

IMAGING

Camera mimics the human retina

Researchers in Italy have built CMOS cameras that mimic the pattern of photoreceptors in the human eye. The devices have a dense arrangement of pixels in the centre, with fewer pixels farther away from the centre. This means that the cameras can offer ultrahigh central resolution without such a high data load.

The most advanced version of the camera, which has 33 000 pixels and is available in colour or monochrome, was completed in 1999. The developers now plan to collaborate with companies that make equipment for video transmissions over wireless networks.

According to Giulio Sandini of the University of Genova, the main advantages of the retina-like device are that images captured with it can be played at a faster frame rate than a standard image, and transmitted at a higher speed through communications links.