















a temporary fault. If the push button is pressed for longer time then the stable timer is activated and it causes a permanent fault and disconnects the load permanently. It has more advantages, equipments will safe from damage, Time to Time task completion report, more efficiency, reduce losses and it is more reliable. It could be applicable for substation, Transformer, Drives or relay and transmission lines. This system is easily handled three phase control system because of using powerful functions and hardware interfaces. GSM technology can help us to control the faults by sending SMS via mobile phone from any three phase faults.

## 8.2. Conclusion

The project is planned to develop an automatic tripping mechanism for the three phase supply system. Output of the project is resets automatically after a brief interruption in the event temporary fault while it remains in tripped condition in case of permanent fault. The concept can be make longer to developing a mechanism for sending message to the authorities via SMS by interfacing a GSM module.

## REFERENCE

- [1]. Dipak S.Bankar, "Power system protection".
- [2]. Tech max publication, "Analog and digital communication".
- [3]. B.L.Thereja, "Electrical machines".
- [4]. S.S Rrao, "Switch gear and protection".
- [5]. Divid A. Bell, "Power system knowledge".
- [6]. [https://en.wikipedia.org/wiki/Three-phase\\_electric\\_power](https://en.wikipedia.org/wiki/Three-phase_electric_power).
- [7]. Satish Bakanagari et al Int. Journal of Engineering Research and Application, "Three phase analysis with auto reset for temporary fault or permanent trip otherwise" ISSN: 2248-9622, Vol. 3, Issue 6, Nov-Dec 2013, pp.1082-1086.
- [8]. Shima Hasan Sayed " Fault detection classification and location in underground cables" publish year-2014, page no.- 20-27.
- [9]. Michael J. Pont, "Embedded C" Addeesen-Wesely publication- 2002, page no- 1-15.
- [10]. Rashmi Ranjan Raut, Durga Prasad Tripathy "Development of an AC to DC Converter using microcontroller" National institute of technology, Rourkela. Pg no. 11-18.

[11]. S. Potivejkul, P. Kerdonfag, S. Jamnian, and V. Kinnares, "Design of lowvoltage cable fault detector," in Proc. IEEE Power Engineer. Society.Winter Meeting, Jan. 2000, vol. 1, pp. 724-729.

[12]. C. M. Wiggins, D. E. Thomas, T. M. Salas, F. S. Nickel, and H.-W. Ng, "A novel concept for underground cable fault location," IEEE Transaction. Power Delivery, Vol. 9, No. 1, pp. 591-597.

[13]. Miroslav D. Markovic, "Fault Analysis in Power Systems by Using the Fortescue Method", TESLA Institute, 2009.

[14]. Jun Zhu. "Analysis of Transmission System Faults the Phase Domain", Texas A&M University. Master Thesis, 2004.

[15]. D. C. Yu, D. Chen, S. Ramasamy and D. G. Flinn, "A Windows Based Graphical Package for Symmetrical Components Analysis", IEEE Transactions on Power.

## BIOGRAPHY OF AUTHOR



Mr. Md Tanjil Sarker is the corresponding author of this paper. He successfully completed Bachelor Degree from Bangladesh University in the department of EEE and Studying post graduate degree in the Department of CSE, Jagannath University Dhaka Bangladesh. He conducted many research works in the relevant field such as Design, Inspection and Implementation of Solar PV Driven Smart & Automated Irrigation Systems, Electricity Load Calculative Method of an Inaccessible area of Bangladesh, Analysis & Implementation of Frequency Modulation in Order to make Frequency Transmitter Etc. Now he is working as a Project Engineer in Bangladesh Research and education network (BdREN).



Md. Anisur Rahman born in 1989 in Bangladesh. He accomplished his Bachelor degree in the area of Electrical & Electronic Engineering from Bangladesh University. He conducted many research works in the relevant field. Mr. A Rahman successfully invents a Robotic Arm named ASR K-250. Now he is studying at Jagannath University in Post Graduate program at Computer Science & Engineering.



Md Arafat Sarker had completed BSc in Electrical & Electronic Engineering from University of Information Technology & Sciences, Dhaka. Now he is working as an Engineer in a renowned Company of Bangladesh.