

IoT based Student Attendance Management System using RFID and Face Recognition

Dr. Unnati A. Patel¹ and Dr. Priya Swaminarayan²

Assistant Professor, MCA Department, CMPICA College, CHARUSAT University, Changa, Gujarat, India¹
Dean, Computer Science, Parul Institute of Computer Applications, Parul University, Waghodia, Gujarat, India²

Abstract: Attendance is for keeping records of number of students present in schools, colleges or in any organization. It is very important constituent in maintaining discipline among students in a college and imparting quality education in schools, colleges. Complexity of this process increases even more with increase in number of students. Biometric student attendance system increases the efficiency of the process of taking student attendance. Automatic wireless identification has been facilitated by IoT technology using electronic passive and active tags with suitable readers. In this paper the concept of a simple and portable approach of IoT is applied to student attendance that records the attendance using RFID and Face Recognition. This system aims to automate the awkward process of manually taking and storing student attendance records. It will increase the reliability of attendance records by preventing proxy attendance. As per the requirement by the teacher, the securely stored attendance records can be reliably retrieved. This concept is capable of eliminating time consumption during manual collection of attendance and an opportunity for the educational administrators to capture face-to-face classroom data for allocation of proper attendance scores and for further managerial decisions.

Keywords: Biometric, RFID, Face Recognition, IoT, Attendance

REFERENCES

- [1]. Unnati A. Patel and Dr. Swaminarayanan Priya, "Development of a Student Attendance Management System Using RFID: A Review", International Journal of Advanced Research in Computer Science and Management Studies, Volume 2, Issue 8
- [2]. Mehmet Kizildag, Erden Basar, Murude Celikag, Emine Atasoylu and Sayedali Mousavi, "An Automated Attendance Monitoring and Registration System for EMU's SPIKE Seminar Series", Proceedings in Academia.edu.
- [3]. T. S. Lim, S. C. Sim, and M. M. Mansor, "RFID based attendance system," IEEE Symposium on Industrial Electronics & Applications 2009 (ISIEA 2009), vol.2, pp. 778-782, 4-6 Oct. 2009, doi: 10.1109/ISIEA.2009.5356360
- [4]. Seema Rao and Prof.K.J.Satoa, "An Attendance Monitoring System Using Biometrics Authentication", International Journal of Advanced Research in Computer Science and Software Engineering, Volume 3, Issue 4, April 2013, ISSN: 2277 128X.
- [5]. APARNA BEHARA and M.V. RAGHUNADH, "Real Time Face Recognition System For Time And Attendance Applications", International Journal of Electrical, Electronics and Data Communication, Volume-1, Issue- 4, ISSN: 2320-2084.
- [6]. MuthuKalyani.K and VeeraMuthu.A, "Smart Application For Ams Using Face Recognition", Computer Science & Engineering: An International Journal (CSEIJ), Vol. 3, No. 5, October 2013, DOI : 10.5121/cseij.2013.3502.