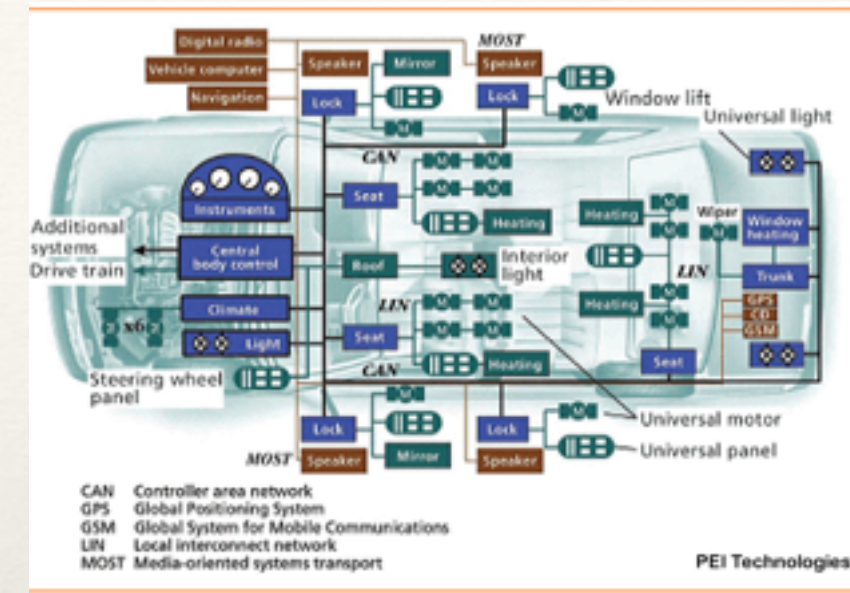# Model Checking of Automotive System in the Presence of Multiple Communication Protocols

Automotive system is a distributed control system to realize a variety of functions with electronic components in the vehicle.

- Multimedia control function ⋯⋯⋯⋯⋯ MOST
- Braking control function ⋯⋯⋯⋯⋯ CAN
- Body control function ⋯⋯⋯⋯⋯ LIN
- Adoptive cruise function ⋯⋯⋯⋯⋯ FlexRay

How to check the communication between different protocols of subsystems?

We proposed a framework to verify the communication between two environments by a gateway. One environment represents a protocol subsystem with arbitrary topology and the number of nodes. Messages can be sent at any time. The gateway receives messages from an environment and forwards messages to other environments.

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