MZUMBE UNIVERSITY

FACULTY OF SCIENCE AND TECHNOLOGY (FST)

DEPARTIMENT OF COMPUTER SCIENCE STUDIES (CSS)

PROGRAMME: BSc. ICTM 3

COURSE NAME: MANAGEMENT OF IT PROJECTS

COURSE CODE: CSS-312

NATURE OF WORK: GROUP ASSIGNMENT

SN	NAME	GROUP NO. 03	SIGNATURE
1	JAMES J. REMIUS	14320006/T.20	J.J.Remius
2	DANIEL M. MASUBO	14320039/T.20	D.M.Masubo
3	GODLOVE STAHIMILI NKYA	13304023/T.19	G.Nkya
4	ENOS LAWI MASHANJARA	14320041/T.20	E.L.Masanjara
5	ELIETH JEREMIAH MSENGA	14320021/T.20	E.J.Msenga

TITLE: STUDENTS' NOISE DETECTION AND CONTROL PROJECT FOR PRIMARY, SECONDARY AND HIGHSCHOOLS.

PROBLEM EXISTANCE

The project has been proposed after a long observation in primary, secondary and high schools where teachers on duty face difficulties in supervising students so that they don't make noise. When the teacher arrives, all students in all class rooms remain silent making it difficult for the teacher to know which class was making noise and sometimes all students might be punished for a mistake done by unknown group of students. Teachers also have to move to and from and at all times around students classes so as for their presence students might remain silent and if the teacher moves to one class the rest will continue making noise.

THE NEED FOR IT RELATED SOLUTIONS.

To provide students with a silent studying environment without engaging the teachers physical presence at all times.

To save teachers time that could be wasted by them moving from class to class each now and then.

Easy monitoring of students and noise control.

THE SOLUTION ALTERNATIVES.

The IT alternative solution in monitoring students is the use of CCTV cameras to monitor each and every activity done by students in the class.

THE SOLUTION DESCRIPTION

The project involves a step-by-step creation of an electronic device as a protype with an intelligence capability of detecting noise in the class room with students and notify the stuff responsible (i.e. teacher on duty) that there is noise in the class.

The prototype will have a combination of various electronic devices such as an Arduino Uno R3 which is like a microprocessor having all the instructions of how the whole prototype will operate and how it would respond.

Solderless Bread Board which serves as a base connection electric circuit board in which all devices making up the prototype would be connected using connecting wires.

It will have a mic amplifier module which will be responsible for detecting noise at frequencies of various levels. Whenever noise is made, this device will pick up the noise and a yellow color LED will go on to show that the noise has been detected but for normal sound levels a Blue LED will go on but no alert message sent. If the detected sound is so noisy (of higher frequency), a red LED will turn on and SIM 800L module will send a message automatically to the Teacher on duty alerting him/her of the noise made in class.

The device will also have the capability to be turned on and off so that it can be used when needed.

PROPOSED BUDGET

ITEM	**AMOUNT**
Ten Female-female connecting wires @100/=	1000/=
Ten Male-female connecting wires @100/=	1000/=
Ten Male-male connecting wires @100/=	1000/=
MIC Amplifier Module	11,000/=
Four 3mm LEDs (1 red, 1 yellow, 2 blue color) @200/=	800/=
Arduino Uno R3	35,000/=
Solderless Bread Board	5,000/=
SIM 800L	35,000/=
Transport cost	35,000/=
TOTAL:	**124,800/=**

PROJECT CHARTER

Project title: STUDENTS' NOISE DETECTION AND CONTROL PROJECT FOR PRIMARY, SECONDARY AND HIGHSCHOOLS

Project sponsor: ELIETH J. MSENGA **Date Prepared:** 12/12/2022

Project manager: JAMES J. REMIUS **Project customer**: ALL PRIMARY, SECONDARY AND HIGH SCHOOLS

Purpose of the Project

- To provide an easy way to teachers on monitoring students even when they are far from the class
- To control noise amongst students in the class

To create a device that can send messages to inform whenever noise is detected.

Project boundaries

Our project will be implemented only at Mzumbe Primary, Secondary and High schools.

key Deliverables

- A prototype of noise detecting and monitoring device
- User manual of the prototype

High-level requirements

Project Function

- The main function of our project is to create a device that can detect and send messages to inform whenever noise is detected.

overall Project risk

Our project may face a number of risks, including the following:

the project may operate outside of our scope, the cost or budget may be low in comparison to the scope of the project, resources may be limited, causing our project to take a long time to complete, and performance may be poor.

