

Sensor Array Based Digital X-Ray Imager

The technology, Sensor Array Based Digital X-Ray Imager, is an electronic device with supporting software that converts x-rays directly into digital images. By going digital, costly film and processing chemicals are eliminated and the images can be stored cheaply and indefinitely, and zoomed-in for better diagnosis. The system is a plug-and-play device drastically reducing the time needed for installation and requires 25% lesser radiation. The skill required of the operator is also reduced.

A half size prototype has been produced and tested considerably. The inventor has successfully taken over 2000 images of animate and inanimate objects. They are now developing the full size prototype and are finishing the software, which handles the image formatting, file compression and encryption, as well as the graphic user interface. This is expected to be finished by July of 2009.

Salient features

- Directly converting X-Rays to digital images
- Being digital, the x-ray images can be stored, digitally transmitted, retrieved, enhanced or cropped with ease
- Compatible with existing x-ray generators. An entirely new x-ray room package does not have to be purchased; this sensor can be used (retrofitted) with existing x-ray generators
- Relatively quick and easy to install (1-2 days).
- Inexpensive. The estimated selling price is of around \$20,000 for this system, which would include the software accompanying the sensor

Areas of Application

The technology is currently developed/ fine-tuned for medical diagnostics. With a few modifications, it can also be used for non-destructive testing in industries, security checking in airports, customs clearance and in defence.

End users

- Hospitals and diagnostic centers