

## **ABSTRAK**

*UPT Perparkiran Dinas Perhubungan Komunikasi dan Informatika merupakan instansi pemerintah daerah yang menangani masalah perparkiran baik parkir on-street maupun of-street di Kabupaten Sleman. Parkir on-street atau parkir tepi jalan umum merupakan merupakan sistem dinamis karena dipengaruhi banyak variabel dan jumlah kendaraan yang parkir berubah-ubah setiap waktu. Parkir on-street menjadi salah satu sumber Pendapatan Asli Daerah (PAD) yang berpotensi terus meningkat. Permasalahan yang terjadi dalam pengelolaan parkir on-street adalah pendapatan retribusi parkir on-street yang diterima tidak sesuai dengan potensi yang ada.*

*Penelitian ini mengembangkan model sistem dinamis parkir on-street dan mensimulasikan model tersebut guna meningkatkan PAD menggunakan software Powersim Studio 9. Penelitian diawali dengan penyusunan causal loop diagram untuk melihat hubungan timbal balik antar variabel dan stock flow diagram untuk merumuskan formulasi matematis dari model. Hasil simulasi dilakukan uji validasi menggunakan perbandingan rata-rata (mean comparison) dan validasi struktur oleh ahli. Pada penelitian ini dilakukan pembangkitan sebanyak 2 aslternatif skenario kebijakan untuk mengetahui model pengelolaan pendapatan parkir on-street terbaik.*

*Berdasarkan hasil pengolahan data dan analisis, model parkir on-street dikembangkan dengan menambahkan dinamisasi variabel yang mempengaruhi jumlah kendaraan yang parkir dalam menentukan penerimaan retribusi. Hasil simulasi dari kedua skenario kebijakan dilakukan pengujian tingkat error yang menghasilkan rekomendasi model pengelolaan pendapatan parkir on-street yaitu model skenario 1 dengan cara penetapan persentase bagi hasil antara Pemerintah Daerah sebesar 25%, pengelola parkir sebesar 40%, dan juru parkir sebesar 35%. Model kebijakan ini diprediksi menghasilkan PAD dari retribusi tepi jalan umum selama 1 tahun pertama sebesar Rp218.356.749,53,-, meningkat sebesar 354,9% dibanding sistem sebelumnya yang hanya Rp48.000.000,-.*

**Kata kunci:** *simulasi, sistem dinamis, parkir on-street, retribusi tepi jalan umum, Pendapatan Asli Daerah*

## **ABSTRACT**

*Technical Implementation Unit of Parking by Department of Transportation, Communication, and Informatics is local government institution which deals with parking policy for on-street and off-street in Sleman District. On-street parking or roadside parking practices dynamic system since it is affected by many variables and the number of vehicles parked on there is varying every time. This is also one of Locals Revenue sources which can be potentially improved. The problem occurred in managing the on-street parking is the revenue received from on-street parking retribution does not match the remaining potential.*

*This research developed the dynamic system model for on-street parking and simulated the model to increase the Locals Revenue using Powersim Studio 9. The research begins with constructing a causal loop diagram to find out the interrelation between variables and stock-flow diagram to formulate the mathematical formula from the model. The simulation result is validated by validation test using mean comparison and structured validation from the experts. In this research, there are 2 alternatives of policy scenarios to find out the best model for revenue management of on-street parking.*

*From the data analysis, on-street parking model is developed by adding dynamics variable which can affect the number of vehicles parked in the area to determine the retribution revenue. The simulation result from both policy scenarios is tested by error rate testing and it creates a recommendation model for revenue management of on-street parking which is scenario model 1. It arranges the percentage of revenue sharing between the stakeholders, for local governments is 25%, the parking manager is 40%, and parking officers is 35%. From this policy models, it is expected to improve Locals Revenue from roadside parking retribution during the first year of its implementation approximately Rp218.356.749,53,- and it increases 354,9% compared to the previous system which only gained Rp48.000.000,-.*

**Keywords:** *simulation, dynamic system, on-street parking, roadside parking retribution, Locals Revenue*