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**Contactless Attendance Marking System with Thermal Screening using Arduino**

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Abstract – one of the criteria to measure the student performance is checking his regularity. Normally in schools and colleges attendance is marked by calling their names or register numbers and marking the attendance in register book. In laboratories log book is maintained to track the students and utilization of laboratory components. In both the cases it is time consuming and requires more paper work. Therefore institutes started using student attendance marking systems based on wireless technologies or biometric information such as finger print reading; face recognition along with RFID tags. In the present situation created by Covid-19 pandemic, the thermal screening is also very important to allow the student to attend the class. We propose an idea where along with face recognition temperature screening is also added to the attendance marking system. This system is designed using ultrasonic sensors, IR temperature sensor, camera module which is interfaced with Arduino. In this way attendance can be marked automatically and at the same time system can scan individual student to identify potential patients of Covid-19.

Keywords – biometric; finger print, face recognition, RFID tag, Covid-19

## 1. INTRODUCTION

Attendance plays more important role in students academic performance. This shows students commitment towards studies. Almost all the universities and educational institutions pose strict rule based on attendance. Student has to maintain said percentage of attendance to take end exam. So in each class the faculty or lecturer has to mark attendance. In most of the educational institutions manual attendance marking is still in use. Calling individual students name and marking his/her presence is common. The problem with this method is it takes time to call each and every student. Another problem is authentication, where a student can answer for his friends roll call. Alternate method usually practiced in class room or a laboratory is passing students name list on which they have to sign. As stated above, here also the same authentication problem arises. Many smart attendance marking systems were developed. Few of them require mobile applications and other based on biometric information. Even though we have different choices as mentioned above, still new requirements are arising. Along with attendance tracking or marking, outbreak of Covid 19 imposed another concern of temperature



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This is to Certify that Dr./Prof./Mr./Ms. **AMBIKA** from **City Engineering College** has participated and presented a paper titled **“Covid 19 Face mask detection and alert system using Machine Learning techniques”** in National E-Conference On **“Computer Science & Technology Allies in Research”** (NCCSTAR)-2021 Organized by Department of CSE & ISE, held during 16<sup>th</sup> & 17<sup>th</sup> July 2021 at RRIT, Bengaluru.

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