Abstract

A novel contrast function is proposed to be used in fastICA algorithm for Blind Source Separation (BSS). Simulation results show that the proposed nonlinear function used to separate image mixtures, results in faster execution and good quality image separation. Peak Signal to Noise Ratio (PSNR), Improved Signal to Noise Ratio (ISNR), Signal to Noise Ratio (SNR) and Root Mean Square Error (RMSE) are used to evaluate quality of separated images and Amari error is calculated to prove the performance of separation quality.

Reference


**Index Terms**

Computer Science

Image Processing

**Key words**

Blind source separation

Independent component analysis
FastICA Algorithm

Nonlinearity function