

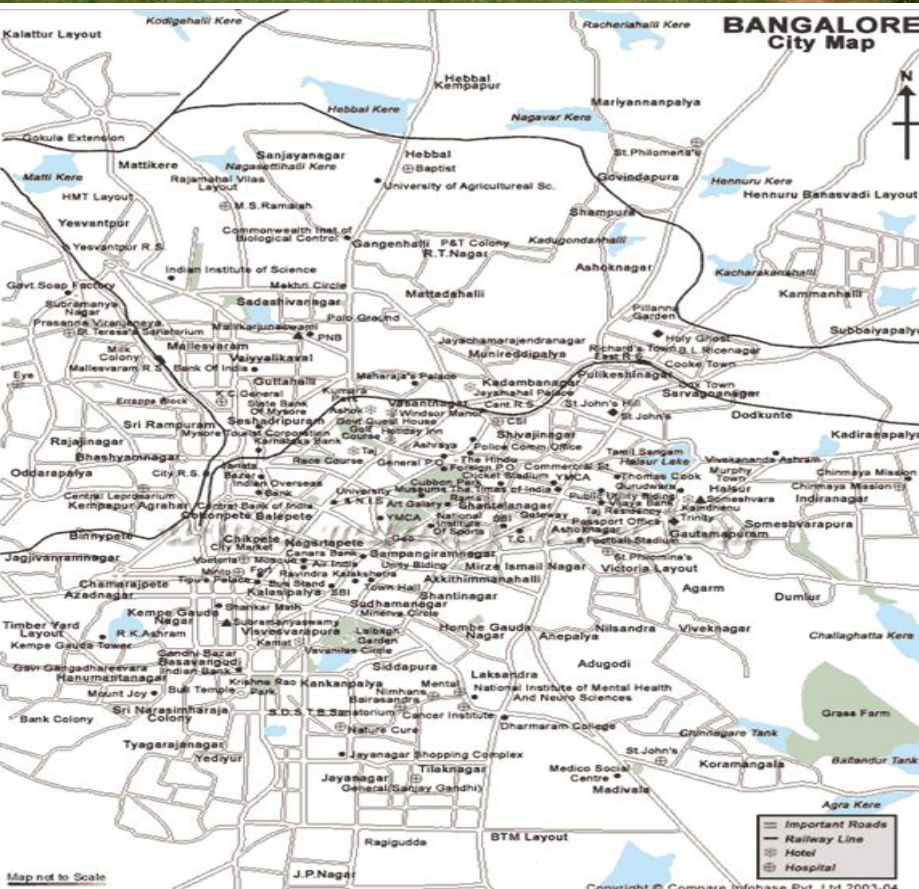


Mr. Bhaskar Rao
Commissioner for Transport & Road Safety, Bangalore



INSTITUTIONAL ARRANGEMENT FOR REDUCTION OF ROAD FATALITIES

AUTOMATED DRIVING TESTING TRACK FOR ISSUE OF DRIVING LICENCES



Bhaskar Rao IPS
Commissioner for Transport &
Road Safety
Karnataka, India

PRESENT SCENARIO

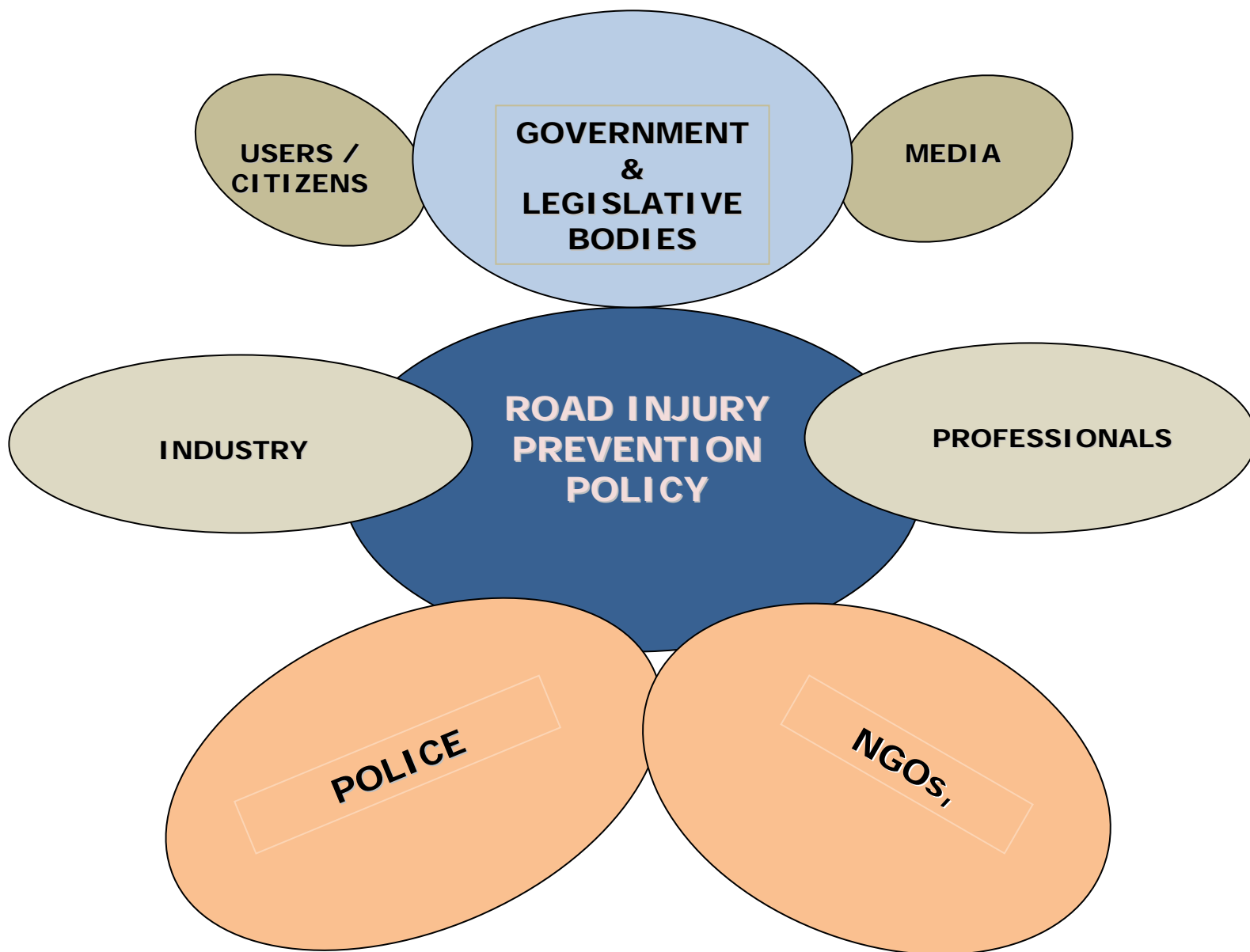
- Introduction of variety of new generation vehicles
- Traffic simply increases to occupy the increased road space.
- Congestion remains, commute time, pollution and road accidents increase.

