



INTISARI

METODE PENGELOMPOKAN MODIFIED GLOBAL K MEANS DAN MINMAX K MEANS

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Abstrak. Metode k means adalah metode bertujuan untuk mempartisi data set menjadi M cluster C_1, C_2, \dots, C_M dengan $l = 1, 2, \dots, M$. Namun, metode ini sangat bergantung pada posisi awal pusat cluster yang dapat mengakibatkan hasil cluster tidak baik sehingga untuk mengatasinya digunakan metode modified global k means dan minmax k means. Metode modified global k means digunakan untuk pencarian pusat cluster untuk cluster ke l didasarkan pada fungsi cluster. Sedangkan minmax k means digunakan untuk mengatasi hasil cluster tidak baik dengan formulasi berbobot E_w . Penelitian ini membahas dua metode cluster yaitu modified global k means dan minmax k means. Performa metode dikatakan bekerja lebih baik jika menghasilkan clustering error yang lebih kecil. Berdasarkan hasil simulasi dengan data iris diperoleh minmax k means memiliki nilai clustering error yang lebih kecil sehingga dapat disimpulkan minmax k means bekerja lebih baik dibandingkan modified global k means. Selanjutnya, metode minmax k means diaplikasikan pada studi kasus wilayah rawan DBD di Kabupaten Sleman tahun 2017.

Kata kunci: K means, modified global k means, minmax k means, clustering error.



ABSTRACT

THE MODIFIED GLOBAL K MEANS AND MINMAX K MEANS CLUSTERING METHOD

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Abstrak. K means method is a method aiming to partition the data set into M cluster or $C_1, C_2, \dots, C_M, l = 1, 2, \dots, M$ However, this method is highly dependent on the initial position of the center of the cluster which can lead to the results of the cluster is not good so as to address it used the method of modified global k means and minmax k means. The method of modified global k means used to search the centroid based on the cluster function. While the minmax k means used to address the cluster of results is not good with the formulation weighing E_w . This research discusses two methods of cluster i.e. modified global k means and minmax k means. The performance of the method is said to be working better if clustering produces a smaller error. Based on the results of the simulations with iris dataset obtained minmax k means clustering has a value error is smaller so it can be inferred minmax k means to work better than a modified global k means. Furthermore, the method of minmax k means applied to the case study regions prone to DBD in Sleman Regency year 2017.

Keywords: K means, modified global k means, minmax k means, clustering error.