Gait Recognition for Person Identification using Statistics of SURF

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In recent years, the use of gait for human identification is a new biometric technology intended to play an increasingly important role in visual surveillance applications. Gait is a less unobtrusive biometric recognition that it identifies people from a distance without any interaction or cooperation with the subject. However, the effects of "covariates factors" such as changes in viewing angles, shoe styles, walking surfaces, carrying conditions, and elapsed time make gait recognition problems more challenging for research. Therefore, discriminative features extraction process from video frame sequences is challenging. This system proposes statistical gait features on Speeded-Up Robust Features (SURF) to represent the biometric gait feature for human identification. This system chooses the most suitable gait features to diminish the effects of "covariate factors" so human identification accuracy is effectiveness. Support Vector Machine (SVM) classifier evaluated the discriminatory ability of gait pattern classification on CASIA-B (Multi-view Gait Dataset).