Solution

Better infrastructure.

- Road widening.
- Resource Planning.
- Awareness Programmes.

ROAD SAFETY IS A SHARED RESPONSIBILITY



COMPUTERISED DRIVING TRACK

Stringent Test for issue of Driving Licences is to produce quality drivers on Road in order to reduce road fatalities.

PURPOSE

- **To Develop right attitudes towards driving responsibilities.**
- **Instills understanding of Traffic regulations .**
- **Create good driving habits.**
- **Systematic Training and Skill development.**
- **Public safety.**

ADVANTAGE

- **Extremely transparent system**
- **Influential interference eliminated**
- **More objective and no discretion**
- **No room for manipulation**
- **Quicker than any other system**
- **Cost effective**

ELECTRONIC DRIVER TESTING TRACK

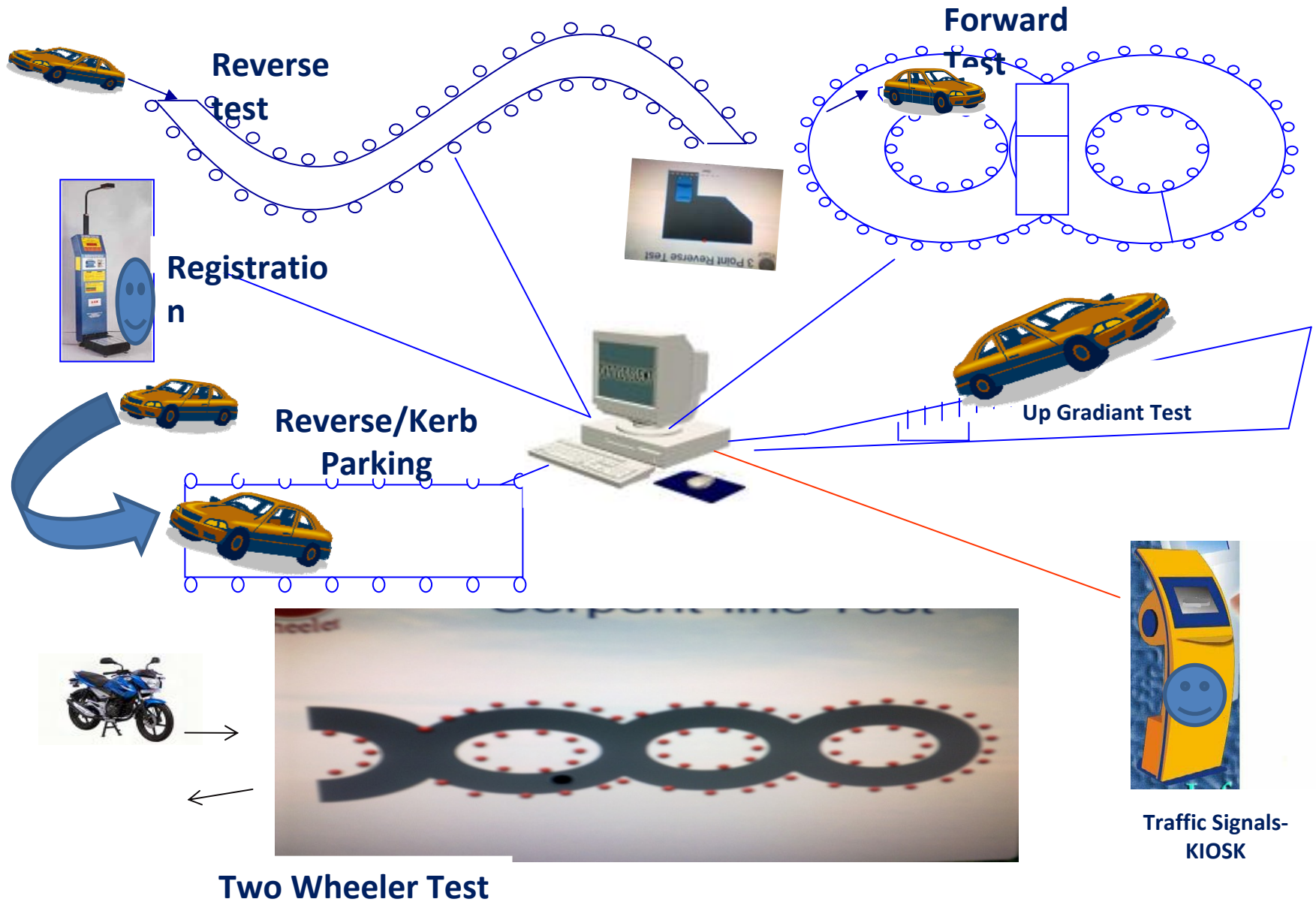
STAGES OF TESTS

- All poles are electrically wired to a central computer systems to capture the data.
- Candidates Photograph/Fingerprint are taken electronically.

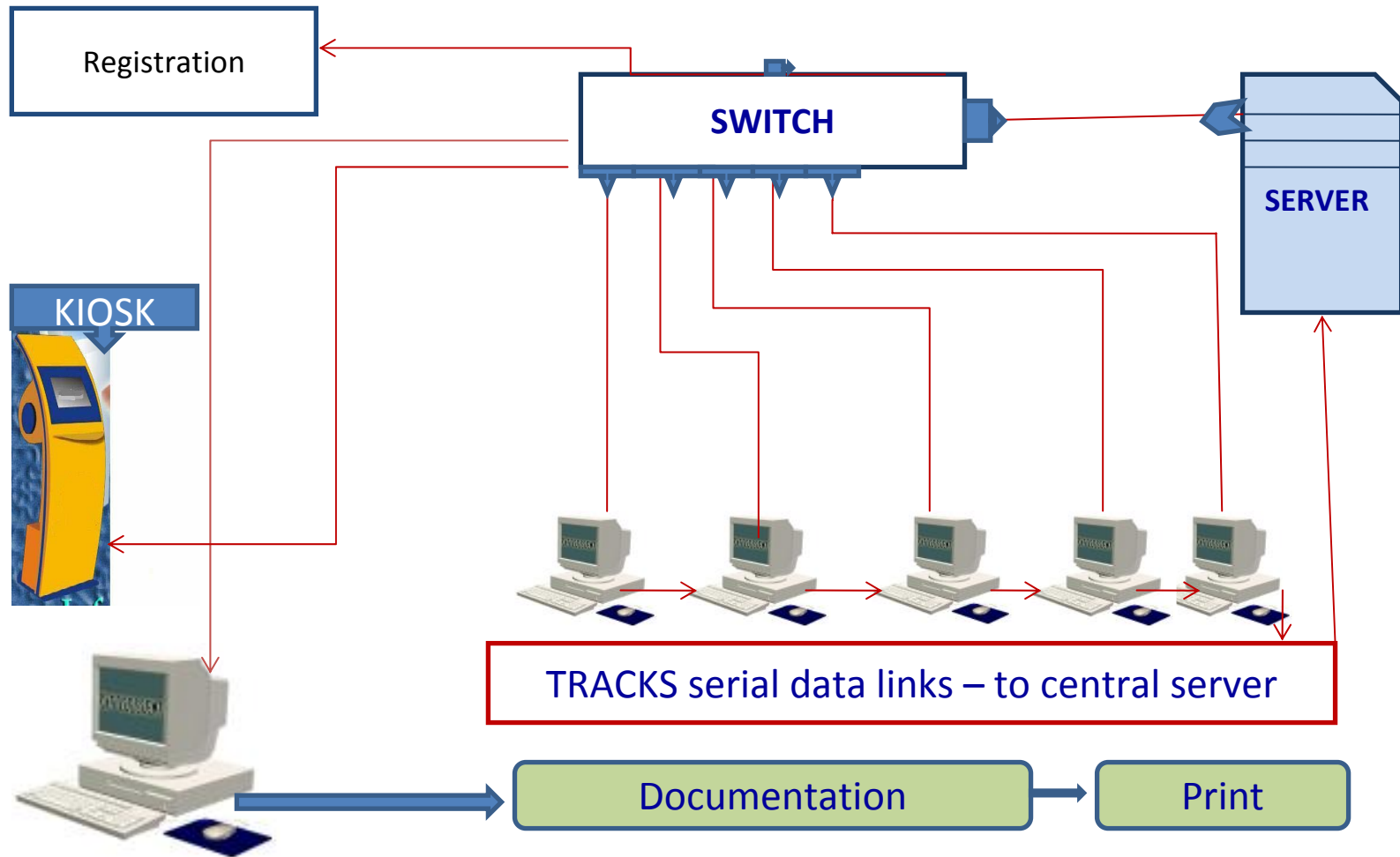
TESTS - for Light Motor Vehicles:

- Up gradient Test
- Reverse ' S ' track
- Figure of ' 8 ' track
- Reversing Parking Test
- Serpentine Track Test for Two wheelers
- Viva voce on Kiosk for Traffic Signs identification.
- **ADVANTAGE:**
- Evaluation done automatically.
- Video graphed CD will be made available to candidates.

