



# IDEATION

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*Predicting performance levels cars is an important and interesting issue.The main goal is to predict the performance of the car in order to improve certain behavior of the vehicle.This can go a long way in improving the system's fuel economy and increasing efficiency.*

## TOPIC

*Machine Learning based Vehicle Performance Analyzer*

### RAGUL R

#### Maintaining Your Engine

When it comes to vehicle performance, your engine is the first thing you should examine. Poor engine performance prevents you from travelling very far. When your engine isn't operating properly, you also spend a lot more money on fuel. Being stranded on the side of the road because your engine broke down is one of the worst things that could happen.

We may have experienced frequent failure of warning lights, erratic operation of indicators, etc. when you use the vehicle for a long time without maintenance. This can be problematic while driving, especially on long drives. Imagine getting a low engine oil warning that can only be caused by an electrical fault. Warnings will make you panic and affect your enjoyment of the trip. Regular car service will save you from this

#### Gearing

In simpler words, the gearing of a bike is how the engine's motor revolutions connect to wheel speed. On a motorcycle, changing the gearing can have a significant impact on performance and speed. On a motorcycle, the gearing will show you the power and speed as well as how the acceleration feels.

Regular service inspections enable the mechanic to identify any potential problems that need to be fixed before they become serious and endanger driving safety. To prevent potential vehicle faults, it is recommended to have your car tested and serviced on a regular basis by qualified mechanics.

### KARTHIKEYAN S

#### Brake Performance

For maximum safety and performance, your braking system needs to be checked on a regular basis. Every now and then, the fluid that makes your break function needs to be replaced. Without it, your brakes may seize up, which would have a serious impact on how your automobile operates. You might end up stranded on a roadside. somewhere.

The effect of proper maintenance will be evident on the vehicle's appearance and performance. The buyer will check the vehicle with the help of an experienced technician before joining the shop. A properly maintained vehicle will have a better resale value than an unmaintained one. Because the components, accessories and overall performance of the vehicle will be great.

**Engine and Power**  
It might seem obvious, but the performance of your bike improves with engine power. It might not be as crucial to pay attention to in India's stop-and-go city traffic, but for those lengthy highway journeys, strong bikes will fly like a charm.

It can be expensive to replace the spark plugs and cylinder head. If you frequently get maintenance, you can simply avoid these costs. Engine failure will occur if these parts are not repaired.

### SATHISH T

#### Taking Care of Your Electronics

Working on your car's electronic system is another thing you should do. The electronic system in your car could malfunction, causing it to act strangely. Due to the electronic system's poor performance, numerous issues have arisen. As a result, mechanical components frequently malfunction and you are unable to pinpoint the underlying source of the problem.

During the vehicle's routine maintenance, a qualified technician inspects it and makes any necessary repairs or replacements. Otherwise, it could have a domino effect and render the related components defective. As a result, the car's general condition improves greatly.

#### Efficiency of Fuel

Another thing that might seem obvious, but is nonetheless very important to this list. One of the first things you consider when purchasing a bike is the vehicle's mileage. You can customise your bike by changing the gears and the engine's power, but you can't alter the gasoline tank's size. Keep this in mind while you fill up for those road trips!

Making ensuring your car is safe to drive is one of the main reasons to have it serviced. Regular oil changes are essential, and the mechanics should also conduct a routine inspection to make sure there aren't any hidden problems that might manifest themselves while you're driving. This involves inspecting your brakes, cabin and air filters, and tyre pressure. You will be happy you had your automobile serviced rather than continuing to drive a potentially hazardous vehicle if they find a problem that requires quick treatment.

### MOHAN S

#### Constant Tire Maintenance

You wouldn't believe it, but your tyre actually has a significant impact on how well your car performs. Your fuel economy might be significantly changed by selecting the incorrect set of tyres. Altering the tyre pressure has the same effect. Your tyre has a significant impact on safety as well. One of the most crucial things you should do to ensure that your automobile runs as efficiently as possible is to have your tyres serviced in NSW.

Any seasoned driver can recognise the importance of car maintenance. They are aware that problems can be quickly identified and fixed, which can help you avoid spending a lot of money, time, and most importantly, stress! By having regular maintenance performed on your car, you may avoid using it up prematurely like so many other drivers. Running short on fuel, driving on tyres with little to no tread, and driving without coolant are all things that can and will gradually increase the cost of maintaining your car.

Both the appearance and performance of the car will show the impact of proper maintenance. Before closing the purchase, the buyer will inspect the car with the aid of a qualified technician. A vehicle with good maintenance will sell for more money than one without. Because the vehicle's parts, accessories, and general performance will be excellent. If you intend to sell the car, you must subject it to routine maintenance to get the greatest price.

The fact that having your automobile checked and maintained on a regular basis by maintenance experts will save you money overall is something that many individuals choose not to do because they believe doing so is a costly alternative. Your automobile will utilise fuel more efficiently after a service, providing you a higher return on your fuel investment.