Postgraduate Opportunity (MSc & PhD) on Hydrogen Storage Research

The research on hydrogen storage has received impetus with increasing awareness of the environmental and energy security issues associated with fossil fuel, and the development of fuel cell vehicles. This research is in line with the United Nations Sustainable Development Goals (SDGs), tackling the issue related to renewable energy. In this FRGS funded research project, the student is expected to develop novel hydrides as hydrogen storage materials for fuel cell application.

The student will be exposed to various synthesis approaches (air sensitive and high pressure techniques) and characterization techniques (FTIR, Liquid & Solid State NMR, X-ray diffraction, SEM-EDX, TPD-MS, TGA and DSC). The work will be carried out in collaboration with local and international collaborators. Under the collaboration, there is a potential for the student to undergo oversea attachment. This collaboration will combine extensive expertise in materials science, inorganic synthesis, materials characterization and hydrogen storage technology, the combination of which provide an ideal match to make this project possible.

Requirements:

1. Good proficiency in English is prerequisite.

2. Outstanding Bachelor's degree in Chemistry/ Materials Science/Polymer or related field with CGPA ≥ 3.00. Consideration will also be given to applicants with CGPA 2.75-2.99 but with a Grade B+ for Final Year Project.

3. Monthly stipend will be provided.

Interested candidate are requested to submit a complete CV directly to Dr Chua Yong Shen at yschua.usm@gmail.com or yschua@usm.my. More information on the project is available upon request.