

Centre of Excellence Electronics & Infotronics

This is fast growing field of engineering because of increasing use of electronics features in the vehicle. The GARC-Chennai is located in the close proximity of IT hub of country, in view of this fact The Centre of Excellence for Electronics and Infotronics is proposed at GARC-Chennai.

The testing iteration and validation for each developmental step depends on procedures and requirement. The entire process is classified in to three main parts:

- **ECU (Electronic control unit).**
- **Sensors and actuators.**
- **Net interconnection of ECU.**

The electronic component of vehicle needs exclusive equipments designed exclusively for automotive industries for their hardware and software validation. The centre will be equipped with these machines to perform following validation and developmental test on electronic components of vehicle:

- SIL (Software In the Loop):** Under this test software of component is tested and validated with virtual models of the vehicle .
- HIL (Hardware In the Loop):** Under this test ECU's are validated with electronics devices that simulate the action/reaction of the vehicle.
- HMI (Human Machine Interface):** This is the last step of validation process, and also called infotainment based test. Under this test scenario simulation of real driving scenario will done in order to analyze the driver reaction and interaction with the vehicle information systems.