## Department of Computer Science and Engineering

## National institute of Technology calicut

## CS4043 IMAGE PROCESSING Exercise Set 4

 $\begin{array}{c} Date\ of\ posting\ assignment:\ 17/1/2019\\ Date\ of\ Submission:\ 31/1/2019 \end{array}$ 

- 1. Perform following operations on the given image.
  - (a) Find the Walsh Transform.
  - (b) Find the Hadamard Transform.
  - (c) Find the Haar Transform.
  - (d) Find the Discrete Cosine Transform.
  - (e) Find the KL Transform.

Remove some transform coefficients and reconstruct the original image. Discuss the energy compaction properties of above transform.

Which one will be better for image compression? [10 marks]