AUTOMATED DRIVING TEST TRACK



TRACK SYSTEM ARCHITECHTURE



KIOSK - FOR TRAFFIC SIGNALS IDENTIFICATION

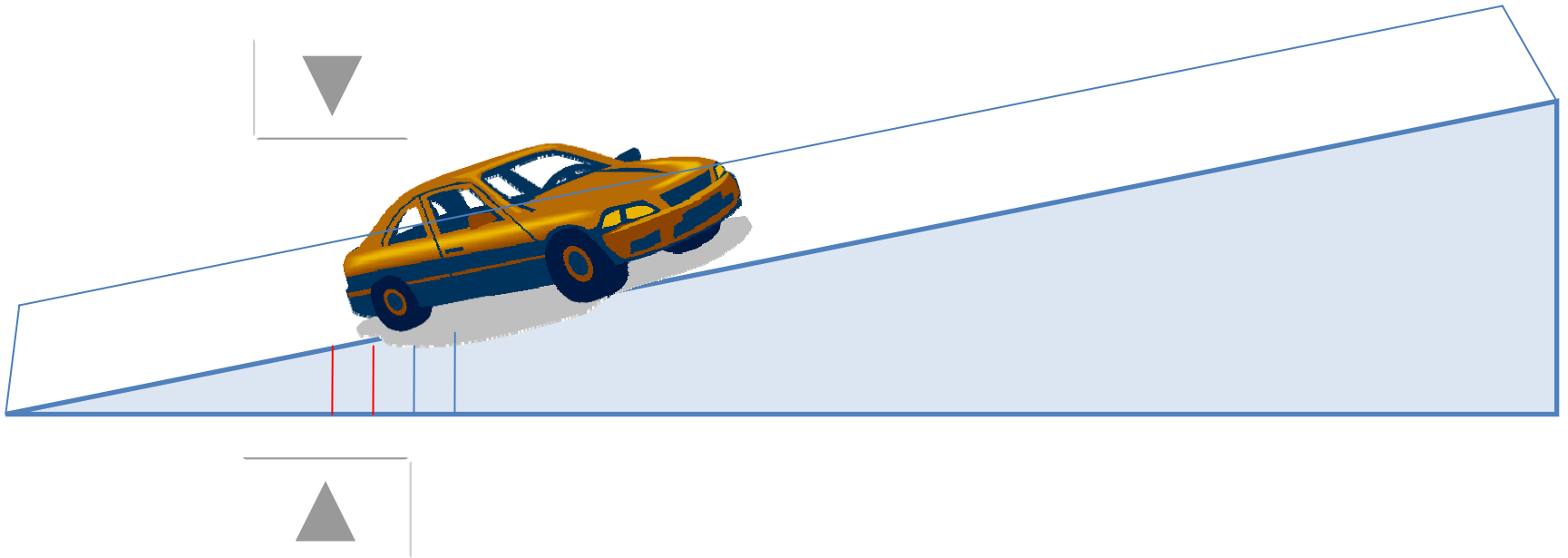
Functions

- Traffic signals, Signage, essential rules & regulations as per MV Act is programmed.
- Candidate to identify the traffic signals on touch screen.
- Marks awarded for correct answers.

