IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 2, June 2023

IoT-Based IV Infusion Control System

Prathmesh Nandurkar, Rahul Khandelwal, Ruchika Suryawanshi, and S. V. Tathe

Department of Electronics and Telecommunication Engineering Sinhgad College of Engineering, Pune, India

Abstract: In current medical care system, monitoring patients in a hospital throughout the day is tiresome. Doctors and Nurses are loaded in monitoring multiple patients. This causes many problems. The health-related work should be properly done and that too in an accurate manner. An example of such type of work in the hospital is injecting saline or Intravenous (IV) fluids into the vein of the patient. If the drip system is not monitored on time, it will cause problems like backflow of fluid, blood loss, etc. In order to reduce the workload and overcome such a critical situation in the area of an intravenous drip monitoring system, we proposed a system called IoT Based IV Infusion System. This Project emphasizes monitoring Intravenous fluid (IV) using a load cell and solenoid valves. Intravenous therapy is a typical method of treatment that may be used for better modification of electrolyte imbalances in the body, to deliver medications, for transfusion of blood, or for fluid injection. The proposed method reduces the difficulties involved in IV therapy and monitoring patient parameters remotely on a webpage.

Keywords: Intravenous, flow control, IV drip monitoring, IV fluid, IoT, IV Therapy

REFERENCES

- [1]. S. Joseph, M. N. Francis, M. A. John, M. B. Farha, and A. Baby, "Intravenous drip monitoring system for smart hospital using iot," 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies, pp. 835–839, December 2019.
- [2]. M. V. Caya, M. U. Cosindad, N. I. M. Jr, J. Nicolas, M. Santos, and J. L. Torres, "Design and implementation of an intravenous infusion control and monitoring system," IEEE International Conference on Consumer Electronics, Asia, pp. 68–72, December 2019.
- [3]. K.Bhavasaar, R. M. Nithya, N.S.Bhuvaneswari, and T.Kalaiselvi, "Automated intravenous fluid monitoring and alerting system," IEEE International Conference on Technological Innovations in ICT For Agriculture and Rural Development, pp. 77–80, December 2016.
- [4]. https://components101.com/development-boards/ nodemcu-esp8266-pinout-features-and-datasheet.

DOI: 10.48175/IJARSCT-11330

