## NOMENCLATURE

| Symbol        | Description                                 | Units    |
|---------------|---|----------|
| A             | Surface Area Of cell                        | $m^2$    |
| c             | Speed / Velocity                            | m/s      |
| G             | Irradiance                                  | $W^2/m$  |
| I             | Electric Current                            | A        |
| $I_{sc}$      | Short-Circuit Current                       | A        |
| $I_1$         | Light Generated Current                     | A        |
| $I_{m}$       | Current at maximum power                    | A        |
| $I_o$         | Dark Saturation Current                     | A        |
| m             | Non Ideality Factor                         |          |
| V             | Wave Frequency                              | Hz       |
| E             | Wave Energy                                 | J or eV  |
| Ee            | Energy at bottom of Conduction band         | J or eV  |
| $E_{v}$       | Energy at top of valance band               | J or eV  |
| $E_g$         | Energy band gap                             | J or eV  |
| Φ             | Work Function                               | eV       |
| h             | Planck's constant                           | Js       |
| λ             | Wavelength of Light                         | m        |
| Н             | Efficiency                                  | %        |
| p             | Momentum                                    | eV/c     |
| $P_{mpp}$     | Power produced by the cell at maximum power | W        |
|               | Point.                                      |          |
| Ps            | Power produced by the shaded module         | W        |
| $A_{\rm sys}$ | Nominal Area of PV module                   | $cm^2$   |
| Ashade        | Shaded Area of PV Module                    | $cm^2$   |
| $R_{\rm s}$   | Series Resistance                           | $\Omega$ |
| Rsh           | Shunt Resistance                            | $\Omega$ |
| T             | Temperature                                 | °C       |
| V             | Voltage                                     | V        |
| $V_{oc}$      | Open Circuit Voltage                        | V        |

 $\begin{array}{ccc} V_m & & Voltage \ at \ maximum \ power \ point & V \\ \eta & & Cell \ Efficiency & \% \\ W_p & & Power \ Peak & Watt \\ \end{array}$ 

## **Abbreviations:**

AIT Auto Ignition Temperature

BPD Bypass Diode

CO<sub>2</sub> Carbon Di Oxide CS<sub>2</sub> Carbon Disulphide

DC Direct Current

HSE Health Safety Environment

MIT Minimum Ignition Temperature

MSDS Material Safety Datasheet

SIF Shade Impact Factor

PV Photo Voltaic

IR Infra-Red

TC Thermocouple