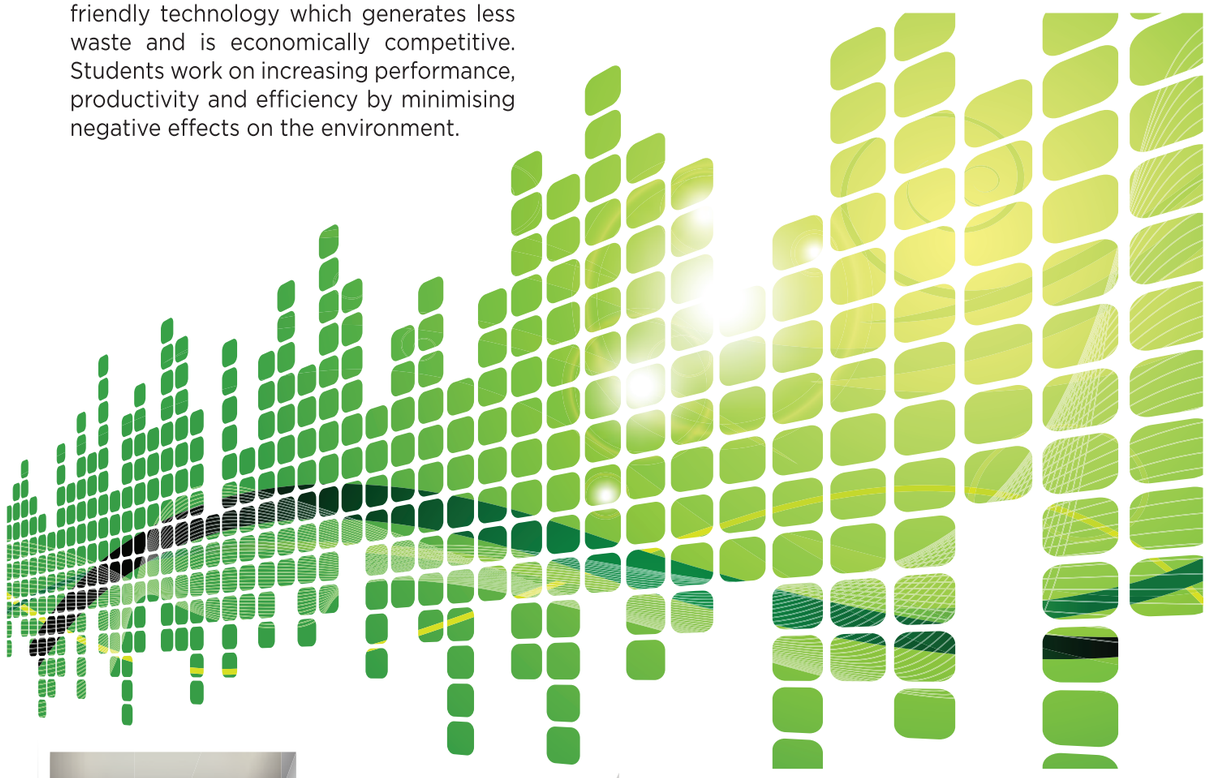
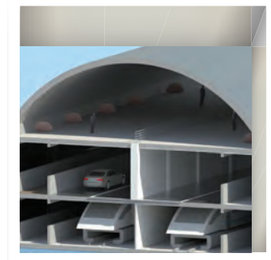
CLEANTECH & BUILT ENVIRONMENT

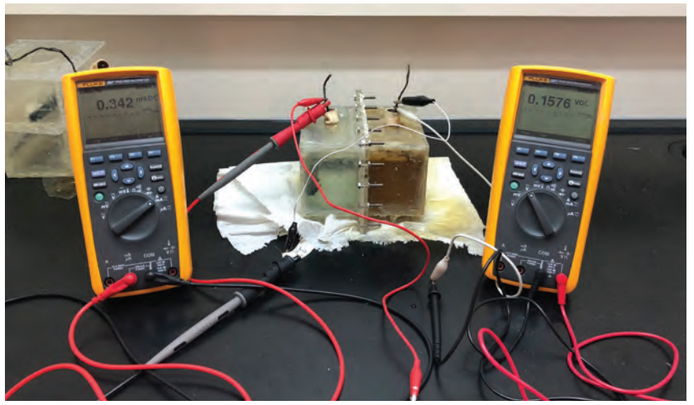
These projects use environmentally friendly technology which generates less waste and is economically competitive. Students work on increasing performance, productivity and efficiency by minimising negative effects on the environment.





GENERATING BIOELECTRICAL ENERGY FROM ORGANIC WASTE

Sustainable energy production and the recycling of solid waste are two environmental challenges faced by many countries, including Singapore. Inadequacy in the management of both may contribute to climate change and global warming. Recycled and reused sewage sludge and fruit waste can be used as feedstock in Self-Fabricated Microbial Fuel Cells (FMFCs) for the production of electrical energy. The objective of this project is to modify a Microbial Fuel Cell (MFC) reactor into a new FMFC model to treat wastewater while generating higher bioelectricity output.



MFC reactor to produce bioelectrical energy.

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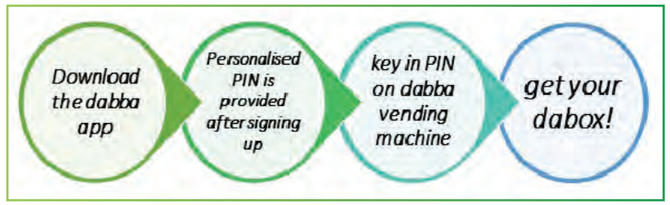
GOING GREEN / DABBA

These 2 projects aim to provide solutions for environmental sustainability. The project Going Green focuses on Water and Waste management. The designed system will collect water and convert solar energy into usable energy for use by residents living in HDB flats. The project DABBA aims to reduce the usage of polystyrene packaging at hawker centres in Singapore. It provides reusable packaging and a vending machine collection system to encourage the concept of reusability.



DABBA can solve that problem by renting out reusable Daboxes (lunchboxes).

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