Analisis Data

Time Series dan Text

Dr. Ir. Wahyudi, S.T., M.T.

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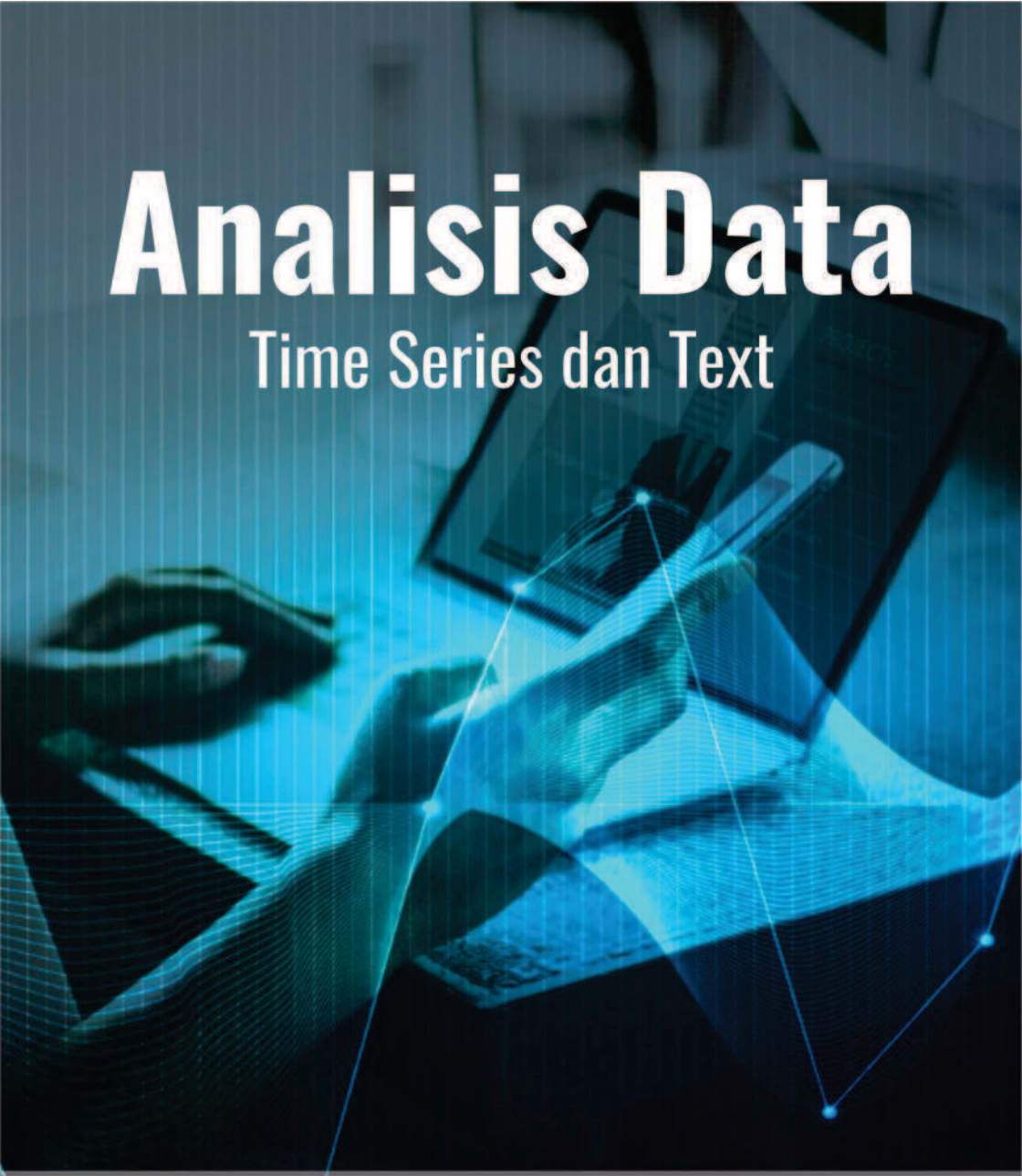

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KATA PENGANTAR

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Penulis berharap buku yang berjudul "Analisis Data: Time Series dan Text" bisa bermanfaat bagi pembaca. Mohon untuk memaklumi jika terdapat penjelasan yang sulit untuk dimengerti. Untuk itu penulis mengharapkan kritik maupun saran, sehingga penulis bisa memperbaikinya dikemudian hari. Terimakasih atas ketertarikan Anda untuk membaca buku yang penulis buat.

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ANALISIS DATA: TIME SERIES DAN TEXT

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BAB 1 ANALISIS TIME SERIES

Konsep Utama ACF ARIMA Autoregresif Rata-rata bergerak PACF Stasioner Rangkaian waktu. Bab ini membahas topik analisis *Time Series / Deret Waktu* dan aplikasinya. Penekanan diberikan pada identifikasi struktur yang mendasari *Time Series* dan menentukan model *Autoregressive Integrated Moving Average* (ARIMA) yang sesuai.

A. Gambaran Umum Analisis Time Series

Analisis *Time Series* mencoba memodelkan struktur yang mendasari pengamatan diambil dari waktu ke waktu. Sebuah *Time Series*, dilambangkan $Y = a + bX$, adalah urutan nilai yang sama dari waktu ke waktu. Sebagai contoh, Gambar 1.1 menunjukkan plot jumlah penumpang bulanan maskapai penerbangan internasional selama periode 12 tahun.

BAB 2 ANALISIS TEKS

Analisis teks, kadang-kadang disebut analitik teks, mengacu pada representasi, pemrosesan, dan pemodelan data tekstual untuk mendapatkan wawasan yang berguna. Komponen penting dari analisis teks adalah penambangan teks, proses menemukan hubungan dan pola yang menarik dalam koleksi teks yang besar.

Analisis teks menderita kutukan dimensi tinggi. Ambil contoh buku anak-anak yang populer, Green Eggs dan Ham. Penulis Theodor Geisel (Dr. Seuss) ditantang untuk menulis seluruh buku dengan hanya 50 kata yang berbeda. Dia menjawabnya dengan buku Green Eggs and Ham, yang berisi 804 kata, hanya 50 di antaranya yang berbeda. Ke-50 kata tersebut adalah:

a, am, and, anywhere, are, be, boat, box, car, could, dark, do, eat, eggs, fox, goat, good, green, ham, here, house, I, if, in, let, like, ay, me, mouse, not, on, or, rain, Sam, say, see, so, thank, that, the,hem, there, they, train, tree, try, will, with, would, you.

Green Eggs and Ham adalah sebuah buku yang sederhana. Analisis teks sering kali berurusan dengan data tekstual yang jauh lebih kompleks. Sebuah *corpus* (jamak:

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