOR

RISM 17th International Surveying Conference for Undergraduates 2025

Alhamdulillah, all praise to Allah S.W.T. for His guidance and blessings in making the RISM 17th International Surveying Conference for Undergraduates (ISCU) 2025 a reality.

It is with great honour and gratitude that I welcome all participants, guests, academicians, and industry professionals to this prestigious event, proudly organized under the Royal Institution of Surveyors Malaysia (RISM). This 17th edition of ISCU stands as a proud testament to our collective dedication toward academic excellence, professional collaboration, and youth empowerment in the field of surveying.

I extend my heartfelt appreciation to RISM for its unwavering support, to the hardworking ISCU 2025 Organising Committee, and to all 16 partnering universities across Malaysia for their commitment and contributions. Your efforts have shaped this conference into a dynamic platform for knowledge exchange, innovation, and professional growth.

To the academicians and practitioners present, your insights are invaluable in bridging the gap between academic theory and real-world practice. To our undergraduate participants, your passion, curiosity, and commitment are the very foundation of our future. May this conference not only deepen your academic journey but also ignite a spirit of leadership, integrity, and sustainable thinking.

Let this gathering serve as more than an academic milestone. May it foster lifelong networks, inspire transformative ideas, and chart new directions in our shared professional journey.

Wishing everyone a rewarding and inspiring conference experience.

Sr Dr. Nurul Fadzila Zahari

Project Director

RISM 17th ISCU 2025

IMPACT OF HIGHER EDUCATION INSTITUTIONS (HEIs) AS NEIGHBOURHOOD FACTOR ON HOUSING PRICE IN JOHOR BAHRU, JOHOR, MALAYSIA

Tea Pea Weon^{1*}, Noralfishah Binti Sulaiman², Sabariah Binti Eni³

^{1*}Department of Real Estate Management, Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia.
Email: ap210477@student.uthm.edu.my

²Department of Real Estate Management, Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia
Email: nora@uthm.edu.my

³Department of Real Estate Management, Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia.
Email: saba@uthm.edu.my

*Corresponding Author

ABSTRACT

Higher Education Institutions (HEIs) play a crucial role in shaping urban development and economic growth. This study examines the impact of public and private HEIs—namely, Universiti Teknologi Malaysia (UTM) and Southern University College (SUC)—on housing prices in Johor Bahru, Malaysia. Utilizing Geographic Information System (GIS) for spatial analysis and Multiple Regression Analysis (MRA) via SPSS, the research investigates the relationship between HEIs and housing prices, considering factors such as demographic trends, infrastructure, and proximity to HEIs. Using a dataset of 171 housing transactions, the study reveals that proximity to the SUC hub significantly influences housing prices. The mean transaction price is RM630,994.15 (SD = RM323,527.82), with an average distance of 2.43 km to the SUC hub. The analysis shows that as the distance from SUC increases, transaction prices decrease, with an R-value of 0.875 and an R-square of 76.60%, indicating that distance explains a substantial portion of price variation. On average, each additional kilometer from the SUC hub results in a price reduction of RM49,773.80. Conversely, UTM's impact on surrounding housing prices is weaker, with an R-square value of only 0.20%. This difference is attributed to UTM's extensive on-campus student accommodation, which reduces demand for nearby private housing. In contrast, SUC's limited student housing creates higher rental demand in its vicinity, driving up property prices and investment interest. These findings provide valuable insights for urban planners and real estate stakeholders, highlighting the varying effects of public and private HEIs on local housing markets. The study underscores the importance of accommodation policies, infrastructure, and market dynamics in shaping real estate trends near educational institutions.

Keywords: Higher Education Institutions (HEIs), Housing Prices, Johor Bahru, Geographic Information System (GIS), Real Estate Development.

I. INTRODUCTION

Amidst recovery from the COVID-19 pandemic, Malaysia's housing sector displayed notable trends between 2022 and 2023. Economic recovery and increased consumer confidence led to varying housing sector patterns, with high-end house prices fluctuating due to buyer preferences, supply dynamics, and government policies, while demand for affordable housing remained steady. Despite initiatives to promote homeownership, issues like housing supply shortages and affordability persisted, highlighting the need for long-term solutions. The Malaysian economy demonstrated resilience in 2023, growing by 3.7%, driven by domestic demand, tourism rebound, and improved labour market conditions. Tax systems, specifically the Sales and Service Tax (SST), played a role in the economic landscape. The fourth-quarter GDP performance showed a decline from 7.4% in 2022 to 2.9% in 2023, with varied growth across sectors. The Malaysian residential property market remained resilient, supported by infrastructure developments like Forest City and the Rapid Transit System in Johor. Johor has witnessed consistent population growth in recent years, with the total population rising from approximately 4.0 million in 2022 to an estimated 4.2 million in 2024, reflecting a 1.90% growth rate. This demographic expansion is largely attributed to ongoing

