



Chapter

# Design and Implementation of Automatic Photovoltaic Panel Cleaning Using IOT

By [M. Perarasi](#), [Priscilla Whitin](#), [R. Pavaiyarkarasi](#), [Chintala Venkatesh](#), [Sharan P. Sai](#), [B. Sarala](#)

Book [Power Energy and Secure Smart Technologies](#)

Edition	1st Edition
First Published	2025
Imprint	CRC Press
Pages	8
eBook ISBN	9781003661917



## ABSTRACT

In this article, smartphone is used in the solar cleaning system. In this system, Node-MCU chip acts as the main component between the smartphone and the cleaning system. To connect this system to the smartphone, the Blynk app acts as the medium of connection between these devices. This system has a camera for monitoring purposes. There will be a water pump motor and it is connected to the relay and then to node-MCU. This camera and motor control will be in the Blynk app as it is connected to the node-MCU server. When we use the Blynk app, we can on the water pump through this same app. When the panel looks clear then the water pump will be set to off. So, with the help of this project, we can able to clean the solar panels at a low cost. And also, this kit will be available at a low cost so that no one can overspend their hard work money. There are some places where solar panels will be used on a large scale like industries etc. for these areas requires a lot of human intervention. With the help of this system, we can get out of this problem. And also, we can able to observe the changes in efficiency before and after cleaning the solar panel.