In view of the problem of slow speed and low accuracy of the vehicle recognition in advanced driver assistance systems, a vehicle recognition method based on pseudo invariant linear moment features and ELM is proposed. Target edge is extracted by the improved PCNN model, according to the characteristic of multiple target features, the pseudo invariant linear moment features are extracted, then ELM model is used to train and recognize the databases. The validity of the model is verified through experiments, compared with other algorithms, the recognition accuracy of pseudo invariant linear moment features and ELM vehicle recognition method is higher and the speed is faster, which provides a new way to identify the vehicle in real-time monitoring system of the vehicle.


Index Terms

Computer Science

Information Sciences

Keywords

Line moment; feature extraction; target recognition