IV. PROPOSED SYSTEM

We design and develop an propose system which include some safety factors. A safety has been a major issue in today's day to day life. LPG and CNG i.e. petroleum gas and compressed natural gas are most commonly used in residential and commercial places for cooking purpose and in various vehicles as a replacement for costly fuels like diesel, petrol [7]. These gases are filled in cylinders which are easily un-damageable. But leakage can take place through pipes or regulators or knobs which may cause accidents like suffocation, uneasiness or sometimes

International Journal of Scientific Research in Science and Technology (www.ijsrst.com)

448

Sayali Joshi et al. Int J Sci Res Sci Technol. March-April-2019; 6(2): 445-450

may catch fire and short circuit as well. The main aim of this project is developing a system that can detect gas leakage [8]. On detection it will send an alert SMS and the gas supply knob of cylinder will be switched off automatically.



Fig.2: System Architecture

V. CONCLUSION

The advantage of this simple gas leak detector is its simplicity and its ability to warn about the leakage of the LPG gas [11]. This system uses GSM technique to send alert massage to respective person if no one is there in the house and then gas leaks occurs, GSM module is there to send immediate messages to the respective person regarding the gas leak [13]. The main advantage of this system is that it off the regulator knob of the cylinder automatically when gas leakage detected.

VI. REFERENCES

 Mr. Sameer Jagtap, Prajkta Bhosale, Priyanka Zanzane, Jyoti Ghogare, "LPG Gas Weight and

- Leakage Detection System Using IoT", International Journal for Research in Applied Science & Engineering Technology", Volume 4, Issue 3, March 2016, Pg – 716 to 720.
- [2]. Arun Raj, Athira Viswanathan, Athul T S, "LPG Gas Monitoring System", International Journal of Innovative Technology and Research, Volume 3, Issue 2, February 2015, Pg – 1957 to 1960.
- [3]. S Shyamaladevi, V. G. Rajaramya, P. Rajasekar, P. Sebastin Ashok, "ARM7 based automated high-performance system for lpg refill booking & leakage detection", Journal of VLSI Design and Signal Processing", Volume 3, Issue 2, 2014.
- [4]. S. Sharma, V. N. Mishra, R. Dwivedi, R. Das, "Classification of gases/odours using Dynamic Response of Thick Film Gas Sensor Array", IEEE Conference on Sensors Journal, 2013.

- [5]. Rajeev B. Ahuja, Jayant K. Dash, Prabhat Shrivastava, "A comparative analysis of liquefied petroleum gas (LPG) and kerosene related burns", Burns, Volume 37, Issue 8, December 2011, Pg – 1403 to 1410.
- [6]. Prof. Pankaj C. Warule, Shivam Upadhyay, Snehal S. Shelke, Sumitra K. Khandade, "LPG Detection, Metering and Control System Using Microcontroller", IJARIIE, Volume 2, Issue 2, 2016, Pg – 648 to 652.
- [7]. Ankit Sood, Babalu Sonkar, Atul Ranjan, Mr. Ameer Faisal, "Microcontroller Based LPG Gas Leakage Detector Using GSM Module", International Journal of Electrical and Electronics Research, Volume 3, Issue2, April-June 2015, Pg – 264 to 269.
- [8]. Ashish Shrivastava, Ratnesh Prabhakar, Rajeev Kumar, Rahul Verma, "GSM Based Gas Leakage Detection System", International Journal of Technical Research and Applications", Volume 1, Issue2, May- June 2013, Pg – 42 to 45.
- [9]. Shivalingesh B. M, Ramesh C, Mahesh S. R, Pooja R, Preethi K. Mane, Kumuda S, "LPG Detection, Measurement and Booking System", IJRSI, Volume 1, Issue 4, November 2014, Pg – 7 to 10.
- [10]. C. Selvapriya, S. Prabha Sathya, M. Abdulrahim, C. K. Aarthi, "LPG Leakage Monitoring and Multilevel Alerting System", International Journal of Engineering Sciences & Research Technology, Volume 2, Issue 11, November 2013, Pg 3287 to 3290.
- [11]. H. Huang, H. Bainand, S. Zhu, "A Greenhouse Remote Monitoring System Based on GSM", in Proceedings of IEEE International Conference on Information Management, 2011, Pg – 357 to 360.
- [12]. Lianos, M. and Douglas, M. (2000) Dangerization and the End of Deviance: The

- Institutional Environment. British Journal of Criminology, 40, 261-278.
- [13]. J. Tsado, O. Imoru, S.O. Olayemi, "Design and construction of a GSM based gas leak Alert system", IEEE Transaction, IRJEEE Vol. 1(1), pp. 002-006, September, 2014.
- [14]. D. Surie, O. Laguionie, T. Pederson, "Wireless sensor networking of everyday objects in a smart home environment!, Proceedings of the International Conference on Intelligent Sensors", Sensor Networks and Information Processing-ISSNIP- 2008, pp. 189 – 194
- [15]. http://dx.doi.org/10.4236/ait.2011.11002 5Aggarwal, R. and Lal Das, M. (2012) RFID Security in the Context of "Internet of Things". First International Conference on Security of Internet of Things, Kerala, 17-19 August 2012. http://dx.doi.org/10.1145/2490428.2490435
- [16]. Kosmatos, E.A., Tselikas, N.D. and Boucouvalas, A.C. (2011) Integrating RFIDs and Smart Objects into a Unified Internet of Things Architecture. Advances in Internet of Things: Scientific Research.
- [17]. M. Eisenhauer, P. Rosengren, P. Antolin, "A Development Platform for Integrating Wireless Devices and Sensors into Ambient Intelligence Systems", pp.1-3

Cite this article as:

Sayali Joshi, Shital Munjal, Prof. Uma B. Karanje, "Gas Leakage Detection and Alert System using IoT", International Journal of Scientific Research in Science and Technology (IJSRST), Online ISSN: 2395-602X, Print ISSN: 2395-6011, Volume 6 Issue 2, pp. 445-450, March-April 2019. Available at doi: https://doi.org/10.32628/IJSRST196256 Journal URL: http://ijsrst.com/IJSRST196256