| System Request |
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**Project Sponsor:** Research Ethics Committee (REC)

**Business Need:** The Research Ethics Committee (REC) is in need of a website, and an information system that will manage and automate the reviewing of the Capstone Projects, Thesis, and Research work of all researchers, and students.

**Business Requirements:**

The website is capable of having the following functionalities:
- Create an Account
- Login to the website
  - There are 3 different types of users:
    - Secretariat / Administrator
    - Reviewers
    - Researchers
- Basic Requirements
  - Student side:
    - Protocol Code – document code, automatically generated
    - Protocol Title – document name
    - Principal Investigator – document proponents
    - Attachments – Minutes of the proposal done, Revised copy of the manuscript, Routing form, Adviser's endorsement for Ethics Review or Endorsement by the institution for outside UIC researchers
  - REC side:
    - Funding – be able to assign what kind of funding the researcher needs
    - Research type
    - Review type
    - Remarks
- REC Requirements
  - Student side:
    - Updated curriculum vitae of the adviser(s) and researcher(s)
    - Updated research agenda of the program
    - All grades [certificate of grades– from the registrar] or screenshots of online grades
    - Photocopy of receipts
    - Uploading of forms
  - REC side:
    - Remarks
- Feedback
  - Student side:
    - Revision number and upload button – when students submit files, the textbox within will automatically increment, representing the number of revisions provided.

- REC side:
  - Decision– an ability to be able to approve or reject the revision given by the researchers.
  - Remarks
  - Attachment upload button
- Ethics Compliance Certificate
  - Student side:
    - Students will be able to download their certificates.

- Summary Report
  - REC side:
    - Filters– the ability to filter what kind of data is needed in order to view the needed information.
    - Tabulated form– consisted of REC Protocol code, title, name of researchers, funding, research type, Date received, Date of the meeting where the protocol is finally discussed, name of primary reviewer, decision, date of the first decision letter to the researcher, status.

**Business Value:** This system contributes to the REC's capacity to examine student submissions quickly. Students from the University and from other schools can more easily and conveniently submit their Capstone Projects, Theses, and Research work to the REC through this system.
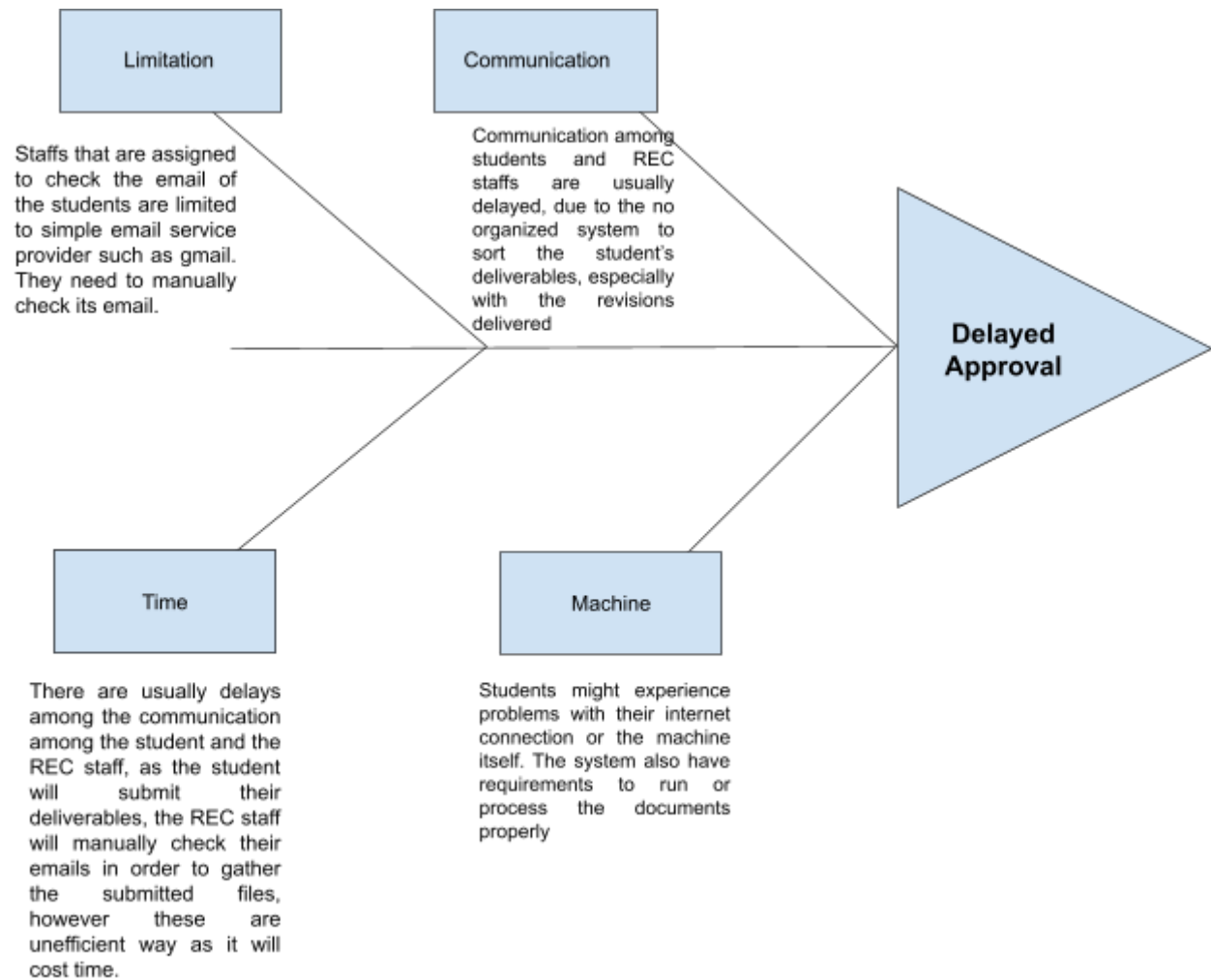
The following are some of the system's benefits:
- There is no need for students and researchers to send emails and wait for feedback for at least a week.
- REC can conveniently just check the records and the submissions of researchers and students.
- Students and researchers can send multiple revisions in a timely manner without spamming emails.
- REC is able to provide reviews or feedback on all student submissions immediately.
- There is no need for the REC to review the submission and respond via email.
- Saves time for students, researchers, and the REC.
- Review processing is completed quickly.
- Proper data and information organization.