urbanization, economic development, and the increasing attractiveness of Johor Bahru as a hub for education and employment, particularly due to its strategic location near Singapore. One key contributor to this growth is the concentration of Higher Education Institutions (HEIs) attract thousands of students, faculty, and support staff from across Malaysia and abroad, driving up the demand for residential properties—particularly rental housing near campuses. As a result, the rising population around HEIs significantly influences local housing markets, creating upward pressure on prices and reshaping neighbourhood dynamics (DOSM,2024). Johor Bahru (JB) is home to several prominent higher education institutions (HEIs), including Universiti Teknologi Malaysia (UTM), Southern University College (SUC), Raffles University, and Sunway College JB. The expansion of these institutions has led to a significant increase in student and staff populations, thereby stimulating demand for nearby housing. A study by Ghani and Sulaiman (2021) highlights that the growth in student enrolment often surpasses the available on-campus housing, leading to a substantial demand for off-campus accommodations. This trend is particularly evident in cities with major educational institutions, such as Johor Bahru. The authors note that the mismatch between enrolment growth and housing provision necessitates increased reliance on the private rental market to accommodate students.

This study focuses on Johor Bahru, examining the impact of higher education institutions (HEIs) on neighbourhood factors influencing housing prices. However, challenges like housing affordability and community integration arise. By analysing the interaction between HEIs and neighbourhood factors, the study aims to provide insights for sustainable development, address disparities, and enhance residents' quality of life. Understanding these dynamics helps policymakers and stakeholders foster collaboration, innovation, and social cohesion in Johor Bahru.

RESEARCH BACKGROUND

Skudai, a city in Johor Bahru, Malaysia, is located about 13 km northwest of Johor Bahru's central business district, within the jurisdiction of the Iskandar Puteri City Council. Despite being outside Johor Bahru's city limits, Skudai is part of the Iskandar Malaysia development region. It hosts several higher education institutions (HEIs), including Southern University College (SUC), INTI Education Counselling Centre, PPI College, Wawasan Open University, Kolej MDIS Malaysia, Sunway College Johor Bahru, Universiti Raffles, and Universiti Teknologi Malaysia (UTM). A premier academic and research institution, has significantly improved its global standing, moving from the 601-800 band to the 401-500 band and ranking 188th worldwide by QS University Rankings. Established on March 14, 1972, UTM offers diverse programs including Biomedical Engineering, Chemical Engineering, Nuclear Engineering, Civil Engineering, Software Engineering, Electrical and Electronic Engineering, Business and Management, Information Technology, Science Education, and Artificial Intelligence. As of 2024, UTM has 16,425 undergraduate students, 8,355 postgraduate students, 4,819 staff members, and 203,146 alumni. The main campus, located in Skudai, was the first university established in Johor.

PROBLEM STATEMENT

Johor Bahru's rapid urban development and its growing status as an educational hub, there is limited research on how Higher Education Institutions (HEIs) influence nearby housing prices as a neighbourhood factor. As universities and colleges continue to expand, they attract a rising number of students, academic staff, and service workers, intensifying the demand for off-campus housing and exerting upward pressure on property prices. This trend contributes to growing concerns over housing affordability and availability in surrounding communities. The problem statement also addresses the correlation between the development of Public Higher Education Institutions (IPTA) like Universiti Teknologi Malaysia (UTM) and their subsequent impact on housing, economic growth, knowledge transfer, and social dynamics in adjacent areas. With UTM boasting a substantial staff count of 4,819 in 2024, comprising both academic and non-academic personnel, it serves as a focal point for research, education, and innovation, generating job opportunities directly within the university and indirectly through collaborations. This influx of human capital catalyses economic expansion in neighbouring communities by bolstering employment prospects, attracting both local residents and migrants. In Malaysia's real estate sector, the integration of IPTA or IPTS (Private HEIs) has led to a surge in housing costs, highlighting the intricate relationship between developer pricing strategies and market dynamics influenced by macro and microeconomic factors. Understanding these pricing mechanisms was vital for developers to ensure the success of housing projects in a competitive market.

