ShadowBoost™

In scenes with a very high contrast due to dark and bright areas in the scene, most sensors will have a hard time generating a usable picture. Black is black and objects hidden in the dark won't be visible anymore since the sensors are saturated by the information in the bright areas of the scene. ITS has developed a technique to overcome such sensor issues and when implemented and used with the best Wide Dynamic Range sensors in the market, this technique will be a game changer for users in very different markets. The preservation of true colours is guaranteed, something that other solutions don't guarantee. For defence, police & security, this technique will be very beneficial to detect and recognize objects hidden in the dark. ShadowBoost™ will be able to "discriminate black from black", extracting details form the darkest areas and therefore DRI performance will be boosted. Operators will be able to switch this feature ON or OFF during live video feeds in all ITS cameras.

All of this is done without influencing the bright parts of the scene, so ShadowBoost™ will not introduce large halos around lights or create any other artefacts to the bright area of the scene when used during live video feeds.

For automotive purposes, during twilight and night, cameras fitted with ShadowBoost™ technology will be better suited to detect pedestrians, animals or any other object hidden in the dark areas of the scene. Therefore safety will be improved in systems that use object detection.

Imagine a sniper scanning for targets in a distant forest or urban area during twilight, the live feed from his digital night vision scope is being displayed in in the JIC. The high value target, normally hidden in the dark background of the forest, will be made visible by toggling ShadowBoost™ ON and confirmation for engagement can be given without any delay. ShadowBoost™ prevents blue on blue engagement and also speeds up the decision making chain!

This is just one of the use cases but there are various situations in defence, police & security that could benefit from this technique. Border guards will be able to see during twilight and night. Illegal border crossings can be detected this way since the artificial intelligence in most video processing systems will now be able to discriminate in the dark scenes.

A deer, alongside the road preparing to cross…. Normally this would end in a bloody and messy scene on the dark country road. Vehicle safety systems equipped with ShadowBoost™ might just be more alert and have real early warning for the driver or autonomous stop procedures.

If you are an operator or integrator wishing to know more about ShadowBoost™ or if you want to have ShadowBoost™ embedded in your systems, please contact ITS!

Visit www.its-hightech.nl, mailto: info@its-hightech.nl or give us a call at: 0031 (0) 512410