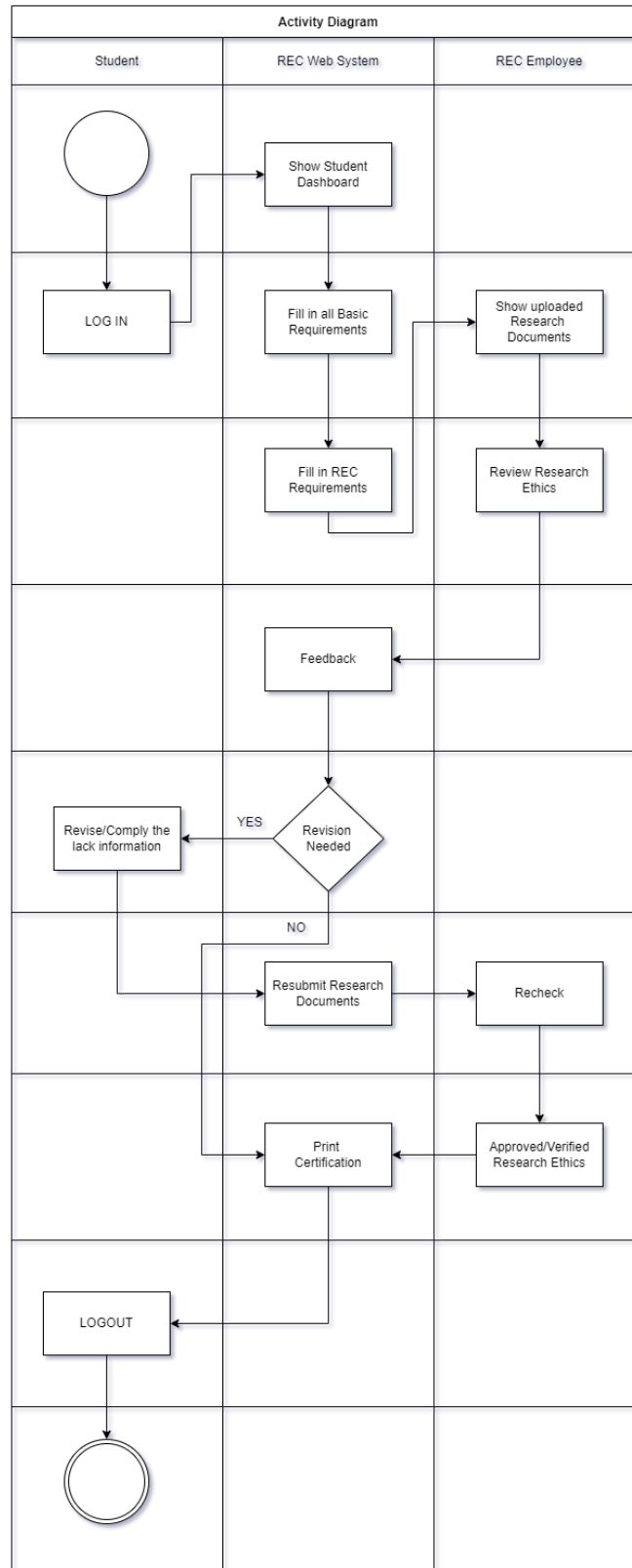**Special Issues or Constraints:** The possible issues or constraints are the following:

