



**COLLEGE OF BUILT ENVIRONMENT  
UNIVERSITI TEKNOLOGI MARA**

**COMMERCIAL AREA CAR PARK ISSUES AND SUSTAINABLE SOLUTION.  
CASE STUDY: KOMTAR CENTER BUSINESS DISTRICT, GEORGETOWN,  
PENANG**

**Academic Project Submitted in Partial Fulfillment of the  
Requirements For the award of Degree  
Bachelor of Estate Management (Hons)**

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## STUDENT'S DECLARATION

Title of Academic Project

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I hereby declare that this thesis was carried in accordance with the regulations of Universiti Teknologi MARA. This research project is the end result of my own work, and that due acknowledgement has been given in the references to all sources of information. No portion of this thesis has been submitted for any other degree or qualification of this or any other institution or non-academic institution.

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Title of Academic Project

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STUDY: KOMTAR CENTER BUSINESS DISTRICT, GEORGETOWN, PENANG.

I hereby declare that I have read this thesis and in my point of view this thesis  
is sufficient in the of scope and quality for the purpose of awarding the  
Bachelor of Degree in Estate Management (Hons).

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## ABSTRACT

Parking issue in cities Malaysia, especially in commercial areas, is intensified by growing motorisation, uneven infrastructural development, and inadequate enforcement procedures. One such location is Georgetown, Penang's Komtar Centre Business District (CBD), which is severely impacted by a lack of parking spaces, unlawful parking practices, and growing reliance on cars, all of which interfere with urban mobility and business operations. In response, the purpose of this study is to investigate the root causes of parking issues, assess the efficacy of traditional and smart parking solutions, and examine user satisfaction and parking utilisation trends. Three research objectives were established: (1) to determine the main reasons for parking issues and how they affect the environment and mobility; (2) for examining the effectiveness of current and suggested remedies; and (3) to examine parking usage trends in order to guide future management plans. Using a quantitative approach and a cross-sectional research design, 158 randomly chosen respondents including Komtar residents, tourists, and business owners were included. Structured questionnaires and observations were used to gather the data, which were then analysed using descriptive statistics like mean scores and frequencies as well as Confirmatory Factor Analysis (CFA) for validation. The results suggest that while every aspect that has been found affects user satisfaction, the elements that have the most effects are pricing control, smart systems, and enforcement. These findings have important implications for MBPP and local policymakers, indicating the necessity of revised laws and integrated urban planning to promote more effective, accessible, and sustainable parking management in the central business district.

**Key words:** *Urban parking, Komtar, CBD, traffic congestion, smart parking, user satisfaction, urban mobility, enforcement strategies, parking management, Penang,*