KLASIFIKASI GAMBAR GERAK PEMAIN BOLA VOLI DENGAN MENGGUNAKAN METODE K-NEAREST NEIGHBOR (K-NN)

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ABSTRAK

Algoritma K-Nearest Neighbor (KNN) adalah suatu metode yang menggunakan algoritma supervised, dimana hasil sampel uji yang baru diklasifikasikan berdasarkan mayoritas dari kategori pada KNN.Tugas Akhir ini bertujuan mengimplementasikan K-Nearest Neighbor untuk klasifikasi gambar gerakan pemain bola volli kedalam tiga gerakan dasar yakni smash, service dan blok. K-Nearest Neighbor digunakan untuk mengklasifikasikan gambar gerakan bola volli karena ketangguhannya terhadap data yang memiliki banyak noise serta efektif terhadap data yang berukuran sangat besar.Berdasarkan hasil penelitian data terklasifikasi dalam 5 cluster yakni k3, k5, k7, k9 dan k10 diketahui bahwa klastering dengan nilai k3 memiliki hasil akurasi tertinggi sebesar 66,87%.Tingkat akurasi pengujian model gambar gerakan pemain bola voli dengan menggunakan algoritma K-Nearest Neighbor (KNN) dipengaruhi oleh jumlah klastering data.

Kata Kunci	:	Klasifikasi, gerakan pemain bola voli, smash, service, blok, k-nearest neighbor

CLASSIFICATION OF MOTION PICTURE OF VOLLEYBALL PLAYERS USING K-NEAREST NEIGHBOR (K-NN)

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ABSTRACT

Algorithm K-Nearest Neighbor (KNN) is a method using supervised algorithms, where the results of the new test samples were classified by the majority of categories on KNN. This final project aims to implement the K-Nearest Neighbor classification motion picture volli ball players into three basic movements that smash, service and block. K-Nearest Neighbor used to classify images volli ball movement because of toughness to the data that has a lot of noise and is effective against very large data. Based on the research data is classified into 5 clusters namely k3, k5, k7, K9 and K10 is known that clustering with a value of k3 have the results of highest accuracy to 66.87%.The level of accuracy of model testing motion picture volleyball players algorithms using K-Nearest Neighbor (KNN) is influenced by the amount of data clustering.

Keyword   :   Classification, volleyball player movement, smash, service, block, k-nearest neighbor