RESEARCH QUESTIONS

1. What is the factors proximity of HEIs as one neighbourhood influence the housing price in Johor Bahru by leveraging Geographic Information System (GIS)?
2. What is the impact of public and private higher education institutions on surrounding property price in Skudai, Johor Bahru?

RESEARCH OBJECTIVES

1. To analyse the factors proximity of HEIs to the housing price in Johor Bahru by leveraging Geographic Information System (GIS).
2. To discuss the impact of public and private higher education institutions on surrounding property price in Skudai, Johor Bahru.

RESEARCH OF THE SCOPE

Skudai, located within the Johor Bahru District, has emerged as a rapidly growing suburban and educational hub, driven in large part by the presence of Higher Education Institutions (HEIs). This study focuses on Skudai due to its strategic concentration of both public and private HEIs, including Universiti Teknologi Malaysia (UTM) and Southern University College (SUC), which serve as focal points for education, research, and innovation. The clustering of educational institutions within a 5-kilometre radius—such as UTM, SUC and the Malaysia Art School Johor Branch, there are demonstrates the area's role as a dense educational corridor. This high institutional density not only attracts a diverse population of students, academic professionals, and support staff but also stimulates significant residential and commercial development. In turn, this influx has contributed to increasing housing demand and rising property values, particularly in neighborhoods surrounding HEIs. Otherwise, Johor's overall population growth from approximately 4.0 million in 2022 to 4.2 million in 2024 further intensifies these pressures in high-demand zones like Skudai. The correlation between HEI presence and urban transformation in Skudai underscores the importance of this research in examining how educational centres act as catalysts for localized real estate price shifts and broader neighbourhood changes.

SIGNIFICANCE OF STUDY

The significance of studying the impact of Higher Education Institutions (HEIs) on neighbourhood factors in Skudai, Johor Bahru, encompasses several key aspects:

1. **Buyers/Residential:** Provides insights into how HEIs influence housing prices, availability, and quality, helping buyers and residents make informed decisions about property purchases or rentals.
2. **Developers/Constructors:** Guides developers in making informed decisions about real estate developments. Understanding housing demand near HEIs allows for effective property design and marketing, maximizing investment returns.
3. **Urban Planners:** Assists in creating sustainable development strategies by considering housing affordability, transportation needs, and infrastructure requirements, leading to liveable and inclusive communities.
4. **Investors/Stakeholders:** Offers valuable information on real estate dynamics influenced by HEIs. Insights into housing prices, rental yields, and market trends support investment decisions, risk assessments, and portfolio diversification, highlighting profitable opportunities in Skudai's real estate market.

II. LITERATURE REVIEW

A literature review was an extensive examination and evaluation of existing publications related to a particular topic or research question.

DEFINITION OF RESIDENTIAL IN REAL ESTATE MARKET

Residential real estate was an important asset that used as a place to live that can also generate income through rental, lease and also as guarantee (Jalil, H., Tawil, N. M., Raschid, & et al., 2016). Housing is a crucial aspect of life, offering shelter, safety, warmth, and a place for rest (Inita Henilane,2016). In the past the concept "housing" was associated with a physical phenomenon, and the policies of countries for its provision mostly are related with construction costs that may largely vary depending on the type of construction material, various housing standards and construction quality (Grimes & Orville, 1976).

TYPE OF RESIDENTIAL PROPERTY IN MALAYSIA

Landed Property

A piece of land and any constructions permanently affixed to it are considered property. Real property owners are endowed with full ownership rights, such as the ability to occupy, sell, lease, and take pleasure in their property (Investopedia, 2008).

a) Terrace House

Terrace houses are presumably the most common kind of homes in Malaysia. In essence, terrace houses are ones that are constructed in rows, side by side. They are sort of wedged in between the neighbour on the left and the neighbour on the right by two common walls. Terrace homes can be one, two, or three stories tall, and occasionally they are taller than that. The terrace residences on end lots and corner lots will have an open garden on one end and only one share wall (Malaysia Property Reviews, 2020).

b) Semi-Detached House

Semi-detached houses are just one step below bungalows in terms of size, elegance, and prestige. These homes usually have big land areas and gardens, even though they share a wall with their neighbours. Semi-Detached (Semi-D) Houses are designed involves sharing of one building between two homes, where a wall separated in the middle of the building.

c) Bungalow

Independent structures, bungalows are typically situated on large parcels of land that belong to their owners. In addition, bungalow construction honours the concept of spacious living. This form of construction was popular in Malaysia and consists of multiple rooms. The cost of the bungalow also varies greatly depending on its location and land area. The bungalow and the zero-lot bungalow had the same similarities, except for area size (Hassan, M. M., Ahmad, N., & Hashim, 2021).

