

Improve the Efficiency of Hydrogen Electrolysis with Multi Plate Electrolysis and Automated System

Saurabh Bhole¹, Vishal Araj², Bhushan Chindarkar³, Pratyush Kundu⁴

Dr. Pradeep Patil⁵, Dr. Prakash Kadam⁶

Students, Department of Mechanical Engineering^{1,2,3,4,5}

Professor, Department of Mechanical Engineering⁶

Jayawantrao Sawant College of Engineering, Pune, Maharashtra, India

Abstract: *This paper provides an introduction to the Electrolysis system. The proposed work is the future of the world's green energy generation. A fully automated hydrogen generation system is to be developed, which will also improve the electrolysis process for generating the best hydrogen output from a multi-plate electrolysis system. The model is to be developed with an automated system implementation for improving its efficiency. After that, the most important concern is hydrogen storage, so the proposed system will also develop a system that can generate maximum hydrogen in minimum working hours with minimum electricity consumption. It will be very easy to use and safe for small industries and hydrogen refueling stations. Additionally, a hydrogen leakage detector system will be implemented, which will serve as an alert system and automatically stop the electrolysis system. The hydrogen generation process improvement can be achieved with the help of multiple electrolysis plates, which will minimize hydrogen generation time and input energy. The system will display its status on a portable dashboard, showing the amount of hydrogen generated and the amount of water required for the hydrogen generation. It will also operate on a regenerative system.*

Keywords: Hydrogen generation, Efficient System, Electrolysis, Regenerative system, maximum Hydrogen generation, H2 Storage, Leakage Identification, Concentration of H2

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