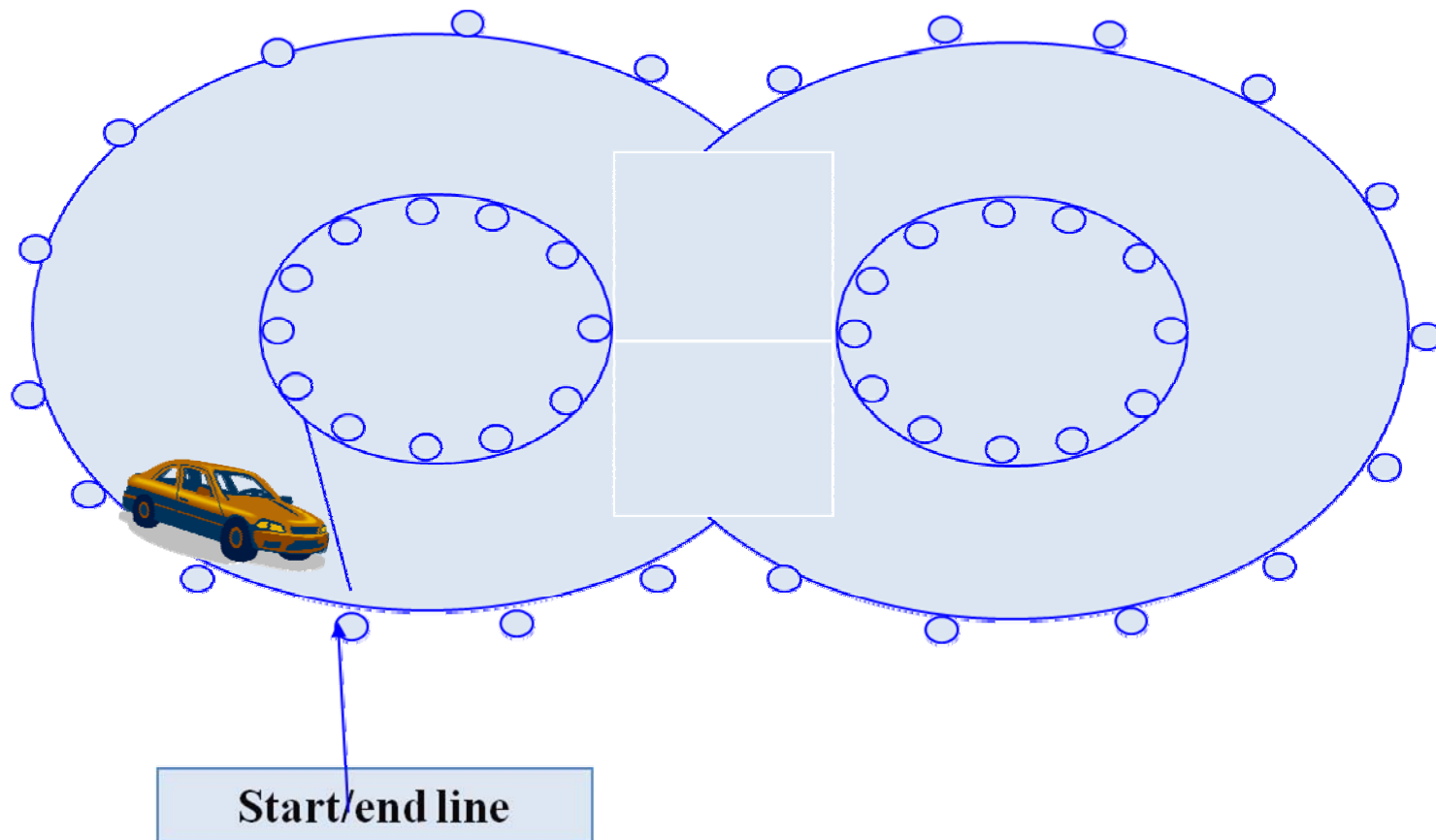
KIOSK Machine



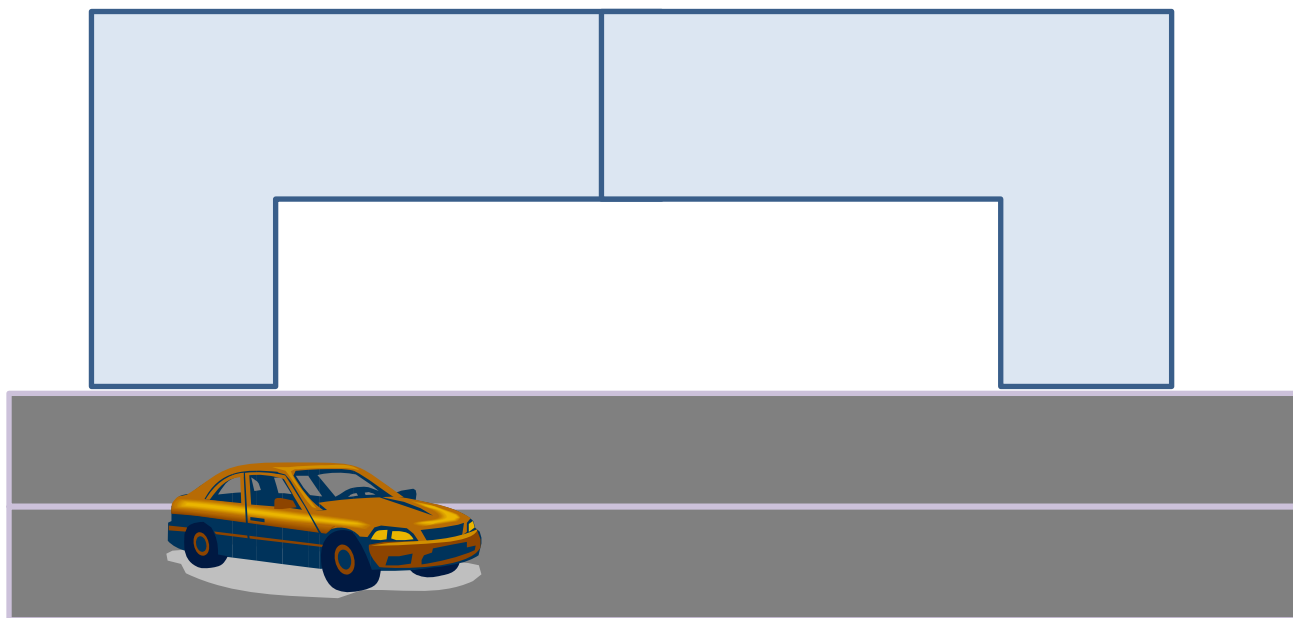
UP GRADIENT TEST



8-FORWARD DRIVING TEST

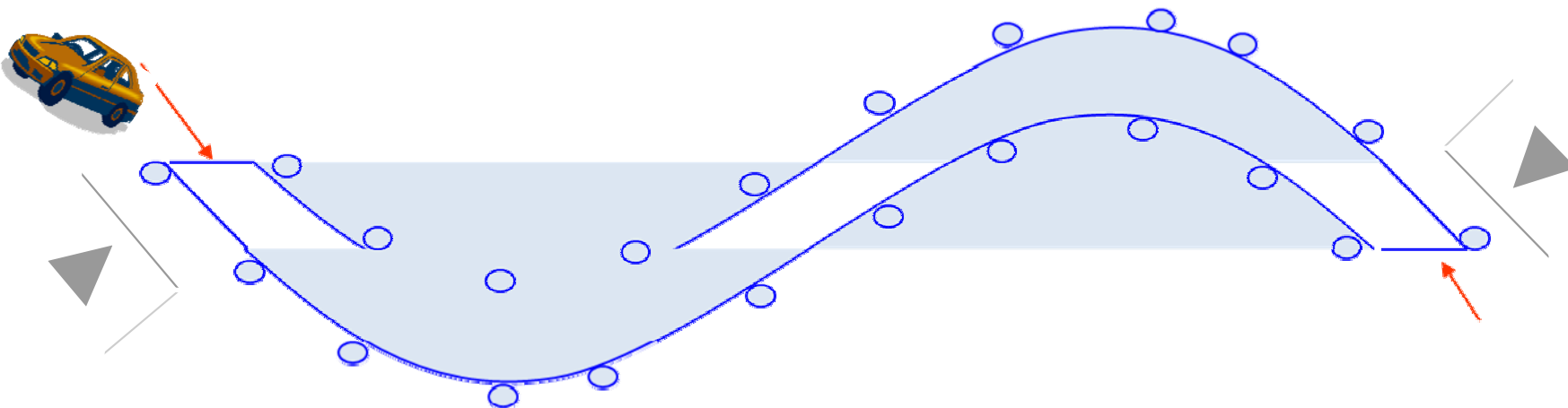


PARKING SKILL TEST



S- REVERSE DRIVING TEST

Starting



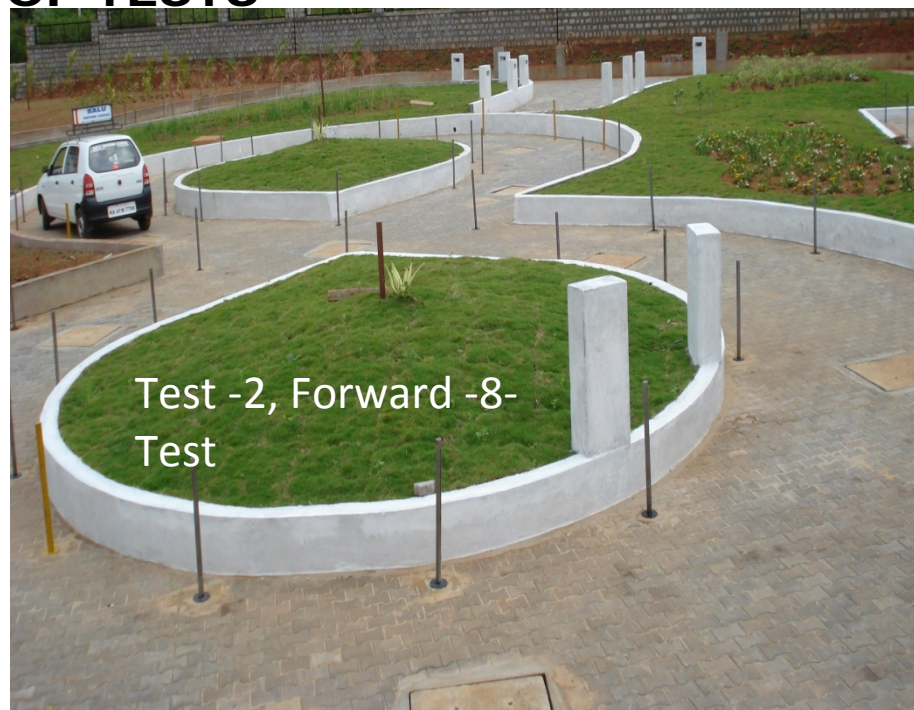
Ending line

SEQUENCE OF TESTS

Test-1, Up gradient
test



Test -2, Forward -8-
Test



