## Complementary material to the manuscript entitled Automatic Handgun Detection Alarm in Videos Using Deep Learning

Roberto Olmos<sup>1</sup>, Siham Tabik<sup>1</sup>, and Francisco Herrera<sup>1,2</sup>

<sup>1</sup>Soft Computing and Intelligent Information Systems research group, University of Granada, 18071 Granada, Spain.

<sup>2</sup>Faculty of Computing and Information Technology, King Abdulaziz University (KAU) Jeddah, Saudi Arabia. emails: siham@ugr.es, herrera@decsai.ugr.es

February 27, 2017

## Description

This document explicitly shows the images that we must not include in the manuscript, entitled *Automatic Handgun Detection Alarm in Videos Using Deep Learning*, because its content could possibly have violent connotations.

## References



Figure 1: Examples from Database-2, the top three images represent the pistol class and the down three images represent the background class



Figure 2: Three examples from Database-5. This dataset includes, in addition to the images, the xml file of each image with the localization information of the pistols.



Figure 3: An example of an accurate detection of four pistols.



Figure 4: Examples of false positives from Video 1.



Figure 5: An illustrative example of false negatives, i.e., the two pistols in background.