

DOI: <https://doi.org/10.53555/nneee.v1i3.246>Publication URL: <https://nnpub.org/index.php/EEE/article/view/246>

Traffic Light Signal System Using Radar-Based Target Detection and Tracking

Manish Munjal, Amit Grewal, Karan Gogna
^{1,2,3}Dronacharya College of Engineering, Gurgaon

How To Cite This Article:

Munjal, M., Grewal, A., & Yadav, H. (2014). Optical Fibre Sensors and Methods. *Journal of Advance Research in Electrical & Electronics Engineering (ISSN 2208-2395)*, 1(2), 13-15. <https://doi.org/10.53555/nneee.v1i2.260>

Abstract

A novel system and method of integrating an RF emissions device, such as aradar system (103A), within a traffic control indicator (101) system. The system and method determines, using LFM-CW radar signals (201) and a multistage spectral processing algorithm (600), if one or more object/vehicle targets will enter an intersection and comprises receiving a radar echo response (203) indicating the object/vehicle target (104) is approaching the intersection, receiving range and velocity of the object/vehicle targets (104), and based on the receiving, determining if the object/vehicle target (104) will enter the intersection. The system and method can programmatically be configured to activate red-light-hold, green-light-extension, or left-turnwarning.

Keyword: Traffic light, signal, radar, detection, tracking