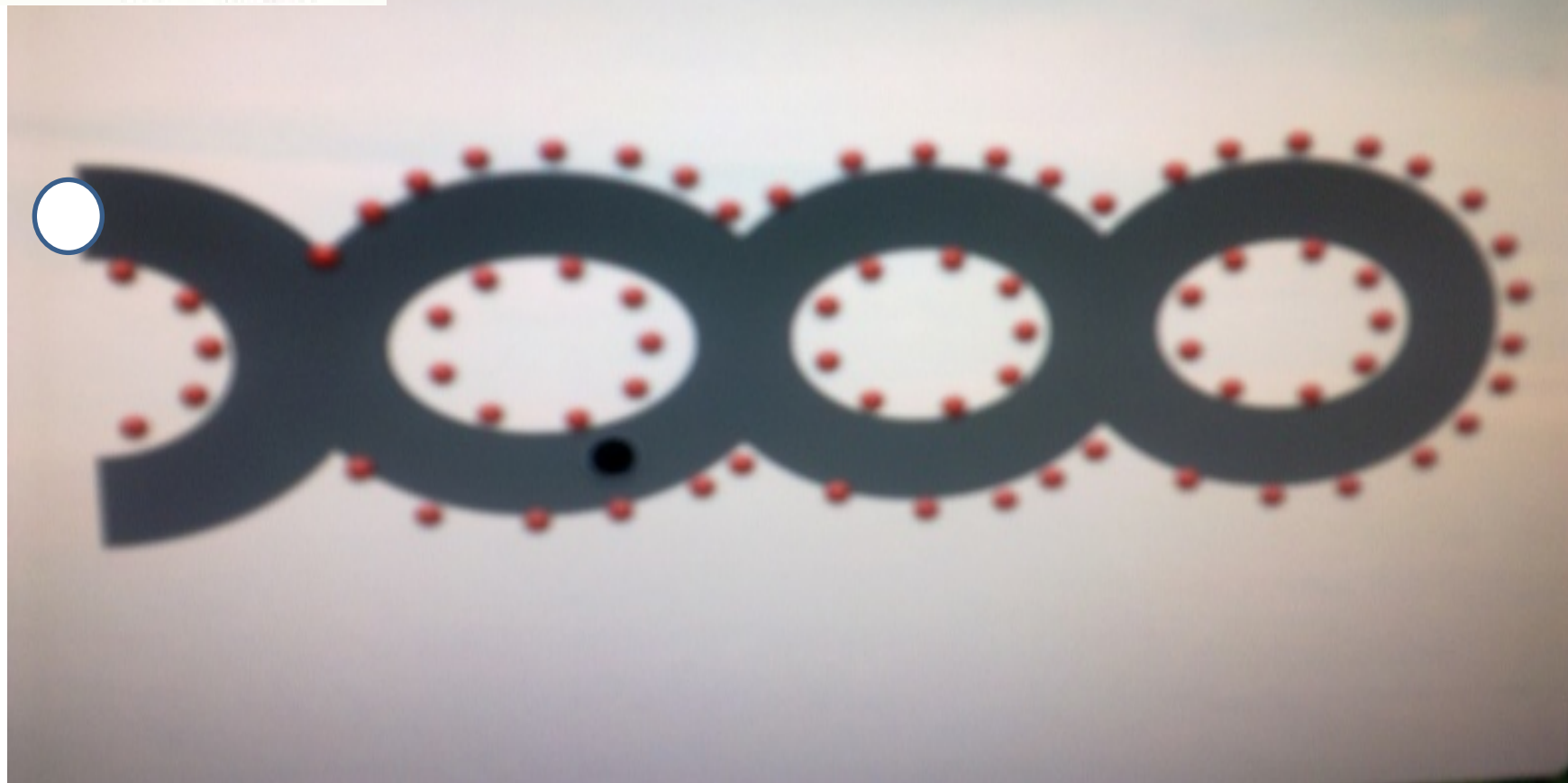
Test -3, Parking Test



Test -4, Reverse -S-
Test



TWO WHEELER TEST TRACK



TWO WHEELER TEST TRACK



RESULT SHEET

Result will contain the following information:

- **Candidate Name/ID/Details**
- **Name of the Test/Tests Conducted**
- **Time of Test/ Time taken to complete the test**
- **Maximum marks.**
- **Marks obtained**

SOFTWARE REQUIREMENT

Application Software:

