

Research Proposal Form

Student SAW WIN NWE

name

Date 02/9/2023
(Saturday)

Centre My Research Paper.
name

Tutor DR. MYO MYINT OO

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Proposed

Title- The investment of smart environment monitoring system by internet of things

Section One: Title, Objectives, Hypothesis

Title

The investment of smart environment monitoring system by internet of things

Objective

To Investigate Investment Motivations, To Assess Investment Challenges, To Examine Investment Strategies,

Hypothesis- Effectiveness in terms of cost

Monitoring and improving environmental conditions can save energy costs by reducing energy utilization. Furthermore, the ability to detect and address potential problems before they escalate may lessen the need for costly emergency maintenance or equipment replacements.

Section Two: Reasons for choosing this research project

Reasons for choosing the project: Another of my studies is "internet of things," and in that project, I have to investigate and create a project with a particular theme for environmental and piratical experience. So, through investigating this subject, I hope to learn more about how the internet of things may aid the environment by creating a smart environmental monitoring system.

Section Three: Literature sources searched from literature review

1. An Android Based Smart Environmental Monitoring System Using IoT (Sangeeta Kumar, n.d.)
2. Internet of Things (IoT) based Smart Environment integrating various Business Applications (Vimal Jerald A, 2015)
3. Application of IoT to optimize Data Center operations (Gitanjali Mehta, 2018)
4. Smart environment monitoring based on IoT: Architecture, Issues, and Challenges (Kumar, 2021)
5. Internet of Things based Smart Environmental Monitoring for Mushroom Cultivation (Mohd Saiful Azimi Mahmud, 2018)
6. A Standard-Based Internet of Things Platform and Data Flow Modeling for Smart Environmental Monitoring (Filho, 2021)

Section Four: Activities and timescales

Milestone one: Project Team Formation: 8th July 2023 as title deference.

Target

date (set by tutor):

Milestone two: Week of reading LR

Target

date (set by tutor):

Section Five: Research approach and methodologies

Type of research approach and methodologies you are likely to use , and reasons for your choice:

What your areas of research will cover:

Qualitative

The project's qualitative component, which involves the investment of a smart environment monitoring system employing the Internet of Things (IoT) in computer research, looks into the deep human and contextual variables that determine the project's direction, effect, and success. Qualitative research methods are used to unearth ideas, viewpoints, and motives that quantitative data alone may not capture.

Comments and agreement from tutor Comments

(optional):

I confirm that the project is not work which has been or will be submitted for another qualification and is appropriate.

Agreed:

(Name):

(Date):

Comments and agreement from project proposal checker (if applicable)

Agreed:

(Name):

(Date):



HNC/D in Computing 2017

Comments (optional):

I confirm that the project is appropriate.

Research Ethics Approval Form

All students conducting research activity that involves human participants or the use of data collected from human participants are required to gain ethical approval before commencing their research. Please answer all relevant questions and note that your form may be returned if incomplete.

For further support and guidance please see your respective Unit Tutor.

Before completing this form, we advise that you discuss your proposed research fully with your Unit Tutor. Please complete this form in good time before your research project is due to commence.

Section One: Basic details

Project title: **The investment of smart environment monitoring system by internet of things**

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Student

name: **SAW WIN NWE**

Student number:

Programme: Software Engineering

Intended research start date:

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Intended research end date:

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Section Two: Project summary

Please select all research methods that you plan to use as part of your project :

- Interviews
- Questionnaires
- Observations
- Use of personal records
- Data analysis

Data analysis for a qualitative research study on the investment in a smart environment monitoring system utilizing IoT in computer research entails carefully reviewing and interpreting qualitative data gathered through interviews, focus groups, or other qualitative approaches.

- Action research
- Focus groups
- Other

(please_specify):

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Section three: Participate

Please answer the following questions, giving full details where necessary.

Will your research involve human participants? **NO**

Who are the participants? **STUDENTS** Tick all

that apply: — —

Children aged 12–16: ☐ Young people aged 17–18: ☐ Adults: **TICK**☒

Describe the processes you will use to inform participants about what you are doing:
Researching all about monitoring smart environment with IoT

How will you obtain consent from participants? Will this be written? How will it be made clear to participants that they may withdraw consent to participate at any time?

NO, I WILL NOT OBTAIN CONSENT FROM PARTICIPANTS.

Studies involving questionnaires:

Will participants be given the option of omitting questions they do not wish to answer?

Yes: **YES**☒ No: ☐

— —

If No please explain why below and ensure that you cover any ethical issues arising from this: **NONE**

Studies involving observation:

Confirm whether participants will be asked for their informed consent to be observed.

Yes: **YES**☒ No: ☐

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Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?

Yes: **YES**☒ No: ☐

Will participants be given information about the findings of your study? (This could be a brief summary of your findings in general.)

Yes: **YES**☒ No: ☐

Section Four: Data storage and security

Confirm that all personal data will be stored and processed in compliance with the Data Protection Act (1998):

Yes: ☐ No: **NO** ☐

Who will have access to the data and personal information?

OWNER OF THIS RESEARCH PROJECT

During the research:

Where will the data be stored?

GOOGLE CLOUDS

Will mobile devices (such as USB storage and laptops) be used?

Yes: **YES** ☐ No: ☐

If yes, please provide further details:

After the research:

Where will the data be stored?

GOOGLE CLOUD

How long will the data and records be kept for and in what format?

TILL EXPRIED

Will data be kept for use by other researchers?

Yes: ☐ No: **NO** ☐

If yes, please provide further details:

Section Five: Ethical issues

Are there any particular features of your proposed work which may raise ethical concerns? If so, please outline how you will deal with these:

There are various characteristics in the proposed project including the investment of a smart environment monitoring system employing IoT in computer research that might potentially generate ethical problems. It is critical to address these problems extensively in order to ensure the ethical conduct of your study and the responsible construction of the monitoring system.

It is important that you demonstrate your awareness of potential risks that may arise as a result of your research. Please consider/address all issues that may apply. Ethical concerns may include, but are not limited to the following:

- Informed consent.

Ethical issues about participant comprehension and consent are critical to the appropriate implementation of our undertaking. Participants, who include potential users and stakeholders, must have a thorough understanding of the project's objective, procedures, potential risks, and advantages. This risk is addressed with a thorough mitigation plan. We shall meticulously get informed permission from all participants before to their engagement. We will describe the project's objectives, outline the data gathering techniques used, and explain how their data will be used in particular ways through clear and transparent communication. Furthermore, we are devoted to promoting an open conversation atmosphere in which participants are encouraged to raise questions and seek clarification on any issues they may have. We strive to protect the dignity and autonomy of all persons involved in the project by adhering to these ethical standards and ensuring their informed involvement.

- Potentially vulnerable participants.
- Sensitive topics
- Risks to participants and/or researchers.
- Confidentiality/anonymity.
- Disclosures/limits to confidentiality.

- Data storage and security, both during and after the research (including transfer, sharing, encryption, protection).
- Reporting.
- Dissemination and use of your findings

Section six: Declaration

I have read, understood and will abide by *[insert centre name]* Research Ethics Policy:

Yes: **YES** ☒ No: ☐

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I have discussed the ethical issues relating to my research with my Unit Tutor:

Yes: **YES** ☒ No: ☐

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I confirm that to the best of my knowledge:

The above information is correct and that this is a full description of the ethics issues that may arise in the course of my research.

Name: SAW WIN NWE

Date: 02/9/2023 (Saturday)

Please submit your form to: **GLMS**