

## عنوان مقاله:

Designing and implementing a system for Automatic recognition of Persian letters by Lip-reading using image processing methods

## محل انتشار:

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## خلاصه مقاله:

For many years, speech has been the most natural and efficient means of information exchange for human beings. With the advancement of technology and the prevalence of computer usage, the design and production of speech recognition systems have been considered by researchers. Among this, lip-reading techniques encountered with many challenges for speech recognition, that one of the challenges being the noise in some situations, which is the main cause of errors in the correct diagnosis of speech. One of the ways for solving this problem is image processing, that in this study, the purpose has been designing and implementing a system for automatic recognition of Persian letters through image-processing techniques. For this purpose, after providing a database for Persian verbal phonetics, we first used image processing techniques to eliminate the presence of noises and detect the cantor in lip, in which we used edge detection to identify the edges of the lip. After finding the upper and lower points of the lip for five frames of each film, we used the mean gap between the upper and lower points of the lip as the characteristic of each phoneme and then by providing a database of these features, with the help of the back propagation artificial neural network and The radial basis function have categorized these phonemes, which ultimately achieved the desired results in the categorization of the phonemes. Of course, the precision of classification using the back .propagation artificial neural network has been more than radial basis function ANN

## کلمات کلیدی:

automatic letter detecting system, Persian language, lip reading, image processing

## لینک ثابت مقاله در پایگاه سیویلیکا:

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