## **IJARSCT**



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

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

Volume 4, Issue 1, February 2024

## RFID Based Circuit Breaker for Electrical Line Man Safety

Mrs. Kanawade M.V.<sup>1</sup>, Miss. Ugale Tanishka<sup>2</sup>, Miss. Sanap Anushka<sup>3</sup>, Miss. Akolkar Monali<sup>4</sup>
Professor, Department of Electronics & Telecommunication Engineering<sup>1</sup>
Students, Department of Electronics & Telecommunication Engineering<sup>2,3,4</sup>
Amrutvahini Polytechnic, Sangamner, India

**Abstract:** The project is designed to control a circuit breaker with help of a password only a keypad is connected to the project to enter the password. Fatal electrical accidents to the line man are increasing during the electric line repair due to the lack of communication and co-ordination between the maintenance staff and the electric substation staff. This proposed system provides a solution, which can ensure the safety of the maintenance staff e.g. line man. The control to turn ON/OFF the line lies with the line man only. This system has an arrangement such that RFID reader and password entering keypad is required to operate the circuit breaker (ON/OFF).by entering the correct password. The system is fully controlled by a microcontroller from pic family. a matrix keypad is inter faced to the microcontroller to enter the password. The entered password is compared with the password stored in the ROM of the microcontroller. If the password entered is correct, then only the line can be turned ON/OFF activation deactivation of the circuit breaker is indicator by a lamp (ON/OFF)

**Keywords:** RFID tag Reader, Microcontroller, Circuit Breaker, 3 Phase Sensing

## REFERENCES

- [1] Mane Kirti M., Attar Arifa U, Dandile Aishwarya A., Ghogale PragatiS., Prof. JagtapSujit P.5, "Password Based Circuit Breaker", International Journal for Research in Applied science and Engineering Technology (IJRASET), Volume 6 Issue IV, April 2018, pp. 2229-2233.
- [2] BhagwanKharat, DurvankurSarwade, DhananjayBidgar, Prof. BhushanKadu, "Internet of Thing (I.O.T) Base Controlling & Monitoring of Circuit Breaker", International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 05 | May 2017,pp. 668-673.
- [3] Abhijit Das &Dr. K. Kalimuthu, S.S. Biswas, "IOT Based Circuit Breaker Monitoring& Control", International Journal of Applied Engineering Research, Volume 13, Number10 (2018), pp. 7806-7810.
- [4] Lakshmi Devdas, Sreelakshmi V.G, AmalKottor, Jinendhu Justin, "Automated Circuit Breaker with IOT Interfacing", IOSR Journal of Engineering, Issue-2018, pp.29-32.
- [5] Athira Nair, Josephin J, Anjana A S, Athira C P, "Electric Line Man Safety System with OTP Based Circuit Breaker", IJRET, April 2015, pp 23-26.
- [6] B. Saikumar, G. Vijay Kumar, G. Sai Krishna, J.V.S. Nanda, M.V.S.S.R. Krishna Kanth, R. SaiSunandh, "Password based circuit breaker using ardunio", Pramana Research Journal, Volume 10, Issue 4, 2020, pp. 108-113

DOI: 10.48175/568

