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| **Title:** | Solar Powered Tea Harvester With Isolated Charging Station in Sylhet, Bangladesh | | |
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| **Abstract:** |  |
| This paper proposes a modeling of the solar powered tea harvester with isolated charging station. The objective of this prototype is to harvest tea leaves from tea plant in a convenient manner by using solar power-based tea harvester. The system is operated by a DC battery, where the DC battery is charged up via an isolated charging station. This model is developed by using MATLAB Simulink program and Proteus 8 professional. The charging station consists of PV panel, Maximum Power Point Tracking (MPPT) controller, DC to DC converter and a solar charge controller. Solar panel produces power from solar energy which is fed to DC to DC converter to ensure an appropriate voltage for battery charging. Here the MPPT controller makes sure the output has maximum power to utilize the solar energy properly which ensures proper charging of the loaded battery much faster. | |