

## Initial study on optical tomographic instrumentation system based on CMOS area image sensors

### Abstract :

This research investigates the use of complementary metal-oxide semiconductor (abbreviated as CMOS) area image sensors in optical tomography system. The system consists of a lighting system, a measurement section and a data acquisition system. Two area image sensors are configured around a square shaped measurement section for a two projections system. Each area image sensors consists of  $1600 \times 1400$  pixels with a pixel size of  $2.8 \times 2.8$  micron, hence producing a high resolution system. This paper explains the initial study on activating the CMOS area image sensor model MT9D1C12STC manufactured by Micron Technology.