A Quasi-Probabilistic Distribution Model for EEG Signal Classification by Using 2-D Signal Representation

Cagatay Murat Yilmaz, Cemal Kose, Bahar Hatipoglu

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Highlights

- This paper proposes a new 2-D signal representation and quasi-probabilistic distribution method for binary classification of EEG records.
- New time domain features were introduced, and non-stationary EEG signals were represented in a 2-D form.
- The advantage of the method relies on its relatively simple algorithm and easy computational implementation for non-stationary EEG signals.
- The proposed method is evaluated on publicly available data sets.
- Smaller error rates were obtained compared to the state-of-the-art methods.
- The proposed method has potentials to classify EEG patterns and can assist in the development of effective EEG-based BCIs.