- Application Software comprise of the following modules
- Registration Module.
- Sensor Monitoring Module
- Database module
- Networking module
- Symbol test Module
- Result Module
- MIS Module.







Database:

The Database used will be SQL/Oracle.

Development Tools:

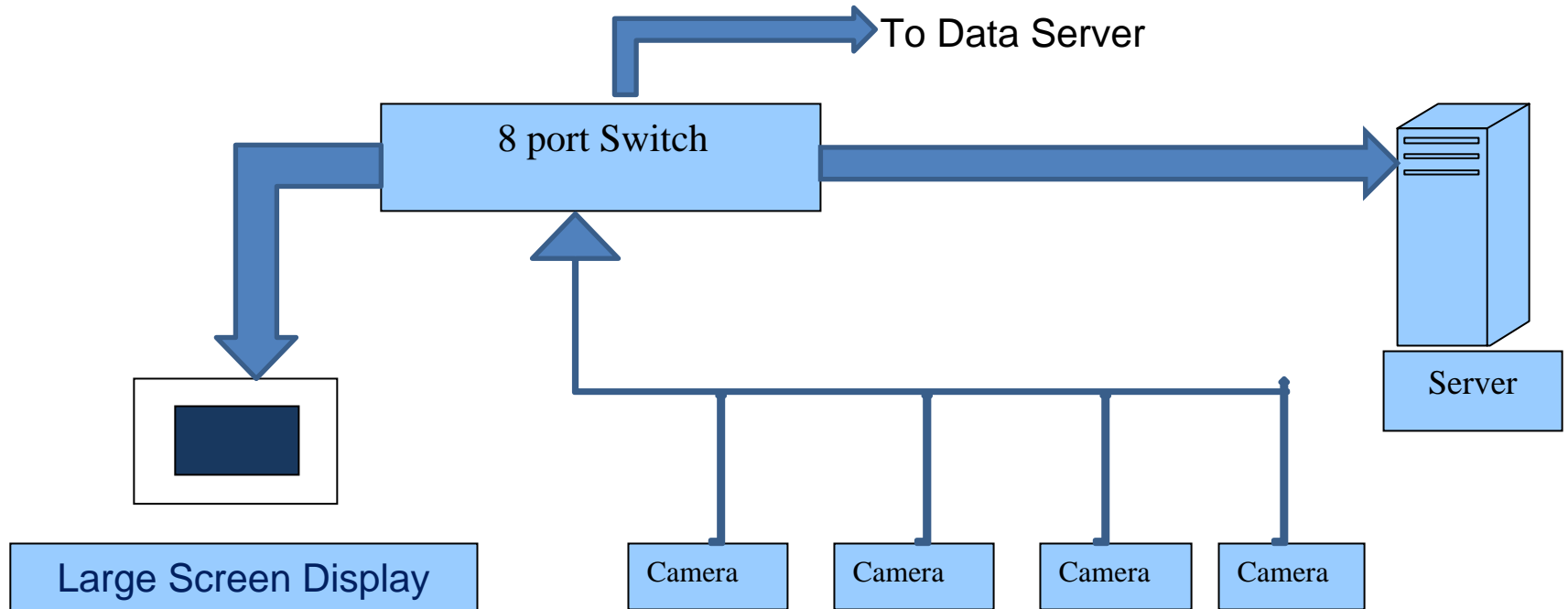
The application software modules was developed using Microsoft Visual C++

