

## **INTISARI**

### **PENERAPAN ANALISIS RANTAI MARKOV PADA DATA CURAH HUJAN DI KABUPATEN BANTUL**

(Studi Kasus : Data Curah Hujan Kabupaten Bantul Tahun 2018 - 2022)

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Curah hujan merupakan salah satu penyebab terjadinya bencana hidrometeorologi, seperti banjir dan tanah longsor. Berdasarkan catatan Badan Penanggulangan Bencana Daerah (BPBD) Kabupaten Bantul, Kabupaten Bantul merupakan wilayah dengan potensi bencana hidrometeorologi titik rawan bencana yang menyebabkan banyak kerusakan fasilitas umum dan bangunan milik warga sehingga menyebabkan korban baik materi maupun nyawa. Menggunakan Rantai Markov, dilakukan analisis prediksi probabilitas perubahan variabel di masa yang akan datang berdasarkan variabel-variabel di waktu yang lalu. Analisis Rantai Markov yang dilakukan pada data curah hujan Kabupaten Bantul membentuk prediksi berdasarkan lima daerah curah hujan, yaitu Kabupaten Bantul Tengah, Bantul Selatan, Bantul Timur, Bantul Utara, dan Bantul Barat. Hasil prediksi curah hujan dalam satu tahun menunjukkan Bantul Tengah memiliki rata-rata peluang curah hujan kategori menengah, Bantul Selatan memiliki rata-rata peluang curah hujan kategori rendah, Bantul Timur memiliki rata-rata peluang curah hujan kategori rendah, Bantul Utara memiliki rata-rata peluang curah hujan kategori rendah, dan Bantul Barat memiliki rata-rata peluang curah hujan kategori rendah.

**Kata Kunci :** Bantul, Curah Hujan, Rantai Markov.

## ABSTRACT

### APPLICATION OF MARKOV CHAIN ANALYSIS ON RAINFALL DATA IN BANTUL DISTRICT

(Case Study : Bantul Regency Rainfall Data for 2018 - 2022)

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*Rainfall is one of the causes of hydrometeorological disasters, such as floods and landslides. Based on records from the Bantul Regency Regional Disaster Management Agency (BPBD), Bantul Regency is an area with the potential for hydrometeorological disasters, a disaster-prone point that causes a lot of damage to public facilities and buildings belonging to residents, causing both material and life losses. Using Markov Chains, a prediction analysis of the probability of changes in variables in the future is carried out based on variables in the past. Markov Chain analysis carried out on Bantul Regency rainfall data forms predictions based on five points, namely Central Bantul, South Bantul, East Bantul, North Bantul and West Bantul Regency. The results of rainfall predictions in one year show that Central Bantul has an average chance of rainfall in the middle category, South Bantul has an average chance of rainfall in the low category, East Bantul has an average chance of rainfall in the low category, North Bantul has an average the chance of rainfall is in the low category, and West Bantul has an average chance of rainfall in the low category.*

**Keywords:** *Bantul, Rainfall, Markov Chain.*