Systems, Methods, And Media For Encoding Structured Light Imaging Patterns And Estimating Depths In A Scene

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The Invention

In accordance with some embodiments, systems, methods and media for encoding structured light imaging patterns and estimating depths in a scene are provided. In some embodiments, a system for estimating depths in a scene is provided, the system comprising: a light source; an image sensor; a hardware processor programmed to: cause the light source to emit K light patterns toward the scene, each of the K light patterns is different and includes a trapezoid-shaped wave, and at least one of the K light patterns includes at least two trapezoid-shaped waves; cause the image sensor to generate an intensity value during emission of each of the K light patterns such that the pixel is associated with at least K intensity values; determine a depth estimate for a portion of the scene imaged by the pixel based on the K intensity values associated with the pixel.

Additional Information

For More Information About the Inventors
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Tech Fields
- Information Technology : Computing methods, software & machine learning
- Information Technology : Image processing

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867