## **CHAPTER1 (PROJECT INTRODUCTION)**

## Introduction

In order to secure the future for ourselves and generations to follow, it is widely accepted that we must act now to reduce energy consumption and substantially cut greenhouse gases, such as carbon dioxide, Therefore, the countries of the world began to move towards the production of alternative energy (clean energy) and one of the means of producing alternative energy is solar cells.

## **Solar Photovoltaics (Pv):**

Solar (PV) is the conversion of light into electricity using semiconducting materials that exhibit the photovoltaic effect, a phenomenon studied in physics, photochemistry, and electrochemistry.

Solar cells are the third source of electrical energy after water and wind energy, Solar energy has experienced phenomenal growth in recent years due to both technological improvements resulting in cost reductions and government policies supportive of renewable energy development and utilization, In Jordan, the Renewable Energy Support Fund supported the installation of solar cell systems for the home sector, subsidized by the government by 30%, so we noticed an increase in the number of homes and government headquarters that use solar cell systems.

... But like any system that is designed, it must face problems and obstacles, and one of these problems is the dirtiness of solar panels due to a natural or human impact, which hinders the arrival of light to the solar panel well and this leads to a significant reduction in the production of electrical energy and may lead to non-production of energy entirely Sometimes. That is why we must find a solution to this problem, because the persistence of the problem that has been mentioned will over time greatly affect the production of electrical energy from solar panels.