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## Classification of multichannel EEG signal by single layer perceptron learning algorithm (Conference Paper)

Hasan, M.R.<sup>a</sup> [✉](#), Ibrahimy, M.I.<sup>a</sup>, Motakabber, S.M.A.<sup>a</sup>, Shahid, S.<sup>b</sup> [✉](#)

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### Abstract

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Motor imagery (MI) related Electroencephalogram (EEG) signal classification is very challenging task in designing a BCI system. Single Layer Perceptron Learning (SLPL) algorithm has a very low computational requirement which makes it suitable for online BCI system. This paper recommends a simple and advanced classification technique for MI based BCI system. Initially the signal is extracted for different features. The SLPL classifier has been applied here to design the proposed system. For contrastive comparison with other classification techniques have been evaluated by accuracy, kappa and mutual information. © 2014 IEEE.

### Author keywords

BCI   cohen's kappa   EEG classification   motor imagery EEG   SLPL

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