DEFINITION

a. Price

Based on Malaysian Valuation Standards (2006), price is the amount offered, requested or paid for a good or service. Price is also the ability or willingness of a person to buy a home depending on limited resources. However, price is generally a relative value placed on goods or services by sellers or buyers. Price can also be defined as an agreed amount of money in a transaction or exchange of an item that occurs in the market, where the seller and buyer have aware of the facts relevant to the item and without any coercion (Evaluation Basis, 2006).

b. Value

According to Ismail Ormar (2006) Value is different from Price. Price is what you pay. Value is what you get. Value is the equilibrium point between supply and demand. Demand is always increasing compared to limited and inelastic supply. When negotiating for the sale of real estate, reasonable time is required. Sellers and buyers are willing (willing seller willing buyer). Property value experts evaluate every aspect of your home that makes it stand out and stand out from those recent transactions before estimating its value (Devon Thorsby, 2023).

c. Market Value

Based on Malaysian Valuation Standard Sixth edition 2019, the estimated amount for which an asset or liability should exchange on the valuation date between a buyer and a willing seller in an arm's length transaction after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.

TREND OF PROPERTY IN MARKET MALAYSIA

The real estate market refers to the business conditions that exist between the supply of real estate and the demand for that real estate. The real estate market was affected by various factors. Not only in the general relationship between supply and demand important for the real estate market, it was also affected by the overall economic situation including inflation, changes in loan interest rates, employment rates, average income of the population, population growth rate, level of taxation, age structure of loan facilities and other factors (Suhaila, 2010). Based on the statistics by NAPIC from the official website, the situation of market value in Malaysia were still I good condition. This was because the property market has gradually increased in 2023, higher after the downturn in 2020 due to Covid-19 pandemic. A total of 399,008 transactions worth RM196.83 billion were recorded, each showing an increase of 2.5% and 9.9% respectively compared to 2022, which recorded 389,107 transactions worth RM179.07 billion. Of the total transactions, 77.7% (309,861 transactions) and 18.6% (74,405 transactions) were transfers dated in 2023 and 2022 respectively while the remaining percentage share was for prior years' transfers. There were 250,586 transactions worth RM100.93 billion recorded in 2023, a marginal increase of 3.0% in volume and 7.1% in value as compared to 2022. The improvement was supported by the uptrend recorded in Johor (44.4%).

DEFINITION OF EDUCATION

a. Elementary and Primary

Basic education is divided into three stages: preschool, kindergarten, and first through sixth grades. Typically, children start school at age four and complete primary education at age 12.

b. Secondly

The secondary school curricula underwent significant revisions, with a strong focus on fostering holistic development, mastering fundamental skills, instilling ethical principles, and eliminating premature specialization. They generally complete this level at around 18 years of age.

c. Tertiary

A university is a specific type of higher learning institution that can confer degrees or other credentials. Moreover, university was a higher learning and teaching institution for a community of scholars with a certain degree of freedom or independence and internal unity.

DEFINITION OF INSTITUTIONS IN MALAYSIA

Higher education has a broader scope, encompassing all post-secondary or tertiary institutions. An institution is generally recognized as a place of advanced learning and academic engagement, where a community of scholars participates in teaching, research, and community services. It also serves as a centre for professional training, addressing society's socio-economic, political, and cultural needs.

a. Public Institutions

Key characteristics of the public higher education sector include restricted funding, extensive rules, and oversight of their expenditures. The distribution of public funds among higher education institutes (HEI) is a significant and contentious issue. With the ever-growing demand for public higher education due to the democratisation of education, especially secondary education, public institutions faced serious challenges of operating within the constraints of their limited allocations given by the government.

b. Private Institutions

The Malaysian HEIs play a significant role in the development of the nation's workforce and the economy in general, particularly after 1996 where private universities were established along with the public owned tertiary institutions to provide more opportunities for Malaysians to pursue higher education within the country (Devi Ramachandran, S., Choy Chong, S., & Ismail, 2009). A search on the web site of the Malaysian Ministry of Higher Education (www.mohe.gov.my) reveals that as of 2023, there are 20 public universities, 36 polytechnics, and 105 community colleges. In addition, there are about 388 private universities, university colleges, foreign university branch campuses currently in operation.