PROJECT OBJECTIVES	SUCCESS CRITERIA

Scope:

▪User manual ▪ A prototype with the ability to detect noise and notify the Teacher(s) on duty via messages ▪ Source code ▪Prototype documentation	▪Effective communication ▪Teamwork and project stakeholder collaboration ▪Project team awareness on students' noise detection and control project purpose, priorities, objectives, goals and values ▪Project team efforts need to be: timely; meaningful; fair; inclusive

Time:

1 months and 23 days	Around 1 month and 23 days months (Complete)

Cost:

It cost Tsh 124,800/=	It should not exceed Tsh 124,800 /=

Project Start Date	**Project end Date**
December 19, 2022	February10, 2023

Preapproved Financial resources:

Amount Of Funding Available For The Project :- Tsh 0/= Source of Funding :- Miss. ELIETH J MSENGA Annual Funding Limit :- Tsh 124,800/=

stakeholder(s)	role
JAMES J REMIUS (0744815558) kejojames6@gmail,com	Project Manager
ELIETH J MSENGA (0717335880) eliethjeremiah51@gmail.com	Project Sponsor
GODLOVE S. NKYA (0756894415) nkyagodlove2@gmail.com	Communication manager
DANIEL M. MASUBO (0674606592) masubodaniel1@gmail.com	Programmer
ENOS LAWI MASHANJARA (0769525221)enoslawi@gmail.com	Programmer

Project exit criteria:

Metrics or Measurement For Project To be Conclude

i. Should sprit a larger network into separate components
ii. Project will be finished in 1 month and 8 days..
iii. It should cost around Tsh 124,800/=
iv. It should able to provide better performance to the organization
v. It should be user friendly hence, customer accepted.

Project manager authority level:

staffing Decisions:

The Project Manager, on behalf of the Project Sponsor, has the authority to hire, fire, discipline, and accept project staff for the duration of the project (1.8 months), as stated in the Project exit Criteria.

budget management and Variance:

Project manager has committed in front of external stakeholder to manage and control all assigned project fund as stated in proposed Budget in order to reach Business need.

technical Decisions

Project Manager has authority in make technical decision about deliverables or the used project approach as he or she is behalf of External Stakeholder.

conflict resolution:

Project managers must have strong communication and conflict resolution skills in order to resolve conflicts between project members and external stakeholders.

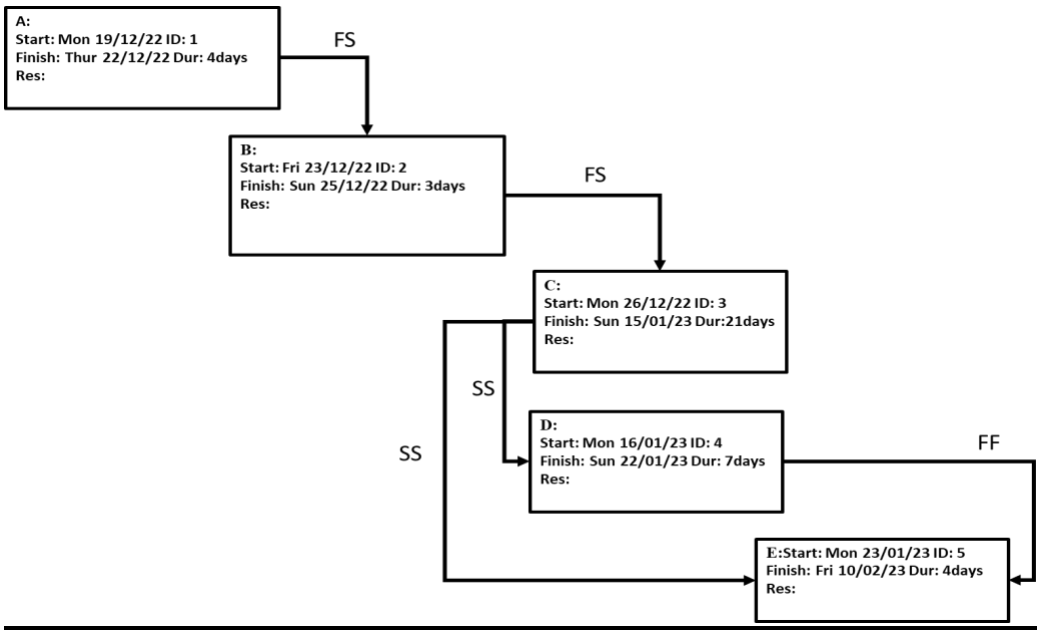
sponsor authority:

The project sponsor has authority over the overall success of the project, such as appointing the project manager and team, defining success criteria, and ensuring the project's successful delivery.

