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Abstract:
Electroencephalogram (EEG) used to read the electrical signals from human scalp for diagnostic purposes. The EEG electrodes sensitive, so the low amplitude EEG signals get corrupted by the wide spectrum and high amplitude electromyogram (EMG) signals. Hence, the recorded EEG have segments that have artifacts with the unacceptable state. Effectively recovering the corrupted signal from a single channel EEG is a challenge. The proposed algorithm enhances the single-channel EEG signal in the presence of EMG artifacts using extreme learning machine (ELM) regressor. For training and testing of the ELM network, EEG signals are subjected to S-transform and the obtained transformation matrix is used as the feature set. S-Transform has the

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