

自用型冷熱電共生太陽能系統開發(1/2)

執行單位

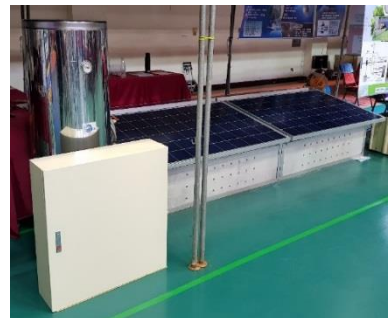
國立台灣大學機械工程系

計畫主持人

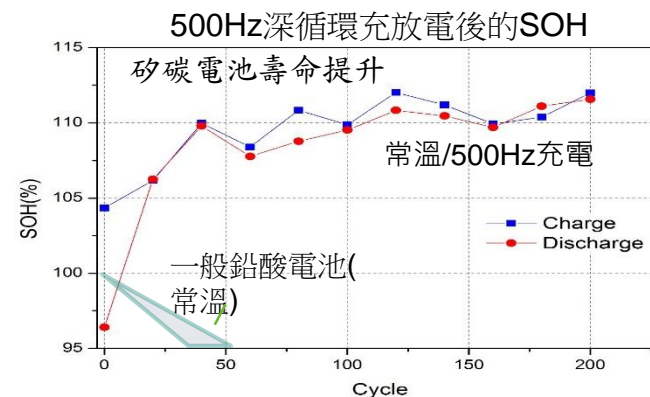
黃秉鈞

本計畫開發「太陽光電熱水器」產品，發電自用不回售電網儲電又儲熱，其供電負載包括冷氣機與照明，並發展金字塔太陽能微電網作電力互相調度，另完成矽碳電池性能提升技術開發，壽命接近鋰電池。「太陽光電熱水器」將於明年上市，取代部分太陽能熱水器市場。

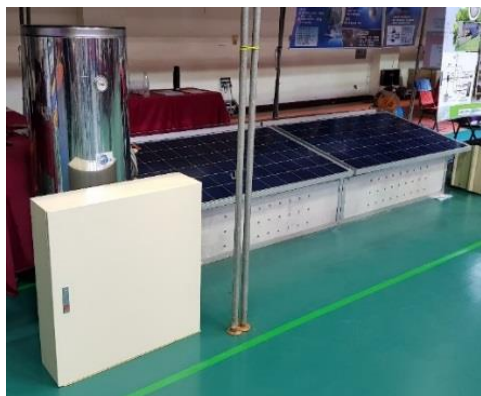
獲新型專利一項
(M547652)



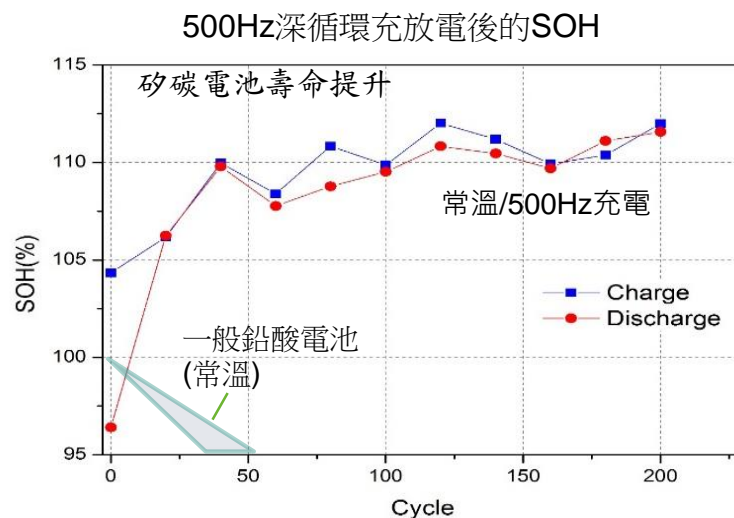
太陽光電熱水器
s P V - 1 0 0 0



本計畫開發「太陽光電熱水器」產品，發電自用不回售電網儲電又儲熱，其供電負載包括冷氣機與照明用電。「太陽光電熱水器」可組成金字塔太陽能微電網作電力互相調度，另完成矽碳電池性能提升技術開發，壽命接近鋰電池。太陽光電熱水器發電兼供熱，節電減碳效果高於傳統太陽能熱水器，將取代部分太陽能熱水器市場。



 太陽光電熱水器
s PV - 1000



Product development of solar PV heating system

Execution Unit

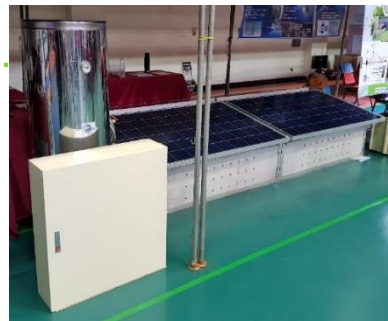
National Taiwan University

Project Director

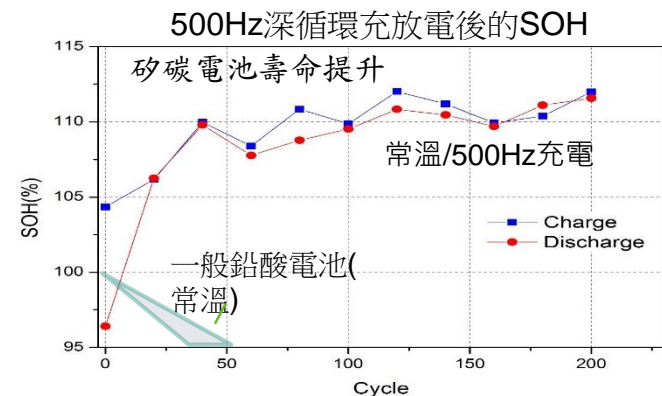
Prof. Bin-Juine Huang

- The solar PV heating system in domestic application is developed. Solar power is not fed into grid but stored by both battery and hot water. This new solar PV heater will replace part of the conventional solar hot water heater.

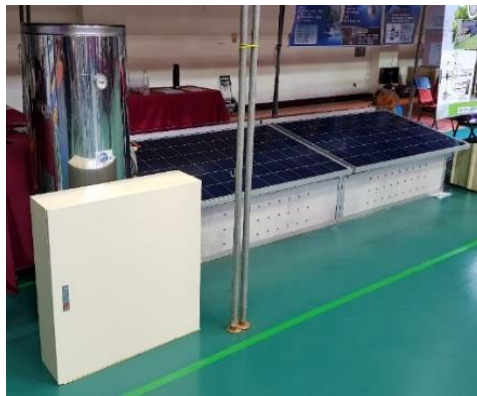
One patent is approved (547652).



 太陽光電熱水器
sPV-1000



A new solar PV heating system is developed. Solar power is not fed into grid but stored by both battery and hot water. Many of this new solar PV heaters can be connected as a pyramid micro-grid to share solar power. A new charging technique for C-Si battery was also developed to improve the cycle life close to Li battery.



 太陽光電熱水器
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