**IMAGE ENHANCEMENT FOR IMPROVING FACE DETECTION UNDER NONUNIFORM LIGHTING CONDITIONS**

**ABSTRACT**

Recently we proposed a wavelet-based dynamic range compression algorithm to improve the visual quality of digital images captured in the high dynamic range scenes with non uniform lighting conditions. The fast image enhancement algorithm which provides dynamic range compression preserving the local contrast and tonal rendition is a very good candidate in aerial imagery applications such as image interpretation for defense and security tasks.

This algorithm can further be applied to video streaming for aviation safety. In this project the latest version of the proposed algorithm which is able to enhance aerial images so that

the enhanced images are better then direct human observation, is presented. The results obtained

by applying the algorithm to numerous aerial images show strong robustness and high image quality.