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Here Is What Surat City Police
Did to Cut Crime Rate by 27%

The city police has upped the ante in terms of safety standards with the deployment of a face recognition system that now empowers the police force with real-time intelligence in tracking crimes

A smart city is incomplete unless it is a safe city. Safety is probably one of the most important aspects of moving towards a smart city. With cutting-edge technologies making their way into our day-to-day life, it is now possible to dream about living in a place that is high on safety standards. Setting an example, Surat City Police has reportedly become the first city police to get a Picture Intelligence Unit (PIU) and is also the first in India to deploy a face recognition technology for its PIU. The deployment was part of the safe city project initiative in Gujarat. The city police is now using intelligent, video-based analytics solution that is deployed at its command and control center.

The key aspect of the PIU is the face recognition system. A solution offered by NEC, the FRS system takes the video feeds from the CCTV cameras deployed at im-

—Koichiro Koide
MD, NEC India

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portant locations in the city and match it with the existing database of police. The technology is imparting real-time intelligence to the city police force. "NEC's NeoFace face recognition technology deployed in Surat, includes Neo-Face Watch that works with the live CCTV cameras in the city and NeoFace Reveal that is meant for forensic criminal investigation using recorded videos, still face images, and sketches of suspects," says Koichiro Koide, Managing Director, NEC India.

HOW DOES IT WORK?
NEC's Facial Recognition Solution (FRS) is a high-per-

formance face recognition biometric technology which intelligently matches faces appearing on the surveillance cameras to the connected database in real time and generate alerts if a subject face of person of interest is matched.

"When deployed and connected with CCTV camera network across the city for criminal investigation, the technology alerts the police in real time for any suspicious activity/criminal spotted in the surveillance zone," explains Koide. Enabling speedy action by the police, it leads to a faster turnaround time for investigating criminal cases.

Rakesh Asthana, Indian Police Service, Police Commissioner of Surat City, said in an official press statement, "This leading Face Recognition System and Forensic Criminal Investigation System can offer our police department the much required real-time intelligence to ensure the safety of our city and its citizens. We can now proudly say that Surat safe city is India's first safe city."

Image quality plays a great role in the success of a face recognition system. As many a times, images could be of inferior quality, making identification a highly challenging task for police forces. The NEC solution aims to resolve that. "The NEC FRS system can even work with very poor quality images, video footages, sketches, and scanned images," adds Koide. Interestingly, the system may also detect criminals even after plastic surgery and claims to have powerful image enhancement tools such as to make a side face to a frontal face.

In Surat, the NEC FRS technology is connected with the criminals face database and the CCTV cameras deployed at critical point of entry and exit of the city. The live camera feeds are processed at the command and control center and whenever a match is found, the system will send immediate alerts with the matched details to application dashboard. Optionally, the alerts would be sent to police official's mobile phones for appropriate action.

LEADING THE WAY
There has been a 27% decline in crime rate, and 150 cases have been solved already since successful deployment of NEC FRS system.

With the implementation, Surat city police will now be able to identify a criminal in the crowd even if the person is disguised or has undergone plastic surgery; detect vehicles used in criminal activities and get their details within no time; and penalize the vehicles violating the traffic rules, speed limit, etc.