

Bekkari, Aissam & Idbraim, Soufiane & Mammass, D. & El yassa, Mostafa & Ducrot, Danielle. (2014). SVM Classification of High Resolution Urban Satellites Images using Composite Kernels and Haralick Features. *Journal of Emerging Technologies in Web Intelligence*. 6. 10.4304/jetwi.6.1.69-74. The classification of remotely sensed images knows a large progress taking in consideration the availability of images with different resolutions as well as the abundance of classification's algorithms. A number of works have shown promising results by the fusion of spatial and spectral information using Support vector machines (SVM) which are a group of supervised classification algorithms that have been recently used in the remote sensing field. For this purpose we propose a methodology exploiting the properties of Mercer's kernels to construct a family of composite kernels that easily combine multi-spectral features and Haralick texture features as data source. The proposed approach was tested on common scenes of urban imagery. The three different kernels tested allow a significant improvement of the classification performances and a flexibility to balance between the spatial and spectral information in the classifier. The experimental results indicate an accuracy value of 92.55% which is very promising.