

زبان فنی

کاوه حقیقی

Computer Applications – Speed Camera

In the last ten years, police have installed speedtrap units on many busy roads. These contain a radar set, a microprocessor and a camera equipped with a flash.

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If a car is moving towards the radar, the reflected signal will bounce back with a slightly smaller wavelength. If away from the radar, the waves will reflect with a slightly longer wavelength.

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The microprocessor within the unit measures the difference in wavelength between outgoing and returning signals and calculates the speed of each vehicle.

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If it is above the speed pre-set by the police, the camera takes a picture of the vehicle. The information is stored on a smart card for transfer to the police computer. The owner of the vehicle can then be traced using the Driver and Vehicle Licensing Centre database.

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Some drivers have now got used to these traps. They slow down when they approach one to ensure that the camera is not triggered. They speedup again as soon as they have passed. This is known as 'surfing'.

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One way of outwitting such motorists is a new computerised system. This consists of two units equipped with digital cameras positioned at a measured distance apart. The first unit records the time each vehicle passes it and identifies each vehicle by its number plates using optical character recognition software.

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This information is relayed to the second unit which repeats the exercise. The microprocessor within the second unit then calculates the time taken by each vehicle to travel between the units.

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The registration numbers of those vehicles exceeding the speed limit are relayed to police headquarters where a computer matches each vehicle with the DVLC database. Using mail merge a standard letter is then printed off addressed to the vehicle owner.