UNIVERSITI TEKNOLOGI MARA

TEXTURE-BASED OF NAJA KAOUTHIA SNAKE RECOGNITION USING K-NEAREST NEIGHBOUR (KNN)

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STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Snake is one of the dangers animal and afraid by people. Conventionally, the method to recognize snake's species is done manually by collecting the data from the patients itself. However it is very hard to use these data as a reference as the information collected are uncertain due to incorrect impression of the snake's species. Thus this study proposed a prototype of recognition that specifically to recognise Naja Kaouthia species. There are three phases involved in this study which are data collection, processing (i.e extraction and recognition) and post-processing. A total of 20 images have been captured at Taman Rama dan Reptilia, Malacca and each images produced 10 data of extraction. In the processing phase, mean variance moving window was used for the extraction process. The part of snake that has been used for this study is the internasal. Therefore the region of interest method will only be focussed at this part of snake where the texture of the internasal is mean, standard deviation and magnitude. As for the recognition, The K-Nearest Neighbour had been used. The Naja Kaouthia using K-Nearest Neighbour algorithm is identified as a promising method in snake recognition which produced 100% accuracy rate for training data and 100% for testing data.

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