

# Indigenous Car Driving Simulator

(As a part of 12<sup>th</sup> Five Year Plan Network Project)



## Components

- Actual Car Body
- Actual Accessories
- Full size projector screen to create actual graphics
- Three projectors to develop full view of directional images
- Actual live size hazards and traffic scenarios
- Test to screen driver's behavioral traits
- Full Diagnostic behavioral report along with skill test report
- Accessories to provide comprehensive test report

As part of the 12<sup>th</sup> Five Year Plan Network Project, Indigenous Car Driving Simulator was developed by CSIR - CRRI, New Delhi with support from CSIR-CSIO, Chandigarh, and CSIR-NAL, Bangalore.

M/s FAROS Simulation Systems is involved in the capacity of industry partner in the fabrication of the driving simulator.

It is an established fact that about 78 % of the road crashes that occur on Indian roads is primarily attributed to the fault of the road users *especially, drivers* apart from the other factors such as faulty road design, poor road maintenance and vehicle conditions which account for the remaining share of road fatalities. Therefore, as a starting point, it is felt prudent to assess the psycho-physical abilities of the drivers. This is especially acute in the case of commercial drivers in the country do not fall under the fully literate segment of the population coupled with the extended time span spent by them on the wheels which is sometimes beyond 8 hours and extending up to 12 hours of driving. Inadequacy in specific cognitive and psychomotor capacities, such as inadequate attention, poor reaction time and inadequate hand-eye coordination abilities are typically associated with such drivers which can lead increased road crash risks.

The indigenous driving simulator developed (*vide Indian Patent No. 0234NF2016*) under the project SUSTRANS of CSIR - CRRI has the ability to measure all the driving related skills along with essential psycho-physical traits and the visual functional capabilities so that it will be easier to predict safety skills, traffic violation and errors committed by the drivers. This simulator works as a catalyst in coordinating and bringing together various nodal agencies for encouraging and promoting the sharing of information, knowledge and specific expertise in traffic psychology area to achieve Road Safety Vision 2020. The simulator provides holistic screening cum training to skilled and unskilled drivers. The developed software incorporates typical Indian road surface conditions (like potholes etc), Indian vehicles, Indian driving behaviour such as wrong side driving, varying traffic density, sudden appearance of an intrusion of for example a stray animal, a pedestrian, a bicycle on to the driver's path and varying or adverse weather conditions. The installation of such a system in the offices of Transport Authorities and making it mandatory to undergo tests under the Driving Simulator environs will to a large extent would help to modernize the license issuing process and thus help to screen only the safe drivers for practical road tests.

CSIR-Central Road Research Institute (CRRI), New Delhi



### Contact:

Prof. Satish Chandra Director,  
CSIR-Central Road Research Institute (CRRI),  
Mathura Road  
New Delhi 110025 India,  
E-Mail: [director.rrri@nic.in](mailto:director.rrri@nic.in)

### Additional Contact Information:

Dr. Errampalli Madhu, Principal Scientist  
([madhu.rrri@nic.in](mailto:madhu.rrri@nic.in)) or  
Dr. Neelima Chakrabarty,  
Senior Principal Scientist  
([neelima.rrri@nic.in](mailto:neelima.rrri@nic.in))

Tel: 91-11-26832173, 26831760 and Fax: 91-11-26845943, 26830480