STAFF REQUIREMENT

- System Engineer  1
- Service Technician  1
- Track Supervisors (1 each / Track)  4
- Registration Desk  1
- Document /Physical standards verification  2
- Track Pole attendants  6

Video System - Block Schematic Diagram

The complete Network Diagram of the Test System



One Camera for Each of the Tracks

ROAD ACCIDENT STATISTICS IN INDIA

YEAR	NATIONAL HIGHWAYS			STATE HIGHWAYS		
	Percentage - share			Percentage - share		
	Total No. of Accidents	No. of persons Killed	No. of persons Injured	Total No. of Accidents	No. of persons Killed	No. of persons Injured
2001	28.6	39.7	29.5	22.5	27.6	25.6
2002	32.3	39.7	32.4	23.5	27.2	25.4
2003	31.4	38.6	30.1	22.4	28.2	26.7
2004	30.3	37.5	30.8	23.5	26.9	24.9
2005	29.6	37.3	31.3	23.6	27.2	25.7
2006	30.4	37.3	30.8	18.5	26.8	24.9
2007	29.0	35.5	30.2	24.4	27.7	26.2
2008	28.5	35.6	28.6	25.6	28.4	27.5

ROAD ACCIDENTS IN KARNATAKA

YEAR	ACCIDENTS		TOTAL		
	FATAL	NON-FATAL	No of Accidents	DEATHS	INJURED
2004	5786	33083	38869	6497	50395
2005	6093	34224	40317	6904	54061
2006	7092	36235	43327	7973	60940
2007	7657	37627	45284	8686	60430
2008	7821	37758	45579	8856	61917
2009 (Up to June)	3888	18329	22217	6535	31188

REMEDIAL MEASURES

MEASURES TO CONTROL ACCIDENTS

Engineering Measures.

- Infrastructure Development like flyovers, grade separators, by-passes, railway over/under bridges, bus/truck lay byes, service roads, cautionary/regulatory/informatory sign boards, traffic lights delineators, etc. to ease the traffic.

Enforcement Measures

- Testing the competence of the drivers at the time of licensing,
- Roadworthiness test of vehicles while issuing Fitness Certificates
- Compulsory use of helmets for two wheelers
- Stringent laws regarding drunken driving
- Strict use of seat-belts, etc.

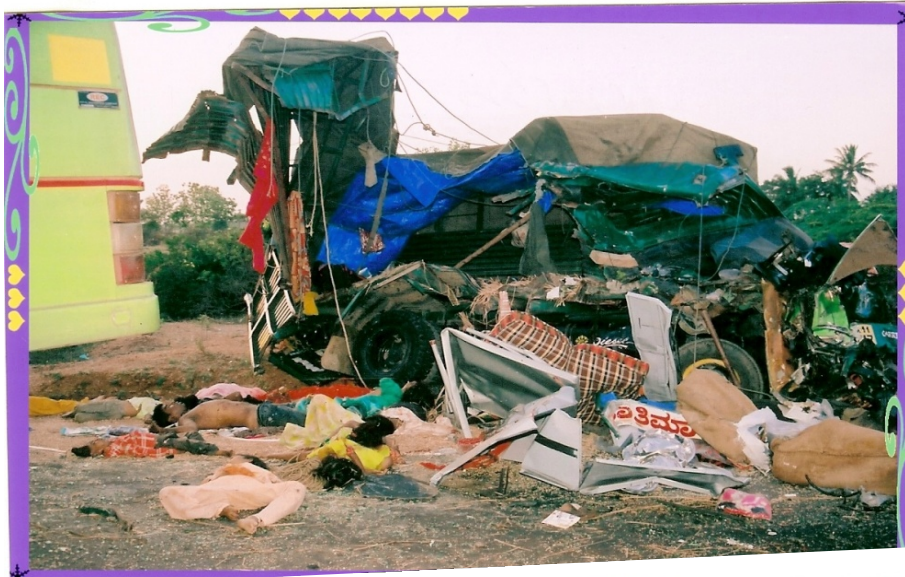
Educational Measures

- Awareness campaigns on a continuous basis through print and electronic media, viz, newspapers advertisements, cinema slides, radio jingles and TV. Spots, Road safety programmes for Teens & Youth at Schools/Colleges.

Other schemes :

- Refresher Training for heavy vehicle drivers
- Model Driving Training Schools

ROAD FATALITIES



AREAL VIEW OF THE DRIVING TEST TRACK





THANK YOU



***“VOLUNTARY DISCIPLINE IS THE
FIRST REQUISITE OF CORPORATE
FREEDOM”***

MAHATMA GANDHI – FATHER OF INDIA

Website: <http://rto.kar.nic.in>

E-mail : transcom@nic.in