

References

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- [2] https://developers.google.com/kml/documentation/kml_tut
- [3] <http://www.windmill.co.uk/obdii.pdf>
- [4] <https://www.apachefriends.org/index.html>
- [5] <http://dev.mysql.com/doc/>
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Appendix A

Automobile Driver Evaluation System

User Manual



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Add/Update Drivers

Users can be added and updated from Drivers page. Basic information of drivers saved to the system within this page.

Driver Test

Automobile Data Analysis Tool

Driving Behaviour Report Drivers Vehicles

Name:

License No:

Date of Birth:

Joined Date:

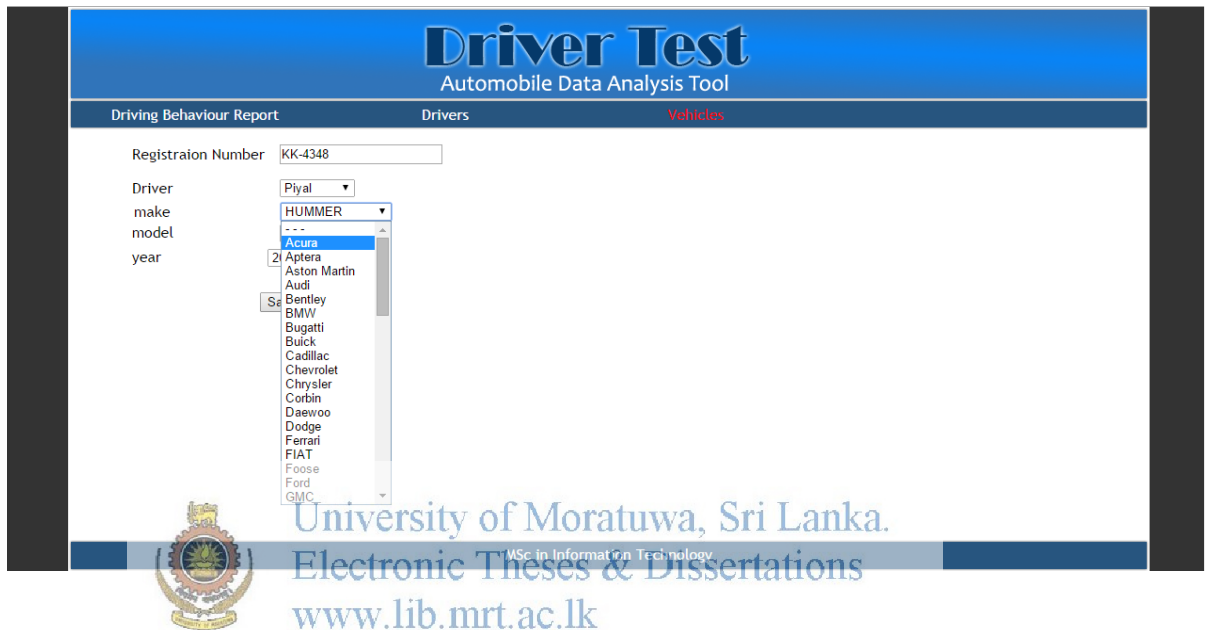
Name	Date of Birth	License Number	Joined Date
Amal	1980-02-07	123456789	2014-09-03
Saman	2014-12-03	123456788	2014-12-01
Kamal	1980-07-02	345678	2014-09-17
Najith	1978-08-02	556664	2014-11-13
Piyal	1982-01-14	54432544	2014-01-16



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Add Vehicles

New vehicles can be added to the system with Vehicles page. There are 4188 models of vehicles are pre-loaded to database for users to select in this page. This covers almost all the models manufactured on or after year 2000.



Analyze Driving Styles

User can generate report for a particular driver to analyze driving style in this page. Select driver name from “Name” drop down list and select two days to generate report. Data available for selected date period will used for the report.

Driver Test

Automobile Data Analysis Tool

Driving Behaviour Report
Drivers
Vehicles

Name

From Date

To

<
Mar
2015
>

M	T	W	T	F	S	S
23	24	25	26	27	28	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

