Adaptive Imaging using Digital Light Processing for Optimized Dynamic Range of Captured Image

Methods and systems for digitally capturing and processing high dynamic range still and video images of a scene using relatively low resolution image detectors are described. Techniques capable of adaptively capturing and processing such images are described.

Digital Light Processing Apparatus Control System Optimizes Dynamic Range of Captured Image

The method and system for controlling the adaptive imaging involve setting a digital light processing apparatus control signal corresponding to the scene. Scene energy at pixels is measured using control signals. Digital light processing apparatus control signal is revised based on the measurement. The measurement is convolved with filter data.

The system and method provides an imaging technique which optimizes the dynamic range of a captured image of a scene, regardless of the dynamic range of the image sensor.

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