- There will be no mobile application needed for the system at the moment.
- Backend development will be used with Django, and with that, the developers will need additional time to learn in order to apply it to the system.
- The database will be made with SQL
- The website will be primarily made with HTML and CSS for the frontend development

# Root Cause Analysis

## Limitation

Staffs that are assigned to check the email of the students are limited to simple email service provider such as gmail. They need to manually check its email.

## Communication

Communication among students and REC staffs are usually delayed, due to the no organized system to sort the student's deliverables, especially with the revisions delivered

## Delayed Approval

## Time

There are usually delays among the communication among the student and the REC staff, as the student will submit their deliverables, the REC staff will manually check their emails in order to gather the submitted files, however these are unefficient way as it will cost time.

## Machine

Students might experience problems with their internet connection or the machine itself. The system also have requirements to run or process the documents properly

## Activity Diagram



**Activity Diagram**

| Student | REC Web System | REC Employee |
|---|---|---|
| (start) | Show Student Dashboard | |
| LOG IN | Fill in all Basic Requirements | Show uploaded Research Documents |
| | Fill in REC Requirements | Review Research Ethics |
| | Feedback | |
| Revise/Comply the lack information | Revision Needed — YES / NO | |
| | Resubmit Research Documents | Recheck |
| | Print Certification | Approved/Verified Research Ethics |
| LOGOUT | | |
| (end) | | |

PDF File:
**https://drive.google.com/file/d/1D3Xiebi-CMcvJOICTU0DiFSDXDnK_cYQ/view?usp=sharing**

# Feasibility Analysis

## Introduction

The integrity of research involving human beings and the scientific value of that research are major concerns for Research Ethics Committees (REC). The ethics committee has three crucial responsibilities. First and foremost, the ethical committee needs to make sure that study participants' rights are upheld.

The system's objectives are the following:
- Will manage and automate the reviewing of the Capstone Projects, Thesis, and Research work of all researchers, and students.
- being able to have 3 different accounts, that have 3 different roles
- Students are able to attach their requirements such as pdfs and documents
- REC staff can be able to send their feedback and assign research and review types.
- Students are able to get the ethics compliance certificate if successfully completed the requirements from the system.
- REC Staff is able to get summary reports of those who are able to submit their documents and files.

## Technical Feasibility

Consideration should be given to two factors while examining the technical aspects of the hardware, software, and system. Moving forward, each field's requirements shall be expanded.

## Hardware

- Desktop Computer - The system is a website itself, however, in order to properly run it, the computer must at least have these minimum requirements.

## Processor Requirements
- An Intel Pentium 4 processor running at 2.80 GHz or later that's SSE3 capable.

## Disk Space Requirements

- 120 GB SSD or HDD

## Memory Requirements

- 4GB RAM

## Software

- Any Browser such as Google Chrome, Mozilla Firefox, Safari, or Opera.

- Any operating system such as Windows 7, Windows 8, Windows 8.1, Windows 10, or later. Any Linux operating system, and macOS that can access the internet browsers.

**Organizational Feasibility**

From an organizational point of view, this project will be utilized by both REC staff, students, and researchers. The University of the Immaculate Conception will be able to benefit from the system as it will provide ease of management in providing ethics reviews for the research and can provide ethics compliance certification for the students.

The users of this system are Research Ethics Committee (REC) staff, undergraduate students, graduate students, and researchers from other universities. With this system, REC Staff will no longer manually check the students' emails to approve their requirements– such as the Minutes of the proposal done, Revised copy of the manuscript, Routing form, Adviser's endorsement for Ethics Review or Endorsement by the institution for outside UIC researchers. With the use of the system, REC staff will be able to easily check them with the use of a website, as the deliverables will be organized and will be encoded in the summary report. REC staff will also be able to give remarks to the students and researchers at ease, as the checking and remarks can be done on a single page.

**Economic**

The Research Ethics Committee (REC) wants to invest in a server with a life of 10 years. They already possess the other required devices. Additionally, potential future expenses will be for the maintenance and upgrades of the devices and system.

**Conclusion**

This system will be able to utilize by the whole school as it will make the process for the Research Ethics Committee more faster and efficient and it will take less time for the students to wait for their ethics compliance certificate.