# ABSTRAK

*Park and ride* merupakan salah satu alat *travel demand management* yang bertujuan untuk mengurangi jumlah kendaraan yang menggunakan jaringan jalan. Konsep *park and ride* pada umumnya dikembangkan bersamaan dengan perbaikan sistem transportasi umum massal, khususnya kereta api. Dalam rangka pengimplementasian konsep *park and ride* di Stasiun Lempuyangan, penelitian ini bertujuan untuk menganalisis karakteristik parkir sepeda motor yang menggunakan fasilitas *park and ride,* yaitu sepeda motor yang parkir 5 jam atau lebih, menghitung kebutuhan parkir pada saat ini dan dimasa mendatang, dan menganalisis kriteria fasilitas *park and ride* di Stasiun Lempuyangan.

Analisis kebutuhan parkir sepeda motor di Stasiun Lempuyangan dapat dilakukan dengan melakukan analisis karakteristik parkir terlebih dahulu. Analisis karakteristik parkir meliputi akumulasi parkir, volume parkir, durasi parkir, kapasitas parkir statis, kapasitas parkir dinamis, indeks parkir dan pergantian parkir. Data yang diperlukan untuk menganalisis karakteristik parkir berupa data masuk dan keluar kendaraan yang parkir beserta waktunya. Data tersebut diperoleh dari survei langsung di Stasiun Lempuyangan. Perkiraan kebutuhan parkir dimasa mendatang dilakukan dengan metode Matematis Proyeksi menggunakan angka rasio pertumbuhan jumlah sepeda motor. Analisis kriteria fasilitas *park and ride* dilakukan dengan menilai bentuk fisik secara visual dan selanjutnya diberikan bobot penilaian dengan metode perhitungan statistik.

Karakteristik parkir sepeda motor di Stasiun Lempuyangan diperoleh nilai akumulasi puncak sebesar 355 kendaraan pada hari Sabtu, 18 November 2017 pukul 12:00 – 13:00 dan pukul 12:15 – 13:15. Volume parkir puncak sebesar 406 kendaraan. Durasi rata-rata tertinggi adalah 11,864 jam. Kapasitas statis ruang parkir diketahui sebesar 430 Satuan Ruang Parkir (SRP), sedangkan kapasitas dinamis ruang parkir maksimum sebesar 599 SRP. Indeks parkir tertinggi sebesar 82,56 %. Pergantian parkir maksimum sebesar 0,94 Kendaraan/SRP. Perkiraan kebutuhan ruang parkir pada 5 tahun mendatang atau pada tahun 2022 sebesar 540 SRP. Sudah tidak dapat tertampung oleh fasilitas parkir di Stasiun Lempuyangan pada saat ini, karena sudah melebihi kapasitas yaitu 430 SRP. Fasilitas parkir di Stasiun Lempuyangan sudah memenuhi kriteria sebagai fasilitas *park and ride* dengan nilai 13,25 dari nilai maksimal 15.

**Kata Kunci** : Indeks Parkir, Karakteristik Parkir, Kebutuhan Parkir, *Park and Ride*.

# *ABSTRACT*

*Park and ride was one means of travel demand management that aims to reduce the number of vehicles used the road network. The concept of park and ride was generally developed in conjunction with the improvement of mass public transport systems, especially railways. In order to implement the concept of park and ride at Lempuyangan Station, this study aims to analyze the characteristics of motorcycle parking used park and ride facilities, motorcycles that park for 5 hours or more, calculated the parking needs at present and in the future, and analyze the criteria park and ride facility at Lempuyangan Station.*

*In analyzing the needs of motorcycle parking at Lempuyangan Station, then previously required analysis of parking characteristics first. Analysis of parking characteristics included parking accumulation, parking volume, parking duration, static capacity, dynamic capacity, parking index and parking turnover. To analyze the characteristics of parking required data entry and exit of vehicles parked along with the time. The data is obtained from direct survey at Lempuyangan Station. Added secondary data, namely commuter line passenger data/year and data of commuter line passenger line capacity per day obtained from the party concerned. After that it can analyze the current parking needs and estimate the needs of the future. Meanwhile, to analyzed the criterion of park and ride facilities, done by assessing the physical form visually and then given the weight of the assessment.*

*Characteristics of motorcycle parking at Lempuyangan Station obtained the peak accumulated value for 355 Vehicles on Saturday, November 18, 2017 at 12:00 - 13:00 and 12:15 and 13:15. Peak parking volume is 406 Vehicles. Maximum average duration was 11,864 Hours. The static capacity of the parking space is known to be 430 SRP, while the dynamic capacity of the maximum parking space is 579 SRP. The highest parking index was 82.56%. Maximum parking turnover is 0.94 Vehicles / SRP. Estimated parking space needs in the next 5 years or in 2022 is 540 SRP. It can not be accommodated by parking facilities at Lempuyangan Station at this time, because it has exceeded the capacity of 430 SRP. Parking facilities at Lempuyangan Station already meet the criteria as a park and ride facility with a value of 13.25 from a maximum value of 15.*

***Keywords*** *: Park and Ride, Parking Characteristics, Parking Index, Parking Requirements*