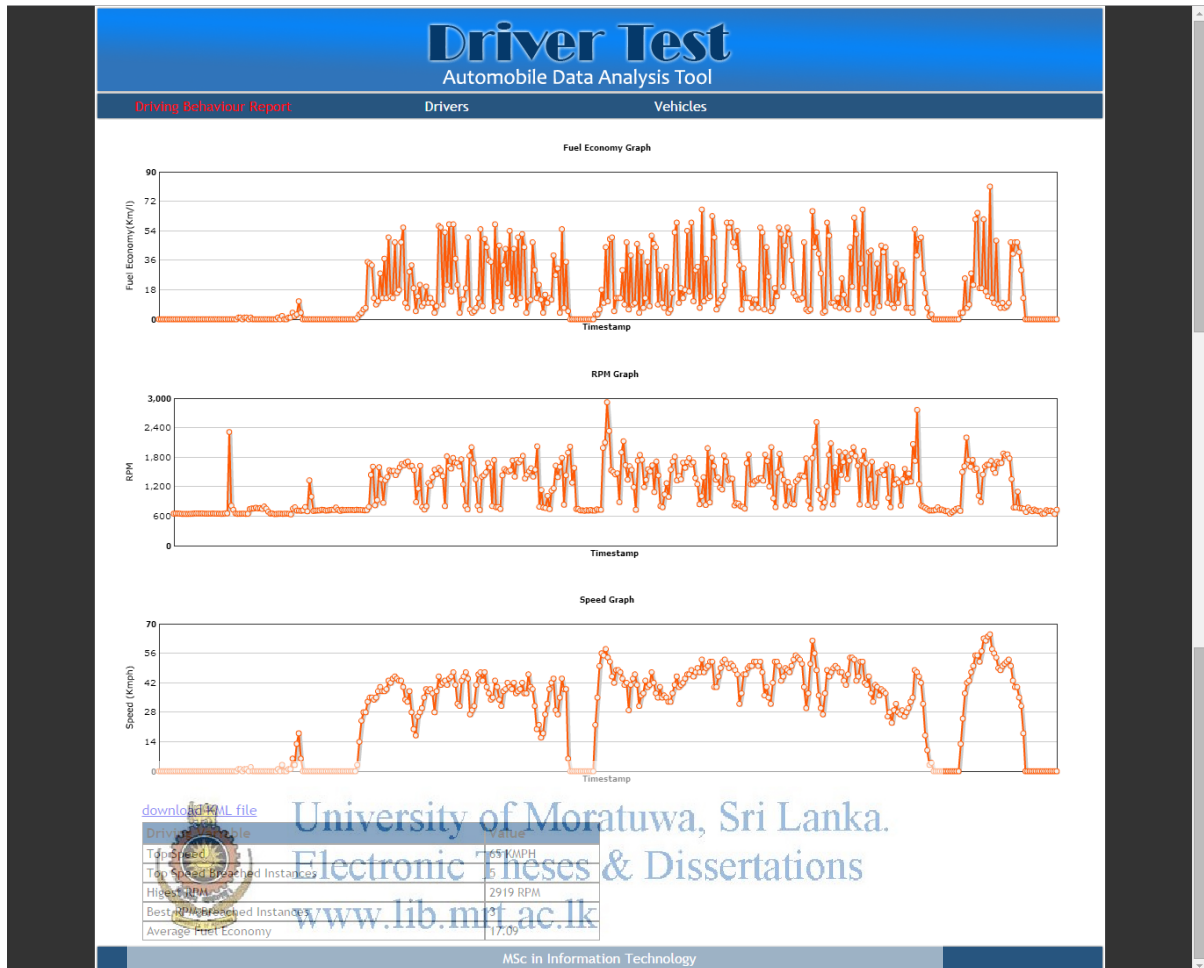
Today: 18 Mar 2015

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Once select all the data click “Go” to continue. This will generate the report similar to below,



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This report can be used to analyze how vehicle RPM and speed affect the fuel economy. Table printed bottom of the page shows some statistics for the selected date period.

Top Speed: The top speed which driver has driven the vehicle within date limit.

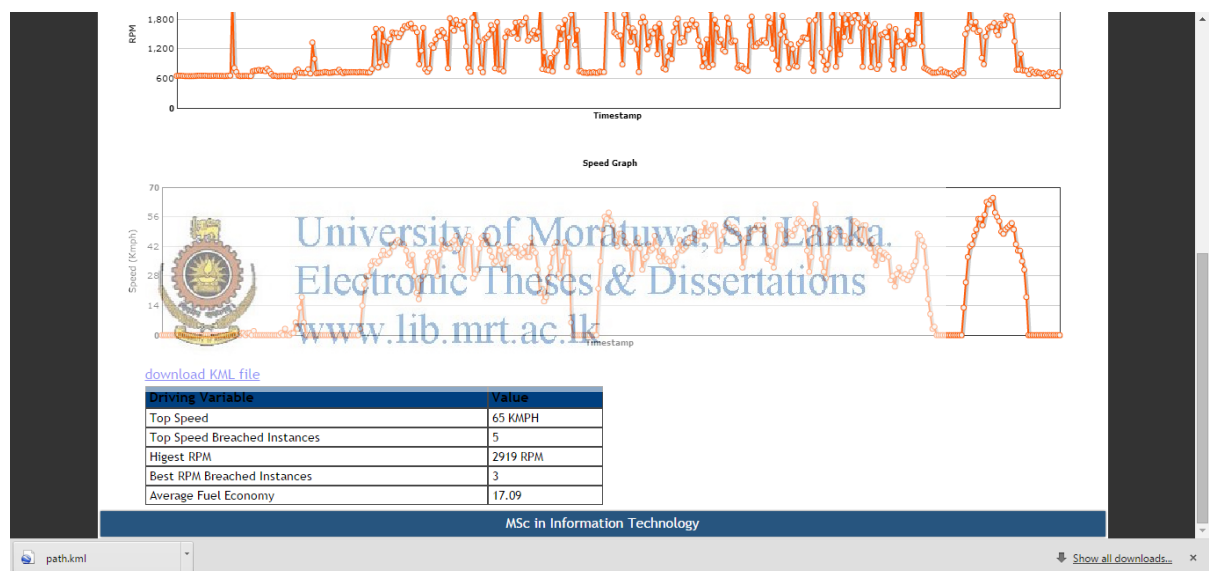
Top Speed Breached Instances: For each and every vehicle model there is a recommended speed which vehicle achieves its best fuel efficiency. This is setup in the system and value shown here is the number of instances the driver breached this recommended value. However due to the restrictions of highway rules, drivers are bound to maintain a minimum speed requirement. This can be validated when analyzing the KML file in Google earth.

