**Image Classification using Support Vector Machine (SVM)**

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**Statement of Problem:**

Applying the image processing techniques learned throughout the course, this project studies the core and basics of Support Vector Machine and its application in object or image classification.

**Objectives and Expected Outcomes:**

Being able to learn the use of SVM, what application it is best for and how to apply SVM to solving classification problems. Images containing various objects for classification will be pre-processed before applying SVM in order to classify different types of objects within an image.

**References:**

[1] Foody G M and Mathur A 2004 A relative evaluation of multiclass image classification by support vector machines IEEE Transactions on Geoscience and Remote Sensing. 42. 6. 1335–1343

[2] K. Ashok Kumar & Y.V.Bhaskar Reddy, “Content Based Image Retrieval Using SVM Algorithm”, International Journal of Electrical and Electronics Engineering (IJEEE), ISSN (PRINT): 2231 – 5284, Vol-1, Iss-3, 2012.

[3] Olivier Chapelle, Patrick Haffner and Vladimir Vapnik, “SVMs for Histogram-Based Image Classification”.

[4] Le Hoang Thai, Tran Son Hai and Nguyen Thanh Thuy, “Image Classification using Support Vector Machine and Artificial Neural Network”, I.J. Information Technology and Computer Science, 5, 32-38, 2012.