













### Microcontroller system

A battery bank is a one where two or more batteries connected serial or parallel that work as a one large battery. This battery bank system stores electricity generated by solar PV systems to use at any time. In our proposed system 4 AGM batteries are connected in parallel manner to get increased ampere value while keeping the total voltage same as 12V. The inverter is used to convert the DC power into AC power and that will be supplied for the whole microcontroller system.

### 5. Conclusion

An automatic Railway system is well suited for rural and forest areas where there is no electricity and lack of manpower and it is well suited for township also. Implementing this system in unmanned railway level crossing definitely reduce the railway accidents. Here we are using the renewable energy as the source of energy so it will be environmental friendly no air pollution and noise pollution and we are getting at free of cost with less maintenance. But the initialization cost of solar panel and the batteries are costly so work to be carried out for finding the new technique that will reduce the initialization cost of solar panel and as well as fuzzy logic to be used in microcontroller system to finding the obstacles present in the railway tracks while train arriving on the railroad and indication should given to the train driver to stop the train.

### References:

- [1] [www.irfca.org](http://www.irfca.org)
- [2] Hnin Ngwe Yee Pwint, Zaw Myo Tun, Hla Myo Tun; Automatic Railway Gate Control System Using Microcontroller: International Journal of Science, Engineering and Technology Research (IJSETR), volume 3, Issue 5, May 2014.
- [3] Karthik Krishnamurthi, Monica Bobby, Vidya V, Edwin Baby; Sensor based automatic control of railway gates: International Journal of Advanced Research in Computer Engineering & Technology (IJARCET), volume 4, Issue 2, Feb 2015.
- [4] J. Banuchandar; V. Kali Raj; P. Balasubramanian; S. Deepa; N. Thamilarasi; AUTOMATED UNMANNED RAILWAY LEVEL CROSSING SYSTEM: International Journal of Modern Engineering Research (IJMER), vol 2, Issue 1, Jan-Feb 2012.
- [5] Ahmed Salih Mahdi; Al-Zuhairi; Automatic Railway Gate and Crossing Control based Sensors & Microcontroller: International Journal of Computer Trends and Technology (IJCTT), vol 4, Issue 7, July 2013.
- [6] Ashvini Sherwade; Ashwini Pawar; Bhagyashree Ghadge; Deepika Srivastava; Automatic Railway Gate Control & Power Generation, International Journal of Innovative Research in Science: Engineering and Technology, vol 5, Issue 2, Feb 2016.