

NTU, German scientists create new motor for electric vehicles

SINGAPORE – With some consumers put off by the limited distance an electric car can travel, scientists from Nanyang Technological University (NTU) have collaborated with German Aerospace Centre (DLR) to invent a two-in-one electric motor that uses energy more efficiently.

It merges the electric motor and

air-conditioning compressor — typically installed as two separate units in vehicles — creating space for an auxiliary battery to provide up to 20 per cent more mileage. Keeping the two units separate is more energy consuming, a situation made worse by use of air-conditioning.

Sharing details of the motor at a media conference yesterday, Professor Subodh Mhaisalkar, executive director of the Energy Research Institute @ NTU (ERI@N), said: “In tropical countries like Singapore, up to half (of a car’s) battery capacity is used to power the air-conditioning system.”

The motor can also tap energy produced from regenerative braking, which creates energy when the driver brakes the car.

The researchers hope to commercialise the motor, currently still a prototype, by 2016 and will apply for a Proof Of Concept grant next year to make improvements to it.

Its final price is yet to be determined, but ERI@N research scholar Satheesh Kumar, one of the scientists behind the motor, noted that it is cheaper to produce as it uses 30 per cent less materials.

ELGIN CHONG