Automatic Blur Correction

This technology automatically corrects images degraded by the isotropic blur evident in out-of-focus images and in those produced using long-distance imaging (atmospheric blur). Image correction is accomplished by extracting the blur function automatically from the acquired image via a direct (non-iterative) and expeditious process that produces stable output. Quality of the corrected image typically exceeds that of the existing techniques, performing especially well on images with commonly encountered step-edge features.

Before Correction
(Long-distance Infrared Image)

After Correction

Goals and Benefits

- Enhanced image clarity for observers
- Improved performances of surveillance algorithms

Potential Commercial Uses and Market

Easily incorporated into any type of imaging system (visual, IR, etc.) prone to isotropic blurring, the method is employed in the increasingly common long-distance surveillance systems prevalent in security/homeland security applications. Correctly adapted, the method is also exploitable in digital video cameras where out-of-focus filming can occur frequently.

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Patent Status

Patent Pending

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