Highest RPM: The top RPM value recorded by the driver for the selected date period

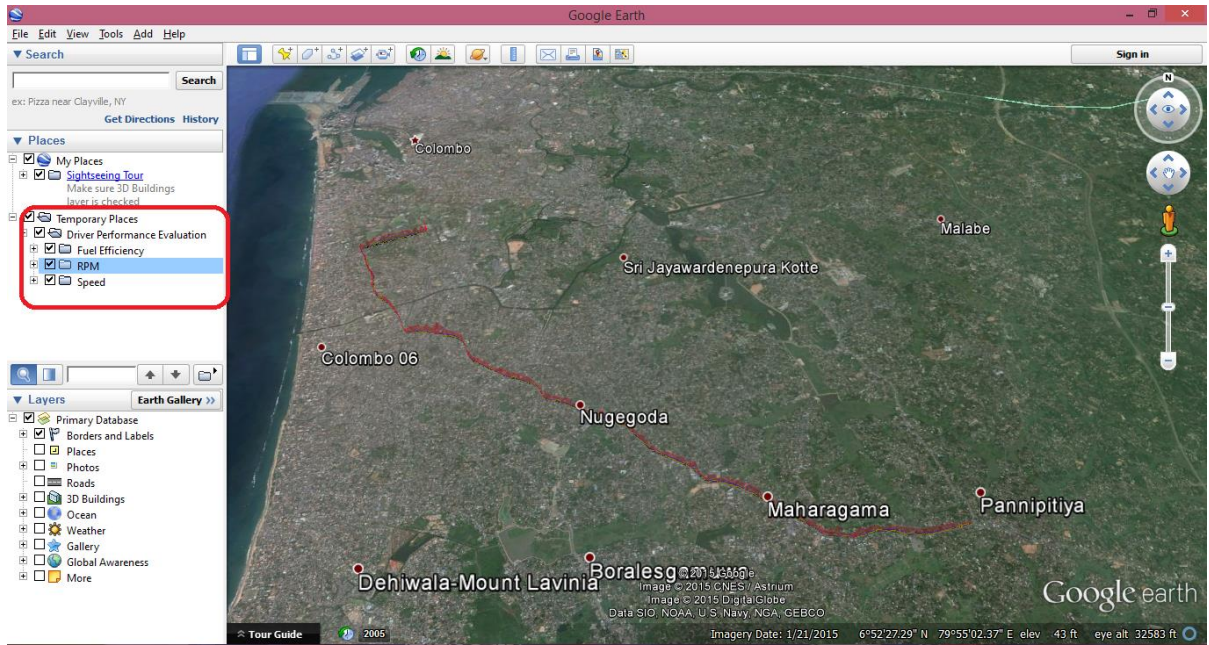
Best RPM Breached Instances: There is an optimum value for RPM for each vehicle model to achieve its best fuel efficiency. This is also set in the system and drivers are informed about this. Not like vehicle speed there are no restrictions setup in low to maintain minimum RPM by law. This value denotes how many times the driver has exceeded the recommended RPM value.

Average Fuel Economy: Average value of all the instantaneous fuel economy values saved to the system is shown here.

User can also click “download KML file” link and this will generate a KML file and downloaded to PC which can be opened in Google Earth.



Once opened with Google Earth, user can visible three paths Fuel Efficiency, RPM and Speed under Temporary Places. By selecting one or more paths user can view the Efficiency, RPM and Speed value graphs along the vehicle traveled path. User can use functionalities in Google Earth such as zooming, move around and street view to analyze what was the speed, RPM and the fuel efficiency of the any sections or a special places such as bends of the traveled path.



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