

singapore

BMW, NTU launch joint research facility



Among projects is development of battery technologies to power electric cars of the future

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BY KOK XING HUI - 5 HOURS 3 MIN AGO

SINGAPORE — Advanced battery technologies that will power electric cars of the future could well be developed in the Republic, as BMW Group and the Nanyang Technological University (NTU) yesterday launched a joint research facility to study sustainable transport solutions.

Besides advanced battery materials, the Future Mobility Research Lab housed at the university will tackle the possibilities of integrating brain control into a car and

advanced mobility concepts, such as a search system that analyses the parking situation around motorists' destinations.

The lab, which will host five full-time scientists and six PhD researchers, will start with S\$5.5 million in funding from NTU and BMW, which will last for the next three to four years — the time needed to complete a PhD.

The time-frame allows both sides to review the lab's competencies and decide if there is a need to move towards other research topics, said Dr Mirjam Storim, Coordinator of University Cooperations at BMW Group.

Singapore was chosen as it is a highly dense, urbanised megacity with a highly sophisticated and tech-savvy population, explained Dr Kay Segler, BMW's Senior Vice-President. He added that Singapore has an abundance of top talents and think-tanks, such as researchers from NTU, which could fuel research here.

NTU joins seven other universities — such as the Massachusetts Institute of Technology, the Technical University of Munich and Georgia Institute of Technology — as partners to BMW Group in setting up joint labs.

The joint lab here is the first in South-east Asia. Its battery research team will be headed by Professor Rachid Yazami, Lead for Battery Programs at the Energy Research Institute @ NTU, who invented the graphite anode (negative electrode) used in the three billion lithium ion batteries produced in 2010 — a turning point in rechargeable lithium battery technology.

The research facility will also study human-machine interfaces that can identify the mood of drivers and predict driver perception to help with driver alertness and minimise risk of accidents.

In the field of mobility concepts, researchers will focus on consumer behaviour in new mobility offerings for megacities, namely for multi-modal transportation and car-sharing.

One area is the development of advanced routing algorithms, such as a routing system that considers individual driving styles and real-time traffic situation.