PhD Scholarship in Structural Supercapacitor

An exciting opportunity is available to develop structurally strong supercapcitors in collaboration with Defence Science and Technology Group. This project is jointly funded by the Defence Innovation Network of New South Wales in partnership with the DST Group and the University of New South Wales. The Scholarship is valued at about $33,0960 per year (tax-free), with $12,000 project funding per year to cover experiments, consumables, and travel. **The project is restricted to Australian citizens**.

The aim of this project is to develop a supercapacitor that will have the load bearing capacity of the equivalent composite structure by weight and simultaneously provide an energy density equivalent to the current state-of-the-art electrical double layer capacitor. Such a structural supercapacitor will enable significant weight reduction and performance enhancement to a broad range of platforms, such as unmanned air vehicles (drones), thus providing a capability edge for Defence in applications where weight savings and high energy storage density are critical. The outcome of this project will also benefit many other civil applications, such as wearable devices for monitoring human health and sport performance of athletes.

As part of a project team consisting of leading scientists from UNSW and DST Group, the successful PhD student will perform both modelling and experimental development of lightweight energy storage structures.

If you would like to know more about this project, please feel free to contact Professor Chun Wang (chun.h.wang@unsw.edu.au), Professor Liming Dai (liming.dai@unsw.edu.au) or Dr. Andrew Rider (Andrew.rider@dst.gov.au).