Approvals

Project manager signature	sponsor signature
…….	…….
Project manager name	**sponsor name**
JAMES J. REMIUS	ELIETH J. MSENGA
Date	Date
Dec,12,2022	Dec,12, 2022

PRECEDENCE DIAGRAMING METHOD (PDM)

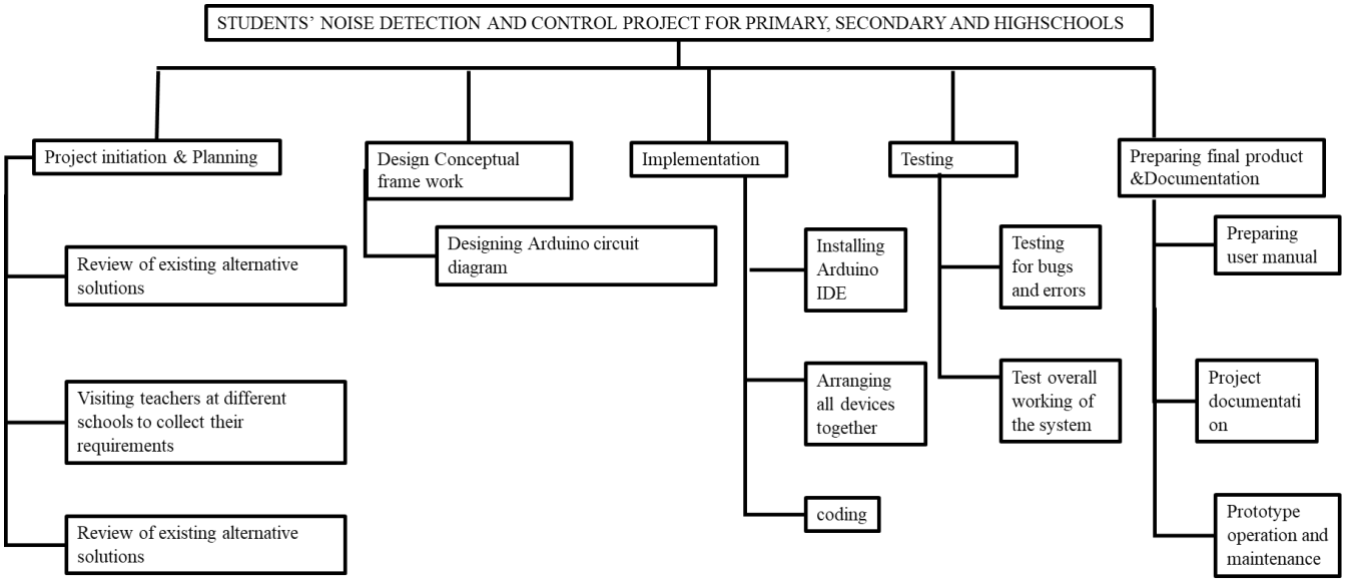


Whereby: **A:** Project initiation & Planning, **B:**Design Conceptual frame work, **C:** Implementation, **D:** Testing, **E:** Preparing final product & Documentation

GANT CHART

ID5	Activity name	Duration	Start	Finish	DECEMBER /22	JANUARY/23	FEBRUARY/23
					9,19,27,	2,6,10,14,18,22,26,30,	3,7,11,
1	**A:** Project initiation & Planning	4days	Mon 19/12/22	Thur 22/12/22			
2	**B:**Design Conceptual frame work	3days	Fri 23/12/22	Sun 25/12/22			
3	**C:** Implementation	21days	Mon 26/12/22	Sun 15/01/23			
4	**D:** Testing	7days	Mon 16/01/23	Sun 22/01/23			
5	**E:** Preparing final product & Documentation	4days	Mon 23/01/23	Fri 10/02/23			

CHART FORM OF A WORK BREAKDOWN STRUCTURE


STUDENTS' NOISE DETECTION AND CONTROL PROJECT FOR PRIMARY, SECONDARY AND HIGHSCHOOLS
Project initiation & Planning
Review of existing alternative solutions
Visiting teachers at different schools to collect their requirements
Review of existing alternative solutions
Design Conceptual frame work
Designing Arduino circuit diagram
Implementation
Installing Arduino IDE
Arranging all devices together
coding
Testing
Testing for bugs and errors
Test overall working of the system
Preparing final product &Documentation
Preparing user manual
Project documentati on
Prototype operation and maintenance