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Biometric Recognition for Pet Animal

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ABSTRACT

Missing, swapping, false insurance claims and reallocation of pet animals (dog) are global problems throughout the world and research done to solve this problem is minimal. Traditional biometrics and non-biometrics methods have their own boundaries and they fail to provide competent level of security to pet animal (dog). The work on animal identification based on their phenotype appearance (coat patterns) has been an active research area in recent years and automatic face recognition for dog is not reported in the literature. Dog identification needs innovative research to protect the pet animal. Therefore it is imperative to initiate research, so that future face recognition algorithm will be able to solve this important problem for identification of pet animal (like dog, cat). In this paper an attempt has been made to minimize the above mentioned problems by biometrics face recognition of dog. The contributions of this research are: 1) implementation of an existing biometrics algorithm which mitigates the effects of covariates for dogs; 2) proposed fusion based method for recognition of pet animal with 94.86% accuracy. Thus in this paper, we have tried to demonstrate that face recognition of dog can be used to recognize the dog efficiently.

KEYWORDS

Animal Biometrics, Pet Animal, Face Recognition, Dog Feature Covariates

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