

Phone Detector to Prevent Spread of Exams In Schools

Ilboru Secondary School



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Abstract:

This project was done to study and investigate the use of technology at schools especially the usage of internet and cell phones by students.

A sample of 40 students in 7 schools at Arusha region was interview where 3 being private schools and 4 being public schools. Several experiments were conducted accompanied with questionnaires for both students and schools administrations in order to investigate on the usage of internet and mobile phones at schools. All the data collected was analysed , interpreted, summarized, statistically and presented graphically and using charts.



Method:

In our system a circuit detects for any emissions from a cellular phone when there is an outgoing and incoming calls, incoming and outgoing messaging, data connection and transmission of videos. After getting this disturbance in the radio frequency the system sends data or information to an android app design for it to show where and when the detection has occurred so as it can be able to catch the suspects.

This Automatic Phone Detector Traffic has a jamming system that is designed to over power the cell phone by transmitting a signal on the same frequency and at a higher enough power that the two signals collide and cancel each other out. Cell phones are designed to add power if they experience low level interference, so the jammer must recognize and match the power increase from the phone so that it can be able to perform its duty of blocking the network a given area.



Results:

Number of students who were suspended from schools when they were found using phones at schools and specific year

One of the comment quoted by Ilboru headmaster said, "I want to buy this machine system at any cost because it will help me to catch students who are using phones at school". Due to the above sample of comments and ideas we obtained from the students and Headmasters of the schools we had visited purposely for doing research and questionnaire depicts the real picture that there is a highly demand to implement this kind of Technology so that to eradicate this canker worm problem of malpractices and cheating during examination which brings grave danger to our country especially to a very important sector Education which helps to determine the level of development within our country.

follows;

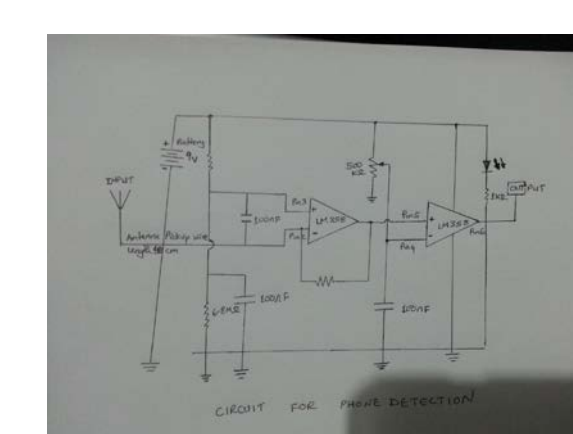
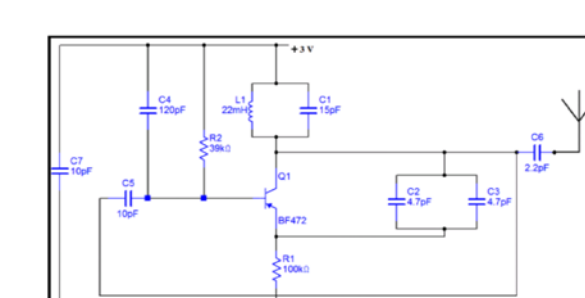
When the mobile phone signals are detected the LED blinks with fading light in phone detector device, simultaneously transfer information from the device towards an android app (or even computer software GUI) of admin through pairing between mobile app (or computer software GUI) and the detector machine via Bluetooth sensor of the machine and GSM Module Chip. This android application and the computer software is responsible for showing when and where the mobile phone has been detected and excluding the faculty member on duty

| SCHOOLS | YEAR 2015 | YEAR 2016 | YEAR 2017 |
|-----------------------------|-----------|-----------|-----------|
| ARUSHA SECONDARY SCHOOL | 14 | 10 | 11 |
| ARUSHA DAY SECONDARY SCHOOL | 8 | 6 | 6 |
| ARUSHA MODERN SCHOOL | 11 | 9 | 14 |
| NGARENARO SECONDARY SCHOOL | 16 | 8 | 11 |
| ILBORU SECONDARY SCHOOL | 14 | 11 | 9 |
| MRINGA SECONDARY SCHOOL | 12 | 8 | 12 |
| SUYE SECONDARY SCHOOL | 11 | 9 | 10 |



Conclusions:

Therefore the system can detect the presence of activated mobile phone in examinations halls and schools and simultaneously acknowledge the system administrator at remote place, more ever the detector sends information about the detection which is displayed on the android app and on the computer software well designed for it(GUI) like the Time, Location and duration to catch the suspects. And it can also jam the network so as to prevent the user(students) from using the phone for communication purpose such as calling, messaging and internet when at school.



| SCHOOLS | STUDENTS | TEACHERS |
|-----------------------------|----------|----------|
| ARUSHA SECONDARY SCHOOL | 70% | 85% |
| ARUSHA DAY SECONDARY SCHOOL | 45% | 75% |
| ARUSHA MODERN SCHOOL | 90% | 95% |
| NGARENARO SECONDARY SCHOOL | 80% | 98% |
| ILBORU SECONDARY SCHOOL | 78% | 96% |
| MRINGA SECONDARY SCHOOL | 86% | 98% |
| SUYE SECONDARY SCHOOL | 89% | 98% |

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References:

www.arduino.cc.com
www.androidstudio.com