Synergy of foreground-background images for feature extraction: Offline signature verification usingFisher vector with fused KAZE features

Manabu Okawa

PII: S0031-3203(18)30080-3
DOI: 10.1016/j.patcog.2018.02.027
Reference: PR 6474

To appear in: *Pattern Recognition*

Received date: 5 July 2017
Revised date: 21 February 2018
Accepted date: 25 February 2018

Please cite this article as: Manabu Okawa, Synergy of foreground-background images for feature extraction: Offline signature verification usingFisher vector with fused KAZE features, *Pattern Recognition* (2018), doi: 10.1016/j.patcog.2018.02.027

Highlights

- KAZE features from foreground and background signature images show good performance
- Fused KAZE features with representation-level fusion further improve performance
- FV provides a more precise spatial distribution of the characteristics per writer
- PCA for the FV provides a more compact vector without significant performance loss
- This method yields lower error rates than existing signature verification systems