FACTOR PROXIMITY EDUCATION INSTITUTIONS AS NEIGHBOURHOOD TO INFLUENCE PROPERTY PRICE

Proximity to educational institutions, such as universities and schools, has been extensively researched for its effect on residential property values. According to research, properties closer to these institutions tend to attract higher prices due to greater demand from students, faculty, and staff. For example, a study looking at the influence of proximity to universities on housing prices discovered that residences within 0.5 miles of a university had a large price increase, showing the premium associated with such places (Wang, 2023). Geographic Information Systems (GIS) have proven useful in evaluating the geographical linkages between higher education institutions and property markets. GIS-based spatial autocorrelation analysis has been used to study housing price distributions, finding that proximity to universities can result in higher property values due to increased demand from students and staff (Chen, Zhuang, and Zhang, 2020).

III. RESEARCH METHODOLOGY

DATA COLLECTION

Information about the authenticity and dependability of the data gathering tools should be provided by researchers. Data Secondar were applied to analysis and answer the objective and question in study of this title. The secondary data that the researcher uses such as property market reports and data related to the value of residential properties around the Skudai neighbourhood especially in the surrounding education centre (UTM&SUC) which can be obtained from JPPH Johor Bahru and National Property Information Centre (Naptic).

RESEARCH APPROACH

a. Quantitative Research

The quantitative technique involves collecting and analysing numerical data to solve scientific research issues. Summarising, averaging, identifying trends, forecasting, testing causal relationships, and extrapolating findings to larger populations are all done with quantitative methods. It enables us to rank priorities, calculate effect sizes, assess the strength of relationships, and evaluate the quality of the evidence supporting efficacy (Juwel Rana, 2021).

RESEARCH ANALYSIS

a. Multiple Regression Analysis (MRA)

Pearson correlations represent the relationship between two variables, in the form of a 'sign' (positive or negative) and the strength of the relationship. A model has been developed there was data related to transaction prices and characteristics of real estate sold for a certain period. When the model has gone through statistical tests and was reliable, then it applied to the entire area (Omar, M., 2022). Among the guidelines that must be followed in the use of MRA are;

- (i) The formation of the MRA function where it works in general which is $Y = f(X_1, X_2, \dots, X_n)$. Y represents the ground value (dependent variable) that works to X (factors affecting the value of the independent variable); and
- (ii) Determining theoretical expectations about pros and cons and size parameters that need to be implemented. The model is $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$.

b. Geography Information System (GIS)

Computer system that analyses and displays spatially referenced data. It makes use of information linked to a certain place. The Role of Geographical Information Systems (GIS), major functions required from an information system can be identified as follows:

- i) The descriptive function – information should help to describe a situation;

DESCRIPTIVE ANALYSIS

Descriptive analysis is a type of data investigation that helps to describe and demonstrate. Secondary data analysis was by using SPSS (Statistical Package for the Social Sciences), also known as IBM SPSS Statistics, is a software package used for the analysis of statistical data. This analysis involves the organization of data in an orderly and planned manner into a table that summarizes the data through graphical presentation. This descriptive analysis method was used to achieve the research objective that has been set.

CONCLUSION

The study aims to elucidate the relationship between Higher Education Institutions (HEIs) and housing prices in Johor Bahru, Malaysia, with a specific focus on public HEIs like UTM and private HEIs like SUC. Using Geographic Information System (GIS) for spatial analysis and Multiple Regression Analysis (MRA) through SPSS, the research will provide a comprehensive understanding of the factors influencing property prices around HEIs. My anticipated outcomes include:

1. **Success identification of factor proximity influencing Housing Price:** Key distance, infrastructural, and convenient that impact housing prices near HEIs will be identified. This will help in understanding the dynamics of property values in Skudai, Johor Bahru.
2. **Success finding Impact Analysis of HEIs:** Detailed insights into how public and private HEIs affect surrounding housing prices. This includes the differential impacts of UTM and SUC on property values, taking into account their respective contributions to economic, social, and cultural development.

This study explores the influence of public and private Higher Education Institutions (HEIs), specifically UTM and SUC, on housing prices in Johor Bahru, Malaysia. Employing Geographic Information System (GIS) and Multiple Regression Analysis (MRA), the research evaluate factor proximity impacting real estate values around these institutions. The findings indicate that HEIs significantly affect local housing markets, driven by economic, infrastructural, and socio-demographic variables. This research is crucial for urban planners, real estate developers, and policymakers aiming to address housing affordability, improve urban planning, and enhance residents' quality of life in areas surrounding HEIs.

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