

Indonesia Electric Supercar

Past & Future

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1. Background

After Industrial Revolution in the 19th century, world facing more and more dependent on fossil fuel to provide transportation for peoples and goods based on internal combustion engine which propel their vehicles. As a direct impact, pollution was increase rapidly giving the most significant source of climate change.



On the other side, the source of fossil fuel is also rapidly diminishing, giving a figure that we will not be able to utilized that fuel for the next century. Another kind of source of energy should be pursued to propel the vehicle of the future.

Electric vehicle that already exist in the beginning of 19th century that was then replaced by vehicle with internal combustion engine with better overall efficiency due to cheap and abundant availability of fossil fuel, is a strong candidate to be developed again to provide transportation for goods and peoples in the future.

1. Background

Since the awareness of the climate change and also a strong prediction and data on the limited fossil fuel availability in the plane Earth, research and development of electric vehicles become a real necessity to provide mobility in the future.



Maybe the first and most discussed modern electric car had been develop is General Motor EV1 that using NiMH which was revealed in 1999 to fulfill California Air Resource Mandate Regulation, but it was discontinued controversially.

The rapid progress of electric motor and battery technology bring a new hope that electric vehicle will be the answer for our mobility in the future.

The availability of those technologies spark the creation of modern vehicles in the shape of car as well as public transportations.

2. Electric Vehicle Development in Indonesia

In Indonesia, the trend of developing electric vehicle also happened following everywhere in the world. Some of the examples can be discussed as follows:



Maybe the first electric car had been develop in Indonesia is Achmadi Mesin 5.0 electric car that was announced in June 2012, a project done by individual person. The second one is Pindad PIEV tha was revealed in August 2012. Pindad it self is a government company which is basically an armament industry supporting the Indonesian Army.

2. Electric Vehicle Development in Indonesia

Another examples of electric cars were the result coming from research & development project from Universities backed financially by government such as EC Electric Car from Institut Teknologi Sepuluh November Surabaya and Smart EV.3 from Universitas Sebelas Maret Surakarta.



Those two electric cars are as result of government intention to promote development of electric car through a program called “MOLINA” Mobil Listrik Nasional carried out by several universities in Indonesia. But no single of those electric cars are already in production, mostly still in the form of prototype.

2. Electric Vehicle Development in Indonesia

Another examples of electric vehicle developed recently in Indonesia is in the form of electric scooter GESIT that was announced a couple months ago.



This electric scooter was developed by Institut Teknologi Sepuluh Nopember Surabaya together with one private company Garasindo. This vehicle is now in preparation for full production after successfully got many order from pre production sales.

3. Electric Supercar Development in Indonesia

There are an interesting story in Indonesia during development of several supercar. The first supercar which had been developed in Indonesia is SKEV-1, a joint development by Indonesia Institute of Science (LIPI) and a private Signal Custom Company.



The SKEV-1 using 60 HP electric motor and having maximum speed of 140 km/h. Next generation of this supercar had been develop by Signal Custom Company is SV-1 as can be seen on the right picture.

3. Electric Supercar Development in Indonesia

The next electric supercar from Indonesia is Tucuxi, a car design by Indonesian Ricky Elson ordered by former minister Dahlan Iskan to promote further development of electric car in Indonesia. The body, exterior and interior was done by a company named Kupu Kupu Malam from Jogjakarta.



This car was involved in an accident during the trial test driven by the former minister Dahlan Iskan himself. After the accident, the development of Tucuxi electric supercar is in halt.

3. Electric Supercar Development in Indonesia

After development of Tucuxi electric supercar was stopped, Ricky Elson and Kupu Kupu Malam company develop another electric supercar named Selo.



However, since the accident of Tucuxi supercar, the government had low interest to support development of any electric car in Indonesia. Quite unfortunate for us that most probably the further development of this beautiful Selo electric supercar maybe will be done in Malaysia with one Malaysian company whom showing strong interest on this car.

4. Future Electric Supercar Development in Indonesia

Beside Selo supercar development with Malaysian company, Ricky Elson, Kupu Kupu Malam Company and me, are working together to develop another electric supercar.



We intend to modified the already built this new supercar which is having internal combustion engine as it propulsion presently, with new in-wheel electric motors. It is a six wheeler but with 4 wheels driven. Each motor having 1,500 NM torque and 1,500 rpm.

5. Conclusions

- a). Development of electric vehicle has been started in Indonesia since 2010. It is covering electric car, electric supercar and electric scooter.
- b). Several prototype of electric car have been develop but none has reach a full production stage.
- c). Several prototype of electric supercar have also been develop, but since the accident with Tucuxi electric supercar, Indonesian government has shown low interest o support further development.
- d). However development of electric supercar is still going on in Indonesia.