PHUMIN PERMSIRI : ROAD TRAFFIC DETECTOR USING A PYROELECTRIC DEVICE. THESIS ADVISOR : ASSO. PROF. KRISADA VISAVATEERANON. 71 pp. ISBN 974-332-970-6.

This thesis presents application of a pyroelectric sensor as a vehicle detector to measure the traffic flow on roads. The pyroelectric sensor is a non-contact type of vehicle detector which is easy to install and maintain. Detection of the vehicle is achived by temperature difference between the vehicle and the road surface. The signal from the sensor is amplified and wave-shaped, then fed to the counting circuit. The prototype of the vehicle detector is tested on a real road. It gives an accuracy of 98% for traffic flow measurement, can detect vehicles during daytime and nighttime, and can detect vehicles that move faster than 100 km/hr.

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