Abstract

The future of mobility is powered by autonomous vehicles (Av's). By removing human driving mistakes, they have a safe journey mode. The lower response time associated with Av's would provide the existing traffic network with even more power and will make things travel more quickly and safely. We are proposing here an AVDM model which co-ordinates these module operation, for example the supervisory system uses hierarchically interpreted Petri nets (PNs) to describe the actions of the automotive according to transport rules in various scenarios. Introduced the PN simulation environment. PIPE has a visual interface for editing, running, tracing and storing PNs. A dispatcher loads these PNs for execution and performs the various conducts. For Testing and tracing purposes the PIPE display displays the status of all operating Nets was very helpful. This study speaks of the cruise control system and the collision prevention system based on Petri net models. It consists of two internal velocity and distance control controllers respectively. These two controllers are configured to keep the fault-tolerant redundant controls under control. So this study has introduced a viable method of integrating Av's behaviors within the model and developing the potential effect of various future scenarios.