

Current Machine Vision Research at the NLPR

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The National Laboratory of Pattern Recognition (NLPR) at the Institute of Automation of the Chinese Academy of Sciences was established in 1987 to become one of the first national research laboratories in China. It has a large research team of staff and postgraduate students on computer and machine vision, and is a leading research laboratory in China in pattern recognition and computer vision.

Major ongoing projects in computer and machine vision include 3D reconstruction and scene modeling for VR applications, active vision based camera calibration, visual interface and navigation for intelligent wheelchairs, automatic quasar and galaxy spectra classification and recognition, ATR in complex environments, intelligent image and video databases, flood detection and analysis from remote sensing images, computer vision for brain imaging, human motion analysis and gait recognition, visual surveillance and semantic interpretation of dynamic scenes, and biometrics (fingerprint, face, iris and handwriting based human identification).

In this presentation, we outline NLPR's major current research activities in computer and machine vision, together with their potential and implemented applications. Some detailed discussions will be given on our research in visual surveillance and biometrics in order to demonstrate the value of computer and machine vision for the enhanced safety and security of the digital era. Extensive experimental results will be presented to illustrate the latest progress made at the NLPR. Further details of the NLPR may be found on the website <http://nlpr-web.ia.ac.cn>