

Consultancy Work:

Sova Power Ltd for design of special modules for solar tree and solar boat; **NKDA** for supervision of tendering and subsequent implementation engineering details for 500 KW peak Canal Top Solar Power Plant; **WBREDA** for preparation of Manuals and Display Boards for Roof Top Solar Power Plants in 100 schools in West Bengal; Roof Top Solar Power Plant policy for **KMDA** as Expert in Ashden India Initiative; **Oztron Energy Services** for Development of Grid Smoother Interfacing Unit for Grid Feed Solar Inverter.

Technology Developed / Innovations:

- (i) 3"x3" crystalline silicon solar cells with approx 15% efficiency and its efficiency enhancement through plasmonic nano materials on front surface
- (ii) p-i-n amorphous silicon solar cells of 8-9 % efficiency and its efficiency enhancement through plasmonic nano materials on front / back surface
- (iii) Mobile Turbo Charger With Super Capacitor
- (iv) Solar Tree with LED lighting
- (v) Data logging and Monitoring Unit for Solar Power Plants
- (vi) Gas Leak Hunter
- (vii) Prototype for Manhole Gas Detector

Patents / Invention Disclosure / Technology Transfer / Copyright

[1] Fabrication of n-type microcrystalline silicon oxide films for use as back reflectors in silicon based thin film solar cells. [File No.: 1347/CHE/2013, Mar. 26, 2013]

[2] Fabrication of fluorinated n-type silicon oxide films for intermediate and back reflector in thin film solar cells. [File No.: 3947/CHE/2013, Sep. 03, 2013]