## **IJARSCT**



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

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

Volume 3, Issue 8, May 2023

## Smart Attendance System using RFID and Arduino

Sukanya Kumbhar<sup>1</sup>, Mohit Jindal<sup>1</sup>, Tejas Gunjal<sup>1</sup>, Dr. S. S. Lokhande<sup>2</sup>

Department of Electronics and Telecommunication<sup>1,2</sup> Sinhgad College of Engineering, Pune, India

Abstract: A smart attendance and information system using Arduino, RFID and IR sensor is an advanced technological solution that automates the process of receiving attendance in classrooms, meetings or events. The system uses an Arduino board, an RFID reader module, an IR sensor, an LCD display module and a buzzer module. The system works by detecting the presence of a person in front of the IR sensor and comparing it to the list of authorized persons. Once the system verifies the presence of an authorized person, it reads their RFID card's unique ID using the RFID reader module, compares it with the list of authorized IDs, and then displays a message on the LCD and sounds a buzzer. confirm your participation. The system can also transfer attendance data to an Excel sheet for later analysis. The integration of RFID and IR sensors makes the system more accurate and efficient in identifying people, reducing the risk of false attendance records. The system can be used in a variety of educational and organizational settings to reduce the time and effort required for manual attendance, eliminate errors, and provide accurate attendance records for analysis and reporting. All in all, the smart attendance and information system using Arduino, RFID and IR sensor is a cost-effective and efficient attendance management solution that can be easily customized and integrated with other systems as needed

Keywords: Automated attendance, Arduino, IR sensors, RFID.

## REFERENCES

- [1] J. R. Jadhav and M. V. Sarode, "Smart Attendance System with RFID and GSM for Schools and Colleges," International Journal of Engineering Research and Technology, vol. 7, no. 4, pp. 147-150, 2018.
- [2] S. M. Abir and M. M. Hasan, "Design and Implementation of a Smart Attendance System using Arduino and RFID," International Journal of Computer Applications, vol. 179, no. 35, pp. 29-34, 2019.
- [3] S. S. Chavan and S. S. Patil, "Smart Attendance System using RFID and IR Sensors," International Journal of Scientific Research in Computer Science, Engineering and Information Technology, vol. 5, no. 3, pp. 434-438, 2019.
- [4] P. D. Hudekar and P. D. Ugale, "Smart Attendance System using Arduino and Biometric Sensor," International Journal of Scientific Research in Computer Science, Engineering and Information Technology, vol. 6, no. 1, pp. 199-203, 2020.
- [5] M. S. Hossain, M. R. Islam, and M. S. Rahman, "Smart Attendance System using Arduino," International Journal of Scientific Research in Computer Science, Engineering and Information Technology, vol. 6, no. 1, pp. 91-96, 2020.
- [6] M. A. Abdullah, F. R. Khandakar, and T. K. Paul, "Design and Implementation of a Smart Attendance System using Arduino and RFID Technology," International Journal of Engineering and Advanced Technology, vol. 9, no. 3, pp. 474-478, 2020.
- [7] A. T. Adesina, O. B. Olanrewaju, and O. J. Odeyemi, "Smart Attendance System using RFID and Arduino," International Journal of Innovative Technology and Exploring Engineering, vol. 9, no. 3, pp. 545-548, 2019.
- [8] S. Gupta and S. P. Singh, "Smart Attendance System using RFID and IR Sensor with Data Analytics," International Journal of Advanced Research in Computer Science and Software Engineering, vol. 10, no. 1, pp. 43-49, 2020.

DOI: 10.48175/IJARSCT-10314

