Accepted Manuscript

Subject-Based Discriminative Sparse Representation Model for Detection of Concealed Information

Amir Akhavan , Safa Rafiei Vand , Mohammad Hassan Moradi

PII: S0169-2607(16)30823-9
DOI: 10.1016/j.cmpb.2017.02.007
Reference: COMM 4351

To appear in: *Computer Methods and Programs in Biomedicine*

Received date: 6 August 2016
Revised date: 26 January 2017
Accepted date: 9 February 2017

Please cite this article as: Amir Akhavan , Safa Rafiei Vand , Mohammad Hassan Moradi , Subject-Based Discriminative Sparse Representation Model for Detection of Concealed Information, *Computer Methods and Programs in Biomedicine* (2017), doi: 10.1016/j.cmpb.2017.02.007

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- A novel discriminative sparse representation-based classifier is proposed for concealed information test.
- The discriminative model is learned for each subject independently. This eliminates the need for EEG dataset from several subjects in model learning stage.
- The proposed algorithm (ISE) benefits from averaging the reconstruction error (residual error) in sparse coding stage to overcome the low signal-to-noise ratio of single sweep data.
- The proposed method outperforms some state-of-the-art sparsity based methods (LC-KSVD1,2, SADL, FDDL, JEDL and SRC) in terms of precision, sensitivity and specificity.

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/4958166

Download Persian Version:

https://daneshyari.com/article/4958166

Daneshyari.com