

# Design and Fabrication of Solar Power Aeration System for Agricultural Fish Pond.

**Mr. S. R. Chaudhari, Suraj Barkale, Vishal Shinde, Sagar Game, Saurabh Thorat**

Sir Visvesvaraya Institute of Technology, Nashik, Maharashtra, India

**Abstract:** *Oxygen was vital to all livelihoods and lives. A life required oxygen to maintain various processes in the body for growth. If oxygen did not exist or existed too little, a life was unable to continue. Amount of oxygen dissolved in water was necessary to aquatic animals' beings. Moreover, it was also an indication of water condition. As the amount of oxygen dissolved in water was diminished, the water became polluted. Therefore, it was essential to increase the oxygen level in water by using an aerator. In general, such aerator used power supply by electricity. Nonetheless, the project is design & development of solar power aeration system. Electricity generated from the solar energy was utilized to supply the aerator. According to the solar cell generated electricity for the aerator gave electric power to a water pump as well as an electricity charge to a battery to efficiently supply while there was no sunlight. The solar cell generated electricity approximately 6-8 hours per day. From the initial use, the aerator using the power from the solar cell increased oxygen amount dissolved in water.*

**Keywords:** Non-Conventional Energy, Solar PV System, Dissolved Oxygen (DO), Mechanical Aeration System, Fish Pond

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