

Research Interest June 2017

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My research interests the areas of signal and image processing. More precisely, I desire to investigate within the topics of classification, pattern recognition ,storage and retrieval of high-dimensional data, usability engineering, semantic web, and autonomous systems.

My first project based on Discrete Cosine Transform (DCT) which is the one of the techniques of Image Compression.I worked on the eye gaze detection.First of all, database was created according to eye direction.Then images transform to grayscale and pixel values according to what we need is.I used Matlab program. The value of compression ratio,mean square error(MSE),peak signal to noise ratio(PSNR) were obtained. This project sent it the conferences.

In my second project, I was working on Discrete Wavelet Transform(DWT) which is the another image compression method.In this way, I had a chance to compare image compression techniques.LL(Low-toLow),LH(Low to High),HL(High to Low),HH(High to High) outputs were obtained.In addition , First level decomposition,PSNR and MSE values were calculated.

In third project, I will be focus on image compression by using filters.

My future research plans aim to:

- 1) Develop of new recognition paradigms that utilize my DCT and DWT image comparison method for image matching,recognizing and image-context matching, and soon.
- 2) Research the use of intelligent systems for an efficient representation, accessibility, and association of scientific knowledge.