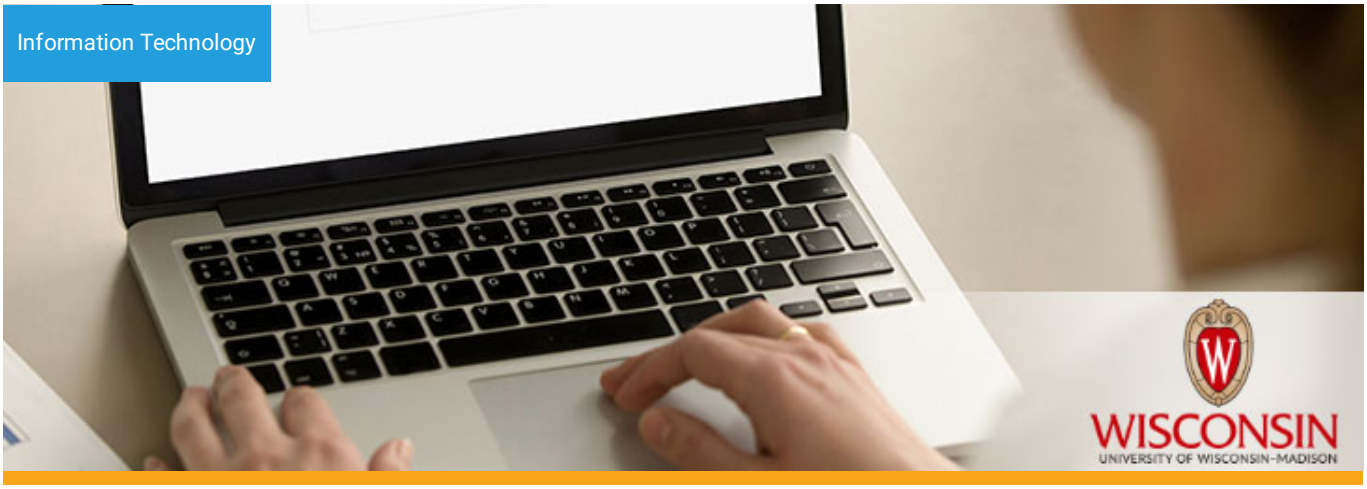
Information Technology



SYSTEMS, METHODS, AND MEDIA FOR SINGLE-PHOTON IMAGING WITH PRIMPOVED ENERGY EFFICIENCY

WARF: P240186US01

Inventors: Mohit Gupta, Lucas Koerner, Atul Ingle

The Invention

UW-Madison researchers and collaborators have created a computational imaging framework called photon inhibition to make single-photon cameras (SPCs) energy efficient. Photon inhibition strategically allocates detections in space and time based on vision task goals and resource constraints. There are lightweight, on-sensor computational inhibition policies that use past photon data to disable SPAD pixels in real-time, to select the most informative future photons. On real-world videos captured by an SPC, inhibition policies adapt to light levels to maintain task performance while inhibiting over 90% of photons.

Additional Information

For More Information About the Inventors

- Mohit Gupta

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